European Maritime Safety Agency

EMSA OUTLOOK 2017

EMSA

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FOREWORD

It is with a great sense of anticipation that I approach the leading challenges of 2017. EMSA is an agency in development, capitalising on the expertise gained since its beginning in 2003. The mandate has so far been revised five times with new tasks given in each revision. In 2013 the concept of core and ancillary tasks broadened the Agency's horizon further by opening up the possibility for EMSA to provide even more services related to the EU's maritime transport policy.

EMSA's entrusted tasks are vast and require strong collaboration with our many partners: the European Commission; each EU member country and their maritime administrations in particular, Iceland and Norway; the European Fisheries Control Agency, the European Space Agency, Frontex, the Maritime Analysis and Operations Centre for Narcotics, and EU Navfor. In addition, as part of the European Neighbourhood Policy, EMSA also works closely with countries bordering the Mediterranean, Black and Caspian seas.

Valued collaboration has enabled EMSA to become the main institutional provider of the maritime picture in Europe – hosting vessel tracking systems, as part of the SafeSeaNet ecosystem, that now process somewhere in the region of 19 million ship-related messages per day and allow the correlation of data to build maritime pictures tailored to the needs of particular EU agencies and national competent authorities. The sooner this information can be provided, the sooner certain key responses can be made.

Surveillance technologies have and continue to evolve steadily. In 2016 EMSA made preparations to set up a series of services based on the use of Remotely Piloted Aircraft Systems and these will begin in spring 2017. The services are designed to support a wide range of activities, corresponding both to marine pollution and emissions monitoring, as well as to coast guard related activities. These coast guard related activities will be carried out together with EFCA and Frontex, and cover data sharing, enhanced maritime surveillance and capacity building.

As we move forward, I would like to thank the Administrative Board and particularly its Chair, Frans Van Rompuy, for their investment into the work of the Agency, their confidence in its ability to deliver, and their vision for its growing potential. With our partners, we will continue to perform our tasks in a strong, collaborative spirit of common interest and shared values.

Markku Mylly
Executive Director

EMSA'S LEGAL BASIS ACROSS THE YEARS

2002

Founding Regulation (EC) No 1406/2002

Regulation (EC) No 1644/2002
Administrative and budgetary provisions

2004

Regulation (EC) No 724/2004
Ship security
Technical/scientific assistance for oil pollution

2006

Regulation (EC) No 2038/2006
Funding for response to marine pollution by ships

2013

Regulation (EC) No 100/2013
Core/ancillary tasks
Oil/gas installations
Central role in maritime surveillance
Technical assistance ENP

2014

Regulation (EC) No 911/2014
Multiannual funding for response to marine pollution from ships and oil/gas installations

2016

Regulation (EU) 2016/1625
Extended cooperation with Frontex & EFCA on coast guard functions
Use of Remotely Piloted Aircraft Systems
Enhanced capacity building activities

EXECUTIVE SUMMARY

EMSA's Outlook 2017 publication contains the concrete action and steps the Agency plans to take in 2017 to deliver on its multi-annual strategic objectives. It represents a condensed version of the Single Programming Document adopted by EMSA's Administrative Board in November 2016 and available on the website.

The publication is organised by activity with planned developments outlined in a short narrative. The outcome is reported in the corresponding Consolidated Annual Activity Report which shows the results achieved against the objectives set. The Agency's activities can be broadly divided into five thematic areas which are also reflected in the organisation of the Agency structure. Here below we highlight some of the new developments for 2017 per thematic area:

- **Maritime transport and surveillance**
  The SafeSeaNet ecosystem, combining and integrating several operational systems hosted by EMSA, will become more user friendly as a new interface and mobile app are made available to users. Data will grow as Remotely Piloted Aircraft Systems begin operations, improving pollution detection for example, and also as extended satellite data becomes available under the Copernicus maritime surveillance services. THETIS's modular information system will expand continuing in its drive to target potentially harmful substandard shipping and support enforcement of EU legislation. Efficiency will also be on the agenda, particularly as regards reporting formalities.

- **Visits and inspections to monitor legal and regulatory compliance**
  Visits and inspections in 2017 will cover recognised organisations (16-20); STCW (7-9); PSC and other EU law (16-18); and, maritime security (12-15). Based on the information gathered, horizontal analyses will be made to identify any gaps or lessons learned in the implementation of EU maritime legislation.

- **Providing technical and scientific assistance and facilitating cooperation**
  EMSA will assist the European Commission and Member States in capacity building, focussing notably on the training and tools needed by the competent authorities of the Member States. The e-learning portfolio will be expanded and support will be provided to countries within the framework of the European Neighbourhood Partnership Instrument.

- **Pollution preparedness, detection and response**
  In 2017 the options available to coastal states to respond quickly to marine pollution from ships and oil and gas installations will also include a sea-borne dispersant spraying service for the Atlantic Coast and Mediterranean, as well as an equipment assistance service in the Baltic and North Seas. RPAS monitoring services will also be used to complement the satellite imagery available under CleanSeaNet.

- **Management, quality control, resources and communication**
  The Administrative Board will meet three times in 2017 – adopting the work programme, budget and establishment plan. In line with the founding regulation, the results of the second evaluation of the Agency will become available in 2017.

As shown below, EMSA will support authorities carrying out coast guard functions by continuing to perform its core activities as well as by setting up new and enhanced services for maritime surveillance and capacity building.

EMSA'S COAST GUARD FUNCTIONS

6 CORE TASKS

- SHIP CASUALTY & MARITIME ASSISTANCE SERVICE
- MARITIME, SHIP & PORT SECURITY
- MARITIME MONITORING & SURVEILLANCE
- MARITIME SAFETY & VESSEL TRAFFIC MANAGEMENT
- MARITIME ENVIRONMENTAL PROTECTION
- MARITIME ACCIDENT & DISASTER RESPONSE

5 SUPPORT ROLES

- MARITIME SEARCH & RESCUE
- MARITIME BORDER CONTROL
- PREVENTION & SUPPRESSION OF TRAFFICKING & SMUGGLING & MARITIME LAW ENFORCEMENT
- MARITIME CUSTOMS ACTIVITIES
- FISHERIES INSPECTION & CONTROL

Member States · European Commission · EU Navfor · EFCA · Frontex · MAOC-N · OLAF

HOW EMSA ACTIVITIES FIT INTO THE EU'S OVERALL TRANSPORT POLICY

The EU's transport policy portfolio is designed to make transport safer, more efficient and more environmentally friendly. Its action is articulated around four priority areas: digitalisation, decarbonisation, humanisation and internationalisation. Here we map out how EMSA fits into this landscape, and importantly how its activities relate directly to the achievement of these priorities in the maritime domain.

