



Study on the feasibility of improved co-operation between bodies carrying out European Coast Guard functions

Final Report

June 2014

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Final Report

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Executive summary

- This report identifies and evaluates the possibilities of enhancing coordination and cooperation of different coast guard functions across the EU. It directly responds to previous calls from the European Parliament and the European Commission to study the concept of enhancing cooperation and coordination among coast guard services in the EU. It is the final output of a feasibility study undertaken for the Directorate-General for Mobility and Transport (DG MOVE) of the European Commission by ICF International with support from REG4SHIPS. The study took as its framework the list of ten coast guard functions defined by the European Coast Guard Functions Forum (ECGFF)¹ and considered eight core activities involved in performing them. In this report, the term 'collaboration' is used as a shorthand term to describe various models or forms of cooperation and coordination that can take place at different governance levels. The focus of this study is exclusively on cross-border collaboration among coast guard authorities in different Member States.

There is already extensive collaboration among coast guard services

- The responsibility for carrying out coast functions is distributed across 316 public authorities in the maritime Member States of the European Union. Arrangements vary widely among the Member States, with a mix of civil and military authorities often involved.
- These authorities are undertaking joint activities with peer organisations in other countries through a total of 70 collaboration structures operating at the international, EU, and regional levels. In addition, there are 41 bilateral and multilateral cross-border cooperation agreements between EU Member States, some of which involve non-EU States.
- The breadth and depth of cooperation vary widely across the functions. The largest numbers of collaborations focused on maritime environmental protection and response, maritime safety and maritime surveillance. Structured EU wide/ regional/ multilateral cooperation as well as permanent operational coordination are amongst the most widely used collaboration models across the EU. Most of these collaborations involve data sharing. Several structured cooperation agreements also involve capacity building and joint operations. EU institutions support permanent operational coordination activities across a whole range of activities. Financial burden sharing procedures are mainly carried out by EU institutions in their respective functions.

Current structures create barriers to collaboration

- The benefits of collaboration among Member States are made less accessible to individual coast guard authorities when the costs of joint working are raised by differences in organisational and staffing structure, restricted budgets, systems, technologies, ways of working, and other barriers. The outcome is a 'sub-optimal' level of collaboration and overall lower efficiency and/or effectiveness of service delivery. Factors explaining this sub-optimal situation include administrative and legal obstacles to collaboration, political or organisational priorities and institutional complexity. External factors includes budgetary pressures and growth in demand for the services provided by coast guard authorities as driven by growth in maritime passenger traffic and maritime trade, pressures on the maritime environment and fish stocks and threats to internal security heightened by troubles in neighbouring third countries.
- Stakeholders' consultations confirmed the above challenges and agreed on three key problems:
 - The lack of information on the remit, powers and capabilities of other authorities is a barrier to collaboration; this is mainly due to the complexity, diversity and fragmentation of institutional arrangements for delivery of coast guard services at national and supra-nation level and the multiple legal frameworks focusing on specific aspects of collaboration activities.
 - Human resources, financial constraints as well as the limited number of operational assets hamper collaboration with other authorities; and,

¹ The ten coast guard function are (1) Maritime safety; (2) Maritime Security; (3) Maritime customs activities; (4) Maritime law enforcement (5) Maritime border control; (6) Maritime surveillance; (7) Maritime environmental protection and response; (8) Search and rescue; (9) Accident and disaster response; (10) Fisheries control.

- There is room for improvement with regard to the permanent coordination and full interoperability of coast guard services; currently joint operations are limited to certain coast guard functions and are time-bound and the interoperability of systems, processes and assets can be further improved.

The case for enhancing collaboration

- Increasing collaboration may entail the national authorities making a financial contribution to a third party, surrendering some operational control or programming activities jointly with respective authorities. Member State authorities performing coast guard functions need to see genuine benefits in further investment in collaborative working and joint services provision for change to occur. The difficult financial environment in which many coast guard authorities find themselves at this time reinforces the need for collaboration proposals to be underpinned by a robust business case taking into account direct benefits, financial costs but also ultimate economic, social and environmental impacts.
- There is a case for action where collaboration increases overall service effectiveness and/or efficiency, enables cross sector activities and respects the subsidiarity and proportionality principles. The collaborative solution needs to fit the problem. Regional cooperation is particularly suited for addressing common challenges relating to threats, risks or needs in sea basins, shared borders. EU level action is particularly suited to activities aiming to safeguard a public good or an economic interest common to all EU Member States, and generally through the use of the Agency model.

There are viable opportunities to enhance collaboration

- The study identifies improvement opportunities relating to:
 - **Capacity building**, specifically:
 - Providing tools/supporting fora that facilitate networking between coast guards in different Member States; Developing a vision and strategy for EU coast guard collaboration developed by and for the Member States' coast guard authorities which complements the work of EU agencies such as FRONTEX and EMSA;
 - Improving collaboration on training issues;
 - Constructing and maintaining new pools of experts on topics relevant to coast guard functions.
 - **Joint operations and asset sharing**, specifically:
 - Promoting asset sharing for search and rescue operations;
 - Facilitating cooperation on cross-sector joint operations;
 - Supporting mutualisation of assets.
 - **Data sharing**, specifically:
 - Promote the further harmonisation of existing systems / frameworks for information sharing;
 - Promote common, procedures and tools
 - Collecting and disseminating activity and benchmarking data
 - **Research and innovation**,
 - Improving cooperation on R&D and innovation.

These are evaluated in detail and costed within the report. Proposals on phasing of actions within the measures on the short, medium and long term are presented in the form of roadmap.

1 Introduction

1.1 Objectives

This document is the final report of a study prepared by ICF International for the European Commission. Its objective was to identify and to assess opportunities to increase the efficacy and efficiency of coast guard services in the European Union (EU) through extending and deepening partnerships among Member States, and potentially through greater EU involvement in specific areas.

The European Commission (EC) procured this study in response to a request from the European Parliament in its Resolution on the Integrated Maritime Policy², a commitment in the Commission's 2011 White Paper, "Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system", and instructions laid down in the 2013 revision to the EMSA founding regulation³.

The statements and conclusions expressed in this report are those of ICF and should not be regarded as an official position of the EC.

1.2 Approach and method

1.2.1 Project approach

The study had three phases:

- Phase 1: A baseline analysis, which involved:
 - desk research and a literature review to identify the challenges facing coast guard authorities in the EU and previous research into the opportunities to improve service performance through collaboration among Member States and EU action;
 - the compilation, from various sources, of data describing the responsibilities for delivery of coast guard functions within each Member State and existing collaboration arrangements between Member States;
 - preparation of an inception report that provided a description of the institutional and collaboration baseline as determined by the first phase research.
- Phase 2: Stakeholder consultation, consisting of:
 - a programme of face-to-face and telephone interviews with officials in national authorities, EU institutions and multi-state forums to identify lessons from current cooperation and coordination and to define the potential for enhanced collaboration across the various functional areas, taking into account those lessons, and an appraisal of the opportunities, and the challenges faced by coast guard services;
 - Development of an online database containing information on existing coast guard responsibilities and current collaborations, and use of that portal to support a validation process in which Member States and EU institutions confirmed or amended those data;

² European Parliament resolution of 21 October 2010 on Integrated Maritime Policy (IMP) - Evaluation of progress made and new challenges. <http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P7-TA-2010-0386&language=EN>

³ Recital 30 of Regulation (EU) No 100/2013 of the European Parliament and of the Council of 15 January 2013 states that, "Without prejudice to the objectives and tasks laid down in Regulation (EC) No 1406/2002, the Commission should prepare and submit, within one year of the date of entry into force of this Regulation, in close cooperation with relevant stakeholders, a feasibility study with a view to evaluate and identify the possibilities of enhancing coordination and cooperation of different coastguard functions. That study should take into account the existing legal framework and relevant recommendations from the appropriate Union fora as well as the current development of the Common Information Sharing Environment (CISE) and should fully respect the principles of subsidiarity and proportionality, making clear the costs and benefits to the European Parliament and the Council". <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:039:0030:0040:EN:PDF>

- Preparation of a progress report that validated and presented the institutional baseline and identified a set of potential improvement opportunities.
- Phase 3: Option development and appraisal, comprising:
 - A second round of consultations with selected institutions and authorities to explore the short-listed improvement options agreed with DG MOVE and to gather information on feasibility and cost;
 - An analysis of the potential benefits and costs of the preferred options;
 - Preparation of the final report.

The research, consultation and analysis was conducted by ICF International (www.icfi.com), working with the support of Regs4Ships, a specialist in maritime regulation and the maritime industry.

In scanning for opportunities to enhance new collaboration the focus was on activities that would be new, additional and go beyond existing practice. Live proposals and initiatives already planned for implementation were not included in list of potential improvement opportunities and were instead built into the baseline scenario. Criteria used in the identification of options included:

- Being action-oriented – i.e. they should be focused on operational mechanisms, systems and capacity (i.e. enhancing interoperability, institutional capabilities, etc.);
- Being conducive to improving overall service effectiveness and efficiency – i.e. in terms of cost-effectiveness, delivering of a higher volume of services with proportionally less financial inputs, or delivering qualitative improvements conducive to higher efficiency;
- Enabling cross-border and cross-sector and collaboration across coast guard functions;
- Having regard to the subsidiarity principle – i.e. improvement opportunities should not duplicate current or future initiatives in the field and should be implemented following a bottom-up approach whenever possible;
- Having regard to proportionality – i.e. specific actions should be commensurate to the scale of the problems at stake and their implementation costs and risks should be in balance with the benefits and impacts expected.

It was recognised that cooperation and coordination in or across coast guard functions at Member State, regional or EU level generally requires Member State authorities performing specific coast guard functions to modify their working practices. Collaboration may require the authority to make a financial contribution to a third party, to surrender some operational control or to programme activities jointly with respective authorities. Institutions do not generally embrace such changes unless there are positive benefits to doing so. However, the analysis suggests that many of the issues that coastguards deal with can be tackled more effectively, at least in part, by collective action. Demonstrating a positive ‘business case’ for collaboration is an important part of the process of bringing coast guards together to address these shared agendas.

1.2.2 Terms and typologies

The study terms of reference specified four models or forms of cooperation and coordination to be examined:

- structured *cooperation* between Member States;
- *ad hoc* or permanent *coordination* of Member States coast guard functions;
- structured *regional* cooperation;
- functions that could be carried out more efficiently by an EU body;

Table 1.1 explains how these labels were interpreted for the purposes of the study. The definition adopted for EU body is relatively demanding in that it involves an EU entity having, by law, rights of command and control. In this report ‘*collaboration*’ is used as a shorthand

term to describe all these options, i.e. a collective noun describing cooperation and coordination at various levels and of varying permanence.

Table 1.1 Definition of forms of cooperation and coordination of coast guard function

| Model | Illustration / interpretation |
|---|---|
| Structured EU wide, regional (e.g. per sea basin) or multilateral cooperation of coast guards | Cross-border cooperation on specific activities involving two or more Member States. The form of cooperation is likely to be codified in an agreement or convention. There may or may not be a permanent establishment or organisational structure. |
| Ad hoc coordination (upon request and/or per topic) of certain Member State | Cross border coordination of specific activities involving two or more Member States. Coordination arrangements are like to be codified in an agreement or convention. Mechanism typically involves the designation of a <u>governance structure</u> and the establishment of processes, networks, systems and organisational arrangements for specifying the methods of collaboration, degree of control and <i>modus operandi</i> . The coordination is by nature limited in scope (to specific events or operations) and in time (temporary / <i>ad hoc</i>). |
| Permanent coordination of Member State coast guard functions at regional level | Cross border <u>operational coordination of one or more coast guard functions</u> and related activities on a <u>permanent basis</u> involving two or more Member States. Coordination arrangements are likely to be codified in one or more agreements or conventions. Mechanism typically involves the <u>designation of a lead public authority</u> that is entrusted with some degree of <u>command and control</u> over certain activities and whose governance structure allows for shared decision-making and responsibility sharing. Typically requires a policy and approach for identifying the tasks, their distribution, their budget and implementing processes, networks and systems. Methods, standards and common procedures are defined. |
| Carrying out of functions by an EU body | Cross border coordination of specific functions by <u>an EU body</u> tasked by law with leading operational activities and having some degree of command and control. Member States are engaged in the governance and delivery of the function(s) which allows for shared decision-making and responsibility sharing by national authorities across the EU. Method of collaboration and standard, common operating procedures are defined. Specific competencies are typically left under the responsibility of Member States but shared objectives and integration of operational activities are strongly encouraged. |

Source: ICF International

Member States have widely differing arrangements for the organisation and delivery of coast guard services. In that context it has been necessary to define the scope of coast guard services to be used for the purposes of this study and adopt some standard language to describe those services.

The best available common structure is the list of ten coast guard functions developed and adopted by the European Coast Guard Functions Forum (ECGFF). The Forum was not able to supply detailed descriptions of the content and boundaries of those functions as they were originally conceived, so the titles have been interpreted by ICF. Table 1.2 lists the functions. It also defines the sub-functions and activities that the analysis here has assumed sit within each function⁴.

⁴ This elaboration of the Forum's original list of functions has been prepared to facilitate the analysis required for this study only. The definitions proposed in the table have been derived from a review of the literature. They are explicitly not intended to modify the decisions of the Forum or constrain any decisions it might make in the future about the scope and content of the coast guard functions it has defined.

Table 1.2 The European Coast Guard Forum’s list of coast guard functions form the starting point for definition of services for the present study

| Function | Interpretation used for the purpose of this study | Sub-functions assumed to be included for the purposes of this study |
|--|---|--|
| 1 Maritime safety, including vessel traffic management | Exercising regulatory control on port operations, ships operations and movements (including inspecting foreign ships to verify safety practices and standards). Providing services to help ensure maritime safety in European waters. | <ul style="list-style-type: none"> ■ Compliance monitoring: <ul style="list-style-type: none"> – Compliance and enforcement of Maritime safety rules and safety of navigation – Compliance and enforcement of rules relating to social issues ■ Vessel traffic management <ul style="list-style-type: none"> – Aids to navigation and vessel traffic support services – Monitoring of maritime traffic and maritime transport (e.g. safe and efficient flow of vessel traffic); |
| 2 Maritime Security | Provision of security related information on ships and other maritime activities to allow the monitoring of security threats and risks and the elaborating of adequate response to those. Prevention, deterrence of and response to criminal activities in the maritime domain. | <ul style="list-style-type: none"> ■ Security monitoring: <ul style="list-style-type: none"> – Monitoring of maritime traffic with the purpose of preventing and detecting crime (identification of illegal vessels or illegal shipments) – Early warning/identification of threats/acts of piracy or armed robbery – Provision of Intelligence and analysis services (risks and threats) – Communication of alerts or notifications to security services ■ Response to security threats and risks <ul style="list-style-type: none"> – Planning operational response – Performing operational response with adequate police powers and competences |
| 3 Maritime activities customs | Provision of custom related information on ships and other maritime activities to allow the monitoring of fraudulent activities and the elaborating of adequate response to those. Prevention, deterrence of and response to fraudulent activities in the maritime domain. | <ul style="list-style-type: none"> ■ Customs monitoring: <ul style="list-style-type: none"> – Monitoring of maritime traffic engaged in international trade to prevent and detect fraudulent activities – Provision of analysis services to prevent fraudulent activities – Notification of suspicious activities ■ Response to fraudulent activities <ul style="list-style-type: none"> – Planning operational response – Controlling the import, export and movement of goods in compliance with customs regulations |
| 4 The prevention & suppression of trafficking & smuggling connected maritime law enforcement | Provision of information to allow for the prevention of criminal, fraudulent or suspicious activities in the maritime domain. Detecting and responding to criminal, fraudulent or suspicious activities. Reporting on breaches of maritime legislation. | <ul style="list-style-type: none"> ■ Prevention of maritime crime, fraudulent or suspicious activities ■ Detection of maritime crime, fraudulent or suspicious activities ■ Response to maritime crime, fraudulent or suspicious activities (i.e. including enforcement of sanctions and fines) |
| 5 Maritime border control | Monitoring of maritime traffic to detect for unusual activity (people smuggling), analyse patterns of irregular migration and act accordingly: rescue, arrest, identify assist or return irregular migrants. | <ul style="list-style-type: none"> ■ Border control monitoring : <ul style="list-style-type: none"> – Monitoring of maritime traffic with the purpose of detecting irregular migrants – Provision of Intelligence and analysis services on risks and threats related to irregular migration – Early warning or communication of alerts or notifications of cases to law enforcement |

| Function | Interpretation used for the purpose of this study | Sub-functions assumed to be included for the purposes of this study |
|----------|--|--|
| | Plan, organise and perform operations related to border control. | <ul style="list-style-type: none"> ■ Border control operations <ul style="list-style-type: none"> – Preparation of maritime border control activities – Performing operational response in compliance with regulations on immigration and border crossings; – Assist and rescue irregular migrants |
| 6 | Maritime surveillance | <ul style="list-style-type: none"> ■ Technical border surveillance: <ul style="list-style-type: none"> – Provision of information services related to the maritime domain using identification systems, tracking devices, satellite imagery, etc. ■ Physical border surveillance: <ul style="list-style-type: none"> – Information and intelligence gathering in ports and border crossing points – Joint surveillance operations |
| 7 | Maritime environmental protection and response | <ul style="list-style-type: none"> ■ Compliance monitoring: <ul style="list-style-type: none"> – Early warning/identification of incidents/accidents that may have an environmental impact. – Compliance with rules and regulations relating to prevention of maritime pollution. ■ Response to environmental pollution <ul style="list-style-type: none"> – Provision of technical and scientific assistance – Repression of deliberate maritime pollution – Response to, and clean-up of, maritime pollution. |
| 8 | Search and rescue | <ul style="list-style-type: none"> ■ Early warning/identification of ships/persons in distress; ■ Monitoring request for assistance and distress signals ■ Response or support to requests for assistance or distress signals and to response operations (search and rescue, salvage, place of refuge) |
| 9 | Accident and disaster response | <ul style="list-style-type: none"> ■ Prevention (incl. investigation of previous accidents) , preparedness and crisis management ■ Response to crises in the maritime domain ■ Places of refuge |
| 10 | Fisheries control | <ul style="list-style-type: none"> ■ Compliance monitoring and enforcement: <ul style="list-style-type: none"> – Early warning/identification of illegal fisheries or fish landings – Compliance with rules and regulations relating to fishing and fisheries – Control of fishing vessels, catches and fishing grounds |

Source: ICF International

The framework provided by the functions was useful but it was established early on that stakeholders generally found it easier to discuss collaboration within the context of particular type of activity (e.g. joint operations) and the broad service areas than in relation to specific coast guard functions from the list given in Table 1.2. The study therefore examined the potential for enhanced collaboration among those delivering a given coast guard function in the context of the following activities:

- *Data sharing*: Intelligence, information management and reporting and exchange of relevant information;
- *Asset sharing*: Sharing of assets performing coast guard functions in cross border or EU-level operations;
- *Personnel sharing*: Operational human resource management and pooled resources;
- *Capacity building*: Technical and operational assistance (e.g. joint training, institutional capacity building, promotion of common standards, approximation of legislation) and interoperability of systems and assets;
- *Financial burden sharing*: Partially or fully contributing to the cost of cooperation in a functional area;
- *Joint operations*: Leading on operations in conjunction with other coast guard forces in a specific geographical area and for a specific purpose;
- *Research development and innovation*: Developing concepts, projects or pilots of novel nature eventually involving the use of emerging technologies; and,
- *Other cross-sector cooperation*: Cross-border cooperation between organisations carrying different coast guard functions. This could take the form of the activities listed above.

1.2.3 Outputs

The study outputs are:

- This report, which presents options for increasing collaboration among authorities performing coast guard functions in different Member States and information on benefits, costs and feasibility.
- A database, up to date as of 1 September 2013, of:
 - all the coast guard authorities in the EU, their status and responsibilities, as advised by Member State governments⁵;
 - the collaboration structures that existing among those coast guard authorities, as advised by those authorities, multi-state forums and EU institutions.

1.2.4 Exclusions

The focus of this report is collaboration among coast guard authorities across Member State boundaries. It is recognised that inter-authority cohesion and collaboration within a Member State is important to the effectiveness of coast guard services and to the ability of that Member State to partner with others in addressing common problems (it is rare for all coastguard functions to sit with a single authority). Collaboration among the various authorities performing coast guard functions within a given Member State is, however, excluded from the scope of this study.

Also out of scope are:

- Development of a register of Member State coast guard assets;
- Preparation of a database of operational and asset costs;

⁵ This includes EU institutions that have some role in coast guard functions.

- Benchmarking or comparative performance appraisal of Member State coast guard service functions.

Previous studies for the European Commission have attempted to address some of these issues.

1.3 The structure of this report

The purpose of this report is to analyse lessons learned from current forms of cooperation and/or coordination of coast guard functions and suggest how they will be applied in the context of the present study.

This final report is structured as follows:

- the benefits of collaboration are examined and the arguments in favour or more collaboration discussed in Section 2.2;
- the scale and distribution of current cross-border collaboration among EU coast guard authorities is described in Section 2.3;
- The barriers to collaboration and root causes of the main collaboration issues are considered in Sections 2.4, 2.5, 2.6, and 2.7;
- Chapter 3 presents the opportunities identified to enhance collaboration and their feasibility, summarising more detailed analysis provided in Annex 2;
- The potential phasing of these options is explored in Chapter 4.

Annexes provide supporting information on the proposed measures, the appraisal of their feasibility and cost, and the method. The details of the current allocation of coast guard functions and current collaboration activities, as validated by Member States, EU institutions and networks, are separately bound in a further annex.

1.4 Acknowledgements

ICF would like to record its thanks to the many officials who have provided time to support the project through participating in interviews or working on the validation of data, and to the Greek Presidency of the European Coast Guard Functions Forum that provided opportunities for ICF to present details of the project to ECGFF members, and the Italian Presidency of the ECGFF for its advice and support.

2 The case for, current use of, and barriers to, collaboration among coast guard authorities within the EU

2.1 Introduction and summary

This section of the report examines the rationale for enhanced collaboration among coast guard authorities in different Member States. It explores the business case for collaboration in delivery of coast guard functions, the extent of current collaboration within the EU and the barriers that impede more extensive cooperation and coordination.

The analysis suggests that collaboration can;

- improve the effectiveness of the action taken by coast guard authorities, but the best level and form of collaboration needs to be determined on a case by case basis;
- facilitate efficiency gains, such as through sharing assets and services, but savings can be difficult to realise and to identify;
- have positive economic, social and environmental impacts on shared problems.

The research shows that:

- There is already extensive collaboration among coast guard services – 70 collaborative structures and 41 cooperation agreements were identified in the baseline research
- A large number of collaborative initiatives among coast guard authorities are already in place at different levels and in different geographies; more are being developed all the time;
- Theoretically feasible opportunities for Member States to collaborate with each other need to deliver net benefits for the individual authorities involved if they are to be politically, financially and practically viable.
- Current structures create barriers to collaboration among coast guard authorities from different Member States;
- With more than 300 separate authorities having responsibility for delivery of coast guard functions across the EU, institutional complexity is a significant issue;

The consultations suggest that collaboration could be promoted by:

- Improving the general and staff awareness of the objectives, powers, activities and resources of authorities in other Member States;
- Increasing the operational capacity and capability of authorities performing coast guard functions ; and,
- Strengthening the coordination of coast guard functions at regional and EU level.

2.2 The case for collaboration

2.2.1 Collaboration can improve the effectiveness of the joint actions taken by coast guard authorities; however the appropriate level and form of collaboration must be determined on a case by case basis

Many of the problems – from oil spills to organised crime to unsafe shipping – that are managed by those providing coast guard services in the EU are regional or Europe-wide issues that can be tackled more effectively through joint action of EU Member States working together.

The appropriate level of the collective response varies according to the problem. Some issues are best addressed by bilateral action, regional problems generally benefit from regional solutions, and in some cases there is a case for an EU-wide solution. For instance:

- Regional cooperation is particularly suited to addressing common challenges relating to threats, risks or needs in sea basins.
- EU level action is particularly suited to activities aiming to safeguard a public good or an economic interest common to all maritime EU Member States. This includes activities generating benefits that can be shared across all authorities performing coast guard functions, e.g. knowledge sharing and the development of common information tools.
- The use of the EU “decentralised agency” model⁶ is appropriate for EU cooperation in relation to specific coast guard functions (e.g. maritime border control, maritime safety, maritime surveillance and fisheries control) since it provides a clear legal framework and facilitates financial burden sharing.

Certain types of ‘problem’ favour particular appropriate form of collaboration. For instance:

- *Ad hoc* coordination is suited to supporting rapid reaction to events (such as accident and disaster response), in situations where the use of expensive assets or equipment is infrequent, specific expertise is needed, or when sensitive information needs to be shared (such as in response to organised crime activities in the maritime domain). *Ad hoc* coordination is more effective where there is advance anticipation of, and preparation for, events, e.g. identifying common threats and potential adequate (joint) responses (such as MAR-ICE Net and Marine Chemical Information Sheets);
- Permanent coordination is suited to situations where long term cooperation needs are identified, recognised by a majority of Member States involved and likely to persist (such as requirements to maintain maritime safety and perform maritime surveillance). It can include joint operational efforts that involve a large number of Member States (not necessarily situated in the same sea basins) and a greater degree of command and control than the other forms of collaboration.

2.2.2 Collaboration can facilitate efficiency gains and improved outcomes

The difficult financial environment in which many coast guard authorities find themselves at this time is an important framing condition for the study. Institutions under tight budget constraints tend to focus hard on core competencies and responsibilities, and reduce discretionary activity. This reinforces the need for proposals for inter-Member State collaboration to be underpinned by a robust business case.

The review did not identify studies clearly demonstrating the link between enhanced cooperation and efficiency savings. Some of the stakeholders interviewed were, however, able to comment on the relative efficiency of collaboration activities as compared to working without partners from other Member States. For instance, one expert stated that:

“the creation of the Baltic Sea Region Border Control Cooperation has led to efficiency gains of around 25% through better resource optimisation and situational awareness (relative to a situation characterised by the absence of such collaboration). The creation of a culture of regional cooperation can take a decade or longer but the benefits of collaboration in the long run can be substantial”.

There are specific examples of where cooperation and coordination among Member States have yielded efficiency gains and other benefits. Examples include:

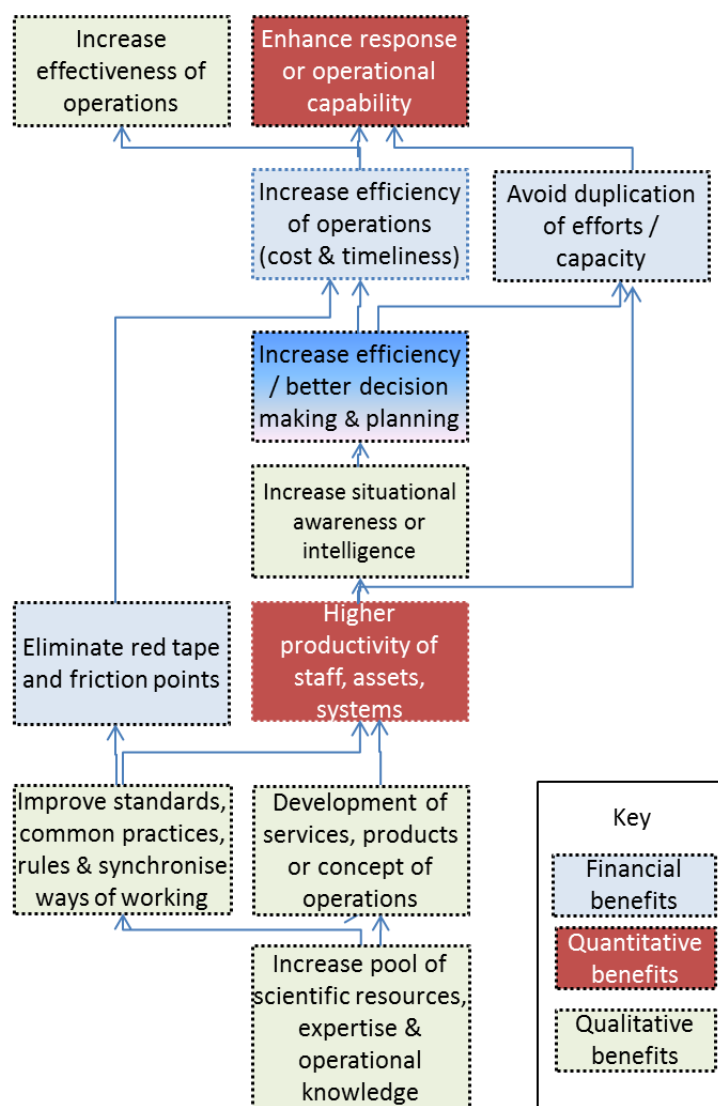
- Financial benefits derived from economies of scale, rationalisation of asset or staff capacity (e.g. elimination of duplication of efforts and operational efficiencies), greater efficiency in procurement (e.g. better negotiating position), or improved financial management;

⁶ Examples of Decentralised Agencies undertaking joint working in these fields are FRONTEX, EMSA and EFCA.

- Increased output (e.g. of analysis through processing of larger surveillance datasets and common risk assessments), higher productivity (e.g. through better use of assets, personnel or air time), more services or products delivered;
- Increased quality (e.g. enhanced analysis of information or intelligence, increased knowledge, implementation of good practices and standards, such as Port State Control, vessel traffic monitoring, oil spill monitoring and response capacity).

Figure 2.1 shows how such benefits can lead to improve effectiveness. Table 2.1 presents a more detailed typology of benefits potentially available from collaboration. There are, however, many barriers to achieving them, as discussed sections 2.6 and 2.7.

Figure 2.1 Potential benefits derived from cooperation or incentives for collaborating



Cooperation or coordination in delivery of coast guard functions can lead to a broad range of benefits, benefits that can act as incentives for national authorities to engage further in the cooperation or cooperation activities.