INTERNATIONALISATION

Strengthening the EU's role on the global stage

DIGITALISATION

Embracing innovation and technology for greater resilience and competitiveness of the European economy & completing a European maritime transport space without barriers

DECARBONISATION

Lessening the environmental impact of shipping to preserve and protect human health and the environment

HUMANISATION

Upholding the highest standards for maritime safety in Europe

- Greater security for EU shipping in overseas markets through Long Range Identification and Tracking
- Support to EU Navfor in its anti-piracy operations through EMSA's Integrated Maritime Services
- Managing Equasis, the global online database for high quality information on the world shipping fleet, created with the overall aim of reducing substandard shipping
- Increased use of the SafeSeaNet maritime information and exchange system hosted in EMSA
- Developing technical solutions for simplified reporting formalities and interoperable IT solutions through the Maritime Single Window
- Various data streams are available to a wide range of national authorities through EMSA's Integrated Maritime Services
- Using Remotely Piloted Aircraft Systems for multiple maritime monitoring and surveillance purposes, notably pollution and polluter detection, ship emissions monitoring and search and rescue operations
- Helping to enforce stricter limits on the sulphur content of marine fuel for those ships calling at EU ports and quantifying CO_2 emissions from shipping through the EU's MRV regulation
- Supporting clean and sustainable shipping by exploring alternative and cost-effective fuel technologies for shipping
- Supporting legal developments to ensure ship-generated waste can be delivered to port waste reception facilities efficiently
- Helping to detect possible oil spills on the sea surface through the CleanSeaNet service and correlating data with vessel traffic reports to identify the probable source and thereby act as a powerful deterrent to would-be polluters
- Offering pollution response services to protect the areas in and around the European coastline, including pollution response vessels, specialist response equipment and dispersant spraying capabilities
- Conducting visits in Member States to link legal objectives with their operational application in areas such as accident investigation and port state control
- Conducing inspections in non-EU seafarer supply countries to ensure seafarers working on board EU registered ships are appropriately educated and trained
- Giving technical advice on passenger ship safety legislation, simplifying rules governing safety and standards, the registration of people on board, and mandatory surveys of ro-ro ferry and high speed craft passenger services
- Supporting joint multipurpose operations and information exchange for coast guard related functions
- Offering a wide range of training courses to maritime authorities, including the authorities of European neighbourhood countries, to build up national capacity and thereby enhance overall maritime safety

CHAPTER 1

MARITIME TRANSPORT AND SURVEILLANCE – INFORMATION ON SHIPS, CARGOES AND SHIP MOVEMENTS

MONITORING VESSEL TRAFFIC IN EUROPEAN WATERS

Vessel and voyage related information across the EU is shared among targeted users through the SafeSeaNet system. The information flows and system functionalities are designed to enhance maritime safety and security, as well as to boost the efficiency of maritime traffic and transport. EMSA works to provide the national administrations (port authorities, coastal stations, search and rescue, vessel traffic services, pollution response bodies, etc.) with 24/7 access to the system.

Importantly, EMSA works alongside the national authorities to ensure the interaction of their systems with SafeSeaNet. This allows SafeSeaNet to serve as a European platform for maritime data exchange. Mandatory functions cover the collection and distribution of data on vessel traffic monitoring, port call information, dangerous and polluting cargo, security, waste and cargo residues, and incident and accident reports. The various central databases that form part of the SafeSeaNet ecosystem help to improve data quality on the individual national databases.

In 2017, a new graphical user interface will be rolled out covering all the applications available in the SafeSeaNet ecosystem. Access will be determined through the setting up of a common management console. The new developments will offer a range of features including access to integrated data flows, increased data visualisation options and new machine-to-machine interfaces.

Two recently created databases will be further developed in 2017: the Central Ship Database which receives and stores up-to-date information on ship identifiers; and, the Central Hazmat Database for information on dangerous and polluting goods which is to serve as a reference tool for national authorities.

SafeSeaNet screenshot displaying a passenger ship crossing between Sweden and Poland over the course of a day

MONITORING EUROPEAN VESSEL TRAFFIC AROUND THE WORLD

The EU LRIT Cooperative Data Centre (EU LRIT CDC) hosted by EMSA disseminates long range identification and tracking information on EU-flagged ships around the world on behalf of all European flag states, and enables the exchange of information with other data centres around the world. This centre can provide Member State users with LRIT information on any third country vessel bound to or sailing within 1000 nm of EU waters.

In 2017 EMSA will continue to operate and monitor the EU LRIT CDC, enabling participating countries to comply with vessel tracking obligations under the SOLAS 74 International Convention for the Safety of Life at Sea. Activities will focus on maintaining the high level of performance achieved so far.

Global satellite AIS (Automatic Identification System) data will also continue to be processed, stored and distributed to users, based on data provided to and procured by EMSA as well as on data received from Member States with existing national satellite AIS programmes. This helps extend the geographical range over which ships can be tracked using the AIS system.

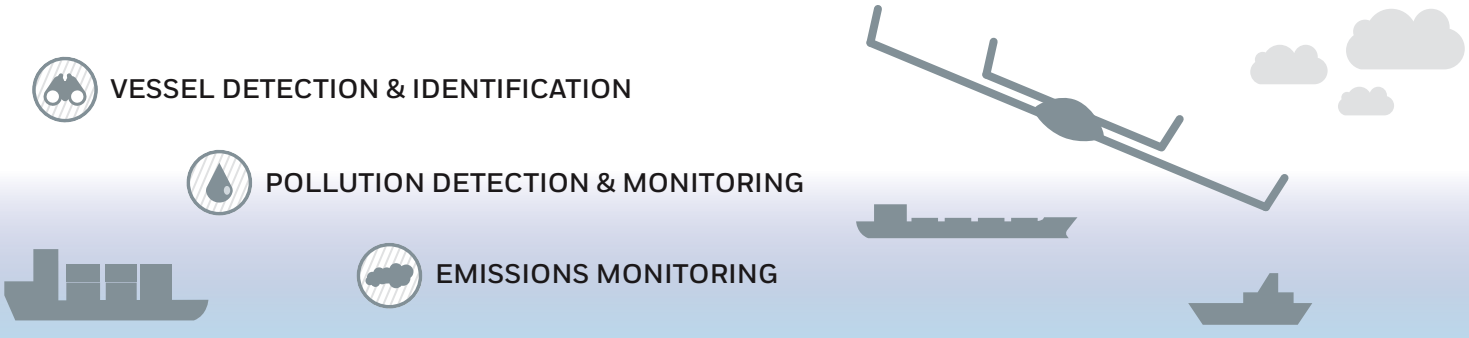
INTEGRATED MARITIME SERVICES

EMSA provides integrated maritime services to a wide range of national authorities across the EU whose duties include maritime-related tasks, as well as to a number of European bodies such as Frontex (border control), EFCA (fisheries monitoring), EU Navfor (anti-piracy) and MAOC-N (law enforcement – narcotics).

By integrating and correlating data from EMSA applications and external sources, services are delivered responding directly to a user's specific needs. Users benefit regardless of whether their needs lie in search and rescue, law enforcement or border control operations. And, as operational needs evolve, the services can be refined and developed.

In 2017 new data sources are to be integrated, offering new and expanded possibilities. Two activities should be mentioned in particular in this respect: Remotely Piloted Aircraft Systems, as these will be used for multiple maritime monitoring and surveillance purposes, such as pollution and polluter detection, ship emissions monitoring, and search and rescue operations; and, the Copernicus maritime surveillance services, under which an extended range of satellite data (synthetic aperture radar and optical data in various resolutions) will be acquired from a variety of providers.