Table 2.1 Typology of direct benefits potentially available form cooperation or coordination activities

| Activity | Direct benefits |
|------------------------------------|--|
| Data and information exchange | <ul style="list-style-type: none"> ■ Quantitative benefits: <ul style="list-style-type: none"> – access to a broader range of data and datasets; – Increased frequency of updates; and – Enhanced analytical capabilities. ■ Qualitative benefits: <ul style="list-style-type: none"> – Improved situational awareness or complete situational picture; – Enable decision making or planning through better intelligence; and – Generate EU added value. |
| Asset sharing and mutualisation | <ul style="list-style-type: none"> ■ Financial benefits: <ul style="list-style-type: none"> – efficiency savings through spreading the cost of maintenance and making optimal use of assets across a number of functions or authorities; ■ Quantitative benefits: <ul style="list-style-type: none"> – enhanced operational capability such as using better assets or greater availability of the right assets (e.g. using the right class of asset, at right time in the right geographical area), – responding faster or more effectively to a situation, – increasing surveillance or response capacity across a wider geographical area, – enhancing the quality of intervention, ■ Qualitative benefits: <ul style="list-style-type: none"> – Contribute to enhancing interoperability or the adoption of common specifications |
| Personnel exchange | <ul style="list-style-type: none"> ■ Qualitative benefits: <ul style="list-style-type: none"> – Enable point to point contacts or informal relationships (Networking effect); – Increased mutual trust and create mutual understanding of other national authorities' objectives, competencies and capabilities; – Exchange of experience (concepts, standards, procedures), exchange of good practice and lessons learned. ■ Quantitative benefits: <ul style="list-style-type: none"> – Increased surveillance, analytical and response capacity; – Increased performance in joint operations. ■ Financial benefits: <ul style="list-style-type: none"> – Better use of financial and human expertise (e.g. access to expertise); – Cost savings and qualitative improvement of the coast guard services. |
| Other capacity building activities | <ul style="list-style-type: none"> ■ Qualitative benefits: <ul style="list-style-type: none"> – Structure the exchange of good practices; – Enhance consistency of training standards, ensure common interpretation of international or EU rules and harmonise ways of working; – Create mutual understanding other national authorities' objectives, competencies and capabilities within or across coast guard functions; and, – Create a networking effect (point to point contacts) that enables cooperation to take place, facilitate mutual assistance or improve professional relations between respective national authorities of different Member States. |

| Activity | Direct benefits |
|---|---|
| | <ul style="list-style-type: none"> ■ Quantitative benefits: <ul style="list-style-type: none"> – Ultimately contribute to faster or more successful interventions through faster communications and faster decision making; – Potential cost savings associated with the optimisation of the training offers (e.g., more targeted trainings). |
| Research development (R&D) and innovation | <ul style="list-style-type: none"> ■ Qualitative benefits: <ul style="list-style-type: none"> – Increase the pool of scientific and intellectual resources for science to progress; and, – Allow the development of common services, products or concepts of operations for the use of all Member States acting alone or when cooperating; ■ Financial and quantitative benefits: <ul style="list-style-type: none"> – Deliver cost savings when performing R&D by avoiding duplication of efforts and sharing research outcomes across a wider base of potential users; and, – Ultimately contribute to efficiency savings or increased effectiveness. |
| Financial and burden sharing procedures | <ul style="list-style-type: none"> ■ Financial benefits: <ul style="list-style-type: none"> – Economies of scale derived from joint procurement initiatives; – Development of different models for sharing the cost of assets (including shared ownership, leasing of assets from private contractors, etc.) ■ Quantitative benefits: <ul style="list-style-type: none"> – Using joint procurement to buy new services that would have been uneconomically to provide before; |
| Joint operations | <ul style="list-style-type: none"> ■ Quantitative benefits: <ul style="list-style-type: none"> – Joint planning of patrols in the same area by different authorities performing the same or different coast guard function can deliver efficiency savings; – Increase surveillance, reporting or response capacity at sea basin levels; – Increase patrolling capacity at lower costs; – Increase quality of operational outputs contributing to the effectiveness of future joint operations; – Increase knowledge through return of experience leading to: <ul style="list-style-type: none"> ○ Increased awareness of suspicious incidents ○ Higher capacity to make decision or forecast events ■ Qualitative benefits: <ul style="list-style-type: none"> – Create added value at EU level – i.e. undertaking activities that would have been impossible if performed by one Member State in isolation. – Social benefits associated with the results of joint operations (e.g., joint operation resulting in the capture of drugs which will not enter the EU market. This represents a loss of revenue for organised crime). |

Collaboration among authorities performing coast guard functions can lead to improved service outputs and outcomes. It has not been possible to quantify the total scale of such impacts arising from enhanced collaboration between national authorities, but qualitative information and examples of such effects have been identified. Target outcomes for coast guard functions include:

- Improved safety at sea, environmental protection and incident response (places of Refuge, SAR operations);
- Reduction in crime rates (e.g. action against organised crime and illegal activities related to smuggled/substandard goods, weapons or drugs, people);
- Improved business conditions and maritime trade supporting the sustainable growth of the blue economy (e.g. safer trade, preservation of public goods in the maritime domains, discovering and using R&D and innovation in the maritime domain, promoting tourism, generating energy, promoting alternative means of transport);
- Better functioning markets (e.g. due to reduced competition from smuggled and / or counterfeit / substandard products);
- Reduction in foregone tax and/or import duties (e.g. from reducing smuggling);

For instance, the maritime joint operations led by FRONTEX in 2012 resulted, in addition to saving distressed migrants, to the arrest of 382 suspected drug smugglers. Over 46 tonnes of drugs were seized, worth € 72.6 million.

2.3 There is already extensive cross-border collaboration among EU coast guard services

There is already extensive collaboration at Member State and EU level in the delivery of coast guard services. A total of seventy collaboration structures have been identified (Table 2.2) which variously operate at the multi-lateral (i.e. EU plus non-EU states), EU, regional and sub-regional levels. In addition there are bilateral and multilateral cross-border cooperation agreements among EU Member States that sometimes also involve non-EU States. Forty-one such cooperation agreements have been identified.

Collaboration is more common for some coast guard functions than others

Some form of collaboration among EU Member States was found for each of the ten coast guard functions, though the breadth and depth of cooperation vary from case to case. For all coast guard functions most of the collaborations take the form of structured cooperation arrangements or permanent operational coordination structures (Table 2.2). The largest numbers of collaborations are focused on maritime environmental protection and response, maritime safety and maritime surveillance. Relatively few *ad hoc* operational coordination structures have been recorded but in many cases permanent cooperation structures aid *ad hoc* operational cooperation. It is important to note that bilateral cooperation structures are not represented in Table 2.2 nor the international SAR agreements or conventions such as the IMO SAR convention.

Table 2.2 Collaborations identified, by coast guard function

| Coast guard function | Structured EU wide/ regional/ multilateral cooperation | Ad hoc operational coordination | Permanent operational coordination | EU body | Total |
|--|---|---------------------------------------|--|---------|-----------|
| Maritime safety, including vessel traffic management | 9 (39%) | 1 (4%) | 12 (53%) | 1 (4%) | 23 |
| Maritime security | 5 (28%) | 4 (22%) | 8 (45%) | 1 (5%) | 18 |
| Maritime customs activities | 0 (0%) | 1 (20%) | 4 (80%) | 0 (0%) | 5 |
| Prevention and suppression of trafficking and smuggling and connected maritime | 0 (22%) | 0 (11%) | 11 (100%) | 0 (0%) | 11 |

| Coast guard function | Structured EU wide/ regional/ multilateral cooperation | Ad hoc operational coordination | Permanent operational coordination | EU body | Total |
|---|---|---------------------------------------|--|---------|-------|
| law enforcement | | | | | |
| Maritime border control | 8 (47%) | 1 (6%) | 7 (41%) | 1 (6%) | 17 |
| Maritime surveillance | 15 (68%) | 0 (0%) | 5 (23%) | 2 (9%) | 22 |
| Maritime environmental protection and response | 16 (70%) | 0 (0%) | 6 (26%) | 1 (4%) | 23 |
| Search and rescue | 1 (12%) | 0 (0%) | 7 (88%) | 0 (0%) | 8 |
| Accident and disaster response | 9 (45%) | 2 (10%) | 8 (40%) | 1 (5%) | 20 |
| Fisheries control | 7 (54%) | 1 (8%) | 4 (30%) | 1 (8%) | 13 |

NB1: The numbers in brackets represent proportions of the totals for the function in question. For example for maritime safety, 39% of the collaboration structures are defined as structured EU wide, regional or multilateral cooperation; 4% are ad-hoc operational coordination; 53% are permanent operational coordination and 4% are EU body.

NB2: The categorisation of the different collaborative mechanisms is based on the definition presented in Table 1.1. It should be noted that these definitions are not normative and there is therefore scope for discussion for the categorisation of specific collaboration mechanisms. More information on the methodology used for the mapping exercise performed by ICF is provided in Annex 4 of this report.

NB3: Some cooperation structures are involved in many coast guard functions and operating at different level (i.e., an EU body such as EMSA can operate as permanent and ad-hoc operational cooperation for the same function depending on the type of activity). In this case, the cooperation structure is present in all the relevant level of cooperation.

Activities on which coast guard authorities collaborate most often are data sharing and capacity building

Most collaboration involve data sharing. Several structured cooperation agreements also involve capacity building and joint operations. Permanent operational coordination activities and activities carried out by an EU body involve a whole range of activities. Financial burden sharing procedures are only in place for functions carried out by an EU body. Table 2.3 shows the collaboration structures currently in place across the ten coast guard functions based on information gathered and validated to date.

2.4 Current structures create barriers to collaboration

The benefits of collaboration among Member States are made less accessible to individual coast guard authorities when the costs of joint working are raised by differences in organisational and staffing structure, restricted budgets, systems, technologies, ways of working, and other barriers. The outcome is a socially 'sub-optimal' level of collaboration and overall lower efficiency and/or effectiveness of service delivery. Action to reduce or remove barriers can improve outcomes by reducing the costs of collaboration.

Table 2.3 Mapping of forms of collaboration within the EU, classified by coast guard function

| | Maritime Safety | Maritime Security | Maritime Customs | Prevention and law enforcement | Border Control | Maritime Surveillance | Marine Environmental Protection and Response | Search and Rescue | Accident and Disaster Response | Fisheries Control |
|---|--|--|-------------------|--------------------------------|--|---|---|-------------------|--|---|
| Structured EU wide/ regional/ multilateral cooperation | -ECGFF -NACGF -Paris MOU -Mediterranean Coast Guard Forum -CALDOVREP -GOFREP -Black Sea MOU -Mediterranean MOU -SUBCAS | -ECGFF -NACGF -Mediterranean Coast Guard -EU pilot project (SUPPORT) -SUBCAS | | | - ECGFF - NACGF -Mediterranean Coast Guard - "Seahorse" Projects - I2C pilot project - EFFISEC pilot project - SUPPORT pilot project -WiMA ² S | -ECGFF -NACGF -Mediterranean Coast Guard -Bonn Agreement -"Seahorse" Projects - MARSUR project -Perseus, Baltic Sea Maritime Functionalities Project -AMASS project -I2C -OPARUS, -SeaBIILLA project, -WiMA ² S, | -ECGFF -Mediterranean Coast Guard Forum -NACGF -Bonn Agreement -Helcom -Ospar -Rempec -Paris MOU -Black Sea MOU -Mediterranean MOU -Barcelona Convention -Lisbon Agreement -Copenhagen Agreement - BLACKSEAFOR - WiMA ² S project -RAMOGE and PELAGOS agreements | BLACKSEAFOR | -ECGFF -NACGF -Mediterranean Coast Guard -Bonn Agreement -Paris MOU -Black Sea MOU -Mediterranean MOU -CALDOVREP -GOFREP | -ECGFF -NACGF -Mediterranean CG Forum -NASCO -NEAFC -GFCM -Scheveningen-Group |
| Ad hoc | -EMSA | - EMSA, | - Blue Belt pilot | | -FRONTEX joint | | | | -DG ECHO Civil | -EMSA |

⁷ CISE is defined as by DG MARE as " a voluntary collaborative process in the European Union seeking to further enhance and promote relevant information sharing between authorities involved in maritime surveillance. It is not replacing or duplicating but building on existing information exchange and sharing systems and platforms... ". It was therefore decided to categorise this under the maritime surveillance coast guard function but it could in practice contribute to other CG functions.

| | Maritime Safety | Maritime Security | Maritime Customs | Prevention and law enforcement | Border Control | Maritime Surveillance | Marine Environmental Protection and Response | Search and Rescue | Accident and Disaster Response | and Fisheries Control |
|---|---|--|--|---|---|--|--|---|--|-------------------------------------|
| operational coordination | | - FRONTEX joint operations - EDA - Europol | project (EMSA) | | operations | | | | Protection Mechanism: MIC, -EMSA-EFCA cooperation | |
| Permanent operational coordination | -EMSA -Cleanseanet -VTS -VMS - SafeSeaNet -Satellite AIS -Integrated Maritime Services (EMSA) -Equasis -Blue Belt Pilot Project - STMID -MSSIS -SUCBAS | -NATO -LRIT -MSSIS -AIS -SRIT -LRIT -BSRBCC -SUCBAS | -Europol -Blue Belt pilot project (EMSA) -OLAF -SELEC | -Europol -BSRBCC -SIENA -MAOC (N) -CeCLAD-M -BSCIC -OLAF -SELEC -SUCBAS - BLACKSEAFOR -SeaBILLA (EMSA provides support) | -FRONTEX -EMSA -Europol -EUROSUR -BSRBCC -BSCIC -BSCF | -EMSA (Integrated Maritime Services) -FRONTEX -EU Satellite Centre -EUROSUR -EDA | -EMSA -Safeseanet -Cleanseanet -Wetrep -EUROSUR -SUCBAS | -GMDSS -LRIT -COSPAS-SARSAT -Wetrep -Ship Security Alert System (SSAS) -CECIS -Safeseanet | -DG ECHO Civil Protection Mechanism: MIC -Safeseanet -Cleanseanet - LRIT -CECIS -Wetrep -Equasis -EU Satellite Centre | -EFCA -VMS -EUROSUR -ICCAT |
| EU body | - EMSA | EMSA | | | FRONTEX | - EMSA - FRONTEX | EMSA | | , EEAS | EFCA |
| COVERAGE ASSESSMENT | | | | | | | | | | |

Source: ICF

| | | | | | |
|------------|-------------------------------------|---|------|--------|-----|
| Key | Absence of coverage of the function | Extent of the coverage of the function and cooperation related activities | High | Medium | Low |
|------------|-------------------------------------|---|------|--------|-----|

Specific obstacles to collaboration have been examined in past studies on different coast guard functions within Europe, at both EU and region levels. A large number of specific recommendations for harmonisation of technical standards, such as investing in secure data sharing between relevant public authorities responsible for maritime security⁸ or common technical information exchange systems including prospect of SAR operations requiring aircraft coordination⁹ have been made¹⁰. This section supplements that evidence base with a discussion of the barriers to collaboration and how they might be overcome based on consultations with Member States and coast guard networks and forums.

2.4.2 Influencing factors, causes and effects of the problems identified

Research suggests that individual coast guard authorities' willingness and ability to participate in collaborations with other Member States are influenced by a number of internal factors. Firstly, administrative and legal obstacles¹¹ may hamper collaboration – national authorities without a clear remit, governance structure or budget to engage in collaboration will be reluctant to do so, especially in times of economic austerity. In addition, in many Member States a large number of organisations are involved in the delivery of coast guard services, often including a mix of civil and military institutions. This creates an institutional complexity which can hinder cross sector cooperation. National level priorities may 'squeeze out' collaboration efforts.

External factors also influence the extent to which national authorities can further enhance collaboration without completely rethinking coast guard services provision. These factors include the growing maritime traffic and trade flows, sustained pressures on the maritime environment and fish stocks, and, threats to internal security at the external borders and in the territorial waters of the EU Member States. Preventing, detecting and responding to such challenges cannot be a matter of simply investing more resources and assets at sea. Such forces can therefore act as incentives or disincentive to collaboration depending on national authorities' appetite for change.

The consultations suggest that collaboration is hampered by factors that include:

- A lack of general and staff awareness of the objectives, powers, activities and resources of authorities in other Member States;
- The institutional, legal or governance frameworks for collaborating are unclear;
- Authorities performing coast guard functions are under budgetary pressure;
- The (limited) number and/or (advanced) age of coast guard assets;
- A lack of expert personnel or personnel to facilitate and foster cross-border cooperation;
- Joint operations being confined to certain coast guard functions and to time-bound initiatives; and,
- The lack of interlinking of existing systems at national level, processes, assets and people.

The consequences are that:

- The potential economies of scale that could be derived from enhanced cooperation are not fully exploited, leading to a situation where the efforts of authorities performing coast guard functions may be duplicated;

⁸ Source: Ex-post Evaluation of PASR Activities - Maritime security and surveillance - Case study, 2011.

⁹ Marsuno Project – Thematic Report – SAR, 2011

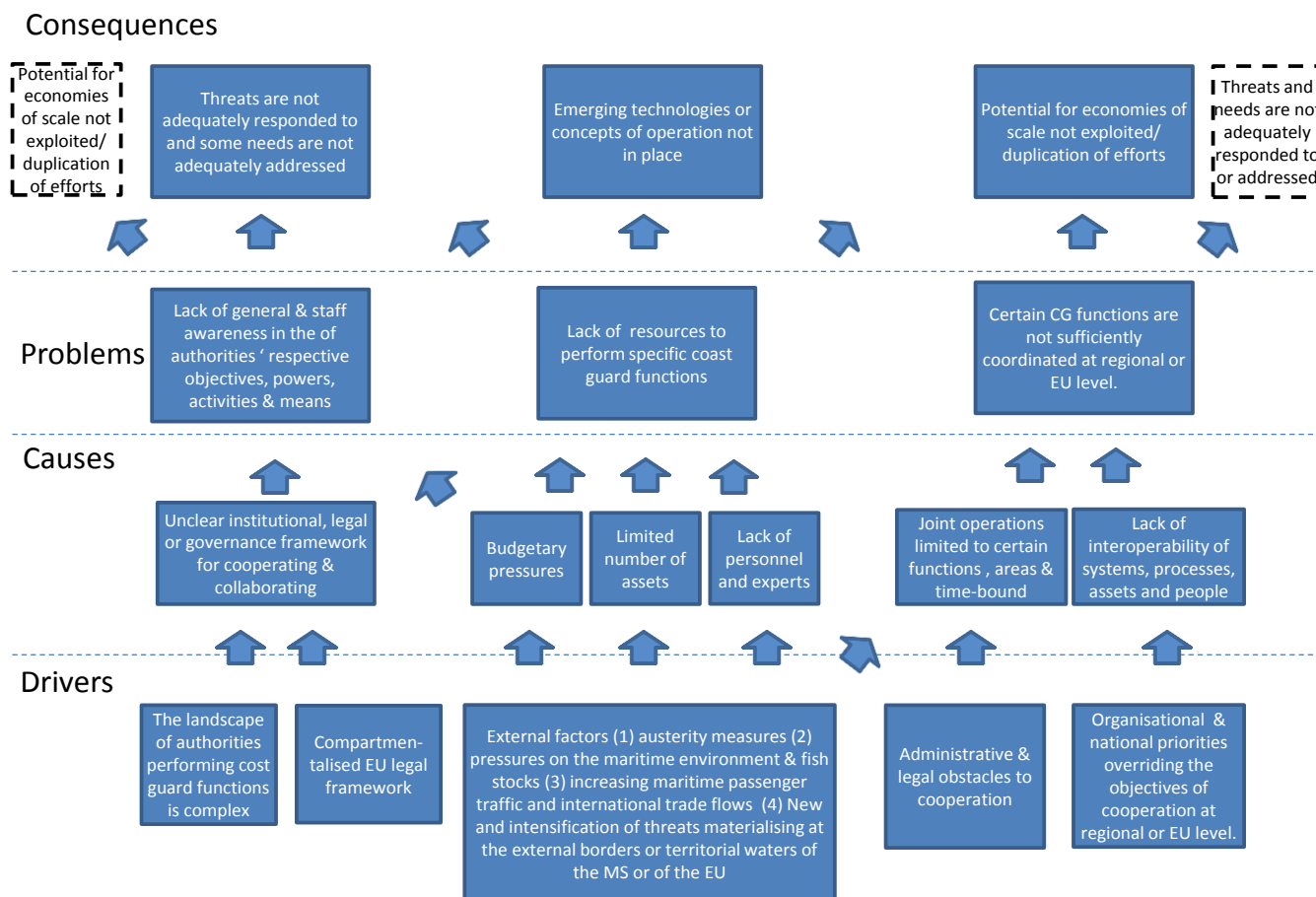
¹⁰ See inception report to this project.

¹¹ Marsuno's Final Report, 2011; p. 38-53 listed the following obstacles for sharing information: constraints due to protection of personal data. the confidentiality, secrecy and access to documents, data security policies of public authorities, the sensitiveness of exchanging criminal intelligence, differences between Member States legislation and the administrative provisions regarding personal data; long lead time in administrative procedure between Member States, lack of common standards and procedures, languages and working methods.

- Enhanced needs to respond to threats are not adequately addressed;
- Emerging technologies are not fully used to their best potential and new concepts of operation that could support enhanced cooperation are not exploited fully.

Figure 2.2 summarises the problems and presents their main causes and effects.

Figure 2.2 Main cause and effects of the problems identified



2.5 Lack of information on the remit, powers and capabilities of other authorities is a barrier to collaboration

The consultations conducted for this study suggest that a key obstacle to enhanced cooperation and coordination is that at working level staff often lack the information they need to navigate a very complex institutional environment within and across Member States.

2.5.1 The complexity and diversity of institutional arrangements for delivery of coast guard services creates a barrier to collaboration among Member States

Coast guard services are notable for the complexity of their institutional arrangements and the variety of institutional structures:

- The research for this project has identified **316** public authorities performing coast guard functions at Member State level across the EU;
- The number of national authorities in each Member State¹² that are performing coast guard functions (as defined by ECGFF) varies from eight to nineteen, with **an average of thirteen** per Member State.

¹² The study focuses on maritime Member States of the EU.

There is variety and complexity of institutional type within and across Member States. Coast guard services are provided by both civil and military institutions, and by organisations with both ministry and agency. A given function may be performed by institutions of different types in neighbouring Member States.

Table 2.4 shows the number of public authorities per coast guard function across the EU as a whole based on information validated by each Member State. Details of the current institutional arrangements at Member State level are provided in a separately bound annex.

Table 2.4 Current data suggest that 316 Member State authorities are involved in the delivery of coast guard functions

| Coast guard function | Number of authorities identified | Share of the 316 authorities that have a role in delivery of this function* |
|--|----------------------------------|---|
| Maritime safety, including vessel traffic management | 108 | 34% |
| Maritime security | 130 | 41% |
| Maritime customs activities | 60 | 19% |
| Prevention and suppression of trafficking and smuggling and connected maritime law enforcement | 150 | 47% |
| Maritime border controls | 97 | 30% |
| Maritime surveillance | 115 | 36% |
| Maritime environmental protection and response | 130 | 41% |
| Search and rescue | 117 | 37% |
| Accident and disaster response | 140 | 44% |
| Fisheries control | 101 | 32% |
| Total | 316** | |

*Many authorities are involved in the delivery of more than one function so the percentage totals exceed 100%;

** The total is not the sum of the numbers in the column as many authorities are involved in the delivery of more than one function.

There is also complexity at EU level:

- Six Directorates-General of the European Commission (DG MOVE, DG MARE, DG ENV, DG HOME, DG ECHO and DG TAXUD) have responsibility for public policies relevant to the ECGFF coast guard functions;
- Six EU agencies (EMSA, EFCA, FRONTEX, Europol and EDA) and OLAF lead on activities related to cooperation and coordination of relevant European policies, programmes and actions.

Their roles and responsibilities in the maritime domain are described in the separately bound annex.

The existence of these different EU bodies is not an obstacle for cooperation between Member States as such - Member States are in charge of carrying the coast guard operations – but many stakeholders stressed that the presence of different actors at EU level and the perception of a ‘compartmentalised’ policy approach at EU level which reflects the division of competence that occurs at Member State level adds complexity to an already complicated policy landscape¹³.

¹³ The competences granted by the Treaty of the European Union define powers in distinctive policy areas. The various Directorate Generals of the Commission use these powers within their policy areas whilst ensuring

2.5.2 The complexity of institutional arrangements can make it harder for officials to get a full picture of the capabilities, operations and support available both within their own Member State and beyond

The focus of the current study is on collaboration among Member States. Development of options for enhanced collaboration within Member States is explicitly out of scope. The research did, however, suggest that institutional arrangements at Member State level can pose a general barrier to collaboration across borders¹⁴.

Looking across the EU, the authorities at national level performing a given coast guard function often have different competences and capabilities. Sometimes the responsibilities for different coast guard functions may not be defined in detail and there can be overlap in responsibilities, with authorities performing other functions or operating in different geographical areas^{15,16,17}. This dispersion of competences within the same (or across) coast guard function(s) reduces understanding of institutions' respective objectives, activities and resources.

There may be lack of awareness of:

- the information needs of other national authorities¹⁸;
- the specific activities planned¹⁹ by other national authorities;
- the training available at national level;
- the availability of assets of different authorities in specific geographic areas or with the right personnel or equipment²⁰; and,
- the availability of expertise in specific geographic areas²¹.

These issues can lead to duplication²² of efforts at national level or to opportunities to collaborate²³ at regional or EU level being missed.

complementarity of their actions; complementarity which can be complex to manage and or achieve across the 10 coast guard functions.

¹⁴ For example, *"The different institutional background, perspectives, priorities and organisation between custom and border guard authorities prevent and undermine informal and formal cooperation between these services within Member States. This lack of cooperation within Member States represents obstacles for efficient sector and cross-sector cooperation at EU level"*. Source: Better management of EU borders through cooperation, 2011.

¹⁵ For example, *"The lack of information sharing, the absence of harmonised practices and the absence of common languages between competent authorities in the Member States create overlapping functions in the Member States and between the Member States involved in the existing cooperation's"*. According to the authors all functionalities should be grouped in three categories: *"Safety, Security and Law Enforcement and Defence"*. Source: Baltic Sea Maritime Functionalities - Awareness across boundaries, 2011.

¹⁶ For example, *"The existence of different authorities involved in maritime SAR activities in the Member States, associated with the inconsistent organisational structure across the Member States and the lack of cooperation agreements and cooperation procedures creates: obstacles for the efficient exchange of information; confusion and misinterpretations between the authorities in charge of the different operational services in case of multi-task, combined or simultaneous SAR and Marine Pollution Response operations; and, difficulties for the adoption of common safety systems and procedures"*.

¹⁷ For example, *"The fragmentation of organisations in the maritime security domains prevents full coordination and information sharing between coastal surveillance systems in and across the Member States"*. Source: Ex-post Evaluation of PASR Activities - Maritime security and surveillance - Case study, 2011

¹⁸ For instance, witnessing fraudulent or illegal activities at sea (e.g. smuggling) may not necessarily lead to an onshore investigation. This may be due to an absence of knowledge of respective priorities, known how in the detection of potentially irregular activities, or knowledge of direct communication channels and systems between different authorities.

¹⁹ Such as planning of operations, patrolling areas, data and information gathering, analytical exercises as well as research and development.

²⁰ This is specifically the case in SAR related activities.

²¹ This is particularly the case of experts in pollution control.

The research suggests that in many cases coast guard authority staff are not clear about the national institutional frameworks or the governance framework for cooperating and collaborating at regional or at EU level. The lack of clarity stems from the differences in national arrangements. There are also differences in the operational concepts used by competent authorities which pose obstacles to cooperation²⁴.

Selected stakeholder views on the complexity of institutional arrangements

The quotes below come from stakeholders interviews conducted for this study.

“The variety of organisational structures regarding coast guard functions in the different Member States and the different legal backgrounds can create limit the efficiency of cooperation activities. This is especially the case if the agents are not aware of these differences”

“The lack of cooperation between public authorities performing coast guard functions at national level creates difficulties for cooperation at EU level”.

“At national and cross border levels, there is a general lack of awareness of the information needs and capacities of the other sectors”.

“Every country has its own training practices and the different EU Member States are not aware of the offer in the other Member States”.

“There is a lack of awareness of research and development activities in other organisations or Member States”.

“There is a lack of awareness of common needs and capacities whose costs could be shared across different organisations or Member States”.

2.5.3 The legal frameworks and large number of regional and EU initiatives are also difficult for coast guard officials to keep track of

Legislation and procedural rules governing cooperation and coordination of activities at regional and EU levels tend to be established for specific policy areas. This is not necessarily optimal. For instance, a maritime surveillance function might benefit from information generated by maritime safety, maritime security and maritime customs functions (e.g. exchange of information generated by maritime safety systems or intelligence sharing)^{25, 26, 27}. This functional approach can hinder collaboration with and across sectors and compound the problems created by the complex institutional structures seen at national level.

²² Findings from the 2011 Marsuno pilot project focused on maritime surveillance concluded that: A more efficient cooperation and better understanding between civil and military authorities will lead to avoidance of duplication in many crucial areas and more value for the taxpayers' money.

²³ Stakeholders from FR, NL, PT and PL support this finding.

²⁴ Baltic Sea Maritime Functionalities - Awareness across boundaries, 2011. p.3.

²⁵ *“The development of one single integrated EU agreement with regional subdivisions is needed to create more clarity and greater flexibility than the existing situation with separated and geographically overlapping regional agreements”.* Source: Inventory of coastguard assets and ways of operating, 2007.

²⁶ *“The main challenge is for the EU to develop an effective framework to ensure the smooth functioning of cross-sector operational cooperation between multinational authorities (e.g. the police, coast guard, intelligence, security rescue officials) through interoperable communication and rescue systems”.* Ex-post Evaluation of PASR Activities - Maritime security and surveillance - Case study, 2011.

²⁷ Stakeholders from BE, BG, LT and SI support this finding.

Insofar as more than one EU agency or Commission Directorate General can have an interest in a given coast guard function ^{28, 29, 30}, national authority staff perceive organisational responsibilities at EU level as complex.

The multiplicity of EU and regional level initiatives can lead to confusion among staff in national authorities, duplication of patrolling and surveillance effort, and restrict the scope for collaboration within and across functions. It may also create difficulties for regional or EU cooperation structures to engage with third countries in their respective areas of competence.

Selected stakeholders views on the complexity of institutional and organisational arrangements for cooperating at supra-national level

The quotes below come from interviews with stakeholders conducted for this study.

“Differences between Member States with regard to legal frameworks and institutions hinder effective cooperation; administrative barriers (primarily red tape) also present an obstacle to cooperation”

“Some obstacles may derive from differences in Member States’ legal frameworks or definition of remits and competences”.

“Different organisational structures in place across different Member States lead to issues in terms of which appropriate individuals or responsible officials to contact.”

“At the moment the competences for collaboration activities within coast guard functions are spread across different EU Institutions or Agencies”

“At the EU level the main improvement for cooperation would be to better coordinate the cooperation between EU agencies or DGs. Currently there are different EU institutions dealing with different Coast Guard Functions, thus it would be better if coast guard functions would be dealt within one single EU body rather than between different DGs or EU Agencies. The EU Institutions are sector oriented which hinders the cross-sector cooperation, or it slows down such cooperation” “The main obstacle for further cooperation is the dispersion of the different coast guard functions at the EU level and National Level”,

“There is a need to clarify the interconnections between the different EU Agencies and DGs involved in the coast guard functions”

“Greater involvement of the European Commission would be favoured given the potential for clearer and more wide ranging legislation (EU Directives)”.

“There are numerous EU Agencies and DGs involved in coast guard functions at EU level. Currently the relation between these different organisations is not clear and the impression is that some efforts are duplicated due to a lack of inter-Agency coordination”.

“Currently the EU agencies and DGs coordinate different themes and have different competences regarding the coast guard functions. Such dispersion can also create obstacles for effective EU coordination and cooperation as the themes/discussions are dispersed around the different competences between the EU Agencies or DGs. There seems to be competition between the EU bodies regarding the different competences of the Coast guard functions”.

²⁸ For instance, the collection and sharing of maritime safety and maritime surveillance information at national and EU levels.

²⁹ Stakeholders from BE, DE, DK, ES, IS, FI, NO, PT, and PL support this finding.

³⁰ EFCA’s external evaluation concluded that *“The existing regulatory framework is not entirely clear on EFCA’s wider and specific objectives [...]. EFCA’s position compared to the EU, the Member States and other related agencies is also uncertain. This situation creates confusion on the detailed remit of the EFCA”*. Source: EFCA five-year independent external evaluation, final report, 2012.

2.6 Resource constraints can limit collaboration with other authorities

Resources to perform specific coast guard functions are, in many cases, shrinking in real terms. National authorities having to cope with multiple demands may not have sufficient capacity to undertake all their core activities let alone cooperate or coordinate their activities with authorities from other countries.

2.6.1 Budgetary pressure is a significant issue for many of the authorities that perform coast guard functions

Budget reductions or zero-growth budgets were identified by consultees, mostly in the EU's smaller Member States³¹, as a key factor limiting the extent of cooperation and coordination of coast guard functions among Member States at both bilateral and multilateral levels.

Selected stakeholders views on the impact of budgetary pressures on cooperation

The quotes below come from interviews with stakeholders conducted for this study.

“Budget and resource limitations mean that we often end up doing less than we might wish to – at times this frustrates attempts directed at prior planning”.

“The limited budget of the maritime administrations in the Member States is seen as a hindrance to cooperation”.

“Budgetary restrictions due to financial crisis, the lack of technical resources and personnel and legal restrictions may be the main obstacles. Of course this depends on the kind of the cooperation performed with the other EU Member States”.

“Budget constraints (driven by the current financial climate) create problems to collaborate effectively”.

“As a small Member State, we face administrative constraints in terms of personnel and budget availability – on the other hand, larger countries often face bureaucratic/ logistical hurdles as too many people work on any given problem – each country has its own issues”.

“Generally, the main obstacles for joint training and capacity building, irrespective of the coast guard function, are the lack of budget or funding opportunities, especially in the current economic situation where there have been cuts for some Member States”.

Controls on budget allocation at national level are another obstacle to enhancing cooperation. Budgets are typically allocated for the only use of coast guard authorities and, for some stakeholders collaboration via financial burden-sharing can be equivalent to a misuse of public funds. In some cases resistance to pooling financial resources may be based on the unwillingness of national administrations to lose control over their budget allocations.

Financial constraints may affect:

- The continuity of joint actions;
- Human resource development (e.g. training budgets and the retention or replacement of expert staff);
- The procurement of new or maintenance of existing assets; and,
- Research and development (R&D) budgets³².

³¹ This was mainly evidenced in small Member States with already limited financial resources (e.g. BE, CY, EE, ES, FI, LT, PT, SI and UK).

³² *“Few national authorities performing coast guard functions engage in R&D activities. For authorities that do engage in R&D, few are aware of funding available through national or EU level research programmes. Regional*

2.6.2 Asset stocks and capabilities may not favour collaboration

The ageing of coast guard assets and lack of budget for renewing or replacing them³³ can constrain the ability of authorities to participate in collaborative activities. The availability of coast guard service assets is limited by operational and financial constraints,³⁴ and their use is often restricted to specific functions. Obstacles to cross border cooperation then arise when multiple Member States simultaneously require the same resources. The problem is particularly relevant for certain functions (e.g. search and rescue, disaster and accident response, customs).

Even when assets are in place they may not be able to support collaboration action. Assets may not always be suitable for specific joint actions, may not be capable of covering extended geographical areas or may be on the verge of becoming obsolete. This may ultimately trigger capacity issues and affect operations at sea (e.g. maritime surveillance, search & rescue, disaster response³⁵ and maritime customs) and the ability to quickly intervene when needed.

In such contexts, the coordination of the purchasing of expensive assets and new models of ownership of such assets may be helpful. The class of assets mentioned by stakeholders in this context included planes for long-distance aerial surveillance, surveillance assets (fixed assets, satellite images, investment in unmanned aerial vehicles, etc.) and pollution response and control equipment.

Selected stakeholders views on asset-related constraints to cooperation and coordination related activities

The quotes below come from interviews with stakeholders conducted for this study.

“Existing assets could be converted into more versatile units – better able to function in the context of a range of functions as opposed to just one or two functions – e.g. naval assets could be directed to customs, border control and other operations”.

“Financial constraints limit access or acquisition of assets and sometimes lead to the cancellation of participation to joint operations”.

“Asset sharing is not undertaken – except in emergency situations (most commonly major pollution related incidents such as oil spills)”.

“Limitations to the use of vessels typically arise because of their different capabilities and conflicts between geographical areas and competences”.

“For search and rescue operations, the capacity to intervene beyond 500 miles is limited. This is often done by military assets or by commercial ships passing in the area but they are not always readily available or present”.

“Each Member State has limited assets to perform coast guard functions: sharing assets means a reduction in the [lending] Member States of the capacity to intervene”.

“Considering the price of new assets, assets sharing (cross-border and cross-sector) is considered as crucial. It is not only beneficial from a budget saving perspective but also

networks also lack financial resources to invest in R&D because participating countries do not extend financial resources to the network, especially given the current economic climate”. Source: BSRBCC.

³³ Stakeholders from BE, FR, RO and PT reported this issue.

³⁴ For instance the availability of helicopters for transportation is limited to carry out activities in search and rescue and accident and disaster response – Source: Strengthening the EU capacity to respond to disasters, Ecorys, 2009. Some Member States authorities rely on other national authorities’ assets (e.g. customs in Bulgaria).

³⁵ Based on a survey of Member States participating in the MIC and workshops with experts, the report on “Strengthening the EU capacity to respond to disasters”, Ecorys, 2009, identified that qualitative gaps in the overall EU civil protection response capacity related to the limited degree of availability of certain resources such as the lack of funding for transport and maintenance and deployment of externally deployable capacities.

from an efficiency and effectiveness perspective”.

“The ageing of the infrastructure and resources and the lack of budget for investment in new resources represent a material obstacle for efficient cooperation”.

2.6.3 In some cases there’s a scarcity of personnel equipped and tasked to support cross-border cooperation and provide expertise

Authorities performing coast guard functions may not have qualified or available personnel to lead on cooperation activities with other Member States and or supra-national organisational structures. Cooperation, and the complex landscape at national and supra-national level, can be viewed as burdensome for some national authorities. There are however some interesting more positive examples where cooperation is functioning well (e.g. The Places of Refuge group and the High Level Steering Group established under the VTMIS Directive³⁶). Consultations suggest that, in addition, in some Member States there is a lack of expert personnel and qualified personnel to train or manage joint actions³⁷ (e.g. pollution control experts or intelligence analyst³⁸). This lack of staff or experts can hinder the effective cooperation or coordination of efforts in sea basins. Consultations also suggest that many experts are close to retirement and may not be replaced because of financial constraints³⁹. In the long run, this could affect negatively the effectiveness of existing collaborations, joint operations and training.

Other obstacles to personnel sharing mentioned by stakeholders are the few opportunities or mismatch between the need for and the availability of certain categories of personnel sharing, legal obstacles in pooling resources or issues of interoperability (language, common ways of working, etc.). Personnel sharing and training programmes and setting specialised task forces are solutions to overcome the above challenges.

Selected stakeholders views on the lack of personnel or expertise to drive cross-border cooperation forward

The quotes below come from interviews with stakeholders conducted for this study.

“One of the main obstacles to cooperation is the lack of technical resources and personnel. This limits the cooperation capacity of the Member States.”

“The main obstacle regarding cooperation with other countries, especially regarding to joint operations is the lack of personnel or staff availability”.

“The main obstacle to organise joint operations is the lack of availability of staff”.

“As a small country we face administrative constraints in terms of personnel and budget”

“Personnel sharing is not common and not well established – except perhaps at a ‘pilot’ level between selected countries”.

“There is a lack of interest in cooperating on capacity building and training activities due to the lack of personnel within the competent authority”

“Pooling resources is difficult given that there are too many bodies, models, tasks”.

“There is a lack of sufficient level of expertise in the maritime surveillance coast guard

³⁶ Depending on the national organisational set up and responsibilities, Coast Guard personnel are involved in these groups.

³⁷ Stakeholders from CY, DE, EE, ES, PT, SI and SE support this finding.

³⁸ For instance, there is a lack of lack of competence or resources for controllers to find mistakes on SAR Cooperation Plans. Source: Marsuno Project – Thematic Report – SAR, 2011.

³⁹ This issue was raised by some stakeholders during interviews but has not been verified by reference to data on the demographic profile and recruitment plans of authorities.

function.”

“In the environmental protection, fisheries control coast guard functions, a lot of experts are close to retirement and are not being replaced because of financial constraints”.

2.7 There is more work to do to ensure full coordination and interlinking of coast guard services

The consultations suggest national authorities performing coast guard functions generally do not systematically cooperate or coordinate their international collaboration activities. Contributory factors include that:

- Joint operations are limited to certain areas, coast guard functions and are time-bound; and,
- There is a lack of interlinking of processes, assets and ways of working.

As a consequence, potential economies of scale are not exploited, efforts in some functions may be duplicated and the response to threats provided may be inadequate. Each of these issues is described as per below.

2.7.1 Joint operations are limited to certain coast guard functions and time-bound

There is limited use of joint operations in certain coast guard functions. The main reasons for not undertaking joint operations are:

- The administrative burdens associated with the planning of joint operations⁴⁰ (e.g. decision making process, deciding on the rules of engagement, allocation assets and personnel) may outweigh the benefits of cooperation. Consultations suggest plans are often not shared across national authorities performing similar functions or patrolling in similar geographical areas so that automatic or “opportunistic” coordination of joint operations and or common patrolling seldom takes place. Planning is also complicated by Member States’ complex institutional landscape, as discussed above.
- Legal obstacles can also compromise the efficiency joint operations. For instance, in the field of maritime border control, the limitation of command and executive powers of foreign border guards and custom officers operating under the jurisdiction of other Member State during FRONTEX operations represent a considerable obstacle and limitation for efficient cooperation⁴¹. This is also valid for other coast guard functions with a law enforcement component⁴². The exchange of what may be regarded by some Member States as sensitive information also undermines the results of joint operations.

Most joint operations are time-limited, though they may be repeated frequently. Genuine permanent coordination of efforts, although desirable, may prove difficult because of

⁴⁰ Stakeholders from BE, ES, FI support this finding.

⁴¹ *“The limitation of command and executive powers of foreign border guards and custom officers operating under the jurisdiction of other Member State during FRONTEX operations represent a considerable obstacle and limitation for efficient cooperation. In some Member States custom and/or border guard services do not have competencies on the protection of maritime borders outside Border Control Points. In these cases there is no scope for internal cooperation between these agencies and international cooperation is more difficult to implement”.* Source: Better management of EU borders through cooperation, 2011

⁴² For instance, an inspector in charge of fishery control has the powers to board and inspect any vessel operating in their own waters and, for the purposes of further investigation detain that vessel to the nearest convenient port. The officer has no power to arrest or detain the persons on that vessel. In other Member States’ waters the same officer can undertake inspections of vessels from his own Member State and has powers similar to that in own waters, however, if boarding non-national vessels in other Member States’ waters, whilst the officer during the joint operation has powers to inspect, his powers to act are limited to providing evidence reports to the flag state of the vessel inspected and the coastal state of the waters he is operating within.

(directly⁴³ or indirectly) competing priorities of national authorities performing coast guard functions, and the availability of both their assets and personnel.

Selected stakeholders views on obstacles to performing joint operations

The quotes below come from interviews with stakeholders conducted for this study.

“The harmonisation of legal and administrative procedures to organise, asset sharing / personnel sharing and joint operations is essential for better and more efficient cooperation and coordination of activities”.

“The harmonisation of the administrative and legal procedures in order to organise or implement joint operations could be beneficial to their efficiency”.

“The long administrative and/or legal requirements (e.g. parliamentary approval in some Member States to use military assets) to plan border guards operations (e.g. deployment of assets in a specific geographical area for a specific mission) represents one of the major obstacles for assets sharing between Member States. This in turns creates difficulties to have the right capacity to lead on or organise joint operations”.

“Member States can face legal obstacles when organising joint operations although such obstacles can be easily overcome by agreeing on common requirements.”

“The key obstacle regarding joint operations in the field of border control and law enforcement concerns the legal limitation to data exchange between Member States and EU Agencies”.

2.7.2 The lack of interlinking between systems, processes, assets is a further barrier to collaboration

Consultations suggest a lack of interlinking between systems, processes, assets and general ways of working⁴⁴ is a barrier to collaboration. More specifically, obstacles to activities when collaborating include interlinking of:

- systems: differences between national authorities' systems (e.g. IT and communication tools) may hinder cooperation in areas where timeliness of response is critical. Technical issues cited by stakeholders included technical differences in radio systems or frequency spectrum; difficulties for ensuring direct communications between the inland or off-shore communication systems of different authorities, etc.^{45,46,47}
- procedures: difference in concepts of operation, standards and *modus operandi*^{48,49} hinder cooperation. These different ways of working often originate in difference in institutional competences, powers and obligations as defined in national law.

⁴³ “Competition for the collection of information between customs authorities occurs as these data represents a form of knowledge that increases the Member State’s power”. Source: Better management of EU borders through cooperation, 2011.

⁴⁴ Stakeholders from BE, ES, FR, IE, and PL support this finding.

⁴⁵ For instance, sending a message from one vessel to another requires several steps, different mix of inland and off-shore communication systems and human interaction.

⁴⁶ “The limited interoperability between sector specific local and national surveillance systems prevent effective cooperation in the fields of maritime security”. Ex-post Evaluation of PASR Activities - Maritime security and surveillance - Case study, 2011

⁴⁷ “Different obstacles for cooperation relate to the nature of the maritime surveillance systems used in the different EU Member States: For instance, different public authorities use different surveillance systems based on their specific needs and mandate. The lack of interoperability between these systems prevents efficient information sharing. Source: Integrated maritime policy for the EU - Working documents III on Maritime Surveillance Systems, 2008

⁴⁸ “The variation in the understanding of concepts related to maritime transport and in the domestic or sector specific understanding of the concepts across competent authorities in the Member States may hinder trust

- assets: the interoperability of assets operated by Member State is limited⁵⁰ and there is often a mismatch between the needs of certain Member States and the assets available domestically and in other Member States⁵¹.

Other aspects mentioned by stakeholders are the lack of common language⁵², terminology or common culture. Joint training and joint exercises remain the exception rather than the norm.

The lack of interoperability of authorities' activities may result in missed collaboration opportunities, duplication of efforts and investment. Training, capacity building, research and development or joint exercises or operations are ways to address the above challenges.

Selected stakeholders views on the lack of interlinking between systems, processes, assets and ways of working

The quotes below come from interviews with stakeholders conducted for this study.

"There is a lack of interoperability between systems or process for planning or conducting SAR operations"

"The following obstacles can be easily overcome if the right cooperation and agreements are reached between Member States: [...] the lack of interoperability of the communication and IT systems"

"The lack of common procedure to ensure the safety of sensitive data prevents further information sharing between Member States"

"The key obstacles for assets sharing are: [...] the limited interoperability of assets"

between those authorities and their willingness to deepen cooperation". Source: Baltic Sea Maritime Functionalities - Awareness across boundaries, 2011.

⁴⁹ *"The security sector lacks agreed definitions and operating concepts for security tasks".* Source: Marsuno, Final Report, 2011

⁵⁰ For instance, there is a lack of certain class of assets for specific operations (e.g. lack of capacity to intervene beyond 500 miles limits the range, type and speed of SAR or disaster response operations).

⁵¹ For instance, the decrease in the European aeroplane fleet is reducing the long distance surveillance capacity of the EU 27 and their capacity to intervene.

⁵² *"The lack of common understanding and the different interpretations of terms and concepts used make it very difficult to have functional cooperation".* Source: Marsuno, Final Report, 2011.

3 Measures to enhance coordination and cooperation of coastguard functions

3.1 Introduction

This core purpose of this study is to identify opportunities to improve the effectiveness of delivery of coast guard functions through enhanced cooperation and coordination of various kinds. This section of the report suggests a suite of specific measures, developed in that context, to broaden and strengthen collaboration among national authorities performing coast guard functions.

The preceding chapters have explained that:

- There are benefits to collaboration among coast guards in different EU Member States in terms of service effectiveness and potentially also efficiency;
- There is already extensive collaboration among coast guards across the EU;
- There is no one standard model for such collaboration, but rather a variety of approaches being used, each matched to the nature and geography of the problem being addressed and the institutional, financial and operational context;
- There are barriers of various kinds (institutional structures, human resources, finance, assets availability and compatibility, etc.) which pose obstacles to collaboration

The challenge is to identify actions that address those barriers, are feasible, will provide sustained added value and which do not duplicate or conflict with other initiatives (both live and planned).

The research has made clear that the baseline situation is active (there is a lot happening), diverse (there are many different forms of collaboration working at different levels across the EU) and dynamic (it is constantly evolving). Coast guards are finding ways to work together to address shared challenges such as illegal immigration and environmental pollution more effectively, even as resource constraints tighten and many are being asked to 'do more, with less'. There are many examples of good practice and innovation. New ideas, partnerships and initiatives are emerging all the time at bilateral, regional and EU levels. The European Coast Guard Functions Forum is convening representatives of the community of coast guard to discuss issues of common interest.

The measures that follow are intended to support enhanced collaboration, taking into account the existing legal framework, current and planned initiatives, and the principles of subsidiarity and proportionality. They include:

- Measures that intended to support cooperation and coordination across all coastguard functions, and measures that are targeted primarily at specific functions;
- Measures targeted at each of the major types of activity identified in section 1:
 - Capacity building (section 3.2);
 - Joint operations and sharing of assets (section 3.3);
 - Enhanced Data sharing (section 3.4);
 - Research and innovation (section 3.5).

Proposals for the phasing of the measures over time have been developed and are presented in section 4.

3.2 Capacity building measures

'Capacity building' is here interpreted in a broad sense to include the capacity of coast guard authorities to cooperate and collaborate across borders in Europe, as well as the capacity of specific institutions to carry out their designated functions. The proposed measures are to:

- Build that capacity to collaborate through supporting tools that supporting networking between coast guards in different Member States, developing a vision/strategy/plan for EU coast guard collaboration;
- Improve collaboration on training issues through a phased set of actions;
- Construct and maintain new pools of experts on topics relevant to coast guard functions.

3.2.1 Building the coast guard community's capacity

Problem definition and purpose of action: There are more than 300 authorities providing coast guard functions in the EU. It is clear that there is more to be done to build an EU community of coast guards which can help its members to meet common challenges by facilitating communication and linkages as well as lowering the barriers to them working together where it makes sense to do so. There are some relatively well-developed examples that do this at a regional level (e.g. for the Baltic Sea and Black Sea) but there has been less at EU level. Similarly, on a functional level and in relation to specific tasks (e.g. the High level Steering Group on SafeSeaNet or the Places of Refuge working group) there is considerable work underway. The question arises of how to replicate these types of geographical or functional collaboration into other areas.

Specific actions: The proposed action is to facilitate, support and enable networking between coast guards authorities of the Member States that:

- Facilitates peer-to-peer exchange and learning on technical matters, and provides strategic leadership to the community of coast guard authorities in the EU;
- Concentrates on supporting cooperation and coordination on technical and operational issues, with a work programme determined and owned by the Member States' coast guard authorities.

This would require sufficient resource capacity to provide such facilitation and coordination, but be project focused (i.e. its efforts would be focused on supporting specific, practical initiatives that address members' needs).

Benefits: The benefits would be an enhanced communication and collaboration across multiple issues, providing an increased capacity for the coast guard authorities to move forward on other specific measures, such as training. It could also provide enhanced coordination, helping to identify priorities and initiate action.

Costs: For this initiative EU funding would be needed at the outset, focused on actions as the training initiative detailed below in section 3.2.4. Some common funding for a coordination and communication function would also be needed.

Whilst EU funds are likely to be needed, a medium term strategy that relied on Member States for some share of the funding would help to keep the platform lean and focused on their needs.

Barriers and risks: Of all the existing structures, the European Coast Guard Functions Forum (ECGFF, <http://www.ecgff.eu/>) is suitably placed to provide leadership and direction in this regard. The ECGFF which represents the practitioners of coast guard functions possesses the technical expertise and operational leadership to support such an initiative and provide a platform for Member States (working together with interested EU institutions) to move forward.

The manner by which this collaboration forum is developed is very important. In particular:

- Any strategic vision for collaboration among coast guard services in Europe needs to be developed and owned by the Member States authorities. Consultations for this study

suggest a strong view that, as a general principle, structures for operational collaboration need to be 'flat' and based on peer-to-peer engagement, rather 'top-down' direction (including, beyond existing arrangements, from EU bodies);

- One of the most consistent themes to emerge from the consultation at Member State level was stakeholders' aversion to creation of new institutions and structures in what is already a very crowded landscape. Their priority is to understand the complexity, not add to it. Many are wary, especially in the current budgetary context, of proposals that could create new institutions that might be more focused on their own growth and influence than on meeting the needs of their clients/funders.

Recognising those issues, the focus here is on facilitating peer-to-peer communication and building the community's capacity to collaborate, rather than building a new institution.

The peer-to-peer collaboration and networking supported by this action would work within the framework established by EU law, the mandates of the Commission and the EU agencies (e.g. FRONTEX, EMSA) and EU systems (e.g. Eurosur, SSS). The collaborative forum would not be mandated to take policy initiatives.

The European Coast Guard Functions Forum

The European Coast Guard Functions Forum is a non-binding, voluntary, independent and non-political forum whose membership includes the Heads of the Coast Guard Functions or equivalents of each European Union maritime nation and associated Schengen countries, the European Commission and its Institutions and Agencies with related competencies in Coast Guard Functions.

The overall aim of the Forum is to study, contribute to and promote understanding and development of maritime issues of importance and of common interest related to Coast Guard Functions across borders and sectors, both civil and military, and to contribute to progress in the various CGF activities.

Source: *The European Coast Guard Functions Forum website*. <http://www.ecgff.eu/mission-tasks>. Accessed 21 February 2014.

3.2.2 Development of a common statement of strategy for EU coast guard authority collaboration

Problem definition and purpose of action: As noted above, listing opportunities for increased collaboration among coast guard authorities will not, in itself, engender change in the way services are delivered. There is at present no joined-up statement of strategy explaining the challenges that coastguards (looking across all functions) face in the EU and the role that collaboration has in helping them address those issues. Where action is not already taken, there is value in explaining why and where further collaboration would be beneficial, and position that with the wider context of the changes occurring in the sector. Setting out a set of clear objectives and vision for coast guard functions – developed by coast guards, for coast guards, should help strengthen the strategic framework for collaboration among countries, including specific actions identified in this report that are taken care.

Specific action: It is proposed that a statement of strategy is developed that addresses the challenges the sector faces, and their collective ambition for future joint working in general and for different activities (e.g. training, joint operations). The statement should be developed by the leaders of Member State coast guards working together. The process could be managed via the collaborative forum proposed in section 3.2.1. The strategy would need to be set within the context of EU and existing institutional mandates, strategies, policy initiatives and systems. As such it would need input from and support of the EU Agencies and Commission.

Benefits: This strategy would provide the overall framework within which the other individual measures can be positioned, providing the basis for the direction of travel and prioritisation of specific measures.

Costs: The costs of the measure could be built into the work programme of the collaborative forum and its regular meetings and internal dialogue.

Barriers and risks: The principal challenges are likely to be the process-related issues of conveying the coast guard leaders (and EU institutions as appropriate) and successfully mediating a process of drawing together a common statement of strategy.

3.2.3 Providing tools that support networking among coast guards in different Member States

Problem definition and purpose of action: As noted in chapter 2, institutional complexity is a significant barrier to cooperation. Stakeholders expressed interest in understanding better who does what in other countries and in being able to connect more easily to their peers. This suggests that a short term priority is to address the barriers to flow of information within the community of institutions providing coast guard functions in Europe. The purpose of this measure is to take very practical steps to take down barriers to day-to-day communication and cooperation among coast guard authorities in different Member States.

Specific actions: The following specific actions are proposed under this measure:

- For the database of coast guard authorities and collaborations developed by this project to be used as the foundations of an online database of coast guard authorities, tagged by function, accessible online. This could include details (nominated by Member States) of a contact number in each institution that other coast guard authorities could use. The database would need to be maintained and could be hosted and updated by the collaborative forum introduced in section 3.2.1 (with the support of Member States).
- For the same forum to have a website to be further developed into a coast guard community 'portal' through which coast guards registered with the site can, within a secure online workspace: exchange ideas and innovations, examples of best practice etc. (i.e. non-confidential information relating to how to deliver coast guard functions); and access information on services and capabilities relevant to coast guard functions in other Member States, e.g. details of training coast guard institutions and courses.
- The designation by each Member State of a single point of contact (SPOC) responsible for the cooperation and coordination efforts across national authorities and with other Member States on matters relating to coast guard functions. The SPOC could build on the national contact points already existing in some MS. Information about the SPOC should be available on the website.

Benefits: This measure aims to promote closer collaboration between Member State authorities; acknowledging the complex landscape of national authorities and the variety of cooperation arrangements across the EU. The measure should improve understanding of 'who does what' across Europe, and provide practical information to support collaboration. It is recognised that a number of Member States operate under similar governance arrangements and that some regional networks and EU Agencies have set up national contact points and databases for their respective coast guard functions, adopting this approach for all functions is expected improve their connectivity and facilitate first contacts, sustain collaboration efforts and improve information sharing.

This measure is considered as a basic building block for enabling further cooperation initiatives to take place across the EU.

Costs: The costs of the measure can be scaled to the ambition but would be upwards of €0.2m/yr for directory and collaboration tool management.

Barriers and risks: The database and collaborative features could potentially be integrated into the ECGFF website if the ECGFF was assigned the platform role described in section 3.2.1. Some stakeholders flagged a risk that the SPOC approach could prevent direct communication between relevant coast guard authorities and in that context cautioned against governance arrangements that may be overly stringent. Other stakeholders also mentioned the risk to create confusion with the national contact point (NCP) put in place in specific coast guard functions (e.g. maritime safety or maritime border control respectively by

FRONTEX and/or EMSA). The need for clarity, and to avoid confusion with regard to existing NCPs, will need to be taken into account in designating SPOCs.

3.2.4 Improve collaboration on training and build a network of training institutions⁵³

Problem definition and purpose of action: Maintaining expert training facilities is costly. Some Member States lack access to appropriate facilities. Training is a good means of spreading best practice in coast guard methods but training institutions within the EU are not well networked. The first aim of this measure is to raise awareness of the availability of vocational and academic training courses across the EU relevant to the coast guard community. This would address the lack of awareness of education and training institutions serving the coast guard community in the EU and of their training courses. The next aim is to develop more role maps and common qualification frameworks for coast guard functions, taking as a template the model developed by FRONTEX for border guards. These will enable officers in other coast guard functions to establish the equivalence of roles and of training offers across Member States. On those foundations it will then be more straightforward to promote shared use of the institutions that provide training relevant for coast guard functions.

Specific actions: The proposed actions are (1) to place online information about the coast guard training institutions in the EU in a manner accessible to national coast guard authorities, (2) the development of a European Framework for Qualifications (EFQ) for selected coast guard functions and (3), potentially, the co-financing of joint training sessions focusing on operational procedures and on cross-border and cross-sector cooperation. These would be undertaken sequentially. The first action could be placed with the collaborative forum identified above (the ECGFF is already taking steps consistent with this measure).

This measure would need to be a cooperative effort among Member States, working with the assistance of EU Agencies as and where appropriate. In time it may be that closer coordination of higher level training arrangements would become possible as equivalence of roles across Member States is established and more integrated network of training establishments is developed. It is assumed that basic training would remain with Member States. Development of common competency frameworks in the selected areas would need to be led by a specific body.

It would build on the results of the joint training already co-financed and organised by EU Agencies, the results of the KNOW-ME project and the 2014 initiative of the ECGFF on training and common curriculum for coast guard services.

Benefits: The expected benefits from the measure are: to put in place arrangements that facilitate shared use of training capacity, progress towards establishing the equivalence of roles within coast guard services and associated training across the EU, and 'softer' benefits that could enhance cooperation, such as contributing to the development of a common culture through the harmonisation of ways of working, shared terminology, etc..

Costs: the costs of this measure to the EU depend on the scope and scale of its support, from support to an online platform through development of roles description and common curriculums through to support for training delivery. The 'full package' could cost up to €4.4 million per year over the course of five years⁵⁴, but progress on some of the core components could be made for a much more modest investment.

Barriers and risks: The lack of agencies with the appropriate mandate and capacity to undertake the proposed measures across all functions is a barrier. FRONTEX was able to

⁵³ The detailed feasibility analysis for this measure is provided in Annex A2.4, where this measure is referred to as 'Improvement Opportunity 5'.

⁵⁴ The set up and annual running costs for the online directory of institutions (and where available training modules and materials) are estimated to €500,000 and € 50,000 respectively. The set up costs of developing EQFs and common training curricula for six coast guard functions is estimated to € 3 million in total (or €0.5 million per coast guard function). The annual running costs of coordinating and organising joint training sessions are estimated at € 0.7 million in total (or €0.12 million per coast guard function)

fulfil this role when an equivalent process was undertaken for border guards. The development of joint training should, where ever possible, be vested with existing EU institutions where relevant capabilities and responsibilities are already in place (e.g. FRONTEX for maritime border control, EMSA for maritime safety, EFCA for fisheries control, DG ECHO Civil Protection Mechanism for accident and disaster response). The first stage of the work could be undertaken by collaborative forum described in section 3.2.1, once established. It might also lead the development of common competency frameworks but it would need funds and the convening power necessary to bring Member State representatives together and to negotiate a common position.

3.2.5 Construct and maintain new pools of experts

Problem definition and purpose of action: Research suggests that there are gaps in expertise across the EU. Expertise in one maritime function can apply to and benefit several other functions. Stakeholders considered that maritime law enforcement as well as preparedness and emergency response activities in the SAR function would particularly benefit. There are some expert pools already in place (e.g. mostly maintained by EU Agencies and regional networks). The purpose of this action is to replicate and or extend the function-specific pools of experts across more coast guard functions and so help to address those gaps.

Specific actions: The action is promote the exchange of personnel (i.e. operational staff) and experts between competent Member State authorities by extending the function-specific pools of experts so as to cover all coast guard function thereby including maritime safety, maritime security, maritime customs, and maritime law enforcement. The process would be to: (1) incentivise national authorities to declare or volunteer available expertise across functions to the extended pool(s); (2) develop the administrative tools for the maintenance of a register and an administrative procedure for the nomination and deployment of experts (3) to support a scheme to ensure efficient exchange of personnel and experts for those function not currently benefiting from expert pools. The development and maintenance of these mechanisms should, where ever possible, be vested with existing EU institutions where relevant capabilities and responsibilities are already in place (e.g. FRONTEX for maritime border control, EMSA for maritime safety, EFCA for fisheries control, DG ECHO Civil Protection Mechanism for accident and disaster response).

Benefits: The measure should improve the utilisation of the expertise in Europe, enhance the preparedness and response capacities of Member State authorities and make related activities more effective. As an indirect benefit it is also expected to facilitate more effective operational coordination due to the social network effects of the expert exchanges.

Costs: The costs of this measure are estimated to be €0.9 million per year over a period of five years, assuming EU finance for exchange of expertise. The costs (to the EU) would be less if exchanges of experts called from the pools are funded by Member States.⁵⁵

Barriers and risks: The legal framework for experts' exercising of powers or experts' intervention outside their jurisdictions is generally not easy to establish depending on the function (e.g., strict rules for performing customs and law enforcement activities) and can limit the value of expertise or operations performed by personnel or experts shared.

3.3 Joint operations and asset sharing

The budget restrictions imposed on many of the national authorities performing coast guard functions and the drive for greater efficiency in the provision of coast guard services put a premium on efficient use of coast guard assets. Procurement and maintenance of vessels, aircraft and other assets is a significant drain on resources for many authorities. The improvement opportunities below are intended to promote the organisation of joint

⁵⁵ The set-up and the annual running costs for the development of administrative tools are estimated to €300,000 and €210,000 respectively; the costs of training and exchanging experts are estimated to €775,000 per year. All these costs are assumed to be covered by the EU institutions in their respective sphere of competence.

operations and exercises, and the sharing and potentially the mutualisation of assets to that end.