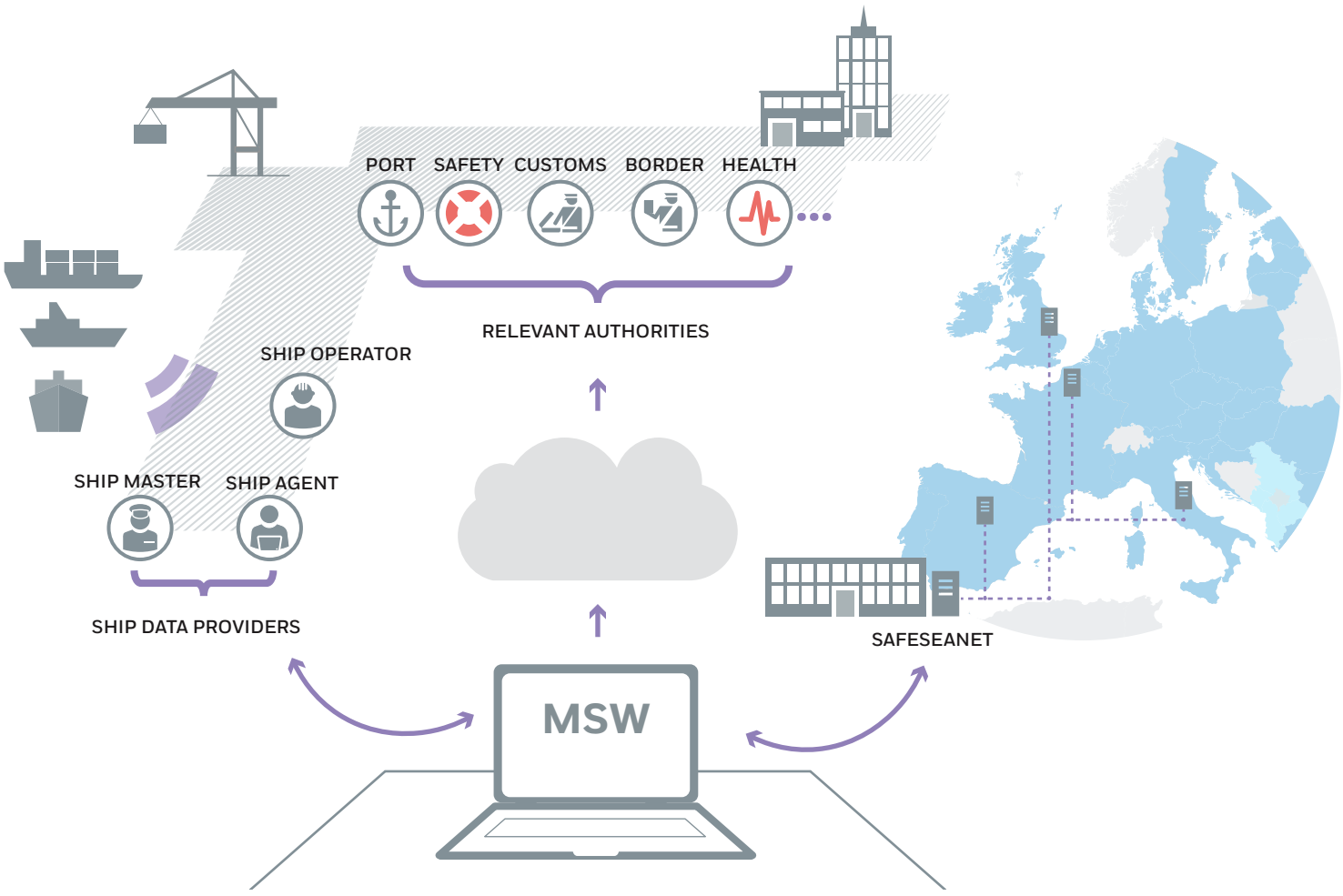
With respect to new technological advancements, EMSA will continue to monitor developments concerning the VHF Data Exchange System (VDES). The VDES, which builds on satellite AIS data, is set to provide higher rates for digital data exchange. Potentially, it could allow for a more effective and efficient transfer of information from ships to shore-based systems, on a worldwide basis. EMSA will continue to work closely with the European Space Agency as well as with national administrations on VDES through the EU Satellite-AIS Collaborative Forum.



SIMPLIFYING REPORTING FORMALITIES

In 2017, EMSA will support the European Commission in the evaluation and revision of the Reporting Formalities Directive, working on measures to facilitate the overall efficiency of ships in relation to reporting formalities. The Maritime Single Window (MSW) prototype, which includes cargo data, will be made available and tested by the eManifest pilot participants within Member States and the shipping industry.

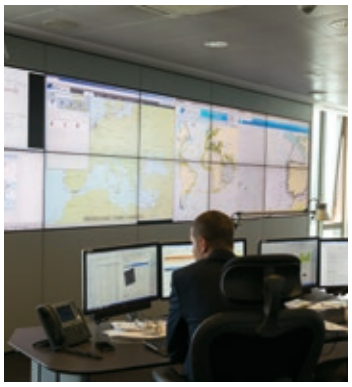
The MSW prototype is where all the data - including the eManifest - is reported and then made available to the various competent authorities in the Member States. It covers information flows between the ship data providers, the relevant public authorities and other Member States via the SafeSeaNet system.



COPERNICUS MARITIME SURVEILLANCE

EMSA has been appointed as the entrusted entity for the Copernicus Maritime Surveillance Service and in this capacity is providing satellite images to support a better understanding and improved monitoring of human activities at sea. For the duration of the delegation agreement (2015-2020), EMSA will be responsible on behalf of the European Commission for implementing all related technical and operational activities.

In 2016, the first services were delivered in the fields of fishery control (for EFCA) and law enforcement (for MAOC-N), and feasibility tests were undertaken in the area of maritime safety and security. These fields of activity will be further extended in 2017, with fully operational services starting for maritime safety and security, and for customs. The activities undertaken during 2017 will incorporate the output of dialogue with existing and new users, including in particular the results of the Copernicus Maritime Surveillance Service user requirements workshop held in November 2016. From this workshop, a number of new requirements and new users were identified.



24/7 MSS helpdesk providing support to users of EMSA's monitoring and surveillance systems

MARITIME SUPPORT SERVICES

The Maritime Support Services (MSS) centre is a 24/7 service helpdesk for users of the vessel traffic monitoring and surveillance systems hosted by EMSA. It provides continual monitoring of these systems, facilitating early incident management and high availability and performance standards. Average feedback times stand at approx. 15 minutes for urgent requests and under 30 minutes for non-urgent requests. The MSS centre is the first point of contact for Member States whenever assistance is required in case of pollution accidents. In 2017 the centre will continue to provide users with timely helpdesk and monitoring services.