The recommended actions under the heading of joint operations and asset sharing are:

- To promote asset sharing for search and rescue operations;
- To facilitate cooperation on cross-sector joint operations
- To support mutualisation of assets;

3.3.1 Promote the sharing of search and rescue assets

Problem definition and purpose: Research and consultations have identified issues related to the lack of real time information on the availability of search and rescue (SAR) assets in sea basins, differences in IT and communications tools between SAR operation centres, lack of certain classes of assets to perform specific SAR operations and limited funding for performing SAR operations. There is also a good case for enhancing cooperation in SAR: this is a traditional coast guard service and operates within a clear international legal framework. The purpose of the measure is to facilitate the adoption of common approaches to search and rescue (SAR) to be used across Europe, potentially leading to the designation of lead SAR operational centres for each region over the longer term if partners were willing.

Specific actions: The objectives of this measure will be achieved gradually by, in the short term, supporting the development of common databases of rescue plans and SAR assets, and working towards (in the medium to long term) the harmonisation of SAR IT systems and procedures potentially leading to the mutualisation of SAR assets. The final stage could be the designation of lead SAR operational centres on a regional basis. It is assumed that the earlier stages of the process are led by the European Commission, with Member States taking the lead on establishing regional operational centres (if implemented).

Benefits: These actions will contribute towards the improved utilisation of assets in territorial as well as in international waters and increase the efficiency of SAR interventions.

Costs: The cost of the measure depends on the extent to which this measure can build on other measures. The minimum costs of implementing the measure are estimated at €270,000 a year over five years for the development of common databases of rescue plans and assets. The maximum costs of implementing the measure are estimated to €4 million annualised over five years⁵⁶.

Barriers and risks: SAR operations requiring cross-border cooperation occur intermittently. The aim would therefore be to facilitate the emergence of common SAR practices whenever and wherever such practices are needed, and avoid a 'heavy handed' implementation. Feedback from stakeholders greatly supports further cooperation and harmonisation of practices, systems and mutualisation of assets in this area. Establishing common databases for SAR plans or register of SAR assets should be feasible but the real difficulty is the setup, collocation of or designation of lead SAR operational centres on a regional basis which represents most of the costs of the measure – but is set as a later stage activity.

3.3.2 Facilitate cooperation on cross-sector joint operations

Problem definition and purpose of action: Numerous joint operations are performed by coast guard services in the EU Member States' territorial waters, mainly in the fields of border control, maritime pollution and fisheries control. Joint operations often focus on one specific function although the presence of joint operations in one area could benefit other

⁵⁶ The maximum costs include: The set-up and running costs for establishing a common database of rescue plans are estimated to €400,000 and €40,000 respectively. The set-up and running costs for establishing a common database of SAR assets are estimated to a maximum of €700,000 and €50,000 respectively. The development of a pilot common SAR system and process standards ensuring common ways of working have been estimated to €1.8 million over three years. The running costs of setting up three regional SAR operational centres are estimated to €3.3 million a year.

functions⁵⁷. There are benefits to intensifying those efforts and or extending this model across more coast guard functions, especially in those areas affected by multiple risks or threats⁵⁸. The purpose of this measure is to facilitate the joint planning and coordination of cross-sector joint operations in specific regional areas.

Specific actions: (1) the definition of operational procedures and governance models for undertaking cross-sector joint operations, (2) planning exercises or ways in which assets and personnel can be shared during cross-sector joint operations and address the operational needs of multiple coast guard functions. The responsible parties would be EU Agencies and DGs already running joint operations or not with the support of the ECGFF ensuring coordination of efforts.

Benefits: The early prevention of threats materialising in international waters, improved operational efficiency derived from cooperation (e.g. sharing of resources, joint working and the exchange of information, increased patrolling capacity at lower costs, potential to promote to common ways of working and common culture as well as the common understanding and prioritisation of risk).

Costs: The annual costs of the measure are estimated at €1 million per year for the EU, though clearly this will flex with the scale of the ambition.

Barriers and risks: The implementation of the measure could be done in the medium term only because of financial implications for the EU budget. Practical implementation challenges mainly relate to the legal obstacles to asset and personnel sharing and limitations in the (legal) ability of Member State authorities to intervene outside their territorial waters or jurisdictions. The financing of joint operations is also a challenge and potentially limiting scope. The extent to which Member States will only respond to financial incentives to engage in operations which are costly by nature would need to be explored.

3.3.3 Promote and support mutualisation of assets

Problem definition and purpose of action: A large share of coast guard authority budgets is spent on operating and maintaining operational assets (e.g. vessels, aircraft). In times of financial austerity, it has become more difficult for coast guard services to invest in (or sometimes maintain) these assets. Asset sharing⁵⁹ regularly take place on a regional and EU basis, but these tend to address the needs of specific coast guard functions, with limited coverage of geographical areas and for a limited period of time. Consultations also led to the identification of potential needs for mutualising long range maritime surveillance (satellites or aircraft (at EU level); specialised pollution control equipment (at regional level); standard multi-functional vessels (at regional level) and tug boats (at bilateral or multilateral level). The purpose of this measure is to address this problem by promoting the mutualisation of coast guard services' assets (e.g. environmental protection assets, tug boats, aircraft on a regional basis and of surveillance aircrafts at EU level).

Specific actions: This measure contains three types of actions: (i) the investigation of models of good practice for the mutualisation (sharing) of assets across all coast guard functions leading to a recommendation of good practice principles (taking into account contexts of different sea basins); (ii) the development of a common database of assets potentially available for mutualisation (subject to testing of the concept via the collaborative forum and other forums) and (iii) the use of existing EU financial instruments, and the promotion of specific eligibility criteria for Member State authorities to receive funding, so as support the purchase of interoperable assets in the same sea basin and allow financing of

⁵⁷ This could take different forms, from the training of officials reporting of suspicious activities relevant to other coast guard functions, to the presence of officials representing other CG functions on board of an asset participating in a joint operation, or the planning and coordination of efforts of authorities performing coast guard function in a specific maritime area, sea basin or region.

⁵⁸ e.g. a combination of high volumes of maritime traffic, economic activities, criminal activities and a protected environment.

⁵⁹ As opposed to asset mutualisation.

jointly owned assets⁶⁰. EU Agencies and DGs, particularly those with mechanisms that facilitate the sharing of assets (e.g. FRONTEX with CRATE; EMSA with pollution control vessels; DG ECHO's Civil Protection Mechanism) would have an important role in developing and administering initiatives in this area.

Benefits: The benefits expected from this measure are the gradual elimination of the duplicated efforts, ultimately leading to efficiency savings and gradual harmonisation on common processes for the regional use of (multi-purpose) assets⁶¹.

Costs: The costs of the measure are estimated to be € 0.5 million a year over five years.⁶²

Barriers and risks: There are significant barriers to cross sector cooperation (i.e. authorities' budgets are dedicated to specific coast guard functions, there is a clear hierarchy of priorities potentially conflicting with cross-sector cooperation priorities, etc.). Promoting asset mutualisation through the use of eligibility criteria in EU financial instruments may alleviate such risks but may not be feasible in the short term because of the nature of the programming cycle of such instruments (e.g. Internal Security Fund or DG ECHO Civil Protection mechanism). Member States have a long tradition of a sector based approach to interventions at sea but budgetary pressures may incentivise further cooperation across borders and coast guard functions to supplement and back each other up but not replace each other.

3.4 Data sharing

Three measures have been identified that would facilitate greater cooperation between Member States by improving communication between respective national systems by providing tools and procedures to facilitate the exchange of information. These are:

- Promote and build on existing common frameworks for information sharing;
- Promote and build on existing standards, procedures and tools.
- Collection and dissemination of activity and benchmarking data

Data sharing is often a problematic area – among authorities in Member States as well as between countries. These measures are therefore regarded as among the more difficult actions to successfully implement and are handled as such in the roadmap defined in section 4.

3.4.1 Promote and build on existing common frameworks for information sharing

Problem definition and purpose of action: National authorities are already connected across functions and borders, but there would be benefits to enhancing the exchange of information and data. Conservative interpretation of rules⁶³ may hinder the flow of information between authorities performing coast guard functions. The purpose of this

⁶⁰ This measure is an alternative to the direct provision of additional co-financing for the mutualisation of assets and uses existing financial instruments to promote asset mutualisation at different levels of governance and across coast guard functions.

⁶¹ For an illustration of potential benefits see also section 2.6.2. Examples of best practices in this area also include:

- FRONTEX Technical Equipment Pool (TEP) is a voluntary mechanism to make equipment available to Member States in the case of exceptional pressure. It is composed of four different parts: Equipment owned and shared by the Member States; Equipment owned and shared by FRONTEX; Equipment co-owned by FRONTEX and a Member States; leased equipment/surveillance services.
- SWEDENGER, a trilateral agreement between Denmark, Sweden and Germany to cooperate in combating pollution of the sea by oil or other harmful substances, concerns the organisation of joint surveillance flights to ensure efficient use of the assets.

⁶² The study for recommending good practices for mutualisation of assets will cost < €1,000,000 (one-off cost). Actions related common database of assets will amount to < €500,000 in set up costs and €210,000 in running costs. It is assumed that these costs would be met from EU funds.

⁶³ For instance, the rules around the classified nature of the information and data protection..

measure is to address that problem with the aim of enabling information to be shared more rapidly and effectively between coast guard authorities.

Specific actions: The specific actions proposed are: (1) a study to (i) map the existing cross-border and cross-sector information flows and their legal basis; (ii) identify obstacles and good practices for the exchange of information; leading to (2) selection and promotion of a common framework for data and information exchange applicable to national institutions and regional cooperation networks as well as a common framework for data and information exchange⁶⁴ applicable to EU Agencies and then to Member States.

Benefits: Stakeholders view benefits from this measure in improving the cost effectiveness and timeliness of data and information exchange⁶⁵. This could ultimately lead to more effective operations at sea.

Costs: The costs of the measure are estimated at € 0.1 million per year over a five year period⁶⁶.

Barriers and risks: The measure is constrained by (i) cultural differences and perceptions in information sharing (ii) the technical capabilities and/or costs to interlink (although to a lesser extent).

3.4.2 Promote common standards, procedures, and tools to analyse shared information

Problem definition and purpose of action: With the development of any new platforms and systems for data exchange, there is a risk of information overload and duplication of the data collected. The purpose of this measure would be to complement and build on the existing systems by facilitating common analytical standards and procedures. It should acknowledge systems (e.g. EUROSUR, SafeSeaNet, CECIS) and build on the analytical procedures they have developed. The aim would be to enhance analytical capability of Member State authorities so as to share analytical capabilities and make the best use of the information shared.

Specific actions: This will include as a first step defining a risk management framework, associated procedures for data analysis and the piloting of IT tools to process and analyse the data being shared; tools that could be implemented in the different Member States.

Benefits: After full implementation, the measure will reinforce and increase situational awareness and increase the efficiency of evidence based decision making / planning; and lastly avoid the potential duplication of efforts in analysing the data being shared.

Costs: the costs of the measure are estimated at €1.5 million per year over period of five years⁶⁷.

Barriers and risks: The risks to implementation include the barriers to the exchange of sensitive information, adequate systems to enable the information exchange and the ownership and control over the data being shared. Although these risks are not unsurmountable, they might only be overcome in the longer term, once the value derived from analyses provides a clear case for investing in this field.

⁶⁴ The Framework will specify the classification of a range of data and information to be exchanged, the rules for exchanging the data and information depending of their classification, the principles for exchanging the data (e.g. enabling systematic data exchange rather than data exchange on a need to know basis), systems through which data can be exchanged depending on the classification, authorised sharers and recipients, templates of memorandum of understanding for proceeding with data and information exchanges, etc.

⁶⁵ The measure can also add value to existing data collection exercises by exploiting the full potential of the data collected through information sharing and hence increasing its worth: e.g. data being collected once and then being used many times and by different authorities.

⁶⁶ The set up costs of the measure are estimated to €675,000. They are to be covered by the European commission and implemented by EU Agencies and Member States as part of business as usual activities

⁶⁷ The set-up costs of the measure relate to and are estimated to €4.5 million to develop the analytical frameworks per function and the IT tools and the running costs are estimated to € 0.6 million per year for organising meeting amongst the analyst user groups

Feasibility: The measure is considered to be feasible but there are risks to the implementation of the long term actions (i.e. common analysis tools).

3.4.2.1 *Collection and dissemination of activity and benchmarking data*

Problem definition and purpose of action: As part of the process of building a more cohesive EU coast guard community there is value in improving the information available on its inputs, outputs and achievements. There is a general lack of awareness and information on the nature, volume and overall performance of the activities undertaken by authorities performing coast guard functions. This measure will address this information gap by assessing the information needs, as determined by stakeholders, and gathering information required to establish key indicators for the different levels of governance and coast guard functions. This activity would complement ongoing data collection and reporting exercises taking place at EU and national levels.

Specific actions: This measure will (i) map the information already collected and remaining information and reporting needs of Member State stakeholders (ii) launch a regular process by which the requisite data would be solicited/provided and then reported back to stakeholders. There are two ways in which both steps could be delivered: facilitated via the forum of national authorities (suggested in section 3.2.1) or via an external party (e.g. external contractor).

Benefits: The benefits of the measure are mainly to be found in the increased institutional awareness of respective activities, capabilities, problems, needs and impact of coast guard services leading to better decision making and joint prioritisation. The data collection and reporting process could, if participating authorities wished, develop benchmarking facilities.

Costs: the costs of the measure depend on how it is implemented but are estimated at €0.2 million per year over period of five years⁶⁸.

Barriers and risks: The risks to implementation mainly relate to the need to avoid creating additional administrative burden associated with the data gathering and potential issues posed by the classification of the data. There are some functions for which this might be easier (e.g. SAR, maritime safety) than for others (e.g. maritime security, law enforcement).

3.5 **Research and innovation**

3.5.1 **Improve cooperation on R&D and innovation**

Problem definition and purpose of action: Few authorities performing coast guard functions engage in research and development activities and are aware of research undertaken in other Member States. When they do the overall budget allocated to national and joint research activities is relatively low. Consultations also suggested that although the EU level funding in maritime related research is significant, research actions have not focused on developing innovative coast guard services or new operational ways in which those could be delivered. The purpose of the measure is hence to raise awareness of past and existing research funding across coast guard functions (e.g. Framework Programmes, Regional and other multi-lateral initiatives) so as to translate previous and current research outcomes into service innovations fit for operational use.

Specific actions: The specific actions proposed are (i) to provide a comprehensive picture of the past and current research projects and programmes at national, regional and EU level, (ii) to draft, through a consultative process, a statement of research priorities for the next five years and work to match this to available research funding (iii) to promote and mainstream previous research outputs to national authorities performing coast guard services. Raising

⁶⁸ There are two ways through which to deliver this measure: (1) facilitated via the online platform of national authorities and coordinated by the ECGFF and (2) via external parties. The cost of the first implementation options are assumed as business as usual while the costs of implementation of the measure via the second options are estimated to half a million for the mapping of current data collection and reporting exercises and to €100,000 a year for the cost of running the survey.

awareness of the current programme of research could be facilitated by the forum suggested in 3.2.3.

Benefits: This measure is expected to incentivise collaboration around innovation in coast guard services as well as increase intellectual capital and the development of services and products conducive to greater efficiency of coast guard services.

Costs: The costs of this measure depend on how it is implemented but are conservatively estimated at €0.1 million per year over a five-year period⁶⁹.

Barriers and risks: The risks to implementation mainly reside in the lack of experts supporting such programmes, and the challenge of reaching agreement on research priorities.

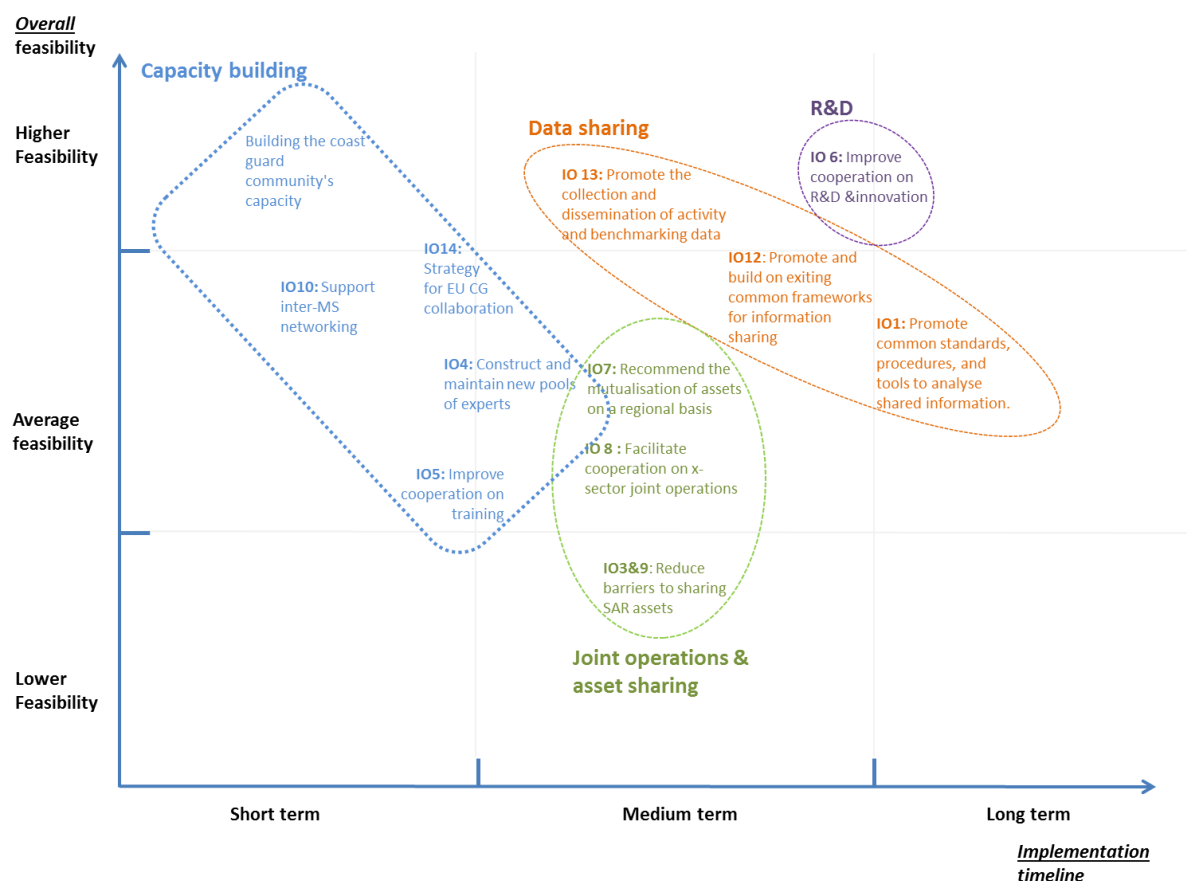
⁶⁹ The set-up costs of the measure i.e. study mapping research projects leading to the formulation of a comprehensive programme of research are estimated to half a million. The costs for promoting and mainstreaming research outputs could be considered as business as usual for the EU Commission or the ECGFF.

3.6 Synthesis

This study has identified opportunities to increase the effectiveness and efficiency of coast guard services in the EU. Capacity building measures are considered as strategic and high priority in view of their potential to deliver a range of direct and indirect benefits. Core actions are to establishing a strategy for enhancing collaboration in coast guard services, building and supporting a cross-EU collaboration platform connecting national authorities, collaboration structures at regional and EU level, putting in place liaison officers to help coast guards network more easily and so navigate the institutional complexity that is a feature of these functions. Work on common training arrangements and the exchange of experts could also add value. Once a forum for collaboration is established, consistent information exchange should take place via common frameworks for exchanging information, analytical procedures and tools and general awareness of the nature and volume of coast guard services delivered throughout the EU 28. Joint operations and asset sharing have the greatest potential to enhance collaboration in the longer term but may be difficult to further strengthen in view of the implementation risks and cost involved.

The improvement opportunities have been assessed against the feasibility criteria outlined in the methodological annexes⁷⁰: The appraisal is shown in detail in the annexes and summarised below.

Figure 3.1 Feasibility and implementation timeline of improvement opportunities grouped by cooperation focus



The costs of implementation do not take into account potential cost savings derived from the measures and have been plotted against their implementation timeline⁷¹. There is 'flex' and a number of implementation options available for many of the measures discussed but on the

⁷⁰ Refer to Annex 5 for a full description of the methodology used.

⁷¹ Note that they may slightly differ from the aggregated costs reported in Annex 4 since the costs reported in the roadmap have not been annualised.

assumptions developed for this study, implementing the whole roadmap of suggested measures over the long term implies an increase by about €14 million in yearly budgeted expenditure. However, it is unlikely that the EU and Member States would implement all the measures in the short term, so that there is a high likelihood that these costs will be spread over the longer term and that existing funding may be diverted to fund some or all of the actions suggested in the roadmap.

On the assumptions made in this early stage analysis two thirds of that would be supported by EU institutions and the remaining third by Member States. Strategic actions are the least costly to implement and have the potential to deliver the greatest benefits and ultimate impacts. The order of priority and scheduling of specific actions is further described and commented on in the subsequent sections.

Table 3.1 Summary of measures

| Activity | Suggested measures | Proposed form of coordination | Target Coast guard functions | Overall feasibility | Level of direct benefits | Priority |
|--|--|--|---|----------------------------|---------------------------------|-----------------|
| Capacity building <i>Technical and operational assistance (e.g. joint training, institutional capacity building, promotion of common standards, approximation of legislation) and interoperability of systems and assets)</i> | Building the coast guard community's capacity | Structured cooperation between Member States | All | Average | Average | High |
| | Development of a common statement of strategy for EU coast guard collaboration (IO-14) | Structured cooperation between Member States | All | High | Average | High |
| | Support inter-MS networking (IO-10) | Structured cooperation between Member States | All | High | High | High |
| | Improve collaboration on training and build a network of training institutions (IO-5) | Structured cooperation between Member States | All – with a focus on specific functions where EU level training is lacking | Average to low | High | High |
| | Construct and maintain new pools of experts (IO-4) | Structured cooperation between Member States | All – with a specific focus on Maritime customs, maritime law enforcement. | High | High | High |
| Joint operations & asset sharing | Promote sharing of search and rescue assets (IO-3&9) | Structured cooperation | Search and rescue | Average | High | Average |
| <i>Leading operations in conjunction with other coast guard</i> | Facilitate cooperation on cross-sector joint operations (IO-8) | Structured cooperation between Member States / structured regional cooperation | All | Average | High | Average |

| | | | | | | |
|--|--|---|-----|----------------|----------------|----------------|
| <i>forces in a specific geographical area</i> <i>Sharing of assets performing coast guard functions in cross border or EU-level operations and for a specific purpose</i> | Promote and support mutualisation of assets (IO-7) | Structured cooperation between Member States, potentially leading to <i>ad hoc</i> or permanent coordination of Member States coast guard functions | All | Average | Average | Average to low |
| Data sharing | Promote common frameworks for information sharing (IO-12) | <i>Ad hoc coordination</i> of Member States coast guard functions | All | Low to average | High | Average to low |
| <i>Intelligence, information management reporting and exchange information</i> | Promote common standards, procedures and tools (IO-1) | Structured cooperation between Member States. | All | Average | High | Low |
| | Promote the collection and dissemination of activity and benchmarking data (IO-13) | Structured cooperation between Member States | All | High | Average to low | High |
| Research development and innovation: <i>Developing concepts, projects or pilots of novel nature eventually involving the use of emerging technologies</i> | Improve cooperation on R&D and innovation (IO-6) | Structured cooperation between Member States | All | High | High | High |

4 Roadmap

This section proposes a roadmap for implementing the proposed measures. It suggests a phasing of specific actions over the short, medium and long term, with these being defined as follows:

- Short term – within a year (i.e. end of 2015)
- Medium term – within the next three years (i.e. end of 2017)
- Long term – within the next five years (i.e. end of 2019)

The implementation timetable takes January 2015 as a starting date to account for internal decision making, budget and programme planning of EU institutions, regional networks and or of the Member States' authorities. The phasing of the actions related to the improvement opportunities has been based on sequencing actions so as to make the most progress towards the objectives of the measures.

The programme can be scaled to the availability of resources. The analysis suggests that there are straightforward, low cost actions that would help to improve the conditions for collaboration among coast guard authorities and opportunities to move forward in a number of key areas with relatively modest investment.

Figure 4.1 The roadmap of the implementation of the improvement opportunities

| Focus | Improvement opportunities | Short term | Medium term | Long term | | |
|---|---|--|---|---|---|---|
| Capacity building | Support inter-Member State networking (IO-10) | <i>Designate SPOC & set up corresponding national governance arrangements</i> | <i>Set up online collaboration platform with information on Member States' authorities</i> | | | |
| | Construct and maintain new pools of experts (IO-4) | <i>Incentivise national authorities to declare or volunteer available expertise across functions to the extended pools</i> | <i>Develop administrative tools for the maintenance of a register and management of the deployment of experts</i> | <i>Finance a scheme to ensure efficient exchange of personnel and experts for those function not currently benefiting from expert</i> | <i>Finance a scheme to ensure efficient exchange of personnel and experts for those function not currently benefiting from expert</i> | <i>Finance a scheme to ensure efficient exchange of personnel and experts for those function not currently benefiting from expert</i> |
| | Improve collaboration on training and build a network of training institutions (IO-5) | <i>Place online information about the coast guard training institutions in the EU</i> | <i>Develop European Qualification Frameworks for coast guard services</i> | <i>Co-financing of joint training sessions focusing on cross-border and cross-sector cooperation</i> | <i>Co-financing of joint training sessions focusing on cross-border and cross-sector cooperation</i> | <i>Co-financing of joint training sessions focusing on cross-border and cross-sector cooperation</i> |
| | Development of a strategy for EU coast guard authorities' collaboration (IO-14) | <i>Develop joint 'vision' statement for coast guard authorities from different countries to collaborate</i> | | | | |
| Data sharing | Promote or build on existing common frameworks for information sharing (IO-12) | <i>Map x-border information flows and their legal basis</i> | <i>Common framework for data and information exchange for EU institutions</i> | | | |
| | Promote common standards, procedures and tools (IO-1) | <i>Set-up common risk management and analytical framework</i> | <i>Pilot IT analysis tools</i> | <i>Pilot IT analysis tools</i> | <i>(implement standards, framework and IT tools)</i> | <i>(implement standards, framework and IT tools)</i> |
| | Promote the collection of statistics and their dissemination (IO-13) | <i>Study assessing the information needs of the targeted stakeholders</i> | <i>Conduct survey and report results</i> | <i>(Conduct survey and report results)</i> | <i>(Conduct survey and report results)</i> | <i>(Conduct survey and report results)</i> |
| Joint operations | Promote asset sharing for search and rescue operations (IO-3&9) | <i>Set up EU-wide database on rescue plans</i> | <i>Set up common databases of SAR assets</i> | | <i>Encourage the development of common SAR standards & systems</i> | <i>Facilitate the emergence of Regional SAR operational centres</i> |
| | Facilitate cooperation on cross sector joint operations (IO-8) | <i>Define operational procedures and governance models for undertaking cross-sector joint operations</i> | <i>Organise planning exercises or ways in which assets and personnel can be shared during cross-sector joint operations</i> | <i>Organise planning exercises or ways in which assets and personnel can be shared during cross-sector joint operations</i> | <i>Organise planning exercises or ways in which assets and personnel can be shared during cross-sector joint operations</i> | <i>Organise planning exercises or ways in which assets and personnel can be shared during cross-sector joint operations</i> |
| | Promote and support mutualisation of assets (IO-7) | <i>Investigate on models of good practice for the mutualisation of assets across all coast guard functions</i> | <i>Develop a common database of assets</i> | <i>Promote of the use of eligibility criteria in existing EU financial instruments conducive to the adoption of good practice</i> | <i>Promote of the use of eligibility criteria in existing EU financial instruments conducive to the adoption of good practice</i> | <i>Promote of the use of eligibility criteria in existing EU financial instruments conducive to the adoption of good practice</i> |
| R&D-innovation | IO 6: Improve cooperation on R&D & innovation | <i>Study on past or current research projects related to cooperation in coast guard services</i> | <i>Publish comprehensive programme of research</i> | <i>Promote previous research outputs to coast guard authorities</i> | <i>(Promote previous research outputs to coast guard authorities)</i> | <i>(Promote previous research outputs to coast guard authorities)</i> |
| Timetable | | 2015 | 2016 | 2017 | 2018 | 2019 |
| Total financial costs (in million EURO) | Strategic IO - 4, 5, 10 & 14 | 0.6 | 7.0 | 8.9 | 5.9 | 5.9 |
| | Specific IO - 1, 3&9, 6, 7, 8, 12 & 13 | 7 | 4 | 2 | 3 | 5 |

4.2 Short term measures and actions

This section details the actions to be undertaken in the short term.

Table 4.1 Specific short term measures and related actions

| Improvement opportunity | Specific action | Comments |
|---|---|---|
| Support inter-Member State networking | Establish/support collaboration forum among lead CG authorities | These strategic actions should be prioritised over other actions in this table. Actions related to improvement opportunities IO-4 and IO-5 would benefit from the implementation of SPOCs and of the online collaboration platform. The latter is also complementary to the ECGFF's project on training as part of the 2014 work programme. |
| Construct and maintain new pools of experts (IO-4) | Incentivise national authorities to declare or volunteer available expertise across functions to the extended pools | |
| Support inter-MS networking (IO-10) | Establishing directory and online networking tools | |
| Improve collaboration on training and build a network of training institutions (IO-5) | Place online information about the coast guard training institutions in the EU | |
| Development of a strategy for EU coast guard authorities' collaboration (IO-14) | Develop joint 'vision' statement for coast guard authorities from different countries to collaborate | |
| Promote and build on existing common frameworks for information sharing (IO-12) | Map x-border information flows and their legal basis | This is a preparatory action on which the implementation of medium term actions depends. |
| Promote common, procedures and tools (IO-1) | Set-up common risk management and analytical framework | This is preparatory action on which the implementation of medium term to long term actions depends. It is independent from the implementation of IO-12 |
| Promote the collection of statistics and their dissemination (IO-13) | Study assessing the information needs of the targeted stakeholders | This is preparatory action on which the implementation of medium term to long term actions depends. |
| Promote asset sharing for search and rescue operations (IO-3&9) | Set up EU-wide database on rescue plans | This is preparatory action on which the implementation of medium term to long term actions depends. |
| Facilitate cooperation on cross sector joint operations (IO-8) | Define operational procedures and governance models for undertaking cross-sector joint operations | This is preparatory action on which the implementation of medium term to long terms actions depend. |
| Promote and support mutualisation of assets (IO-7) | Investigate on models of good practice for the mutualisation of assets across all coast guard functions | This is preparatory action on which the implementation of medium term to long terms actions depend. |
| Improve cooperation on R&D & innovation (IO-6) | Study on past or current research projects related to cooperation in coast guard services | This is a preparatory action on which the implementation of medium term actions depends |

4.3 Medium term measures and actions

This section details the actions to be undertaken in the medium term.

Table 4.2 Specific medium term measures and related actions

| Improvement opportunity | Specific action | Comments |
|---|--|--|
| Support inter-Member State networking | | This is a strategic action that should be prioritised over other actions in this table. It can also support actions mentioned IO 4, IO 5 and IO 13. |
| Support inter-MS networking (IO-10) | MS to develop single point of contract | |
| Construct and maintain new pools of experts (IO-4) | Develop administrative tools for the maintenance of a register and management of the deployment of experts | These actions would need to take into account developments in some coast guard functions which are more advanced in the area (e.g. Maritime border control, maritime surveillance and to a lesser degree maritime pollution and prevention control, accident and disaster response). |
| | Finance a scheme to ensure efficient exchange of personnel and experts for those function not currently benefiting from expert pools | |
| Improve collaboration on training and build a network of training institutions (IO-5) | Develop European Qualification Frameworks for coast guard services | |
| | Co-financing of joint training sessions focusing on cross-border and cross-sector cooperation | |
| Development of a strategy for EU coast guard authorities' collaboration (IO-14) | Development of statement of strategy on EU coast guard collaboration | Follow up actions may be necessary for these improvement opportunities over the medium and long term but no such action can be foreseen at present. |
| Promote and build on existing common frameworks for information sharing (IO-12) | Common framework for data and information exchange for EU institutions | Depending on the development of CISE and related obligations on Member States with regard to data exchange, this action may not be necessary. |
| Promote common standards, procedures and tools (IO-1) | Pilot IT analysis tools | This action is independent of the development of CISE and or IO 12 but is complementary to such measures. |
| Promote the collection of statistics and their dissemination (IO-13) | Conduct survey and report results | These actions are dependent on the implementation of related short term actions. |
| Promote asset sharing for search and rescue operations (IO-3&9) | Set up common databases of SAR assets | Efficiency savings may be further derived through the joint and coordinated implementation of these actions under IO 3&9 and IO 7 |
| Facilitate cooperation on cross sector joint operations (IO-8) | Organise planning exercises or ways in which assets and personnel can be shared during cross-sector joint operations | |
| Promote and support mutualisation of assets (IO-7) | Develop a common database of assets | |
| | Promote of the use of eligibility criteria in existing EU financial instruments conducive to the | This action is independent on the implementation of related short term actions. |

| Improvement opportunity | Specific action | Comments |
|--|--|---|
| | adoption of good practice | |
| Improve cooperation on R&D & innovation (IO 6) | Publish comprehensive programme of research | This action is dependent on the implementation of related short term actions. |
| | Promote previous research outputs to coast guard authorities | This action is dependent on the implementation of related short term and medium term actions. |

4.4 Long term measures and actions

This section details the actions to be undertaken in the long term.

Table 4.3 Specific long term measures and related actions

| Improvement opportunity | Specific action | Comments |
|---|--|--|
| Support inter-Member State networking | - | Follow up actions may be necessary for these improvement opportunities over the long term but no such action can be foreseen at present. |
| Support inter-MS networking (IO-10) | - | |
| Construct and maintain new pools of experts (IO-4) | Finance a scheme to ensure efficient exchange of personnel and experts for those function not currently benefiting from expert pools | These actions are the continuation of medium term actions. |
| Improve collaboration on training and build a network of training institutions (IO-5) | Co-financing of joint training sessions focusing on cross-border and cross-sector cooperation | |
| Development of a strategy for EU coast guard authorities' collaboration (IO-14) | | Follow up actions may be necessary for these improvement opportunities over the long term but no additional action can be foreseen at present. |
| Promote and build on existing common frameworks for information sharing (IO-12) | | |
| Promote common standards, procedures and tools (IO-1) | (implement standards, framework and IT tools) | These actions are the continuation of medium term actions. |
| Promote the collection of statistics and their dissemination (IO-13) | (Conduct survey and report results) | |
| Promote asset sharing for search and rescue operations (IO-3&9) | Encourage the development of common SAR standards & systems | This action can be scheduled over the medium term but is better placed as a long term action. |
| Facilitate cooperation on cross sector joint operations (IO-8) | Organise planning exercises or ways in which assets and personnel can be shared during cross-sector joint operations | These actions are the continuation of medium term actions. |
| Promote and support mutualisation of assets (IO- | Promote of the use of eligibility criteria in existing EU financial | |



| Improvement opportunity | Specific action | Comments |
|---|--|----------|
| 7) IO 6: Improve cooperation on R&D & innovation | instruments conducive to the adoption of good practice (Promote previous research outputs to coast guard authorities) | |

Annex 1 Summary of the proposed measures

This annex provides details on the relative characteristics of measures identified to enhance cooperation between Member State authorities performing coast guard functions. It reviews the focus of the proposed measures, the problems they address, and their actions in specific functions. Table A1.1 summarises the measures, which hereinafter are described as 'improvement opportunities'.

Two of the potential improvement opportunities identified at the interim stage of the project were discarded in the final phase analysis (action on standards for registering small leisure boats and action on cooperation with third countries) on the basis of feasibility and subsidiarity respectively.

Table A1.1 Summary of improvement opportunities (IOs)

| Reference | Title | Focus |
|------------|--|---|
| IO-1 | Promote common standards, procedures, and tools to analyse shared information <ul style="list-style-type: none"> ■ Adopt a risk management framework including analytical standards and procedures, and development, ■ Pilot and test tools to analyse and report on the information shared. | Data & information sharing |
| IO-2 | Develop & promote or legislate for standards for registering small leisure boats [Discarded] | Data & information sharing |
| IO-3 and 9 | Promote the sharing of search and rescue assets: <ul style="list-style-type: none"> ■ Developing common databases on rescue plans for particular types of ships, etc. ■ Developing databases containing details of the assets of authorities performing coast guard functions; ■ Encouraging the development of common SAR systems & process standards ensuring common ways of working; ■ Facilitating the establishment of lead SAR centres on a regional basis | Financial burden sharing / Joint operations / Asset Sharing |
| IO-4 | Construct and maintain new pools of experts: <ul style="list-style-type: none"> ■ Mapping the expertise available in national authorities; ■ Develop administrative tools for the maintenance of a register and an administrative procedure for the nomination and deployment of experts ■ co-finance a scheme to ensure efficient exchange of personnel and experts for those function not currently benefiting from expert pools | Capacity building - Human resources |
| IO-5 | Improve collaboration on training and build a network of training institutions <ul style="list-style-type: none"> ■ to place online information about the coast guard training institutions in the EU in a manner accessible to national coast guard authorities for raising awareness of the training capacity and training curriculum being offered in each Member States and for sharing training materials. ■ Develop of a European Framework for Qualifications (EFQ) for Coast Guard Services ■ Co-finance joint training sessions focusing on operational procedures and on cross border and cross sector cooperation. | Capacity building - Human resources |
| IO-6 | Improving cooperation on research development and innovation: <ul style="list-style-type: none"> ■ providing a comprehensive picture of the past or current research projects and programmes at national, regional and EU level ■ drafting a comprehensive programme of research and ■ Promote and mainstreaming previous research outputs into industry and coast guard services | Know-how – R&D and Innovation |

| | | | |
|-------|---|--|----------------|
| IO-7 | Promote and support the mutualisation of assets on a regional basis by: <ul style="list-style-type: none"> ■ Study and recommend models of best practice regarding the mutualisation of assets per sea basins ■ Develop a common database of assets ■ provide incentives for cross-sector mutualisation of assets by use of existing EU financial instruments | Financial sharing / Asset Sharing / operations | burden / Joint |
| IO-8 | Facilitate cooperation on cross-sector joint operations: <ul style="list-style-type: none"> ■ Defining operational procedures and governance models, ■ Undertaking and co-financing planning exercises or ways in which assets and personnel can be mutualised during joint operations and address the operational needs of multiple coast guard functions. | Financial sharing / operations | burden / Joint |
| IO-10 | Support inter-MS networking: <ul style="list-style-type: none"> ■ Member States designating a single point of contact responsible for the cooperation and coordination efforts across national authorities performing CG functions ■ the definition, clarification or promotion of SPOCs and associated governance arrangements between the relevant authorities at national level responsible for taking cross-border and cross-sector cooperation with other Member States ■ Set-up of a central and up-to-date database containing the information on national authorities performing coast guard functions for the different Member States | Connectivity between organisations | |
| IO-11 | Facilitate cooperation with third countries on coast guard services to promote international and EU standards, conventions and agreements. [Discarded] | Other measures - Policy | |
| IO-12 | Promote common frameworks for information sharing: <ul style="list-style-type: none"> ■ Map the existing cross-border and cross-sector information flows and their legal basis; ■ Identify obstacles and good practices for the exchange of information ■ Promote a common framework for cooperation among institutions by developing and promoting a blueprint for bilateral agreements | Connectivity between organisations and Data sharing | |
| IO 13 | Promote the collection of EU statistics and their dissemination to measure European coast guard services activities <ul style="list-style-type: none"> ■ map the information already collected and remaining information and reporting needs of Member State stakeholders; ■ launch a regular survey to collect data and report on the information collected. | Transparency and accountability | |
| IO 14 | Development of a strategic vision for EU coast guard authority collaboration | Setting direction and connectivity between organisations | |

Table 4.4 maps improvement opportunities against the problems they seek to address.

Table 4.4 Summary of improvement opportunities (IOs)

| Problem | Causes of the problem | Improvement opportunities |
|---|--|----------------------------|
| Problem 1: the lack of information on the remit, powers and capabilities of other authorities is a barrier to collaboration | The complexity and diversity of institutional arrangements for delivery of coast guard services creates a barrier to collaboration among Member States. | IO 10, IO 14 |
| | The complexity of institutional arrangements at national level can make it harder for officials to get a full picture of the capabilities, operations and support available both within their own Member State and beyond. | IO 10, IO 11, IO 13, IO 14 |
| | The legal frameworks and large number of regional and EU | IO 12 |

| Problem | Causes of the problem | Improvement opportunities |
|--|--|--|
| Problem 2: Resource constraints with other authorities | initiatives are also difficult for coast guard officials to keep track of. Budgetary pressure is a significant issue for many of the authorities that perform coast guard functions. Assets are limited, ageing and often not being replaced at the end of their lives. There's a scarcity of personnel equipped and tasked to facilitate cross-border cooperation forward and provide expertise. | IO 7, IO 3& 9 IO 3& 9, IO 7 IO 4, IO 5 |
| Problem 3: There is more work to do to ensure full coordination and interoperability of coast guard services | Joint operations are limited to certain coast guard functions and time-bound. The lack of interoperability of systems, processes, assets is a further barrier to collaboration. | IO 8 IO 6, IO 2 |

Table A1.2 maps the correspondence between improvement opportunities, activities and coast guard functions.

Table A1.2 Mapping of the improvement opportunities across activities and coast guard functions

| | 1) Maritime safety, including vessel traffic management; | 2) Maritime security | 3) Maritime customs activities | 4) The prevention & suppression of trafficking & smuggling & connected maritime law enforcement; | 5) Maritime border control | 6) Maritime surveillance | 7) Maritime environmental protection & response | 8) Search and rescue; | 9) Accident and disaster response; | 10) Fisheries control |
|--|--|---------------------------------|---------------------------------|--|---------------------------------|---------------------------------|---|---------------------------------|------------------------------------|----------------------------------|
| Data Sharing | IO1, IO 12, IO 13 IO2 | IO1, IO 13 | IO1, IO12, IO 13 | IO1, IO12, IO 13 | IO12, IO 13 | IO12, IO 13 IO2 | IO1, IO12, IO 13 | IO1, IO12, IO 13 | IO1, IO12, IO 13 | IO1, IO12, IO 13 |
| Asset Sharing | IO7 | | IO7 | IO7 | | | | IO 3&9 | | IO7 |
| Personnel sharing | IO4 | IO4 | IO4 | IO4 | | | | IO4 | | |
| Capacity building | | IO 5 | IO5 | IO5 | | | | | | |
| Research development and innovation | IO6 | IO6 | IO6 | IO6 | IO6 | IO6 | IO6 | IO6 | IO6 | IO6 |
| Financial Burden sharing procedures | IO 6, IO7 | IO8, IO4 , IO 5, IO6 | IO7, IO8, IO 4, IO 5, IO 6 | IO7, IO8, IO4, IO 5, IO 6 | IO6 | IO6 | IO6 | IO 3&9, IO 4, IO 6 | IO 6 | IO 6, IO7 |
| Joint operations | IO 4 | IO8, IO4 | IO8, IO4 | IO8, IO4 | | | | IO 4 | | |
| Other measures (Organisational matters) | IO 10, IO11, IO12, IO 13, IO 14 | IO 10, IO11, IO12, IO 13, IO 14 | IO 10, IO11, IO12, IO 13, IO 14 | IO 10, IO11, IO12, IO 13, IO 14 | IO 10, IO11, IO12, IO 13, IO 14 | IO 10, IO11, IO12, IO 13, IO 14 | IO 10, IO11, IO12, IO 13, IO 14 | IO 10, IO11, IO12, IO 13, IO 14 | IO 10, IO11, IO12, IO 13, IO 14 | IO 10; IO11; IO 12, IO 13, IO 14 |

Annex 2 Feasibility assessment of proposed measures

This annex presents the feasibility assessment for the various measures (improvement opportunities) proposed.

A1.1 Assessment of improvement opportunity 1

Table A2.1 Assessment of improvement opportunity 1 – Promote common standards, procedures, and tools to analyse shared information.

| Description of the proposed improvement opportunity | |
|---|--|
| Aim | To facilitate the adoption of common analytical standards and procedures to process large datasets and enhance analytical capability of Member State authorities. |
| Key actions | Key actions include as a first step defining risk management framework including metrics, tools, techniques, procedures, reporting format and dissemination channels to support the monitoring and general maritime compliance across all functions. The second step would involve piloting IT tools to automatically process and analyse the data being shared and allow access to relevant information by specific target groups of users. In a third step these IT tools would have to be implemented in the different Member States in order to ensure consistency of analysis across the Member States. |
| Type of cooperation activity | Information sharing |
| Target population | Specific user groups across Member States could also be set up to reflect on the needs for analysis in or across specific coast guard functions. |
| Target CG functions | All functions with a focus on Maritime Security, Maritime law enforcement, Maritime environmental protection and response, search and rescue, fisheries control. |
| Responsible party / Level of governance | The implementation of the measure could be funded by the European Commission and carried out by its Agencies and the regional cooperation structures. It would not necessarily be linked to the development and implementation of CISE and could be implemented across certain CG Functions only of the nature of the information exchanged (e.g. security sensitive information for some CG functions). |
| Significance of the problems addressed | |
| Problem 1 | <p>With the development of platforms and systems for data exchange national authorities are at risk of information overload. In addition, national authorities duplicate data collection efforts or analytical efforts.</p> <ul style="list-style-type: none"> ■ The gap assessment study completed by the JRC identified that: <ul style="list-style-type: none"> – There is a gap of between 40% and 90% between the supply and the demand for additional data exchange across the various user communities depending on the area; – 45% of the currently collected information is collected by more than one user community.⁷² |
| Problem 2 | <p>Different approaches with regard to the classification, analysis and interpretation of data in different Member States authorities creates obstacles for fluent exchange of relevant data.</p> <ul style="list-style-type: none"> ■ It has been estimated that, on average, a Member State runs 7 IT systems for Maritime Surveillance today (4 MS have national information sharing environment, 12 MS with 2 to 3 main IT systems and 12 countries with many different system). Out of all these different IT systems, about 85% are non-standard, i.e. they have been custom-built. These different systems are thus not always compatible with each other and the Member States are dependent on their IT developers to update their IT systems. This is what is commonly referred to as vendor lock-in.⁷³ |
| Problem 3 | ■ |
| Baseline position | |

⁷² Garnier, B and F. Oliveri (2012), CISE Roadmap Step 2, GAP Analysis, JRC Scientific and Policy Report.

⁷³ Gartner, 2013. Sustainability and Efficiency of Visions for CISE.

Description of the proposed improvement opportunity

| | |
|---|--|
| Legal, institutional and collaboration baseline | <ul style="list-style-type: none"> ■ The EU Maritime Information and Exchange System, hosted by EMSA and developed in cooperation with EU Member States is a decentralised system with a centralised European platform serving as a node, for maritime data exchange. It also provides standardised access to the data which support efficient operations. ■ EUROSUR, relevant to the Maritime Surveillance and Maritime Border Control Coast Guard functions, is already performing risk analyses and draw from the situational pictures provided from EMSAs integrated maritime services, with SSN at the core; ■ DG ECHO's Emergency Response Coordination Centre ('ERCC'), and CECIS provide detection and early warning notification for major disasters ; ■ The BSRBCC is building a Maritime Situational Picture which is updated on a yearly basis |
|---|--|

| Contribution to overarching EU objectives | Rating (0-5) | Contribution to overarching EU objectives | Rating (0-5) |
|---|--------------|---|--------------|
| to improve maritime safety | 2 | to protect the EU sea borders | 1 |
| to improve environmental protection; | 3 | to contribute to the sustainability of maritime resources | 2 |
| to improve security at sea; | 1 | to enhance response capabilities to emergency situations. | 2 |

Benefits and impacts

| | |
|-----------------|--|
| Direct benefits | <p>After full implementation, the measure would have the following benefits:</p> <ul style="list-style-type: none"> ■ Reinforce the common practices of the user community of the existing data exchange structures ■ Increase situational awareness and increase the efficiency of evidence based decision making / planning ■ Allow for semi-automated processing of large amounts of information ■ Avoid the potential duplication of efforts in analysing data being shared – add value and provide a service in return of data and information sharing efforts. |
|-----------------|--|

| | |
|--|--|
| Ultimate impacts (i.e. financial, economic, social impacts or environmental impacts) | <p>The financial impacts are estimated at €1.5 million for the EU and €0 for Member States on an annual basis and this for a period of five years (refer to Table A5.2 for a detailed breakdown of costs).</p> |
|--|--|

The ultimate impacts are difficult to assess but better analysis and the generation of situational pictures can lead to better operations of coast guard services having economic, environmental and social impacts. Better situational pictures can help preventing, detecting or responding to risks and threats in a much more efficient way. The improved risk analysis and increased amount of exchanged and processed data will help authorities to design efficient prevention strategies. This will likely result in a decreasing rate of human trafficking, drugs smuggling and entrance of counterfeit goods on the EU market. The economic impact of this measure would be a reduction in foregone tax and the better functioning of the EU internal market associated with the reduced competition of smuggled, counterfeit and substandard products. As an example the average value of counterfeit seizures from sea shipments from 2010 to 2010 is equivalent to € 190,000. It can be assumed that if seized, a corresponding amount of legal good would be sold on the EU market. This improvement opportunity will also have social impacts such as the reduction in public health issues and crime rates associated with the decreasing amount of illegal goods entering the EU market. Improved risk analysis is likely to also contribute to the prevention of accidents at sea and therefore prevent the deployment of SAR operations. Considering that the average damage cost of a maritime accident is estimated at around €0.5 million and that the average cost of SAR case amounts to €3,400, this measure could lead to important cost savings.⁷⁴

Implementation

⁷⁴ COWI. 2013. The development of the CISE for the surveillance of the EU maritime domain and the related Impact Assessment – Part 2: Combined Analysis.

Description of the proposed improvement opportunity

| | |
|-------------------------|--|
| Risk to implementation | The risk analyses on sensitive information (i.e. security related information) will be done in specific systems only (e.g. EUROSUR for Maritime Surveillance and Maritime Border Control). Although the results of the risk analyses performed on those systems may be shared, this may reduce the benefits derived from the processing of large batch of data in the maritime domain. |
| Implementation timeline | Most of the actions contained within this measure can be implemented in the short to medium term, others are longer term options. For instance, putting in place common risk analyses approaches could be achieved over the medium term. The piloting and implementation of common risk analysis tools would follow CISE, if implemented. |

Overall feasibility

| | |
|-----------|--|
| Rating: 3 | The measure is considered as quite feasible but there are risks to the implementation of the long term actions (i.e. common analysis tools). |
|-----------|--|

A2.2 Assessment of improvement opportunities 3&9

Table A2.2 Assessment of improvement opportunities 3&9 – Promote the sharing of search and rescue assets

Description of the proposed improvement opportunity

| | |
|---|---|
| Aim | To facilitate the adoption of common approaches to search and rescue (SAR) to be used across Europe, ultimately leading to the set-up, designation of lead Member State authorities or co-location of joint SAR operational centres on a regional basis (i.e. per sea basin) |
| Key actions | <p>The measure would be implemented in stages. It comprises:</p> <ul style="list-style-type: none"> ■ The setup of an EU-wide database on rescue plans for particular types of ships; ■ The setup of a common database of assets capable of undertaking SAR and disaster response operations. The database and associated management systems would indicate in close to real time situations whether, when, where, and with what equipment, assets are available in a specific geographical area. Such systems would primarily cover European waters but would allow the management of assets per sea basins or specific border regions or nearby international waters; ■ Action to promote the development of a common SAR system and process standards ensuring common ways of working. From an IT system angle, this could be achieved via the joint development of standard SAR IT components via a joint research projects to develop proof of concepts. From a process or operational standard angle, operational manuals could be designed and adhered to by all SAR authorities in specific sea basins (e.g. how to determine competences over SAR areas or national jurisdiction)?; and, ■ Facilitate the co-location of existing SAR operational centres or designation of lead SAR operational centres on a regional basis (i.e. per sea basin), thereby ensuring common approaches with regard to SAR to be used. |
| Type of cooperation activity | Asset sharing and development of common approaches |
| Target population | National authorities performing coast guard functions |
| Target CG functions | Search and rescue; accident and disaster response |
| Responsible party / Level of governance | European Commission and Member States. |

Significance of the problems addressed

| | |
|-----------|--|
| Problem 1 | <p>There is a lack of real time information on the availability of assets that some Member State have for performing joint operations (i.e. SAR operations, accident and disaster response)</p> <ul style="list-style-type: none"> ■ One of the key barriers identified by the 2013 SAR survey report for the development of seamless SAR response in the EU countries is the lack of leadership and the multitude of |
|-----------|--|

Description of the proposed improvement opportunity

| | |
|-----------|---|
| | resources operating without access to or reflection on 'the big picture'. This supports the need to develop coordination structures. ⁷⁵ |
| Problem 2 | Differences in IT and communication tools or processes hinders the speed of collaboration (e.g. limited use of internationally developed communications methods, tools) |
| Problem 4 | There is a lack of interoperability between assets, systems and processes (i.e. standards). <ul style="list-style-type: none"> According to the SAR survey report 2013, more than one third of the respondents (36.1%) consider that improving inter-operability and co-operation amongst SAR resources is the most pressing concern of their industry. The lack of communication and cooperation across resources was also identified as one of the key obstacles for seamless SAR response.⁷⁶ |
| Problem 5 | There is a lack of certain class of assets to use for specific operations (e.g. lack of capacity to intervene beyond 500 miles limits the range, type and speed of SAR or disaster response operations) combined with a mismatch between the needs of certain MS and the available assets capacity in other Member States. For instance, the decrease in the European aeroplane fleet is reducing the long distance surveillance capacity of the MS and their capacity to intervene. <ul style="list-style-type: none"> Supporting this statement, the 2013 SAR survey revealed that 63.4% of the industry considers that remotely-controlled vehicles are available options for future SAR operations.⁷⁷ |
| Problem 6 | Sharing certain types of assets is subject to long / burdensome administrative and legal procedures. |
| Problem 7 | There is a lack of funding for running SAR operations. <ul style="list-style-type: none"> 28.6% of the respondents to the 2013 SAR Survey identified the lack of funding as the biggest barrier for the development of a seamless SAR response in their country. In the 2014 version of the survey, 48% of the respondents confirmed this trend.⁷⁸ |
| Problem 8 | There are large geographical areas / distances to be covered by authorities in charge of SAR. |
| Problem 9 | SAR cooperation plans are mainly in map/paper version and in case of accident it is quite hard to relay on information from one Rescue Coordination Centre to the other. |

Baseline position

| | |
|---|---|
| Legal, institutional and Institutional Collaboration baseline | <ul style="list-style-type: none"> There is already a common approach to SAR (IAMSAR) which has a long history and consists of well-practised, internationally accepted (IMO and ICAO approved) procedures and processes. There is no existing legal obligation for maintaining a centralised register of the SAR cooperation plans, and ship-owners are not obliged to give detailed information about the specific configuration of their ships. National Coordination Centres already exist in the maritime border control function as part of EUROSUR and in some of the European maritime regions such as the Baltic and the Black Seas. DG ECHO's CECIS system provides access to the list of available assets for emergency responses to natural, technological, radiological or environmental accidents occurring inside or outside the Community. It could be extended to SAR and disaster response purposes. FRONTEX has developed an IT tool (OPERA system) to manage FRONTEX' pool of experts and equipment. It supports the implementation of the technical equipment pool. The development of a similar system for SAR assets could be studied. In the Baltic Sea region, the Baltic Sea Maritime Incident Response Survey is currently identifying the Baltic Sea states and other Nordic countries key national cooperation agreements and operational SAR procedures. The objective is to identify opportunities to enhance and develop international maritime SAR cooperation in the Baltic Sea region. In the Black Sea region, an annual SAR conference is organised in order to enhance the |
|---|---|

⁷⁵ SAR-Europe. SAR Survey Report 2013. Available at: <http://www.searchandrescueeurope.com/media/6852/2994.pdf>

⁷⁶ SAR-Europe. SAR Survey Report 2013. Available at: <http://www.searchandrescueeurope.com/media/6852/2994.pdf>

⁷⁷ SAR-Europe. SAR Survey Report 2013. Available at: <http://www.searchandrescueeurope.com/media/6852/2994.pdf>

⁷⁸ <http://www.searchandrescueeurope.com/media/7990/18973.pdf>

Description of the proposed improvement opportunity

efficiency of the regional SAR services and to improve cooperation amongst SAR services in the Black Sea. The region also developed a website⁷⁹ (Black Sea MRCC) gathering information and contact details of the different SAR services in the region.

- Many bilateral SAR cooperation agreements also exist, one long-standing example being the Manche Plan between France and the UK which was signed in 1978.

| Contribution to overarching EU objectives | Rating (0 =low; 5 =very high)) | Contribution to overarching EU objectives | |
|---|--------------------------------|---|---|
| to improve maritime safety | 3 | to protect the EU sea borders | 0 |
| to improve environmental protection; | 0 | to contribute to the sustainability of maritime resources | 0 |
| to improve security at sea; | 0 | to enhance response capabilities to emergency situations. | 3 |

Benefits and impacts

Direct benefits After full implementation, the measure would have the following benefits:

- Increase the speed or (operational and cost) efficiency of the response to SAR cases;
- Improve the use of assets across at supra-national level
- Use of the right assets, with the right equipment / staff, at the right place and at the right time.

Ultimate impacts (i.e. financial, economic, social impacts or environmental impacts) The financial impacts are estimated to be €0.7 million for the EU and €3,3 million for Member States on an annual basis and this for a period of five years (refer to A5.2 for the cost breakdowns by specific actions).

As stated in the benefits section, more cooperation between SAR services should also improve the efficiency of their operations and improve their speed of reaction. Combined with improvement opportunities on data sharing, some of costs involved in SAR operations could also be reduced thanks to increased operational efficiency. For illustration purposes, the average costs of a SAR case amounts to € 3.350 and the conventional statistical value of a life lost at sea is €1.5 million per person.⁸⁰

This measure should also lead to improvements in seafarers' safety and in the assistance to an increase number of ships in distress ultimately leading to lives saved and the better protection of the environment from distressed ships or wrecks. From a social perspective, more efficient SAR operations will reduce the number of lives lost at sea, which amounted to 61 on commercial ships in and around EU waters in 2010. Considering that the conventional statistical value of a life lost at sea is around € 1.5 million by the European Commission, this could have a considerable social and economic impact.

Implementation

Risk to implementation A SAR case or disaster requiring a joint response at bilateral or multi-lateral level only occurs once or twice a year. This measure should not be implemented in a heavy handed way but facilitate the emergence of common SAR practices whenever and wherever such practices are needed. For instance, the setup of Joint SAR coordination or operational centres should not be seen as an end point since they could be co-located in existing command and control centres for other functions. In addition, single control centres for SAR response in sea basin areas may not be logical due to the

⁷⁹ <http://www.bsmrcc.com/>

⁸⁰⁸⁰ COWI. 2013. The development of the CISE for the surveillance of the EU maritime domain and the related Impact Assessment – Part 2: Combined Analysis.

Description of the proposed improvement opportunity

| | |
|-------------------------|---|
| | differing national requirements, cultures, social and political environments. Lastly, national authorities sharing information on the type of coast guard assets, their position or availability should only be done on a voluntary basis. Such actions could also conflict with similar initiatives taking place at Member State level between the military and SAR authorities. |
| Implementation timeline | The measure would be implemented in a step by step process. The most basic actions are to be implemented in the short to medium term. Joint SAR operational centres maybe achievable but only in the long term. The implications of this measure will have to be study in more details. |

Overall feasibility

| | |
|-----------|---|
| Rating: 3 | The feasibility of having common databases for SAR plans or register of SAR assets is high. The real difficulty is the setup, collocation of or designation of lead SAR operational centre on a regional basis. |
|-----------|---|

A2.3 Assessment of improvement opportunity 4

Table A2.3 Assessment of improvement opportunity 4 – Construct or maintain new pools of experts in all coast guard functions

| Description of the proposed improvement opportunity | |
|---|---|
| Aim | This measure aims to promote the exchange of personnel (i.e. operational staff) and experts between competent Member State authorities. |
| Key actions | The set of actions for this measure is: <ul style="list-style-type: none"> ■ For national authorities to declare or volunteer available expertise across functions to the extended pool(s); ■ The development of administrative tools for the maintenance of a register and an administrative procedure for the nomination and deployment of experts; and, ■ The co-financing a scheme to ensure efficient exchange of personnel and experts for those function not currently benefiting from expert pools. |
| Type of cooperation activity | Capacity building : exchange personnel between and across Member State authorities and coast guard functions |
| Target population | National authorities performing coast guard functions |
| Target CG functions | This measure applies to all coast guard functions but with a clear focus on specific ones to enable cross-sector cooperation: maritime security, Maritime customs, maritime law enforcement. |
| Responsible party / Level of governance | The implementation of the measure could be carried out by EU Agencies in their respective sphere of competence and address all coast guard functions. Member States would contribute in providing information with regard to their needs, capacity and making experts available as relevant and necessary. |
| Significance of the problems addressed | |
| Problem 1 | There is a lack of personnel or qualified personnel in some Member State authorities for undertaking joint operations and providing high quality training. Consultations for this study suggest that this phenomenon is reinforced by the fact that many experts with experience are getting close to retirement and may not be replaced because of financial constraints. Consultations also suggest that expertise in one maritime function can apply to and benefit several other functions. Stakeholders considered that maritime law enforcement at large as well as preparedness activities around SAR response functions would particularly benefit. This position has been confirmed by |

Description of the proposed improvement opportunity

other research:

- According to almost one third of the respondents (29.2%) to the SAR survey 2013, the most pressing concern for the national authorities involved in SAR operations are staffing and training issues.⁸¹

Problem 2

The language barriers and cultural differences between national administrations (e.g., civil and military administration performing the same function) can prevent personnel sharing.

- The different EU agencies (EMSA, FRONTEX, EFCA, etc.) have all recognised language barriers as an issue and issued call for tenders for language courses for their employees.
- The Marsuno report identified the lack of common terminology and definitions as the most important obstacle to achieve effective cooperation and information exchange in the field of maritime awareness.⁸²

Baseline position

Legal, institutional and collaboration baseline

The exchange of experts is already partly covered by:

- EMPOLLEX, EMSA's Marine pollution expert exchange programme. This programme focuses on exchange in the field of marine pollution preparedness and response.
- FRONTEX' European Border Guard Team (EBGT) has been created for deployment in FRONTEX joint operations and rapid border interventions. The EBGT is composed of border guards from the EU Member States, experts in different areas of border management including land and sea border surveillance, dog handling, identification of false documents and second line activities such as establishing nationalities of irregular migrants detected at the border. Member States second border guards to this pool based on the specific expert profiles developed by FRONTEX. Following the selection process FRONTEX provide training to members of the teams relevant to their field of expertise and tasks performed.
- DG ECHO's Community mechanism to facilitate reinforced cooperation in civil protection assistance interventions has the capability to mobilise and dispatch small teams of experts in the case of an emergency for assessing the situation for the benefit of the Member States, the monitoring and information centre (MIC) and the State requesting assistance, as well as facilitating, when necessary, coordination of assistance operations on site and liaising, when necessary and appropriate, with the competent authorities of the State requesting assistance.
- EFCA has recently introduced an expert pool with the view of providing technical and scientific support relevant to the uniform application of the Common Fisheries Policy (CFP); in particular in the professional fields of risk analysis, compliance evaluation and cost-effectiveness.

| Contribution to overarching EU objectives | Rating (0-5) | Contribution to overarching EU objectives | Rating (0-5) |
|---|--------------|---|--------------|
| to improve maritime safety | 2 | to protect the EU sea borders | 1 |
| to improve environmental protection; | 1 | to contribute to the sustainability of maritime resources | 2 |
| to improve security at sea; | 0 | to enhance response capabilities to emergency situations. | 1 |

Benefits and impacts

Direct benefits

The direct benefits of the measure are:

- better access to and use of expert resources across the EU;
- Enhanced and more effective preparedness and response capacity of Member State authorities; and,
- Facilitation of more effective operational coordination due to the social network effects of the exchange programmes.