EMSA SERVICES TO FRONTEX

5 EMSA SERVICES TO FRONTEX UNDER THE INTERAGENCY SERVICE LEVEL AGREEMENT

FRONTEX

EMSA

ACTIVITY DETECTION SERVICE

- Optical high resolution monitoring
- Activity detection over shore, ports or sea areas

VESSEL REPORTING SERVICE

- Regular reporting on vessels of interest
- Intelligence driven approach for monitoring potentially suspicious behaviour

VESSELS MONITORING AND TRACKING

- Last vessel positions reported
- Filter options for individual data sources (LRIT, AIS, etc.)
- Historical track for individual vessels

ANOMALY DETECTION SERVICE

- Vessel behaviour monitoring
- Alert notifications for suspect behaviour
- Advanced anomaly detection algorithms

VESSEL DETECTION SERVICE

- Satellite radar detection of vessels over sea areas of interest
- Correlation with vessels tracks
- Highlighting small unidentified boats

FRONTEX

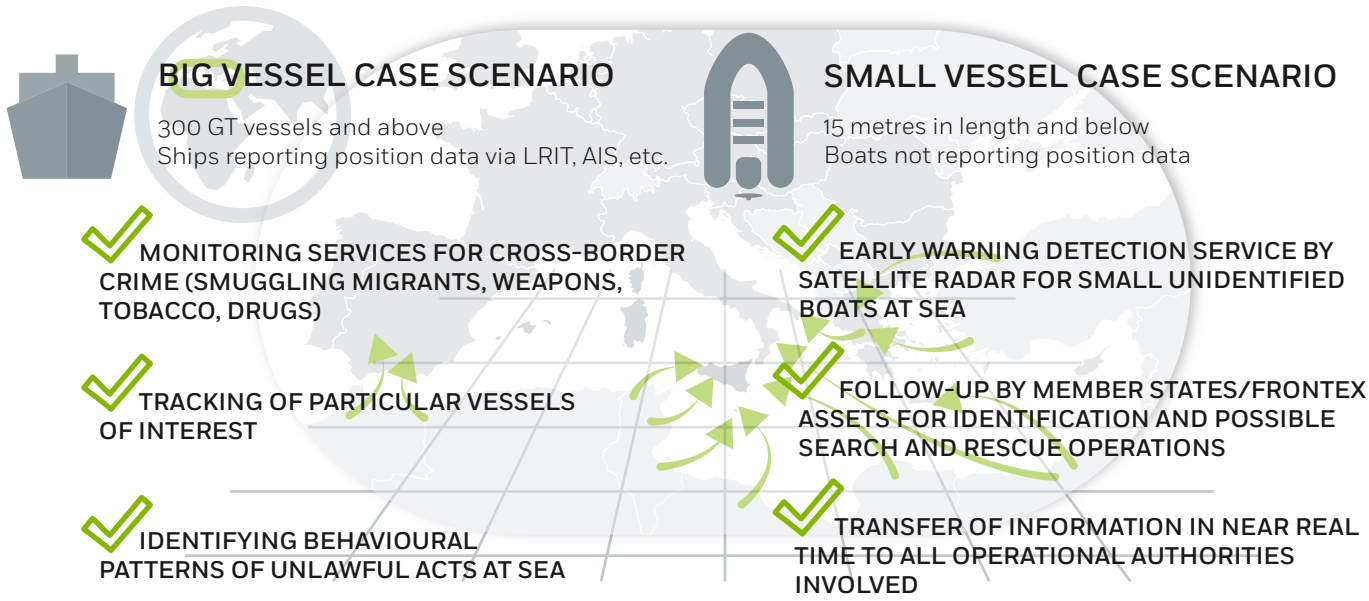
EMSA supports Frontex in conducting operations to address irregular migration and cross-border crime along European maritime borders. The existing service level agreement between Frontex and EMSA was renewed in 2016 for an additional three years. This agreement defines the conditions of the services provided to Frontex, including support for the implementation of the European Border Surveillance System (EUROSUR). Activities in 2017 are decided on the basis of an annual programme and service description agreed between the agencies.

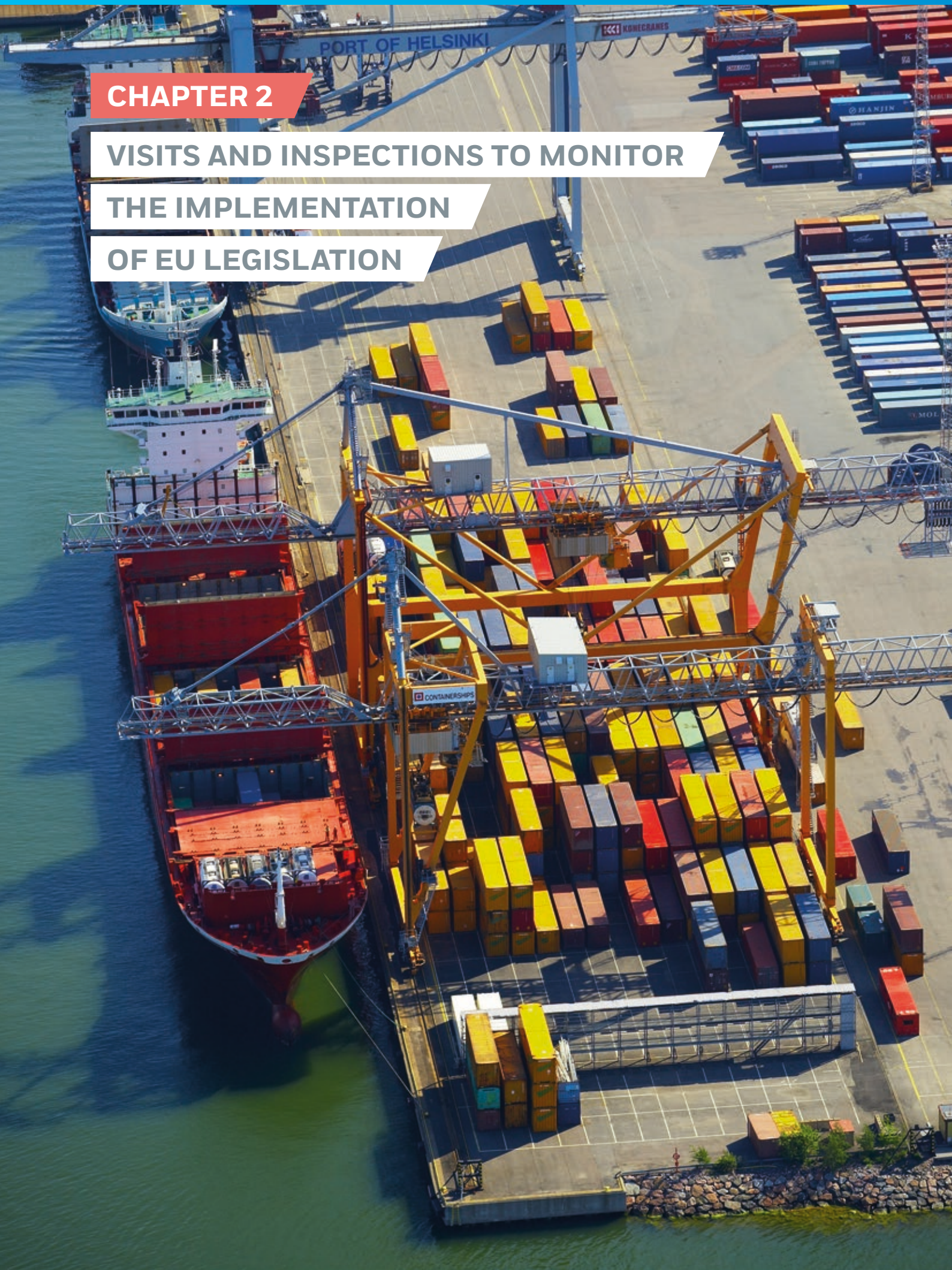
THETIS INFORMATION SYSTEM

The THETIS information system was set up to allow port state authorities in the EU and Paris MoU countries (Canada, Iceland, Norway and Russia) to manage inspection data in a single window. It enables these authorities to target the right vessels for inspection, assists the European Commission by providing statistics on inspection results, and helps monitor the performance of Member States in relation to their international and European legal obligations.