⁸¹ SAR-Europe. SAR Survey Report 2013. Available at: <http://www.searchandrescueeurope.com/media/6852/2994.pdf>

⁸² Marsuno. 2011. Final Report.

Description of the proposed improvement opportunity

| | |
|--|--|
| Ultimate impacts (i.e. financial, economic, social impacts or environmental impacts) | The financial impacts are estimated to €0.9 million for the EU and €0 for Member States (refer to Table A5.4 for a detailed breakdown of costs). The development of pools of experts at EU level for the different coast guard functions is likely to improve the prevention, planning and intervention capacity of Member States. Depending on the exact nature of this pool of experts the nature of the economic, social and environmental benefits will vary and are difficult to define at this stage. |
|--|--|

Implementation

| | |
|-------------------------|---|
| Risk to implementation | The implementation of the measure carries one main risk. The legal framework for experts' exercising of powers or experts' intervention outside their jurisdictions is generally not be easy to establish depending on the function (e.g., strict rules for performing customs and law enforcement activities) and can limit the value of expertise or operations performed by personnel or experts shared. |
| Implementation timeline | This measure can be implemented in the short to medium term. |

Overall feasibility

| | |
|-----------|---|
| Rating: 5 | The measure is considered as highly feasible in view of the limited cost of implementation and clear case for implementation. |
|-----------|---|

A2.4 Assessment of improvement opportunity 5

Table A2.4 Assessment of improvement opportunity 5 – Improving collaboration on training and build a network of training institutions

| Description of the proposed improvement opportunity | |
|--|---|
| Aim | This measure aims to strengthen the institutional capacity of national authorities to cooperate in all coast guard functions. |
| Key actions | <p>Key actions includes:</p> <ul style="list-style-type: none"> ■ In a first stage, develop an online directory of institutions providing training for coast guards (e.g. national training centres, universities), and of the training they provide, to increase awareness of the training capacity and the training 'offer' in each Member States, including (where available online) training materials (e-tutorials, videos, etc.). ■ In a second stage, specific European Framework for Qualifications (EFQ) for each Coast Guard function building on the results of the Bologna process in higher education and the Copenhagen process in vocational education and training could be developed. Against this EFQs or Common Training Curricula national authorities' training centres and universities providing higher education services in the maritime domains could indicate how their training level and associated skills derived from their courses map onto the EFQs / Common Training Curricula. Note that EQFs or Common training curricula should emphasise the cooperation and coordination across borders and functions, ■ In parallel or in a third stage, there would be co-financing available for the design and organisation of joint training sessions focusing on operational procedures and on cross border and cross sector cooperation (e.g. how to identify smuggling and trafficking, suspicious movements or fraudulent activities, modus operandi of criminals by type of crimes, best responses by type of crime and best joint response by type of crime, and training in reporting such manifestations). The training would be accredited and its qualification recognised in all Member States. |
| Type of cooperation activity | Capacity building - exchange personnel between Member State authorities, Note that this measure could also be considered as an 'asset sharing' measure in that it will make better use of training infrastructure. |
| Target population | National authorities performing coast guard functions and cooperation networks |
| Target CG functions | All coast guard functions. Member States would contribute in providing information with regard to their training offering, liaising with their national training institutions and academia as well as making training available to eligible staff in the national authorities. |
| Responsible party / Level of governance | The implementation of the measure could be carried out by European Commission DGs and their respective Agencies in their relative sphere of competences in liaison with the ECGFF. |
| Significance of the problems addressed | |
| Problem 1 | <ul style="list-style-type: none"> ■ There is a lack of awareness regarding training sessions organised or available in other Member States (and in some cases at EU level). Although the KNWOME project specifically focused on maritime professionals at large, including staff performing coast guard functions, it provide an illustration of the problem: The project analysed the level of cooperation between maritime education and training (MET) institutions in Europe and identified a variety of models ranging from no cooperation, to exchange of students and researchers, to the creation of joint masters. Different cooperation structures were also identified. Overall it concluded that there is a lack of common procedure to ensure awareness of the different programmes and training opportunities.⁸³ ■ The KNOWME project also concluded that the exchange of knowledge between institutions is low. |
| Problem 2 | There are difficulties with the funding of joint training sessions between Member States. This may be due to limited available funding for national and cross-border training. For instance, the budget for |

⁸³ Chalmers University of Technology. 2013. KNOWME Deliverable 3.1: The current status of integration of Maritime Education and Training in Europe and its future potential. Available at: http://www.knowme.org/images/outputs/wp%203.1_final_resubmission_082013.pdf

Description of the proposed improvement opportunity

| | |
|-----------|--|
| | SASEMAR national training does not exceed € 120,000 per year. Consultations for this study also suggest that joint training initiatives are lacking in all coast guard functions, the lack of training infrastructure being especially mentioned as an issue. |
| Problem 3 | <p>In some Member States there is a lack of qualified personnel or expertise to provide training to other colleagues (i.e. skills shortage, lack of maritime training or education)</p> <ul style="list-style-type: none"> ■ In 2001, the EC estimated that the EU faced a shortage of 13,000 officers and this shortage was expected to go up to 36,000 officers by 2006.⁸⁴ This shortage was confirmed by the EC in 2009, which stated that “the growing shortage of maritime professionals, officers and ratings entails the risk of losing the critical mass of human resources that sustains the competitiveness of the European maritime industries in general”. The EC also estimated that 70% of the shipping-related jobs are knowledge-intensive, high-quality jobs on shore.⁸⁵ ■ The shortage of officers and qualified personnel has resulted in the “fast tracking” of MET and a wide range of differences in the quality of MET around the globe.⁸⁶ |
| Problem 4 | The differences in powers, concept of operations, operational objectives, terminology of authorities limit the scope for collaboration within and across functions. |
| Problem 5 | The lack of accreditation scheme for maritime training prevents the exchange of trainees from one country to the other. The KNOWME report on cross-cultural training noted that due to the lack of common standards generated by maritime regulatory organisations or from the private or public sectors on cross-cultural maritime education and training, the quality and effectiveness of the currently used materials is questionable as to their effectiveness over the short or long term. ⁸⁷ |

Baseline position

| | |
|---|--|
| Legal, institutional and collaboration baseline | <ul style="list-style-type: none"> ■ EMSA publishes every year the “Inventory of possible training courses provided by EMSA for Member States”. ■ EMSA offers online training through MaKCs, its Maritime Knowledge Centre system. Through this dedicated platform, authorized users can gain access to the different training offerings of the Agency (17 modules are currently available). This includes online courses and face-to-face seminars.⁸⁸ ■ EMSA recently established the Standard of Training, Certification and Watchkeeping (STCW-IS)⁸⁹, which is a web-based information system designed to help all those wishing to find reliable information on both national maritime administrations and MET institutions. Currently, the system does not provide information about MET yet. ■ During the last three years EMSA committed an average of € 780,000 per year on training linked to maritime affairs.⁹⁰ ■ During the last three years FRONTEX had an average budget of € 4,000,000 per year for its training activities.⁹¹ One of the key concepts introduced by FRONTEX is the EU’s Sector Qualifications Framework for Border Guarding, in line with the European Qualifications Framework for Life Long Learning. Addressing also mid-level and high-level border guard education, FRONTEX launched in 2007 the Common Core Curriculum (CCC). It represents the first standardised set of skills and knowledge criteria for basic-level border-guard training in the EU. The CCC covers a wide range of topics and is regularly reviewed and revised to integrate |
|---|--|

⁸⁴ EC. 2001. Communication on the training and recruitment of seafarers. COM(2001) 188. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2001:0188:FIN:EN:PDF>

⁸⁵ EC. 2009. Strategic goals and recommendations for the EU’s maritime transport policy until 2018. COM(2009) 8. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0008:FIN:EN:PDF>

⁸⁶ Chalmers University of Technology. 2013. KNOWME Deliverable 3.1: The current status of integration of Maritime Education and Training in Europe and its future potential. Available at: http://www.know-me.org/images/outputs/wp%203.1_final_resubmission_082013.pdf

⁸⁷ Progoulaki, M., et al. 2013. KNOWME Deliverable 2.2: cross-cultural training needs of seafarers, shore-based personnel and industry stakeholder. Available at: http://www.know-me.org/images/outputs/wp%202.2%20%20v1_final_aug_2013.pdf

⁸⁸ <https://makcs.emsa.europa.eu/learning/user/login.do>

⁸⁹ <https://portal.emsa.europa.eu/web/stcw/home>

⁹⁰ EMSA 2013 Budget. Available at: <http://emsa.europa.eu/emsa-documents/financial-documents/17-finance/214-emsa-budget.html>

⁹¹ FRONTEX 2013 Budget. Available at: http://FRONTEX.europa.eu/assets/About_FRONTEX/Governance_documents/Budget/Budget_2013.pdf

Description of the proposed improvement opportunity

- the latest development and technological innovations.
- As part of its mission, EFCA develop capacity building activities in order to facilitate the uniform application of the rules of the CFP by Member States and provides guidance to them in respecting their obligations under the CFP
 - The European Coast Guard Forum has launched an initiative on training as part of the 2014 work programme. It intends to prepare a web-based network in which all Members would provide input on a common curriculum and then to raise awareness on the common training curriculum thus developed. FRONTEX has already started looking into the Bologna Qualifications Framework / Copenhagen process for mapping sector qualifications in the field of Maritime Border Control and Maritime Surveillance.
 - DG ECHO Civil Protection Mechanism offers training for experts on how to use and participate in the actions co-financed by the Mechanism and targeting Accident and Disaster Response related events.

| Contribution to overarching EU objectives | Rating (0-5) | Contribution to overarching EU objectives | Rating (0-5) |
|---|--------------|---|--------------|
| to improve maritime safety | 3 | to protect the EU sea borders | 1 |
| to improve environmental protection; | 3 | to contribute to the sustainability of maritime resources | 3 |
| to improve security at sea; | 1 | to enhance response capabilities to emergency situations. | 3 |

Benefits and impacts

| | |
|-----------------|---|
| Direct benefits | <p>The main benefits are:</p> <ul style="list-style-type: none"> ■ Contribute to the professional development of trained operational staff. ■ Contribute to the harmonisation of maritime higher education offering across Europe ■ Contribute to the development of a strong community or network of academics in the maritime domain – including network of researchers working on research project across Coast Guard Functions. <p>Specific benefits expected are:</p> <ul style="list-style-type: none"> ■ Increase the awareness of training available as well as identify synergies, avoid duplication and encourage joint capacity building activities; ■ Increase the awareness and understanding of other the activities, modus operandi, priorities, etc. of the respective national authorities performing CG functions; ■ The improved exchange of good practices; ■ The networking effect for officers attending such training will enhance cooperation and collaboration in the future; and, ■ Increase the consistency in training standards, common interpretation of harmonised rules, and keeping abreast with new and upcoming EU or international legislation. |
|-----------------|---|

| | |
|--|--|
| Ultimate impacts (i.e. financial, economic, social impacts or environmental impacts) | <p>The financial impacts are estimated to € 4.4 million for the EU institutions and €0 for Member States on an annual basis and this for a period of five years (refer to Table A5.5 for a detailed breakdown of costs).</p> <p>This measure is also expected to deliver efficiency savings in the joint provision of training, the extent to which could not be precisely estimated. By raising and harmonising standards, skills and competencies, it will contribute to closing the identified skills gap in the different coast guard functions.</p> |
|--|--|

Implementation

| | |
|------------------------|--|
| Risk to implementation | <p>This measure may face some resistance from the national training centres in collaborating in the establishment of EQFs and ultimately in opening up their training offer. Without an organisation responsible for carrying out the actions of the measure, there would be a risk of implementation failure. Consultations suggested that as far as the development of common qualification frameworks is concerned, a European public body with convening power with limited but adequate human and financial resources would mitigate against the aforementioned risk.</p> |
|------------------------|--|

Description of the proposed improvement opportunity

| | |
|-------------------------|--|
| Implementation timeline | This measure can be implemented in the short to medium term. The online directory of institutions can be implemented in the short term. The EQFs and the co-financing of joint training could take place in the medium term. |
|-------------------------|--|

Overall feasibility

| | |
|-----------|--|
| Rating: 2 | The measure is somewhat feasible as it involves the allocation of significant funding for developing the EQFs and requires specific actions in almost all coast guard functions. |
|-----------|--|

A2.5 Assessment of improvement opportunity 6

Table A2.5 Assessment of improvement opportunity 6 – Improve cooperation on research development and innovation

Description of the proposed improvement opportunity

| | |
|------------------------------|--|
| Aim | The aim of this measure is to raise awareness of existing research funding across CG functions (i.e. FP7, Horizon 2020) targeting private and public sector organisations (including academic institutions, centres of excellence, industry, public sector, NGOs). The ultimate goal is to incentivise public authorities to undertake research relevant to coast guard functions in a collaborative manner. |
| Key actions | <p>A first action would involve conducting a study providing a comprehensive picture of the past or current research projects and programmes relevant to coast guard functions, services and activities at national, regional and EU level. This study would analyse research outputs produced by these projects and programmes and those used (or not) by Industry or the Public sector for innovation purposes.</p> <p>A second action would involve publishing and promoting comprehensive programme of research⁹² with the joint collaboration of industry focusing on coast guard services. This research programme would focus on creating innovative services and generating research outputs directly contributing to operational activities of national authorities. Ensuring cross sector cooperation, common EU minimum standards and interoperability should constitute the major themes for the comprehensive programme of research.</p> <p>The European Commission could support the programme by either providing additional research funding or by diverting existing research funding in areas related to coast guard functions.</p> |
| Type of cooperation activity | Greater cooperation in research and development activities |
| Target population | National authorities performing coast guard functions and private sector organisations |

⁹² Stakeholders interviewed mentioned the following ideas for R&D projects:

- R&D on the use of drones across all coast guard functions (e.g. maritime surveillance, SAR, disaster response operations, etc.);
- R&D on software for planning and management of SAR operations in line with internationally recognised standards;
- R&D on new concepts of operations, concepts of use and other intervention of State actions at Sea so as to enable multipurpose joint operations (e.g. patrolling and surveillance, coordinated border management including coordination between customs and border agencies during policy development and operational activities, both domestically and internationally; development of new tools and strategies in approaching "dubious" ships and performing controls on how to identify (new) drugs);
- Elaborate common assert designs for coast guard services and equipment suitable for performing a range of coast functions (e.g. standardised Ocean Patrol Vessels, aerial surveillance means);
- The development of chemicals for uses in oil pollution disasters;
- Feasibility studies on synergies or potential for full interoperability between the existing IT systems, tools, platforms, assets and organisational set-ups at EU level and between Member States;
- A review of literature published on navigation on new geographical areas of the Arctic Ocean;
- R&D on a mechanism to define the ideal number of resources and assets needed at EU level to ensure efficient operations of CG functions to prevent situations of overcapacities or under-capacities and taking into account multi-purpose characteristics of resources and assets;
- Feasibility study on extending the Technical Equipment Pool Concept run by FRONTEX to all coast guard functions providing for interoperable and cost efficient assets.

Description of the proposed improvement opportunity

| | |
|---|---|
| Target CG functions | All |
| Responsible party / Level of governance | The implementation of the measure could be carried out by the Directorates General of the European Commission in line with their respective competences and address the research needs of all Coast Guard functions. Member States would be responsible for supporting national authorities and private sector organisations in responding to potential calls for proposal and or rethinking their programme of research to avoid duplicating research efforts. |

Significance of the problems addressed

| | |
|-----------|--|
| Problem 1 | Few authorities performing coast guard functions engage in research and development activities. For example in the UK, between 0.16% and 0.25 % of the total coast guard budget was allocated to the research activities ⁹³ . |
| Problem 2 | For authorities that do engage in R&D few are aware of national or EU level R&D projects or R&D outcomes. |
| Problem 3 | R&D activities are only undertaken in a few (large) Member States – scope exists for greater R&D investment in the other (i.e. majority of) Member States. |

Baseline position

| | |
|---|--|
| Legal, institutional and collaboration baseline | <ul style="list-style-type: none"> ■ EMSA conducted an inventory of R&D projects relevant to marine pollution preparedness, detection and response in 2009. The objective of this inventory is to collect, collate and disseminate, to the Member States and the general public, brief yet comprehensive information regarding relevant R&D project and funding opportunities. ■ In the Baltic region, Poland led a flagship project: “Create a network of centres of excellence for maritime training”. The aim of the project was to deliver best practice of European maritime training institutions to provide young people attractive prospects for a long life career in maritime enterprises / professions. It is not clear which result did this project deliver. ■ In the Baltic the Baltic Maritime Science Park (BMSP) is in place since 2010. It is a meeting place aiming to stimulate development, innovations and enterprises in the field of maritime safety. It encompasses a specific thematic on training.⁹⁴ ■ FRONTEX has a R&D budget of €1.2 million currently focusing on Border Checks Development and Border Surveillance Development. |
|---|--|

| Contribution to overarching EU objectives | Rating (0-5) | Contribution to overarching EU objectives | Rating (0-5) |
|---|--------------|---|--------------|
| to improve maritime safety | 2 | to protect the EU sea borders | 2 |
| to improve environmental protection | 2 | to contribute to the sustainability of maritime resources | 2 |
| to improve security at sea | 2 | to enhance response capabilities to emergency situations. | 2 |

Benefits and impacts

| | |
|-----------------|--|
| Direct benefits | <p>This measure would lead to a more efficient use of R&D funding across the EU. Other benefits are to be found in:</p> <ul style="list-style-type: none"> ■ Increasing the pool of scientific resources and intellectual capital for science to progress in this area while avoiding duplication of efforts (through sharing of the research results and findings across the EU); ■ The development of services, products or concepts of operations ultimately contributing to efficiency savings or increased effectiveness; ■ Facilitate the implementation of innovation in practice. |
|-----------------|--|

⁹³ This is based on the information provided by the National Report of the UK coast guard and does not take EU funding into account.

⁹⁴ <http://www.bmsp.se/baltic-maritime-science-park/about-bmsp.aspx>

Description of the proposed improvement opportunity

Other indirect benefits mentioned by stakeholders include:

- Greater standardisation of policies, procedures and practices;
- Greater interoperability of assets
- Cost savings through the use of modern technology or innovative concepts of operations
- Pooling of existing intelligence across Europe

Ultimate impacts (i.e. financial, economic, social impacts or environmental impacts) The financial impacts are estimated to €7.6 million for the EU and €7.5 million for Member States on an annual basis and this for a period of five years (refer to Table A5.6 for a detailed cost breakdown) Cooperation in the field of research and development is likely to generate economies of scale in the longer term and lead to a more efficient use of research funding. The classic case for investing in R&D programmes is to support innovation in targeted industrial and services sectors. However, it is very difficult to precisely evaluate the economic, social and environmental impacts of R&D programmes as these impacts will obviously depend on the nature of the research projects funded.

Implementation

Risk to implementation EU Agency staff are already well involved in EU-wide research projects related to coast guard services. An increased effort in related research could put a stretch on R&D resources in these EU Agencies.

Member States have their own multi-annual research programmes and vested interests with regard to supporting innovation in their national industries. Parallel research activities on coast guard services at national level will nevertheless always take place so that the risk of duplication may not be fully mitigated.

Implementation timeline In view of the different national interest and industry competition, this measure can only be fully implemented in the medium term. The study on past and current research of relevance to coast guard functions and can be undertaken in the short term. The common programme of research and co-financing can only be implemented in the medium term.

Overall feasibility

Rating: 3 The measure is somewhat feasible in view of national interests and the fact that competition of national industries sometimes prevents the emergence of common solutions.

A2.6 Assessment of improvement opportunity 7

Table A2.6 Assessment of improvement opportunity 7 – Promote and support the mutualisation of Coast Guard Services’ assets on a regional basis

Description of the proposed improvement opportunity

Aim To promote or recommend the mutualisation coast guard services’ assets on a regional basis (e.g. of environmental protection assets, tug boats, aircrafts, fixed assets, etc.)

Key actions A feasibility study could further investigate on the models of best practice to asset sharing across all Coast Guard functions. Models of best practice could build on those developed as part of the Nordic cooperation (i.e. the Member States that perform the service gets paid for doing so) and EMSA pollution control vessels initiative (i.e. relying on private contractors to supply pollution vessels on a need to have basis). In exploiting the outcomes of the feasibility study, DGs of the European Commission could help implement models of good practice per sea basins by promoting specific eligibility criteria in existing EU financial instruments (i.e. Internal Security Fund, DG ECHO Civil Protection Mechanism and related financial instrument) conducive the adoption of good practice and as an incentive for asset mutualisation. Eligibility criteria for accessing to EU co-financing would mostly be available for multi-functional assets (i.e. multi-functional platform vessels, multi-functional aircrafts). This measure is an alternative to additional funding provided by EU Agency for the mutualisation of assets or financial burden sharing for joint assets.,

Type of cooperation activity Mutualise assets to be used on a regional basis and implement models of best practice.

Target population Regional cooperation networks and national authorities performing coast guard functions.

Target CG functions All functions – to be confirmed by the feasibility study.

Description of the proposed improvement opportunity

Responsible party / Level of governance The implementation of the measure could be carried out by DGs of the European Commission and related EU Agencies in a coordinated manner.

Significance of the problems addressed

Problem 1 In times of financial austerity, authorities performing coast guard functions may not have sufficient budget to pay for their own activities let alone cooperation or coordination activities:

- A recent SAR industry survey revealed that more than 25.4% of the respondents consider that upgrading and replacing the existing equipment is the most pressing concern for their industry.⁹⁵ This reflects the current austerity climate and could potentially be partly solved by the mutualisation and common purchase of expensive assets.
- In 2007, the MTCP project reported that in the five Member States for which the information was available, between 60% and 70% of the coast guard operational budget was allocated to ship and aircraft.⁹⁶ If we consider the full budget of the UK coast guard for the last three years, 56% was spent on assets in 2011 while this proportion decreased to less than 50% in 2012 and 2013.

Baseline position

Legal, institutional and collaboration baseline

- Through the Common Emergency Communication and Information System (CECIS), DG ECHO host a database on potentially available assets for assistance, to handle requests for assistance on the basis of these data, to exchange information and to document all action and message traffic.
- EU Agencies (e.g. FRONTEX, EMSA), Regional cooperation networks (e.g. BSRBCC) as well as bilateral cooperation (e.g. joint flights between Finland and Sweden, UK and France on tug boats, etc.) share assets on an ongoing basis or undertake joint operations and exercises involving the sharing of assets in coast guard functions such as environment protection or maritime law enforcement. Those actors have developed a variety of approaches to asset sharing.
- In January 2014, the Dutch and Swedish Navy purchased together 5 Harbour and Seagoing tugs. This is one of the first common purchase in this area.⁹⁷

| Contribution to overarching EU objectives | Rating (0-5) | Contribution to overarching EU objectives | Rating (0-5) |
|---|--------------|---|--------------|
| to improve maritime safety | 3 | to protect the EU sea borders | 1 |
| to improve environmental protection; | 2 | to contribute to the sustainability of maritime resources | 2 |
| to improve security at sea; | 1 | to enhance response capabilities to emergency situations. | 2 |

Benefits and impacts

Direct benefits The intended benefits of this measure are:

- Increased regional capacity to respond to emergency situations
- The elimination of the duplication of efforts ultimately leading to efficiency savings;
- The gradual harmonisation towards common processes for the regional use of assets (i.e. planning, prevention plans, etc.)
- The regional area / sea basin will benefit from the expertise and best practice existing in neighbouring Member States;
- Member States will benefit from higher quality assets overall

Ultimate impacts (i.e. financial, economic, social) The financial impacts are estimated to about €0.5 million for the EU and €0 for Member States on an annual basis and over 5 years.

⁹⁵ SAR-Europe. SAR Survey Report 2013. Available at: <http://www.searchandrescueeurope.com/media/6852/2994.pdf>

⁹⁶ MTCP. 2007. Inventory of Coastguard assets and way of operating.

⁹⁷ <http://www.damen.com/en/news/2014/01/dutch-navy-to-buy-tugboats-in-cooperation-with-fmv-sweden>

Description of the proposed improvement opportunity

| | |
|-----------------------------------|--|
| impacts or environmental impacts) | As stated above, the mutualisation of assets by regional Sea basin is likely to result in improved response capacity. Depending on the nature of threats or risk this could lead to a limitation in the environmental impact of accidents or in the rescue of human lives. Considering that the total costs associated with oil spills of 200 to 830 tonnes is estimated to be around € 5.2 to € 21.7 million, improved response capacity associated with early warnings mechanisms have the potential to lead to sizeable cost savings. Providing that the value of a loss of life is considered to be € 1.5 million by the European Commission, improved response capacity could have important social and economic impacts. |
|-----------------------------------|--|

Implementation

| | |
|-------------------------|--|
| Risk to implementation | National authorities receive their annual budgets for performing particular coast guard functions. If they are required to support additional activities for other coast guard functions without the corresponding budget transfer cooperation is unlikely to take place. For increasing the practice of sharing assets, Member State authorities also need to agree on the hierarchy of priorities, planning processes and retain control over their assets whatever the circumstances are. Hence cross sector barriers to cooperation might be difficult to overcome. |
| Implementation timeline | This measure can be implemented in the short to medium term. |

Overall feasibility

| | |
|-----------|--|
| Rating: 3 | This measure is regarded as somewhat feasible. Member States have a long tradition of a sector based approach to interventions at sea but nowadays economic reality may incentivise Member States to further cooperate across borders and coast guard functions. |
|-----------|--|

A2.7 Assessment of improvement opportunity 8

Table A2.7 Assessment of improvement opportunity 8 – Facilitate cooperation on cross-sector joint operations

Description of the proposed improvement opportunity

| | |
|---|---|
| Aim | The aim of this measure is to facilitate the joint planning and coordination of maritime patrols in the same regional area. |
| Key actions | This measure would facilitate the joint planning and coordination of maritime patrols in the same regional area by financially supporting such exercises. These could be used to finance the definition of operational procedures and governance models, planning exercises or ways in which assets and personnel can be mutualised during cross-sector joint operations. |
| Type of cooperation activity | Joint planning and coordination of operations at sea |
| Target population | Regional cooperation fora and networks |
| Target CG functions | All function – cross sector measure |
| Responsible party / Level of governance | EU agencies in their respective sphere of competence but cooperating and the EU Coast Guard Function Forum. |

Significance of the problems addressed

| | |
|-----------|--|
| Problem 1 | Joint patrolling is insufficiently used or coordinated between Member States mainly in the coverage of international waters |
| Problem 2 | Plans are often not shared across national authorities performing similar functions or patrolling in similar geographical areas |
| Problem 3 | Red tape (i.e. governance around rules of engagement, planning, and long administrative procedures) make joint operations difficult to organise. For instance, Helcom has recently identified possible solutions in order to ensure improved coordination in environmental surveillance flights in |

Description of the proposed improvement opportunity

the Baltic sea and the extension of surveillance remit to other coast guard functions. These recommendations could apply to the different EU Sea Basins.⁹⁸

Problem 4 The link between the detection and reporting of fraudulent or illegal activities at sea (e.g. smuggling) and inland investigation is not always systematic.

Baseline position

Legal, institutional and collaboration baseline

Numerous joint operations are performed by coast guard services in Europe in the field of border control, prevention and response to maritime pollution and fisheries control:

- FRONTEX' EPN coordinates Member States' efforts and different EU Agencies in the field of border control, fight against smuggling and human trafficking, illegal fishing, pollution and drug trafficking;
- The BSRBCC leads joint exercises and joint operations in the Baltic sea targeting border control and maritime security;
- Based on the Helcom agreement, countries in the Baltic run one or two "Coordinated Extended Pollution Control Operations" (CEPCO) every year. During these operations, several countries' surveillance aircrafts are gathered to some airfield from where continuous surveillance flights are carried out over the busiest shipping lanes in the Baltic Sea area;
- Based on the Bonn Agreement, the signatories organise "Super SEPCO operations" once or two times a year;
- In the Mediterranean, REMPEC and SAFEMED, the organisations respectively responsible for maritime pollution prevention and for the organisation of common patrols in the Mediterranean basin, have been very active and have strengthened cooperation between a core group of countries;
- EFCA coordinated joint control operations on land and in EU and international waters. This is done through the joint deployment plans, the vehicle through which the EFCA organises the deployment of national human and material means of control and inspection pooled by Member States.
- MAOC-N is an initiative by 7 EU Member States which support, plan for and task operations to interdict illegal drugs being moved by maritime and air conveyances.
- Ceclad is the Mediterranean area anti-drug enforcement coordination centre is an international anti-drug trafficking agency set up in 2008 to coordinate anti-drug trafficking operations and intelligence in the Mediterranean. It hosts liaison officers from six Mediterranean countries (ES, EL, IT, MO, PT and FR).

| Contribution to overarching EU objectives | Rating (0-5) | Contribution to overarching EU objectives | Rating (0-5) |
|---|--------------|---|--------------|
| to improve maritime safety | 2 | to protect the EU sea borders | 2 |
| to improve environmental protection; | 2 | to contribute to the sustainability of maritime resources | 2 |
| to improve security at sea; | 2 | to enhance response capabilities to emergency situations. | 2 |

Benefits and impacts

Direct benefits

The intended benefits of this measure are:

- The early prevention of threats materialising in international waters (e.g. irregular migration, smuggling of people or illegal goods, etc.)
- Improved efficiency, the mutualisation of means, sharing of resources, joint working together and

⁹⁸ The full list of recommendation is available at: <http://helcom.fi/Documents/Ministerial2013/Associated%20documents/Background/Improved%20flight%20permits.pdf>

Description of the proposed improvement opportunity

- the exchange of information, increased patrolling capacity at lower costs
- Joint planning and coordination of patrolling activities of different authorities performing the same or different coast guard function(s) in the same area could increase the efficiency of these patrolling activities;
 - Involvement of customs staff within vessels patrolling in international waters or in sea basins could improve the understanding and reporting of illegal, suspicious or fraudulent activities. It could also improve the decision-making processes in order to improve the speed of intervention.
 - Increased surveillance, reporting and response capacity at sea basin levels
 - Joint patrolling could contribute to mutual understanding and leverage cooperation in other coast guard activities;
 - It could also increase the knowledge base (e.g. modus operandi of different types of criminals, operational practices, etc.) of the different officers and authorities involved and therefore contribute to the fight against illegal and criminal activities at sea.

Ultimate impacts (i.e. financial, economic, social impacts or environmental impacts)

The financial impacts are estimated to €1 million for the EU and €0 million for Member States on an annual basis and this for a period of five years.