New functionalities have been added to the system, thereby supporting a wider range of Member State authorities and facilitating the enforcement of a broader set of European laws. The provisions of the Sulphur Directive, the Port Reception Facilities Directive and the CO_2 Monitoring, Reporting and Verification Regulation are all being, or in the process of being, catered for in the new modules of this flexible system (THETIS-EU and THETIS-MRV). In 2017, provisions of the recently ratified Ballast Water Management Convention and Ship Recycling Regulation are also expected to be covered.

Under a separate project, an emission inventories calculator developed by EMSA in 2016 will continue to be provided with a view to assess national inventories of shipping emissions based on shipping activity data for domestic, short sea and international shipping.





CHAPTER 2

VISITS AND INSPECTIONS TO MONITOR THE IMPLEMENTATION OF EU LEGISLATION

MONITORING THE IMPLEMENTATION OF EU MARITIME LEGISLATION

EMSA has been monitoring the implementation of EU law in the Member States since its very beginning. The visits to Member States conducted offer a valuable link between the legal objectives and the operational application. In this way the European Commission is able to assess the extent to which EU law is being implemented in this field. They provide a feedback chain on the effectiveness of the legislation and identify gaps where the legal objectives are not being met.

Visits in 2017 will cover a broad range of implementation areas: the completion of the first cycle of visits monitoring the implementation of the Accident Investigation Directive is planned (4 visits); the third cycle of port state control visits will be conducted (4-5 visits); compliance with the sulphur content of marine fuels requirement will be monitored (5 visits); the marine equipment related directive due for implementation by 18 September 2016 will be checked (1-2 visits); port reception facilities will be followed up (1 visit); and, implementation of EU legislation on fishing vessels (1 EFTA country visit). These visits will follow the new methodology for visits adopted by EMSA Administrative Board in November 2015.

CLASSIFICATION SOCIETIES

Classification societies develop and apply technical standards to the design, construction and assessment of ships. Some 12 classification societies are recognised at EU level and are therefore regularly inspected by EMSA. Based on the reports submitted, the European Commission makes two yearly assessments and takes policy decisions and/or requests corrective measures. The overall aim is to improve the quality of the certification work undertaken by these recognised organisations.

In 2017 EMSA will conduct anywhere up to 20 inspections based on a programme decided jointly with the European Commission and focussing on certain factors such as increased risk as indicated by previous findings and non-conformities, or size and geographical spread of a particular recognised organisation's activities. Upcoming inspections are expected to include the Indian Register of Shipping as well as any new or candidate recognised organisations.

MARITIME SECURITY

Maritime security refers generally to measures taken for protection against unlawful acts such as piracy, armed robbery, terrorism and maritime violence. EMSA assists the European Commission and the EFTA Surveillance Authority in the performance of their inspections on enhancing ship and port facility security.

In 2017, approximately 10-12 missions are expected based on requests from the European Commission and determined through the information gathered from a range of sources including previous inspections, and approximately 2-3 to Norway and Iceland at the request of EFTA Surveillance Authority.

PORT STATE CONTROL

In 2017 EMSA will continue to support the European Commission as it participates in the bodies of the Paris Memorandum of Understanding on port state control. Support will also be given on several legal matters, including the proposal on a system of inspections for the safe operation of ro-ro ferry and high speed passenger craft; and, the ex post evaluation of the Port State Control Directive.

HORIZONTAL ANALYSIS AND RESEARCH

EMSA drafts reports for each of the visits and inspections it conducts and then analyses these to identify common findings and draw general conclusions on the effectiveness of the measures in place. This is vital to identify good practices, draw lessons and make improvements to current legislation. The focus in this area in 2017 is expected to be on port state control and accident investigation.

STANDARDS OF TRAINING CERTIFICATION AND WATCHKEEPING

Many EU registered ships are manned by seafarers who are not nationals of EU Member States. To ensure that these crew members are appropriately educated and trained, EMSA carries out inspections in the supplying countries. EMSA staff have been conducting such inspections for over ten years, assessing their level of compliance with the requirements of the IMO's Convention on Standards of Training, Certification and Watchkeeping. EMSA also runs the STCW information system. This system contains objective and comparable information on seafarers holding EU certificates/ endorsements and therefore able to work on board EU registered ships. In 2017 EMSA will conduct up to five inspections to non-EU countries and up to four visits to EU countries.

A SNAPSHOT OF SEAFARERS HOLDING CERTIFICATES OF COMPETENCY & ENDORSEMENTS ATTESTING RECOGNITION BY EU COUNTRIES VALID IN 2014, AS REPORTED IN EMSA'S STCW INFORMATION SYSTEM

EU COUNTRIES

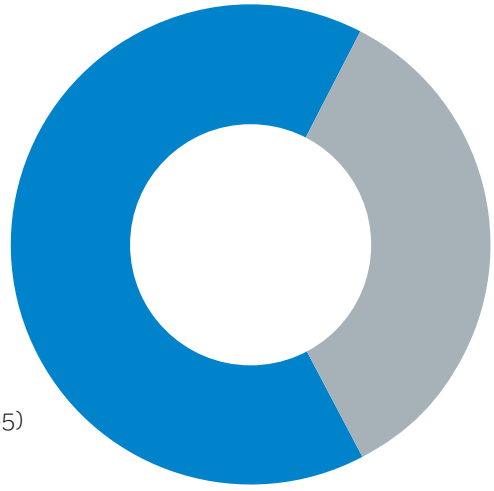
NON-EU COUNTRIES

161419

MASTERS AND OFFICERS CERTIFIED BY EU COUNTRIES

86633

MASTERS AND OFFICERS FROM NON-EU COUNTRIES RECOGNISED BY EU COUNTRIES



5 EU COUNTRIES WITH THE HIGHEST NUMBER OF CERTIFIED OFFICERS

- United Kingdom (28 865)
- Poland (20 082)
- France (12 884)
- Croatia (12 077)
- Italy (10 104)

5 NON-EU COUNTRIES WITH MOST OFFICERS RECOGNISED BY EU COUNTRIES

- Philippines (28 874)
- Ukraine (19 369)
- Russian Federation (13 615)
- India (6 401)
- Turkey (4 830)

5 EU COUNTRIES RECOGNISING THE HIGHEST NUMBER OF NON-EU OFFICERS

- Malta (48 720)
- Cyprus (28 502)
- United Kingdom (15 192)
- Netherlands (7 550)
- Luxembourg (6 493)

CHAPTER 3

PROVIDING TECHNICAL AND SCIENTIFIC ASSISTANCE AND FACILITATING TECHNICAL COOPERATION

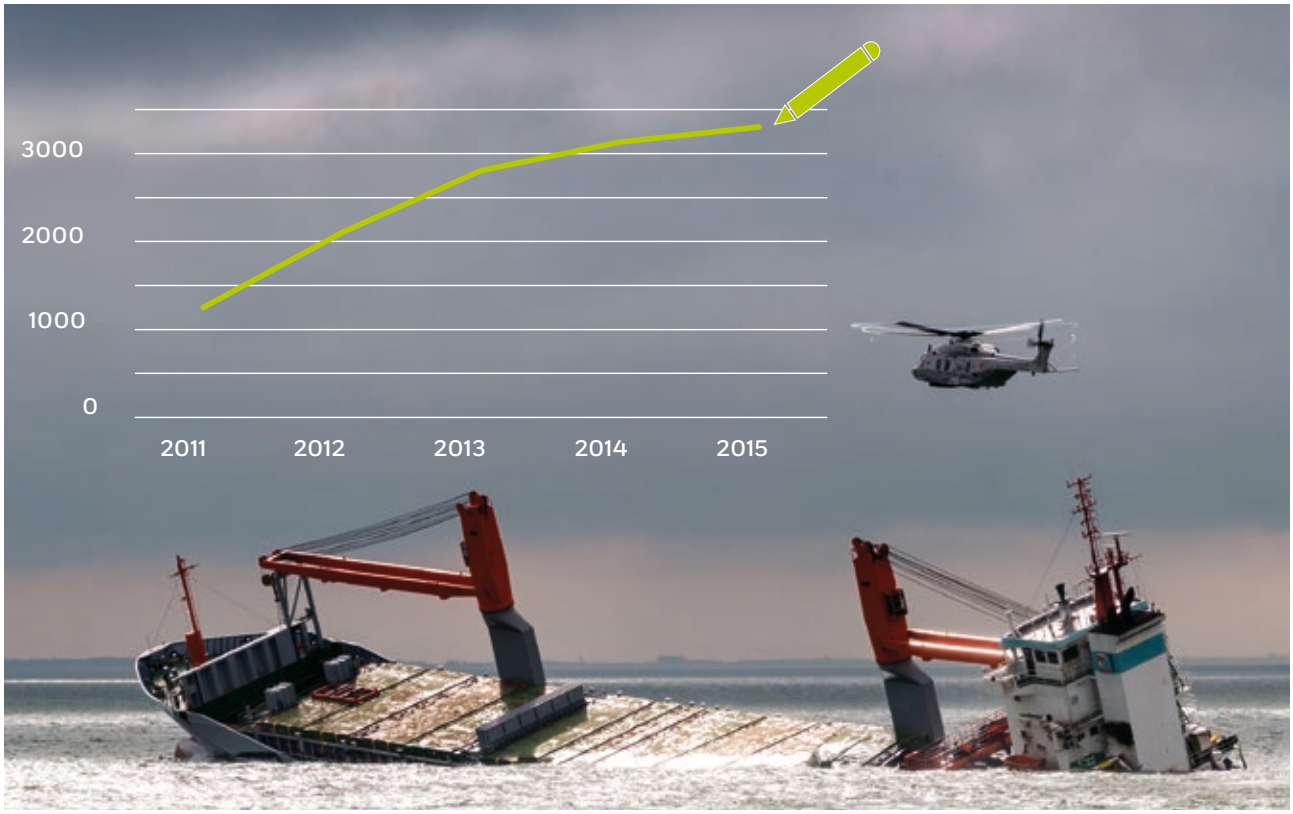
ACCIDENT INVESTIGATION

Technical investigations into marine casualties contribute to raising the overall level of maritime safety in Europe by helping to prevent such casualties resulting in loss of life, loss of ships and pollution from happening again. EMSA's role in this process involves gathering together the Member States' accident investigation bodies to encourage a more uniform approach as well as to provide technical support and training.

EMSA runs the EMCIP database of accidents populated by the accident investigation bodies. The fund of information on a European scale contained in this database is gradually building a foundation for sound decision-making in areas such as passenger ship damage stability and ro-ro vehicle deck fires. As EMCIP grows, some 4 000 casualties and incidents are being recorded on average each year, its future as a decision support tool is becoming clear. 2017 will see the development of a more efficient and user-friendly database, and EMSA will be actively involved in analysing EMCIP data to identify the lessons to be learned at EU level.

An overview of marine casualties and incidents is published on the EMSA website each year, covering data extracted from EMCIP since its creation in 2011. During this period, Member State investigation bodies have launched 749 investigations and 566 reports have been published. Among the 1000 safety recommendations issued, 40% were related to operational practices, and in particular to safe working practices. Half the safety recommendations were addressed to shipping companies and the rate of positive responses was above 75%.

Number of marine casualties and incidents recorded in EMCIP



MARINE EQUIPMENT AND SHIP SAFETY STANDARDS

EMSA contributes to the safety of ships and marine equipment at European level by closely monitoring the development and implementation of EU law. It also provides technical support to Member States and the European Commission at international level through the work of the International Maritime Organisation (IMO).

EMSA maintains the list of flag state-approved safety standards for marine equipment, as well as the MarED database containing details on the equipment authorised for use in EU flagged merchant vessels. All this is governed by the European Marine Equipment Directive.

In 2017 EMSA will continue to work on passenger ship safety, taking further the study completed in 2016 on the acceptable risk level of damage stability by sharing the results and supporting negotiations at IMO.

The potential safety gap identified between the amended SOLAS 2009 and the Stockholm Agreement (Directive 2003/25/EC) will also be targeted as EMSA offers technical advice to the European Commission on its study on the safety level of stability requirements for ro-ro passenger ships.

Ro-ro vehicle deck fire safety will remain on the agenda as EMSA coordinates technical discussions between Member State administrations and accident investigation bodies. The Firesafe study conducted in 2016 will be developed further in 2017 to allow for more sources of risk to be investigated.

Follow-up actions will continue on the so-called REFIT or regulatory fitness of passenger ship safety legislation that began in 2014, simplifying the relevant legislation governing safety rules and standards, registration of people on board, and mandatory surveys of ro-ro ferry and high speed craft passenger services, for example.

SHIP INSPECTION SUPPORT

Ship inspections are used to verify that the condition of a ship and its equipment fulfil the necessary legal requirements and that the ship is manned and operated according

to these rules. Increasing transparency in this area, by publishing reliable and objective information on the safety of ships and their operation, helps to encourage quality shipping and eradicate substandard practices.

EMSA hosts the management unit of Equasis, an online database providing details on port state control inspections, ship-related information from classification societies and P&I ship specific data. The information is supplied by port state control regions (Paris MoU, Caribbean Mou, Indian Ocean MoU, US coast guard, etc.) as well as industry based organisations. In 2017 the Equasis website will undergo various improvements as part of the new five year strategy to bring in even more data providers as well as to attract new members. A statistical report on the world shipping fleet is published each year based on data extracted from the Equasis database.