From an economic point of view, increasing the number of joint operations could help in further securing maritime routes through which EU trade is transiting. This of crucial importance for the EU economy as European maritime ports handled 3.6 billion tonnes of goods in 2010, of which nearly two-thirds (62%, i.e. 2.1 billion tonnes) were inward goods flows (i.e. these goods were unloaded at EU maritime ports). At EU level, extra-EU trade via sea transport accounts for approximately three-quarters (75%) of all extra-EU trade by volume and for approximately a half (50%) of all extra-EU trade by value. This measure has also the potential to support the working of the EU market by preventing illegal and counterfeit goods to enter the market and avoid tax and import duties. In 2012 the maritime joint operations led by FRONTEX have detected 38 cases of cigarette/tobacco smuggling. The intercepted contraband of 2.4 million packets of cigarettes was worth € 5.6 million.

From a social perspective more frequent joint operations at sea have the potential to reduce the access of drugs and to the EU market. In 2012, the maritime joint operations led by FRONTEX resulted, in addition to the saving of distress migrants, to the apprehension of 382 suspected drug smugglers. The amount of drugs seized was over 46 tonnes, worth € 72.6 million. The predominant part of this was hashish: almost 44 tonnes of drugs worth € 68 million. There were also smaller amounts of cannabis, heroin and cocaine: altogether 2 tonnes worth almost € 5 million.

Implementation

Risk to implementation

- The risk to implementation mainly consists of legal obstacles to asset and personnel sharing or limitations in the (legal) ability of Member State authorities to intervene outside their territorial waters or jurisdictions.
- Member States have a long tradition of a sector based approach to interventions at sea although current economic reality may incentivise them to further cooperate across borders and coast guard functions.

Implementation timeline

The implementation of the measure could be done in the medium term only because of financial implications for the EU budget.

Overall feasibility

Rating: 3

The measure is somewhat feasible to some extent because of financial implications and propensity of Member States to respond to this measure without stronger financial incentives.

A2.8 Assessment of improvement opportunity 10

Table A2.8 Assessment of improvement opportunity 10 – Support inter-MS networking

| Description of the proposed improvement opportunity | |
|---|--|
| Aim | To strengthen collaboration structures by establishing Single Points of Contacts (SPOC) at Member State level ⁹⁹ . The measure is to promote closer cooperation between Member State authorities. It will improve the clarity of national coastguard functions, improve the coordination and consistency of existing EU and regional initiatives, and improve mutual awareness at EU level. |
| Key actions | <p>A central and up-to-date database containing the information for the different Member States should be developed.</p> <p>For a collaboration 'portal' to be developed on the forum's website.</p> <p>Member States to designate a single point of contact responsible for the cooperation and coordination efforts across national authorities performing Coast Guard functions¹⁰⁰.</p> |
| Type of cooperation activity | Improve cross-communication and connectivity of public authorities performance coast guard functions |
| Target population | National authorities performing coast guard functions |
| Target CG functions | All |
| Responsible party / Level of governance | European Commission for co-financing, ECGFF as well as Regional cooperation networks for coordination and Member States for implementation. |
| Significance of the problems addressed | |
| Problem 1 | There is a lack of awareness among national authorities performing coast guard functions on the remits, powers and capabilities of peers in other MS. For instance, the research for this project has identified 316 public authorities performing coast functions at Member State level, ranging from 60 to 140 per coast guard function. |
| Problem 2 | There is a lack of clarity at national level regarding the definition of different coast guard functions (which sometimes leads to overlapping responsibilities for law enforcement authorities and authorities focusing on other functions or areas). |
| Problem 3 | There is a multiplicity of EU and regional level initiatives with similar aims and objectives. For instance, a total of 70 collaboration structures have been identified during this project, ranging from 8 to 23 cooperation structure per function. They variously operate at the multi-lateral (i.e. EU plus non-EU states), EU, regional and sub-regional levels. In addition there are bilateral and multilateral cross-border cooperation agreements between EU Member States and sometimes involving non-EU States. 41 such cooperation agreements have been identified. |
| Baseline position | |
| Legal, institutional and collaboration baseline | <ul style="list-style-type: none"> ■ A number of Member States have already put in place a structure to coordinate the national authorities performing coast guard functions (e.g. BE, FR, NL, etc.). ■ Based on different legal baselines there already exist multiple contact points within the Member State level for different coast guard functions. These include: <ul style="list-style-type: none"> – The Eurosur Regulation obliges participating Member States to set up National Coordination Centres in the field of Maritime Border Control and Maritime Surveillance. – IMO Convention on Maritime Search and Rescue obliges all its parties to establish rescue coordination centres and sub-centres, also referred to as maritime rescue coordination |

⁹⁹ Providing that a SPOC might not be feasible in some Member States, a process replicating the function of the SPOC between relevant national authorities could be created building on the governance, organisation structure and systems of national authorities.

¹⁰⁰ National Command and Control Centres (NCCs) of the Eurosur Regulation in the Member States could play this role. Actors involved in the enhanced NCC would need to be representative of all authorities performing Coast Guard functions (i.e. authorities with maritime assets and law enforcement authorities mainly operating inland) to ensure continuity with inland operations.

Description of the proposed improvement opportunity

- centre (MRCC). Based on the IMO Convention there is no obligation to appoint single national MRCC. It is allowed to establish MRCC in cooperation with other States.
- In the field of customs and maritime transport, the development of EU maritime transport single window has been discussed since many years and is still under development. These single windows are completely different than the single points of contact existing in other functions. They are defined as facilities that allow parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfil all import, export and transit-related regulatory requirements. If information is electronic then individual data elements should only be submitted once. Under Directive 2010/65/EU, Member States are mandated to adopt Single Window system no later than June 1, 2015.¹⁰¹
 - The joint operations organised or facilitated by EU Agencies (e.g. European Patrol Networks) contributes to the bringing together national authorities and as such act as temporary collaboration structures.

| Contribution to overarching EU objectives | Rating (0-5) | Contribution to overarching EU objectives | Rating (0-5) |
|---|--------------|---|--------------|
| to improve maritime safety | 1 | to protect the EU sea borders | 1 |
| to improve environmental protection; | 1 | to contribute to the sustainability of maritime resources | 1 |
| to improve security at sea; | 1 | to enhance response capabilities to emergency situations. | 1 |

Benefits and impacts

| | |
|-----------------|---|
| Direct benefits | <p>The direct benefits of this measure are:</p> <ul style="list-style-type: none"> ■ Improved communication amongst Coast Guard Functions at Regional level; ■ Easier and speedier planning and execution of operations; ■ Enhanced awareness among national authorities as to who to contact to establish cooperation on an ad hoc or permanent basis; ■ The establishment of single point of contact will improve cooperation between national authorities in different MS and favour the dissemination of information, best practices, training opportunities, etc.; ■ Quicker and more efficient communication between the different coast guard services at international level; and ■ Better facilitation of cross-border and cross-sector cooperation. |
|-----------------|---|

| | |
|--|---|
| Ultimate impacts (i.e. financial, economic, social impacts or environmental impacts) | <p>The financial impacts are estimated to €210,000 for the EU and €1,200,000 for Member States on an annual basis and over a period of 5 years (refer to Table A5.9 for a detailed breakdown of costs).</p> <p>The economic, social and environmental impacts associated with this improvement opportunity are difficult to assess as they will highly depend on the networking effect on national authorities. While the establishment of single points of contact at Member State level is likely to facilitate cross-border and cross-sector cooperation, the benefits of this cooperation will depend on the level of cooperation activity actually happening across the EU as a result of improved connectivity. The establishment of single points of contact is likely to facilitate both prevention and response capacities of the Member States in the different coast guard functions. Considering the size and geographical spread of the EU waters, this improvement opportunity is likely to have an impact on cross-border areas at bilateral level or regional / EU levels with regard to cross-sector cooperation activities facilitated by the single points of contact.</p> |
|--|---|

Implementation

¹⁰¹

<http://www.emarproject.eu/uploadfiles/EU%20Maritime%20Single%20Window%20Development%20Guide%20Version%201.1.pdf>

Description of the proposed improvement opportunity

| | |
|-------------------------|--|
| Risk to implementation | There is a risk of conflict between civilian and military functions of the coast guard services in some Member States. Hence, the concept of having all national authorities within the single point of contact may not be possible for some Member States. In addition, the legal framework of some Member States could also constitute an obstacle to the implementation of the measure. Lastly, there is a risk for the SPOC to create information bottlenecks in the context of operational cooperation. |
| Implementation timeline | This measure can be implemented in the short to medium term. |

Overall feasibility

| | |
|-----------|---|
| Rating :4 | The measure is regarded as feasible by most stakeholders interviewed. |
|-----------|---|

A2.9 Assessment of improvement opportunity 12

Table A2.9 Assessment of improvement opportunity 12 – 3.4.1 Promote and build on exiting common frameworks for information sharing

Description of the proposed improvement opportunity

| | |
|---|--|
| Aim | To improve connectivity between Member States making the best out of the existing legal bases of the existing legal bases for exchanging information so as to enable information to be shared more rapidly and effectively between coastguard authorities. |
| Key actions | Several successive actions are envisaged for this measure: <ul style="list-style-type: none"> ■ Mapping of the existing cross-border information flows and their legal basis; ■ The identification of obstacles for the exchange of information; ■ Identification of the best practice and different options for harmonising the cross-sector and cross-border exchange of information and options for removing the existing obstacles; ■ The selection and promotion of a common framework for data and information exchange applicable to national institutions and regional cooperation networks (e.g. data availability, taxonomy, principles and frequency of data exchange, data protection rules, security and level of classification of the information exchanged, governance etc.); and, ■ The selection and promotion of a common framework for data and information exchange applicable to EU Agencies. |
| Type of cooperation activity | Information and data sharing |
| Target population | National authorities performing coast guard functions and EU Agencies |
| Target CG functions | All the coast guard functions would be targeted by the measure, especially law enforcement and maritime border control functions. |
| Responsible party / Level of governance | Directorate Generals of the European Commission and their EU Agencies in their respective sphere of competence should be responsible for the implementation of the measure. |

Significance of the problems addressed

| | |
|-----------|--|
| Problem 1 | There is a multitude of legal frameworks and agreements that needs to be consulted or called upon every time information is shared. This may hinder the free flow of information between authorities performing coast guard functions. <ul style="list-style-type: none"> ■ The gap assessment study realised by the JRC prior to CISE identified that: <ul style="list-style-type: none"> – About 80% of the existing information is in national ownership; – Almost half of the information that is gathered today is owned by two sectors, namely Defence and Maritime safety, security and prevention of pollution by ships. ■ According to the Member State Expert subgroup survey realised in preparation of CISE legal obstacles are the main obstacles for data sharing between Member States in the field of border control, customs and marine pollution. ■ The legal analysis realised in the preparation to CISE, revealed that the legal conditions for the sharing of maritime surveillance information are at EU level fragmented and rely on a sector-based (vertical) approach. The vast majority of the legal provisions of sector legislation provide for the sharing of information only within the sectors and there are very few provisions allowing expressly for the sharing of information across functions. This does not necessarily exclude the sharing across sectors, provided that the sharing is not excluded by the applicable personal data protection legislation, national rules governing confidentiality, IP rights, etc. The legal complexity |
|-----------|--|

Description of the proposed improvement opportunity

however often results in legal uncertainty as to what information may be shared, with whom and for what purpose.¹⁰²

Problem 2 There is a lack of consistency in the legal framework for the recording of infractions or reporting on infringements by agents operating in foreign territorial waters or in high seas. This affects the validity of the recordings and response by law enforcement authorities.

Baseline position

Legal, institutional and collaboration baseline

- It has been proposed elsewhere that CISE will serve as IT environment to ensure the exchange of existing data and integrate the existing surveillance systems and networks and give all concerned authorities access to the information they need for their missions at sea. This initiative goes one step further and proposes to modestly contribute to furthering the harmonisation of legal frameworks through soft instruments (e.g. a Memorandum of Understanding or common framework for information exchange) in order to allow more efficient data sharing between national authorities as well as EU Agencies.
- Regulation (EC) No 725/2004 on enhancing ship and port facility security imposes communication of information obligations on Member States regarding authorities in charge, responsible parties to receive security alerts, exercise control, etc.
- This proposition will have to build upon the basis of the Data Protection Directive¹⁰³ which seeks to enable the free flow of data between Member States. It will also have to take into account the principle of purpose-limitation¹⁰⁴ and the principle of proportionality¹⁰⁵ of collected personal data exchange, as laid down in the Data Protection Directive.
- EU Agencies have signed agreements with the European Commission and Member States on the exchange of sensitive or classified information¹⁰⁶. They typically exchange specific information via various memoranda of understanding. There is no overarching and common framework for information sharing across the EU Agencies.

| Contribution to overarching EU objectives | Rating (0-5) | Contribution to overarching EU objectives | Rating (0-5) |
|---|--------------|---|--------------|
| to improve maritime safety | 2 | to protect the EU sea borders | 2 |
| to improve environmental protection; | 2 | to contribute to the sustainability of maritime resources | 2 |
| to improve security at sea; | 2 | to enhance response capabilities to emergency situations. | 2 |

Benefits and impacts

Direct benefits The intended benefits of this measure are:

- Efficient data and information sharing (i.e. close to real time delivery of the information);
- The standardisation and exchange of practice are to eliminate red tape and administrative burdens involved in information sharing;
- Quicker information exchange due to harmonised framework enabling early action in the case of

¹⁰² COWI. 2013. The development of the CISE for the surveillance of the EU maritime domain and the related Impact Assessment – Part 2: Combined Analysis.

¹⁰³ Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data.

¹⁰⁴ The principle of purpose-limitation implies that the data may only be collected for specified, explicit and legitimate purposes and not further processed in a way that is incompatible with those purposes.

¹⁰⁵ The principle of proportionality implies that personal data must be adequate, relevant and not excessive in relation to the purposes for which they are collected and/or further processed.

¹⁰⁶ Refer to the “Exchange of EU classified information “ – analytical fiche http://europa.eu/agencies/documents/fiche_17_sent_to_ep_cons_2011-03-16_en.pdf

Description of the proposed improvement opportunity

| | |
|--|--|
| | <p>infringement or infraction;</p> <ul style="list-style-type: none"> ■ Economies of scale in the generation and analysis of the data¹⁰⁷; and, ■ Ultimately leading to more effective actions at sea. |
| Ultimate impacts (i.e. financial, economic, social impacts or environmental impacts) | <p>The financial impacts are estimated to €135,000 for the EU and €0 for Member States on an annual basis and this for a period of five years.</p> <p>This improvement opportunity pursues the same objectives as CISE (i.e. improved data sharing between the Member States and the different EU Agencies), its economic, social and environmental impacts will therefore go in the same direction. According to the Member State Expert subgroup survey realised in preparation of CISE, better information sharing could positively contribute to cost-savings in the field of assets use and use of information. It also has the potential to significantly increase surveillance and response capabilities in the EU. The following benefits from improved data sharing were identified in the literature:</p> <ul style="list-style-type: none"> ■ Increased seizure of counterfeit goods; ■ Improved SAR operations leading to the saving of lives and the prevention of environmental disaster; ■ Better prevention of maritime accidents; ■ Increased seizure of drugs and smuggled goods; ■ Prevention and interception of illegal fishing; ■ Prevention of oil spills; and, ■ Improved detection of pollution. |
| Implementation | |
| Risk to implementation | The measure has to be implemented via EU recommendation (i.e. soft measure) as opposed to hard legislation. Member States should be party to the discussions to ensure that such a framework would correspond to their needs. Participation to the adoption of the common framework for data and information exchange should be done on a voluntary basis. The security of the IT systems used to exchange data and information may pose a risk to the implementation of such measure |
| Implementation timeline | This measure is to be implemented on a medium to long term basis. |
| Overall feasibility | Rating (0-5) |
| Rating: 2 | The feasibility of the measure is regarded as low because of issues in the classification of sensitive information and long tradition of law enforcement authorities of carefulness in the information shared. |

A2.10 Assessment of improvement opportunity 13

Table A2.10 Assessment of improvement opportunity 13 – Promote the collection of EU statistics and their dissemination to measure ECG activities in Europe

| | |
|--|---|
| Description of the proposed improvement opportunity | |
| Aim | The aim of this measure is to inform decision makers as well as officials in authorities performing coast guard functions of the nature, volume and relative performance of activities taking place at national, cross border and European level. |
| Key actions | This could be supported by a study assessing the information already collected and remaining information needs of the targeted stakeholders as well as key indicators and metrics to be reported by level of governance and coast guard functions (i.e. national, cross border, EU level). A second step would consist of the launch of a recurrent survey to collect data from Member States and report on it. Ways in which both steps could be delivered are: facilitated via the online platform of national authorities as suggested by IO 10 or via an external party (i.e. Eurostat or external contractor). |
| Type of cooperation activity | Other type of cooperation |
| Target population | Member States representatives of the ECGFF would be incentivised to support the secretariat in collecting, aggregating and reporting on such metrics. |

¹⁰⁷ Associated with Improvement Opportunity 1, the implementation of this measure will create an area of free movement of information with regard to coast guard functions in Europe with a very systematic analysis of these data. This should highly contribute to the quality and efficiency of the coast guard functions in Europe.

Description of the proposed improvement opportunity

| | |
|---|--|
| Target CG functions | All |
| Responsible party / Level of governance | The implementation of the measure could be carried out by the ECGFF or alternatively an external party (i.e. Eurostat or external contractor). |

Significance of the problems addressed

| | |
|-----------|---|
| Problem 1 | There is a lack of general awareness in the authorities' respective volume of national and or cross border activities. Considering the large number of authorities involved in coast guard functions and the large number of cooperation structures in place, it is very difficult for the different stakeholders to have a clear estimation of the volume of national and cross-border activities. This was largely confirmed by the different rounds of interviews performed during this study. |
| Problem 2 | The information on the volume of the activities of national authorities performing coast guard functions is not aggregated and readily available. There exist different initiatives at EU level to map the available assets and resources at EU level (i.e. DG ECHO CESIS system and FRONTEX OPERA system and TEP) however these do not encompass all the relevant resources and assets for the 10 coast guard functions and there exist no central database compiling these different databases. |

Baseline position

| | |
|---|---|
| Legal, institutional and collaboration baseline | <ul style="list-style-type: none"> ■ The European Coast Guard Functions Forum plans to take a similar initiative in this area in 2014. ■ National authorities performing coast guard function do collect data and statistics on their operations for specific national needs. ■ EUROSTAT collects data on maritime trade, maritime passenger traffic, the maritime industry, etc. ■ EU Agencies produce regular reports including data, statistic and situational pictures in line with their sphere of competence. ■ As part of FRONTEX Risk Analysis Network (FRAN), and the Annual Risk Analysis performed by FRONTEX, Member States exchange statistics on illegal migration on a regular basis. Example of exchanged data include: detection of illegal border crossing, detections of facilitators, etc. ■ EMSA host the management unit of Equasis, which is a platform aiming at collecting and disseminating quality and safety-related information on the world's merchant fleet provided to it by holders of such information (public authorities and industry organisations). The collected data and statistics include information on vessel characteristics, vessel movements, and historical information about ships, casualties, inspections, deficiencies, detentions, owners, demolitions, new buildings and equipment on board vessels.¹⁰⁸ ■ EMSA has also developed the European Marine Casualty Information Platform (EMCIP). At EU level the objective of this platform is to enable EMSA to provide the European Commission and the Member States with objective, reliable and comparable information on maritime safety as well as to facilitate cooperation and analysis. At national level, EMCIP's goal is to facilitate the creation of statistics and any other data analysis needs of the Member States in the field of marine casualties as well as the fulfilment of the national obligations to report investigation findings for certain casualties to IMO.¹⁰⁹ |
|---|---|

| Contribution to overarching EU objectives | Rating (0-5) | Contribution to overarching EU objectives | Rating (0-5) |
|---|--------------|---|--------------|
| to improve maritime safety | 2 | to protect the EU sea borders | 2 |
| to improve environmental protection; | 2 | to contribute to the sustainability of maritime resources | 2 |
| to improve security at sea; | 2 | to enhance response | 2 |

¹⁰⁸ <http://www.emsa.europa.eu/implementation-tasks/equasis-a-statistics.html>. Note also that EMSA has recently adopted the Shore-based Traffic Monitoring Infrastructure Database (STMID) which will be a tool will to regularly update and disseminate relevant information on traffic monitoring infrastructure.

¹⁰⁹ <http://emsa.europa.eu/emcip.html>

| Description of the proposed improvement opportunity | |
|--|---|
| | capabilities to emergency situations. |
| Benefits and impacts | |
| Direct benefits | The intended benefits of this measure are: <ul style="list-style-type: none"> ■ Increase institutional awareness of respective activities, problems, needs as well as relative performance; ■ increase the efficiency of evidence based decision making / planning; ■ Enhance the transparency and accountability of national authorities performing coast guard functions. |
| Ultimate impacts (i.e. financial, economic, social impacts or environmental impacts) | The financial impacts are estimated to € 190,000 for the EU and €0 for Member States on an annual basis and this over five years. The economic, social and environmental impacts associated with this improvement opportunity are difficult to assess. Although this measure will support evidence based decision making, the impacts generated will depend on the nature of the decision made (e.g. on prevention or operational response) and their reach. |
| Implementation | |
| Risk to implementation | There is a risk of creating an administrative burden on national authorities performing coast guard functions by imposing detailed requirements with regard to the generation and dissemination of large batches of data and statistics. Lastly, reporting on sensitive data or classified information is always going to be problematic. |
| Implementation timeline | The implementation of this measure can take place in the short to medium term. |
| Overall feasibility | Rating (0-5) |
| Rating: 4 | The measure is regarded as feasible by most stakeholders although there are some functions for which this might be easier (e.g. SAR, Maritime Safety) than for others (e.g. Maritime Security, Law Enforcement). |

A2.11 Assessment of improvement opportunity 14

Table A2.11 Assessment of improvement opportunity 14 – Development of a strategic vision for EU coast guard authority collaboration

| Description of the proposed improvement opportunity | |
|--|--|
| Aim | This measure aims to set out a set of clear objectives and vision for coast guard functions in Europe should help. Such a statement would help strengthening the strategic framework for collaboration among countries, potentially including the specific actions identified in this report |
| Key actions | It is proposed that a joint ‘vision’ statement is developed that addresses the questions of ‘why’, ‘when’ and ‘how’ coast guard authorities from different countries should collaborate, and their collective ambition for future joint working in general and for different activities (e.g. training, joint operations). The statement should be developed by the Member States’ coast guard authorities working together. |
| Type of cooperation activity | Improve cross-communication and connectivity of public authorities performance coast guard functions |
| Target population | National authorities performing coast guard functions |
| Target CG functions | All |
| Responsible party / Level of governance | ECGFF as well as Regional cooperation networks for the definition of the vision and Member States for implementation. |
| Significance of the problems addressed | |

Description of the proposed improvement opportunity

| | |
|-----------|---|
| Problem 1 | There is currently no overarching policy statement as to why and where further collaboration would be beneficial. |
| Problem 2 | There are a multitude of sector-based strategies, action plans and multi-annual programmes not strictly connected to one another. |

Baseline position

| | |
|---|--|
| Legal, institutional and collaboration baseline | <ul style="list-style-type: none"> ■ DGs of the European Commission publishes management plans, sector-based strategies and other communications; ■ EU decentralised Agencies publish multi-annual programmes and annual programmes as part of their programme planning and implementation processes ■ The ECGFF published working documents setting actions to be implemented on an annual basis. ■ Other regional networks |
|---|--|

| Contribution to overarching EU objectives | Rating (0-5) | Contribution to overarching EU objectives | Rating (0-5) |
|---|--------------|---|--------------|
| to improve maritime safety | 1 | to protect the EU sea borders | 1 |
| to improve environmental protection; | 1 | to contribute to the sustainability of maritime resources | 1 |
| to improve security at sea; | 1 | to enhance response capabilities to emergency situations. | 1 |

Benefits and impacts

| | |
|--|--|
| Direct benefits | <p>The direct benefits of this measure are:</p> <ul style="list-style-type: none"> ■ Establish clear priorities and action plan for the long term ■ Furthering collaboration amongst national authorities in a coordinated way ■ Improved communication amongst Coast Guard Functions at Regional level; ■ Enhanced awareness among national authorities as to how to establish cooperation; ■ Better facilitation of cross-border and cross-sector cooperation. |
| Ultimate impacts (i.e. financial, economic, social impacts or environmental impacts) | <p>No financial impact has been estimated for this measure. Actions from the measure are considered as business as usual for the ECGFF.</p> <p>The economic, social and environmental impacts associated with this improvement opportunity are difficult to assess as they will highly depend on the extent to national authorities refer to the strategy while setting their own priorities. The benefits of the strategy will depend on the level of cooperation activity actually happening across the EU as a result of the execution of actions in the related roadmap or action plan. The enhanced awareness of common EU level priorities and key actions are likely to have an impact on cross-border areas at bilateral level or regional / EU levels and with regard to cross-sector cooperation between coast guard services.</p> |

Implementation

| | |
|-------------------------|---|
| Risk to implementation | The barriers and risks to implementation are considered as low. Although the ECGFF Secretariat has limited available resources, it can rely on national points of contacts to develop a strategic vision and this feasibility study as a basis for furthering its strategy. |
| Implementation timeline | This measure can be implemented in the short to medium term. |

Overall feasibility

| | |
|-----------|---|
| Rating :4 | The measure is regarded as highly feasible. . |
|-----------|---|

Annex 3 Discarded improvement opportunities

This annex presents the discarded improvement opportunities. Whilst the following measures were not subject to the feasibility assessment, it is described in order to report stakeholder views as expressed during the consultations.

A3.1 Assessment of improvement opportunity 2

The main reasons for discarding this improvement opportunity are:

- The registration and reporting of small vessels would impose a disproportionate administrative burden compared to the expected benefits from the measure;
- The measure would have unintended consequences on the industries related to small leisure crafts (i.e. tourism, ports, ship builders, etc.)
- The registration and reporting of small vessels would not fully remediate to the problems of the detection and identification of small vessels representing a treat or posing a risk to maritime safety or maritime law enforcement;
- Third countries which have legislated in this area are reviewing or amended their legislation in the field. For instance, in Canada, a new legislation was proposed in 2011 to eliminate mandatory registration for small vessels. Owners of small vessels that are not pleasure craft are no longer required to register their vessels. This exemption applies to human-powered vessels (such as canoes and kayaks), small sailing vessels and small power-driven vessels of under 10 hp/7.5 kW. The reason behind this proposal is that small vessel owners should not face the administrative burden and cost of registration associated with vessel registration. Owner of small-size vessels should have the choice to register voluntarily.

Table A3.1 [Discarded] Improvement opportunity 2 – Develop and promote or legislate on standards for registering small sized vessels

| Description of the proposed improvement opportunity | | | |
|---|--|--|---------------------|
| Aim | The aim of this measure is for Member States authorities to develop, promote and adopt standards for the registration of small sized vessels. | | |
| Key actions | This would include conducting an impact assessment including the review of current practices, including voluntary practices, with regard to the registration and reporting of small sized vessels in cross border maritime regions or sea basins for maritime surveillance and maritime safety purposes. | | |
| | This could be followed up by recommendations on registration standards. Adoption of the standards would be at the discretion of the Member States. | | |
| Type of cooperation activity | Other | | |
| Target population | National authorities performing coast guard functions | | |
| Target CG functions | Maritime Safety; Maritime surveillance; Maritime security; Maritime law enforcement. | | |
| Responsible party / Level of governance | The implementation of the measure could be financed by the European Commission. | | |
| Significance of the problems addressed | [Scale of the problem; consequence of problem; level of activity of CG authorities; extent of the existing collaboration or cooperation] | | |
| Problem 1 | There is a lack of information available on small sized vessels because there is little consistency through the Member States with regard to the registration of small vessels or pleasure boats | | |
| Problem 2 | The coverage of certain maritime area by fixed surveillance assets is sub-optimal | | |
| Baseline position | | | |
| Legal, institutional and collaboration baseline | | | |
| Contribution to overarching EU objectives | Rating (0-5) | Contribution to overarching EU objectives | Rating (0-5) |

| Description of the proposed improvement opportunity | | | |
|---|--|---|---|
| to improve maritime safety | 0 | to protect the EU sea borders | 0 |
| to improve environmental protection; | 0 | to contribute to the sustainability of maritime resources | 0 |
| to improve security at sea; | 0 | to enhance response capabilities to emergency situations. | 0 |
| Benefits and impacts | | | |
| Direct benefits | The intended benefits of this measure are: <ul style="list-style-type: none"> ■ Enhance maritime situational awareness (threats, risks, unidentified vessels, etc.) ■ Increase in the efficiency of surveillance operations (i.e. more for less) ■ Harmonise the registration procedures throughout the different MS in order to build a consistent and harmonised database of small-size vessels ■ Contribute to the fight against illegal fisheries and maritime smuggling and trafficking ■ Improve the efficiency of cross-border law enforcement operations (e.g., pursuit and identification of small-size vessels involved in criminal/illegal activities) | | |
| Ultimate impact (financial, economic, social impacts and environmental impacts) | | | |
| Implementation | | | |
| Risk to implementation | | | |
| Implementation timeline | | | |
| Overall feasibility | Rating (0-5) | | |

A3.2 Assessment of improvement opportunity 11

The main reasons for discarding this improvement opportunity are:

- The case of joint action aimed at further improving cooperation with third countries is uncertain since a lot is already being done and that the direct benefits are rather limited and depend on the final form of implementation and actual intensity of the cooperation facilitated by the measure.

Table A3.2 [Discarded] improvement opportunity 11 – Promote common approaches on how to improve cooperation with third countries on coast guard services and functions

| Description of the proposed improvement opportunity | |
|---|--|
| Aim | The aim of this measure is to facilitate common approaches to cooperation with third countries in all coast guard functions. The ultimate long term goal is to facilitate the emergence of a common EU policy on the external dimension of the cooperation on coast guard functions. |
| Key actions | This measure would necessitate the drafting of a vision or position paper on common approaches to improve cooperation with third countries on coast guard services ¹¹⁰ . |

¹¹⁰ One example of an approach would be to devise country specific packages providing third countries with incentives to cooperate on specific issues (e.g. Maritime Border Control or Surveillance) in exchange of EU support on issues more aligned to their interests (e.g. financing of infrastructure and training to prevent or deter overfishing in their territorial waters). Another example is to reflect on the US Coast Guard practice to station of their officials in major / high risk country of origin of maritime traffic to enhance cooperation and collect intelligence on key threats potentially coming to European shores.