EMSA also runs the MARINFO information system which collects data from commercial sources worldwide on ship characteristics, accidents, movements, ownership, and ship history. The system offers valuable information to EMSA staff when preparing their visits and inspections, as well as to the European Commission when making ex-post assessments of legal provisions.

PREVENTION OF POLLUTION BY SHIPS

EMSA offers expertise in the field of environmental protection helping the European Commission and Member States to address a wide variety of ship-sourced pollution and emission-related issues. Assistance in 2017 will be directed towards the implementation of legislation relating to carbon dioxide emissions, sulphur content of marine fuel, port reception facilities, ship recycling, and shipowner insurance for maritime claims. The IMO's recently ratified Ballast Water Management Convention will also bring the issue of invasive alien species back into the fore as work intensifies to prevent and manage its spread.

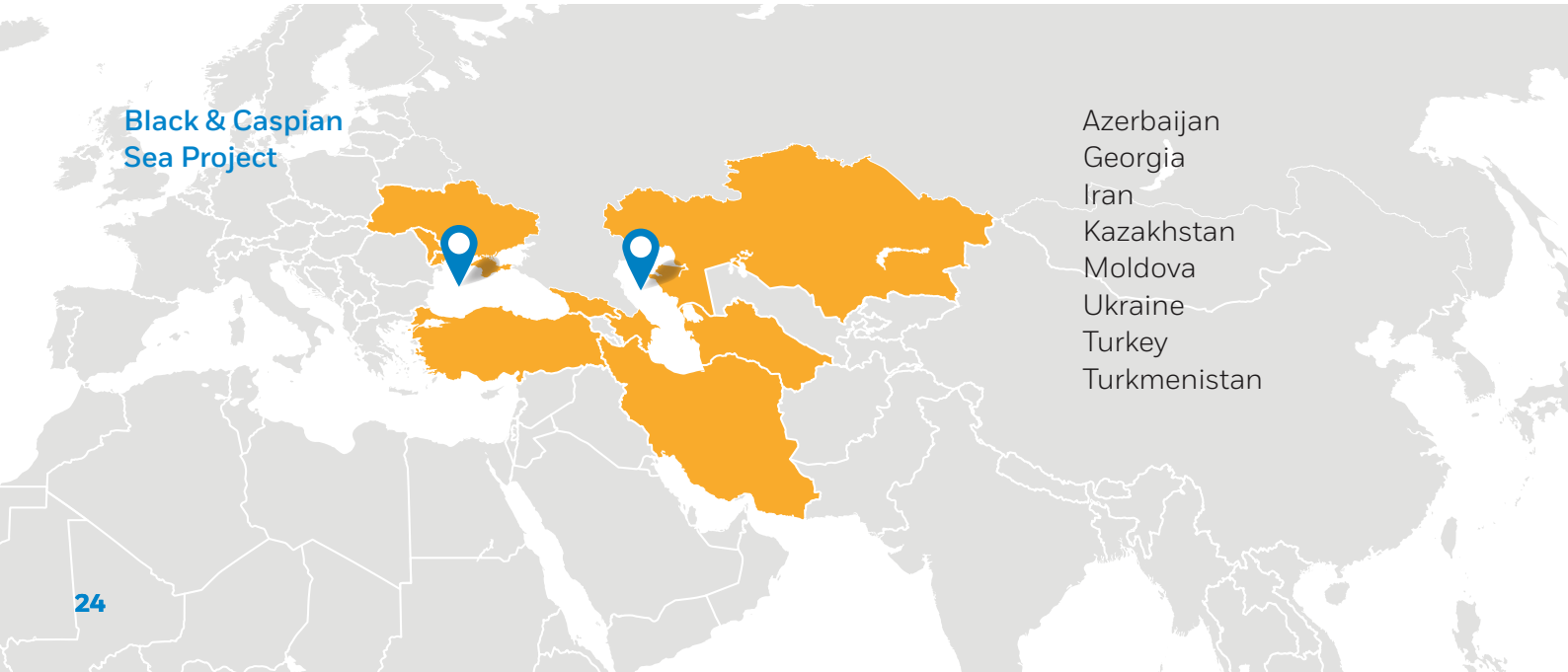
The European Sustainable Shipping Forum provides a platform for structured dialogue among maritime industry stakeholders and the European Commission with a view to address the environmental sustainability challenges confronting the EU maritime transport sector. EMSA has been highly active in this arena as the forum's technical secretariat. On the international front, EMSA will continue to contribute to the wide-ranging developments at the IMO.

TRAINING, COOPERATION AND CAPACITY BUILDING

EMSA's wide portfolio of training courses offer support to national maritime authorities in their day-to-day duties as flag, port or coastal state authorities. It includes e-learning courses which are available to Member States, EFTA, and enlargement and European Neighbourhood Policy countries. The courses are devised to meet the needs of the maritime administrations which meet together under the framework of the Consultative Network for Technical Assistance (CNTA). In 2017, EMSA will add to this portfolio courses targeting those authorities performing coast guard functions, among others.

In 2017 EMSA will continue to maintain the RuleCheck information system which was set up to inform inspectors on the complex international rules governing port state control related ship inspections by clearly showing the rules that apply to a selected ship at the time of inspection. The system will be expanded to cater also to authorities carrying out coast guard functions, as well as to an increasing number of user groups.

MaKCs, the e-learning platform primarily for port state control officers, will be populated in 2017 with additional modules on EU law, to take MaKCs beyond port state control and enable a broader audience to benefit from this highly flexible learning environment.



EUROPEAN NEIGHBOURHOOD COUNTRIES

Through the SAFEMED project, EMSA works with Mediterranean partner countries to help enhance their technical capacity in the fields of maritime safety, security and marine pollution. Beneficiaries include Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine and Tunisia. The project was extended until March 2017 at which point it was replaced by a new project expected to run until 2021 and whose beneficiaries may also include Turkey. Seminars, workshops and training sessions will be held in 2017 and access to both RuleCheck and MaKCs will be provided to the relevant authorities of the beneficiary countries. An oil pollution response simulation exercise is expected to be held gathering experts from the Member States and their counterparts in the beneficiary countries. The exercise will entail the deployment of EMSA standby oil spill response vessels as well as the European Commission's Emergency Response Coordination Centre.

Similarly, EMSA worked with eastern European neighbourhood countries around the Black and Caspian seas as part of the TRACECA project which came to an end in January 2017. This has now been replaced by a new project expected to run until 2021 to promote a harmonised approach to maritime safety, security and marine pollution.

CleanSeaNet is an example of one of the pilot services EMSA is making available to the beneficiary countries as part of its efforts to protect the Black and Caspian seas against marine pollution.