Description of the proposed improvement opportunity

| | |
|---|---|
| Type of cooperation activity | Capacity building, information sharing, joint operation. |
| Target population | EU Agencies, Regional cooperation networks and neighbouring countries of the EU. |
| Target CG functions | All functions |
| Responsible party / Level of governance | The implementation of the measure could be coordinated by the Directorates General of the European Commission, their Agencies in their respective sphere of competences and Regional Cooperation Networks with the support of the EEAS. |

Significance of the problems addressed

| | |
|-----------|---|
| Problem 1 | The efficiency of coast guard activities is often undermined by the lack of international cooperation |
|-----------|---|

Baseline position

| | |
|---|---|
| Legal, institutional and collaboration baseline | <p>There are quite a lot of initiatives in all coast guard functions addressing the external dimension of EU policies. Although it is not possible to describe in an exhaustive way the various activities aiming to enhance cooperation with third countries, this paragraph list the most prominent ones:</p> <ul style="list-style-type: none"> ■ The Founding Regulation of EMSA, FRONTEX and CFCA foresee the participation of third countries in Agencies' activities or the cooperation between the Agency and specific third countries.¹¹¹ ■ SAR activities are well practiced at international level and have robust, internationally accepted processes and procedures in place. These are based on the IMO International Convention on SAR. ■ In the different sea basin different cooperation structures exist to support the engagement and cooperation with non-EU countries. These cooperation agreements are often organised by functions or themes. In the Mediterranean key initiatives include: <ul style="list-style-type: none"> – The SafeMed project, which is financed by the EU and implemented by EMSA. The objective of SafeMed III is to improve the protection of the Mediterranean sea marine environment against the risk of accidents at sea and marine pollution, by supporting the further ratification and implementation of international maritime safety and security conventions and improving the relevant capacities of maritime administrations in the Mediterranean partner countries.¹¹² – The Regional Coast Guard Fora (e.g. The Mediterranean Coast Guard Forum focus) on multilateral cooperation on a wide range of issues such as maritime safety and security, environmental and fisheries protection activities as well as the potential partnership for their application. – REMPEC is the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea. It is administered by the IMO in cooperation with UNEP/MAP and its objective is to contribute to preventing and reducing pollution from ships and combating pollution in case of emergency as well as to assist the contracting parties in meeting their international obligations. – Regional networks linked to maritime surveillance and maritime border control also undertake cooperation activities with third countries (e.g. SEAHORSE) – MAOC-N and Ceclad in the field of Maritime law enforcement cooperate with third countries; – The EU Environmental Strategy for the Mediterranean which aims to reduce pollution levels across the region, promote sustainable use of the sea and its coastline, encourage neighbouring countries to cooperate on environmental issues, etc.¹¹³ – The Union for the Mediterranean, which is a multilateral partnership aiming at increasing the potential for regional integration and cohesion among Euro-Mediterranean countries; – TAXUD has customs arrangements with North African countries. |
|---|---|

¹¹¹ Cooperation between an EU Agency and a third country implies financing those activities from the EU budget. Participation of a third country implies pre-financing of the share of the Agency budget covered by the contribution of the third country. The participation of EFTA countries in Agencies' activities is governed by Article 82 of the Agreement on the European Economic Area (EEA).

¹¹² <http://www.emsa.europa.eu/implementation-tasks/safemed-iii.html>

¹¹³ http://eur-lex.europa.eu/LexUriServ/site/en/com/2006/com2006_0475en01.pdf

| Description of the proposed improvement opportunity | |
|--|--|
| Contribution to overarching EU objectives | Rating (0-5) |
| to improve maritime safety | to protect the EU sea borders |
| to improve environmental protection; | to contribute to the sustainability of maritime resources |
| to improve security at sea; | to enhance response capabilities to emergency situations. |
| Benefits and impacts | |
| Direct benefits | <p>The direct benefits of this measure would be found in the</p> <ul style="list-style-type: none"> ■ Acting in concert with neighbouring third countries to achieve common objectives can increase the efficiency of European cooperation and coordination efforts (e.g. via improved operational coordination, economies of scale, or the establishment of priority areas on which to focus efforts on). ■ The promotion of international standards can facilitate the coordination of activities with third countries (i.e. border control, border surveillance, fisheries control). |
| Ultimate impacts (i.e. financial, economic, social impacts or environmental impacts) | |
| Implementation | |
| Risk to implementation | <p>There are several implementation hurdles:</p> <ul style="list-style-type: none"> ■ Cooperation with neighbouring countries is generally good but in some regions cooperation between third countries is lacking; ■ National authorities generally have their own relationships with third countries but they may not be willing to share, open up relationships to other Member States; ■ EU level consensus could be hard to reach providing that economic interests, diplomatic ties, or security interest might be at stake ■ The EU objectives in 10 the Coast Guard Functional areas might be at odd with third country objectives, interests or capacity to act or even with the external dimension of EU policies. |
| Implementation timeline | This measure is to be implemented over the short term. |
| Overall feasibility | Rating (0-5) |
| Rating: 1 | |

Annex 4 Methodological note about the interpretation of the results from the data validation exercise

A4.1 Introduction

The second phase of the project included a consultation exercise. The objective of this exercise was to validate the information collected during the original mapping (Phase 1 of the project) which proved to be incomplete and/or inconsistent. The validation process was designed to collect the following information for each Member State (MS):

- An inventory of the different public authorities involved in carrying out the ten coast guard functions (as identified by the European Coast Guard Functions Forum);
- The partnerships/structures for cooperation /coordination in which these authorities are involved.

ICF asked the lead coast guard authority in each Member State to validate the information collected. A specific online questionnaire was developed for each Member State. It asked for confirmation of:

- the lead authority in the country;
- Whether the public authorities identified were involved in carrying out specific coast guard functions;
- Which trans-national collaborative arrangements the national authorities participate in. This was done by presenting a list of collaboration structures for which the respondents had to indicate “Yes”, “No” or “Don’t know” if the authority participates. The respondents also had the opportunity to integrate additional cooperation structures.

A4.2 Interpretation of the data

The data provided by Member States required some interpretation. The following approach was followed:

1. Mapping of national authorities:

- Specific country fiches (in MS Excel) were developed for each Member State indicating the changes (e.g. a switch from “Yes” to “No”) filled in by the respondents, as compared to the information gathered in phase 1. In a few cases, respondents indicated that they were not sure (a “don’t know” response) whether specific national authorities were involved in performing a given coast guard function. This was indicated by a question mark in the fiche.
- When developing the country mapping the public authorities indicated as “don’t know” were not included. This was done on the basis that if the lead authority on coast guard function in a Member State was not sure about the involvement of a specific national body into one of the coast guard function, any such role was likely to be minimal.
- Some Member States provided multiple sets of responses from different national agencies or departments on the rationale that the most competent administration for a specific coast guard function should respond for that function. In a few cases, this resulted in the provision of conflicting answers from different national authorities. When this occurred the following steps were taken:
 - Discussions with the stakeholders to compile an aggregated version of the questionnaire; and,
 - If this was not successful, the inputs from the different national stakeholders were combined based on the following rationale: the responses provided by the authority indicated as “lead authority” were considered as prevailing.

2. Mapping of existing collaborations

- The country fiches also contain rows indicating the mapping of the collaborations for each coast guard functions. The same approach as for the mapping of national authorities was followed to indicate yes/no changes; each “don’t know” was indicated with a question mark.
- As the question marks were more frequent for collaborations an additional column was added to the fiches entitled “Partnerships/ structures for cooperation/ coordination (potential membership)”. This column contains all the cooperation structures that were indicated as “don’t know” by respondents.

Once specific country fiches were completed a file was created which combined the information provided by all Member States. This master file was used to develop the baseline scenario presented in section 2.3 of this report.

The collaboration baseline also benefitted from input from EU institutions. Directorates-General and Agencies with a role in at least one coast guard function were asked to indicate what collaborations exist today for each coast guard function. If the institution indicated that there were no examples of a specific types of collaboration cooperation structures for a specific coast guard function this was cross-checked to information provided by the other relevant EU institutions and by additional research as needed. This process sometimes resulted in the re-categorisation of specific collaborations.

Annex 5 Methodology for the feasibility assessment

The measures (improvement opportunities, IOs) identified in this report have been assessed against the following criteria:

- Contribution towards higher EU objectives as stated in the terms of reference of this study;
- (Direct) benefits;
- Cost (to the EU and Member States);
- Other impacts (economic, social and environmental);
- Implementation risks and timeline;
- Overall feasibility.

This annex describes the assessment methodology adopted, which varied slightly across the criteria.

The data collected came from both primary and secondary research. Interviews were conducted with stakeholders across the EU who have expert knowledge of coast guard functions. In parallel evidence was collected from previous research reports, and financial and budgetary information published by national and EU institutions (e.g. FRONTEX, DG MARE).

A5.1 Assessment of direct costs

Costs were estimated using two different methods:

- Using financial costs from similar projects/actions;
- A Standard Cost Model (SCM) approach.

Two different types of cost were distinguished:

- Set-up costs, i.e. initial investments costs required by the measure;
- Running costs – represent the operating and maintenance costs required by the measures.

Additional costs to the baseline situation were estimated by reviewing the level of collaboration already taking place at national, regional or EU level in the respective coast guard functions. The incremental costs of a measure were estimated by applying the costs of these actions only to the lead authorities and or functions not already performing them.

The total cost of each measure has been annualised over a 5 year period, taking year 1 as a reference year for implementing all actions related to the improvement opportunities. This approach was adopted in order to facilitate the like-for-like comparisons of financial impacts of the improvement opportunities. Due to the uncertainties involved in estimating the costs of the measures and the cost baseline, cost estimates should be regarded as indicative rather than precise. They signal the magnitude of the costs implied by the implementation of the improvement opportunities and will carry a margin of error due to factors that cannot be predicted in this study. The calculations may underestimate or over-estimate some of the set-up costs or running costs due to unforeseen events, implementation risks or take up.

A5.1.1 Using analogues to estimate costs

Specific actions required for the implementation of the measure were identified and cost estimates generated for each one. Costs of individual actions were aggregated to estimate the overall cost of the improvement measure.

The specification of the action needed to identify the incremental impacts. This involved considering whether, for example, additional physical infrastructure needs to be built or new software developed.

Costs were estimated by looking for similar actions based on similar projects in similar functions or for similar actions. This information was either via stakeholder interviews (primary research) or review of documents and data (secondary research). For example, if an IO requires the construction of a regional command and control centre, a national coast guard authority that had recently build a similar operational centre would be approached for advice on the cost and/or the institution's financial data reviewed to retrieve the costs incurred.

A5.1.2 The Standard Cost Model (SCM)

This method is commonly used to estimate the administrative burden placed on organisations from the requirement to comply with obligations handed down from higher authorities¹¹⁴. The European Commission define an administrative burden as:

“the costs imposed on organisations, when complying with information obligations stemming from governmental regulation”

In the SCM, administrative burdens are calculated on the basis of the average cost of the required administrative activity multiplied by the total number of activities performed in a year. As an example, if the 22 EU lead coast guard authorities each have to submit certain statistical data to an EU institution every 6 months and this data costs them €10,000 to collect then it would be estimated that it costs each authority €20,000 each year to disseminate this data to the EU and the total burden across the entire EU would be €440,000 per annum.

A5.2 Cost assessment

This annex explains the build-up of the estimates of the costs of the improvement opportunities. Table A5.1 provides an overview of the costs. The subsequent table provide details of the cost assessment.

Table A5.1 Overview of the annualised costs of implementing the improvement opportunities

| Focus | Improvement opportunity | Total cost | Assumed costs to the EU | Assumed costs to the Member States |
|----------------------------------|-------------------------|-------------|-------------------------|------------------------------------|
| Capacity building | IO 10 | € 1,410,000 | € 210,000 | € 1,200,000 |
| | IO 14 | € 885,000 | € 885,000 | € 0 |
| | IO4 | € 4,350,000 | € 4,350,000 | € 0 |
| | IO5 | € 0 | € 0 | € 0 |
| Data sharing | IO12 | € 135,000 | € 135,000 | € 0 |
| | IO13 | € 1,500,000 | € 1,500,000 | € 0 |
| | IO1 | € 200,000 | € 200,000 | € 0 |
| Asset sharing / joint operations | IO7 | € 510,000 | € 510,000 | € 0 |
| | IO8 | € 1,000,000 | € 1,000,000 | € 0 |

¹¹⁴ For more information on the Standard Cost Model, see Eurostat's guide: http://epp.eurostat.ec.europa.eu/portal/page/portal/quality/documents/STANDARD%20COST%20MODEL_DK_SE_NO_BE_UK_NL_2004_EN_1.pdf

| Focus | Improvement opportunity | Total cost | Assumed costs to the EU | Assumed costs to the Member States |
|----------------------------|-------------------------|---------------------|-------------------------|------------------------------------|
| | IO3&9 | € 3,960,000 | € 660,000 | € 3,300,000 |
| Other measures | IO6 | € 100,000 | € 100,000 | € 0 |
| Total¹¹⁵ | | € 14,050,000 | € 9,550,000 | € 4,500,000 |

Table A5.2 Cost assessment of IO1

| IO1 - Promote common standards, procedures, and tools to analyse shared information | |
|--|--|
| Total annualised costs over 5 years | €1,500,000 |
| EU level set up costs | €4,500,000 |
| EU annual running costs | € 600,000 |
| MS level set up costs | €0 |
| MS level annual running costs | €0 |
| Baseline position | <ul style="list-style-type: none"> These measures apply to six coast guard functions, i.e. Maritime Security, Maritime law enforcement, Maritime environmental protection and response, search and rescue, fisheries control. |
| Assumptions | <ul style="list-style-type: none"> It is assumed that the development costs of the analytical framework are similar to CIRAM for all coast guard functions concerned. These are estimated to €500,000 per coast guard function. It is assumed that the running costs of meetings to implement the analytical framework are similar to the costs of FRONTEX Risk Analysis meetings. These have been approximated to €100,000 a year. The cost of opportunity of Member State users attending the meetings has not been estimated. It is assumed that the costs of the IT pilot are in line with the FRONTEX budget for the maintenance and development of analytical tools: including open source subscriptions, analytical data collection/processing tools and software available for analysts (i.e. approx. €250,000 over two years) and this for each function concerned. No costs are incurred in the subsequent years. It is assumed that all set-up and operating costs are borne by the EU. |

Table A5.3 Cost assessment of IO3&9

| IO3&9 - Promote the sharing of search and rescue assets: | |
|---|---|
| Total annualised costs over 5 years | €3,960,000 |
| EU level set up costs | €2,850,000 |
| EU annual running costs | €90,000 |
| MS level set up costs | €0 |
| MS level annual running costs | €3,300,000 |
| Baseline position | This measure applies to the Search and Rescue function only. Member States are assumed to share 50% of the cost of set up and maintenance of SAR Operational centres. |
| Assumptions | <ul style="list-style-type: none"> It is assumed that the cost of the project for digitising typical rescue |

¹¹⁵ NB: the total costs reported in this table are slightly different than the cost reported in the roadmap. This is because the costs reported in the above table are representative of the total cost of specific actions over a five year period, regardless of their implementation schedule. The roadmap takes into account the implementation schedule and hence misses some of the costs to be incurred after 2019.

IO3&9 - Promote the sharing of search and rescue assets:

- plan is €10,000 – based on similar initiatives undertaken at Member States level.
- It is assumed that the set up costs of the development of an online database containing rescue plans is €390,000 based on similar initiatives undertaken at EU level.
 - It is assumed that the set-up costs of running an inventory of SAR assets are €200,000 based on similar initiatives (EMSA’s tender on the provision of data for the Equasis Database)
 - When calculating the figure for developing a database of SAR assets, the upper-quartile of the distribution of the cost figures obtained from research (€120,000 and €550,000) was selected to estimate the set-up costs to €500,000)
 - The IT system necessary for running a common SAR operation was estimated at €1,750,000 on the basis of the cost of the Blue Eye operation a project in Portugal
 - It is assumed that running costs are 10% of set-up costs for the cost of set up of common databases.
 - It is assumed that three regional SAR operational centres will be created from scratch in the areas of high volume shipping traffic (the South Mediterranean, the Black Sea and the North Sea at an average cost of €1,100,000 per year.
 - It is assumed that the other SAR operational centres to be collocated share the same premises and resources as the national coordination centres (EUROSUR) or other national command and control centres, thus minimising costs.

Table A5.4 Overall Assessment of IO4

| | |
|---|--|
| IO4 - Construct and maintain new pools of experts | |
| Total annualised costs over 5 years | € 885,000 |
| EU level set up costs | € 300,000 |
| EU annual running costs | €825,000 |
| MS level set up costs | €0 |
| MS level annual running costs | €0 |
| Baseline position | This measure applies to all coast guard functions but with a clear focus on specific coast guard functions to enable cross-sector cooperation: maritime safety, maritime security, maritime customs and maritime law enforcement. |
| Assumptions | <ul style="list-style-type: none"> ■ It is assumed that the exercise consisting in national authorities declaring their experts carries no cost since it is regarded as a BAU activity and can be facilitated through existing EU institutions and networks. ■ It is assumed that extending existing expert pools to all functions is equivalent to the costs of establishing a new expert pool. ■ Set-up costs for the development of administrative tools are assumed to be borne by the EU. They are based on the budget for the creation, development and management of the EBGT tool for its 1st year of creation (i.e. €300,000). ■ The running costs for the administrative tools and procedures are assumed to be borne by EU institutions. They are based on the budget allocated for administrative management, organisation of meeting, evaluation of the EBGT in the subsequent years after its creation. (i.e.€50,000 a year) ■ The management of the extended pool(s) of experts is estimated to require 2 FTE a year in total. Running costs are thus estimated at €160,000 per year. |

IO4 - Construct and maintain new pools of experts

- It is assumed that the average cost of exchanging experts is in line with the costs of the "European exchange of experts in civil protection" programme (i.e. €1,500 per experts) and that the annual number of expert exchanges is 150 totalling €225,000 a year.
 - It is assumed that the costs of training experts and administrative personnel organising networking meetings and running the exchanges are in line with the costs of the EBGT. (€550,000 per year)
 - It is assumed that Member States do not participate to the costs of expert exchanges.
-

Table A5.5 Overall Assessment of IO5

IO5 - Improve collaboration on training and build a network of training institutions

| | |
|-------------------------------------|--|
| Total annualised costs over 5 years | € 4,350,000 |
| EU level set up costs | €3,500,000 |
| EU annual running costs | €3,650,000 |
| MS level set up costs | €0 |
| MS level annual running costs | €0 |
| Baseline position | <ul style="list-style-type: none"> ■ This measure applies to all coast guard functions but particularly to maritime security, maritime customs, maritime law enforcement, SAR, accident and disaster response and fisheries control |
| Assumptions | <ul style="list-style-type: none"> ■ The cost of mapping maritime curricula or modules is considered to be part of business as usual activities of national authorities. ■ It is assumed that the online platform will cost €500,000 to set up and €50,000 a year to run. ■ It is assumed that 60 trainers per CG function (X6) will attend a training course (in person) each year at a cost of €4000 each. These are run every year and represent the total cost per person for the training, ■ The development of a training curriculum is estimated at €500,000 per function. The EU is assumed to pay in full for cost of training development and operations. It is assumed that no costs fall to MS. ■ It is assumed that 1.5 FTE = €120,000 per year – is necessary to manage the training development and management per function. |

Table A5.6 Overall Assessment of IO6

IO6 - Improve cooperation on research development and innovation

| | |
|-------------------------------------|---|
| Total annualised costs over 5 years | € 100,000 |
| EU level set up costs | €500,000 |
| EU annual running costs | €0 |
| MS level set up costs | €0 |
| MS level annual running costs | €0 |
| Baseline position | <ul style="list-style-type: none"> ■ This measure applies to all coast guard functions |
| Assumptions | <ul style="list-style-type: none"> ■ The mapping of past and current projects will cost €250,000 to set-up. This cost applies to all coast guard functions. ■ The development of the programme of research (including a Member States survey, needs assessment, awareness raising on the programme to Member States Research Funding authorities) (€250,000) ■ It is assumed that the EU will fund the research mapping and draft of |

IO6 - Improve cooperation on research development and innovation

the comprehensive research programme

Table A5.7 Overall Assessment of IO7

| IO7 - Promote/recommend the mutualisation of Coast Guard Services' assets on a regional basis | |
|--|--|
| Total annualised costs over 5 years | € 510,000 |
| EU level set up costs | €1,500,000 |
| EU annual running costs | € 210,000 |
| MS level set up costs | €0 |
| MS level annual running costs | €0 |
| Baseline position | <ul style="list-style-type: none"> ■ This measure applies to all coast guard functions.. |
| Assumptions | <ul style="list-style-type: none"> ■ It is assumed that the feasibility study is relatively expensive due to its scope, availability of the information and technicalities of it (€1,000,000) ■ The measure assume 2 FTEs = €160,000 per year to manage and maintain the database of assets. ■ The costs for the development of a common database of assets based on the same estimates than for improvement opportunity 3&9 (e.g. €500,000) for each of the function concerned) ■ The promotion of interoperable assets standards via the use of eligibility criteria for co-financing in existing financial instruments is considered as business as usual activity. |

Table A5.8 Overall Assessment of IO8

| IO8 - Facilitate cooperation on cross sector joint operations | |
|--|---|
| Total annualised costs over 5 years | €1,000,000 |
| EU level set up costs | €0 |
| EU annual running costs | €1,000,000 |
| MS level set up costs | €0 |
| MS level annual running costs | €0 |
| Baseline position | <ul style="list-style-type: none"> ■ This measure applies to all functions and especially maritime customs, law enforcement and maritime security. |
| Assumptions | <ul style="list-style-type: none"> ■ The cost of the definition of operational procedures and governance models for undertaking cross-sector joint operations, as well as planning exercises or ways in which assets and personnel can be mutualised during cross-sector joint operations are assumed to be similar to the costs of EFCA's Joint Development plans. The Agency does not run the operations but develop the plans which serve as basis for the deployment of the resources pooled by the Member States concerned. ■ The costs of the actions for this measure are estimated to €1,000,000 on an annual basis. All the costs will be borne by the EU. |

Table A5.9 Overall Assessment of IO10

| IO10 - Support inter-MS networking | |
|---|-------------|
| Total annualised costs over 5 years | € 1,410,000 |
| EU level set up costs | €170,500 |

| IO10 - Support inter-MS networking | |
|---|--|
| EU annual running costs | €170,500 |
| MS level set up costs | €0 |
| MS level annual running costs | €1,200,000 [15 MS] |
| Baseline position | <ul style="list-style-type: none"> ■ This measure applies to all coast guard functions |
| Assumptions | <ul style="list-style-type: none"> ■ It is assumed that the running costs of the collaboration portal are equivalent to the running cost of the FRONTEX's online collaboration portal. ■ It is assumed that the set up costs of the portal are one times the yearly running costs. ■ It is assumed that the 15 MS that currently do not have a single point of contact, will hire one at the cost of 1 FTE = €80,000 per annum. |

Table A5.10 Overall Assessment of IO12

| IO12 - Promote and build on exiting common frameworks for information sharing | |
|--|--|
| Total annualised costs over 5 years | €135,000 |
| EU level set up costs | €675,000 |
| EU annual running costs | €0 |
| MS level set up costs | €0 |
| MS level annual running costs | €0 |
| Baseline position | All the coast guard functions would be targeted by the measure but primarily law enforcement, maritime security and maritime border control functions. The costs are based on a cost for three functions. |
| Assumptions | <ul style="list-style-type: none"> ■ It is assumed that a study on the obstacles to data exchange will cost €200,000 per coast guard function. ■ We have assumed that it will cost around €25,000 to develop a common framework with the support of legal experts and this per function. ■ The cost of promoting the use of the framework is considered as business as usual for EU institutions. ■ All costs are borne by the EU. |

Table A5.11 Overall Assessment of IO13

| IO13 - Promote the collection of EU statistics and their dissemination to measure Coast Guard activities in Europe | |
|---|--|
| Total annualised costs over 5 years | €200,000 |
| EU level set up costs | €500,000 |
| EU annual running costs | €100,000 |
| MS level set up costs | €0 |
| MS level annual running costs | €0 |
| Baseline position | All EU institutions, regional cooperation and Member State authorities |
| Assumptions | <ul style="list-style-type: none"> ■ It is assumed that a scoping study covering all coast guard functions will cost around €500,000. ■ It is assumed that a survey covering all coast guard functions will cost around €100,000 per year, based on our evidence from IO6. ■ We assume all these costs are borne by the EU. ■ It is assume that the participation in data collection exercises from a Member State's perspective is part as business as usual. |

Table A5.12 Cost assessment of IO14

| IO14 - Development of a strategic vision for EU coast guard authority collaboration | |
|--|--|
|--|--|

IO14 - Development of a strategic vision for EU coast guard authority collaboration

| | |
|-------------------------------------|---|
| Total annualised costs over 5 years | €0 |
| EU level set up costs | €0 |
| EU annual running costs | €0 |
| MS level set up costs | €0 |
| MS level annual running costs | €0 |
| Baseline position | ■ This measure applies to all coast guard functions. |
| Assumptions | ■ It is assumed that the ECGFF have the resources and means to develop the strategy without the need for additional human or financial resources. |

A5.3 Assessment of benefits and other impacts

The measure's contribution to overarching EU objectives, direct benefits, other impacts, implementation risks and timetable as well as overall feasibility were assessed in a qualitative manner. The source of evidence for the assessment was the two rounds of consultations led during the study as well as the opinions of expert in the team. A rating scale from 5 (highly positive effect) to 0 (no positive effect) was used to rank and compare the improvement opportunities. An example of how this was done with regard to the contribution of the IO to EU overarching objectives is presented below:

.As an example, for each IO we qualitatively assessed each IO using the following scale:

0. The improvement opportunity does not contribute to the EU objective;
1. The improvement opportunity contributes to a limited extent towards the achievement of the overarching EU objective;
2. The improvement opportunity moderately contributes towards the achievement of the overarching EU objective;
3. The improvement opportunity somewhat contributes to towards the achievement of the overarching EU objective;
4. The improvement opportunity makes a noticeable contribution towards the achievement of the overarching EU objective;
5. The improvement opportunity contributes in full towards the achievement of the overarching EU objective.

Similar scales were developed for the other four criteria (direct benefits, impacts, implementation, and overall feasibility assessment) across the IOs. The ranking of feasibility presented in Figure A5.1 summarises the outcome of the ranking exercises using the qualitative and quantitative assessments undertaken.

Figure A5.1 Summary of the feasibility scores

| Type of IO | Improvement Opportunity | Overall score | Area of assessment | | | | | | Contribution of EU objectives | | | | | | Direct benefits | | | Ultimate impact | | | Implementation | | Feasibility |
|----------------------------------|-------------------------|---------------|------------------------------|---|-------------------|---------|-------|--------------------------------|-------------------------------|--------------------------------------|-----------------------------|-------------------------------|---|---|--------------------|-----------------------|----------------------|-----------------|---------------|----------------------|----------------|----------|-------------|
| | | | Cost ranking (Cheapest = 11) | Contribution towards higher EU objectives | (Direct) benefits | Impacts | Risks | Overall feasibility assessment | to improve maritime safety | to improve environmental protection; | to improve security at sea; | to protect the EU sea borders | to contribute to the sustainability of maritime resources | to enhance response capabilities to emergency situations. | Financial benefits | Quantitative benefits | Qualitative benefits | Economic impact | Social impact | Environmental impact | Risk | timeline | |
| Capacity building | IO10 | 13.7 | 4.0 | 1.0 | 1.7 | 1.0 | 2.0 | 4.0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 2 | 3 | 1 | 1 | 1 | 2 | 4 | 4 |
| | IO4 | 18.8 | 6.0 | 1.2 | 2.7 | 1.3 | 2.7 | 5.0 | 2 | 1 | 0 | 1 | 2 | 1 | 2 | 3 | 3 | 1 | 2 | 1 | 4 | 4 | 5 |
| | IO5 | 11.7 | 1.0 | 2.3 | 2.3 | 1.3 | 2.7 | 2.0 | 3 | 3 | 1 | 1 | 3 | 3 | 1 | 1 | 5 | 1 | 2 | 1 | 4 | 4 | 2 |
| | IO14 | 21.7 | 11.0 | 1.0 | 1.7 | 2.0 | 2.0 | 4.0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 |
| Data sharing | IO12 | 17.7 | 9.0 | 2.0 | 2.0 | 1.0 | 1.7 | 2.0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 4 | 1 | 1 | 1 | 3 | 2 | 2 |
| | IO1 | 13.5 | 3.0 | 1.8 | 2.7 | 1.0 | 1.0 | 4.0 | 2 | 3 | 1 | 1 | 2 | 2 | 2 | 1 | 5 | 0 | 1 | 2 | 2 | 1 | 4 |
| | IO13 | 18.7 | 8.0 | 2.0 | 1.3 | 1.0 | 2.3 | 4.0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 1 | 1 | 1 | 3 | 4 | 4 |
| Joint operations & Asset Sharing | IO7 | 16.5 | 7.0 | 1.8 | 1.7 | 1.0 | 2.0 | 3.0 | 3 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 3 | 1 | 1 | 1 | 3 | 3 | 3 |
| | IO8 | 15.5 | 5.0 | 1.8 | 2.0 | 2.0 | 1.7 | 3.0 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 |
| | IO3&9 | 11.3 | 2.0 | 1.0 | 2.0 | 0.7 | 1.7 | 4.0 | 3 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 3 | 0 | 2 | 0 | 2 | 3 | 4 |
| R&D - Innovation | IO6 | 24.0 | 10.0 | 2.0 | 3.0 | 2.0 | 2.0 | 5.0 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 5 |

Annex 6 Authorities interviewed during the study

| EU Member State | Authority | Comments |
|-----------------|--|--|
| Belgium | Belgian Federal Police / Maritime Police division | |
| Belgium | Coast Guard | |
| Belgium | Maritime Rescue and Coordination Centre (Ostend) | |
| Bulgaria | Regional Directorate Border Police | |
| Bulgaria | National Customs Agency/ Administration | |
| Bulgaria | Bulgarian Maritime Administration (Ministry of Transport, Information Technology and Communications) | |
| Cyprus | National Coordination Centre - Port & Marine Police Headquarters Limassol | |
| Denmark | Danish Tax and Customs Administration (SKAT) | |
| Denmark | Admiral Danish Fleet - National Operations | Also covered the point of views of the Royal Danish Navy |
| Estonia | Estonian Tax and Customs Board | |
| Estonia | Ministry of the Interior - Migration and Border Policy Department | |
| Estonia | Estonian Police and Border Guard | |
| Finland | The Finnish Border Guard | Also covered the point of views of the Finnish Maritime Administration |
| Finland | Finnish Customs | |
| Finland | Ministry of Transport and Communications (Administration of Maritime Affairs) | |
| France | Ministry of Ecology, Sustainable Development and Energy | |
| France | General Secretary of the Sea | |
| Germany | Ministry of Transport, Building and Urban Development - Directorate of Shipping and Inland Waterways | |
| Germany | Maritime Rescue Coordination Centre | |
| Germany | German Coast Guard (Customs) | |
| Germany | Central Command for Maritime Emergencies | |
| Iceland | Icelandic Maritime Administration | |
| Iceland | Icelandic Coast Guard | |
| Ireland | Garda (National Police Service) | |
| Ireland | Department of Transport, Tourism and Sport Maritime Safety Directorate | |
| Ireland | Irish Coast Guard Administration | |
| Italy | Italian Coast Guard | |
| Italy | Guardia di Finanza (Custom/Police) | |
| Latvia | State Border Guard of the Republic of Latvia | |

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| EU Member State | Authority | Comments |
|-----------------|--|--|
| Lithuania | State Border Guard Service (SBGS) | |
| Lithuania | Customs | |
| Netherlands | Coastguard | |
| Netherlands | Ministry of infrastructure and environment | |
| Netherlands | Customs Administration | |
| Norway | Norwegian Coastal Administration | |
| Poland | Maritime Search and Rescue (SAR) Service | |
| Poland | Customs Policy Department, Ministry of Finance | |
| Poland | Polish Border Guard | |
| Portugal | Portuguese Immigration and Borders Service (SEF) | |
| Portugal | Customs and Special Duties General Administration | |
| Portugal | Navy / Marinha Comando Zona | Also covered the point of views of the Maritime Police |
| Romania | Border Police | |
| Slovenia | Customs Administration | |
| Slovenia | Slovenian Maritime Administration | |
| Spain | Ministry of Development (SASEMAR) – Maritime search and rescue (Salvamento Marítimo) | |
| Spain | Guardia Civil - Coordination Center for Coastal and Maritime Border Surveillance | Also covered the point of views of the Spanish Navy and the Ministry of Interior - Guardia Civil del mar La Jefatura Fiscal y de Fronteras |
| Sweden | Swedish Coast Guard | |
| Sweden | Swedish Maritime Administration | |
| Sweden | Swedish Customs | |
| United Kingdom | UK Maritime & Coastguard Agency | |
| United Kingdom | Marine Management Organisation | |