CHAPTER 4

POLLUTION PREPAREDNESS DETECTION AND RESPONSE

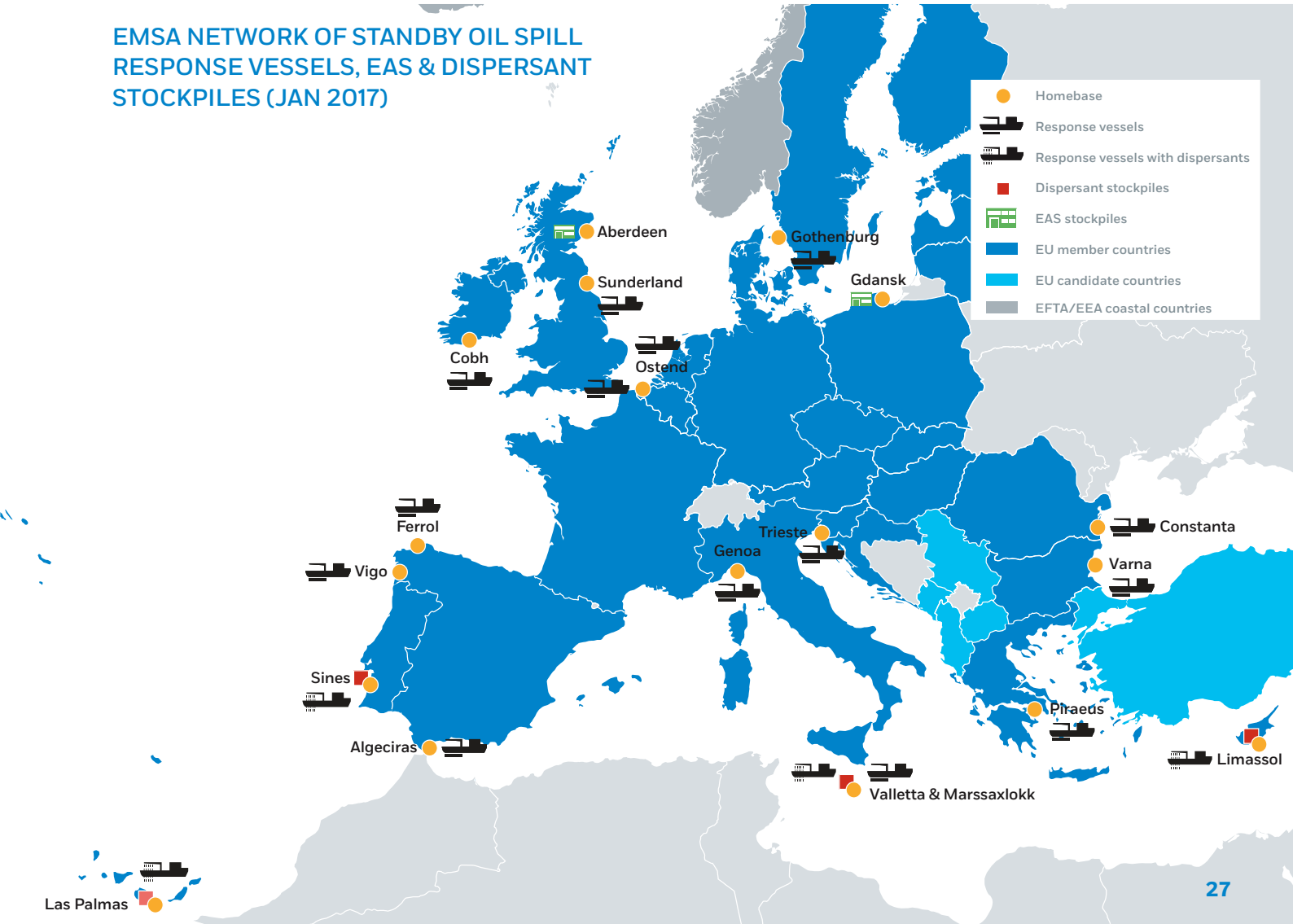
OPERATIONAL POLLUTION RESPONSE SERVICES

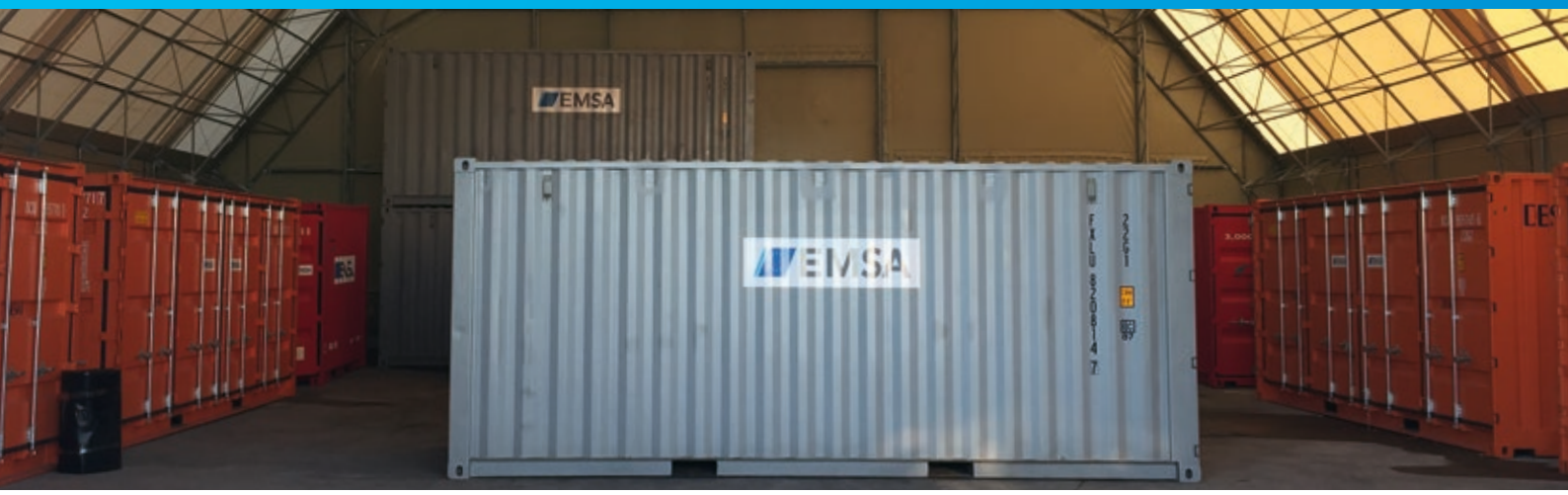
EMSA offers a range of pollution response services to protect the areas in and around the European coastline. Various options are available on request to Member States and can be selected based on the particular circumstances of the spill and the type of pollutant involved. EMSA's services target marine pollution from both ships and oil and gas installations, and are intended to top up the capacity of coastal states in the event of a major spill at sea.

At the heart of these services is a network of oil spill response vessels which remains on standby at all times. Related equipment and land-based stockpiles take the specificities of the area into consideration, such as the amount of dangerous cargo being transported, ship traffic density, as well as the coastal state's existing pollution response capacity. In recent years, dispersants have been made available in selected places as a response option (see map).

In 2017 additional response options will be set up, including an equipment assistance service in the Adriatic Sea. Pollution response services will also continue to be made available to countries sharing a regional sea basin through the eastern and southern European neighbourhood projects.

EMSA NETWORK OF STANDBY OIL SPILL RESPONSE VESSELS, EAS & DISPERSANT STOCKPILES (JAN 2017)



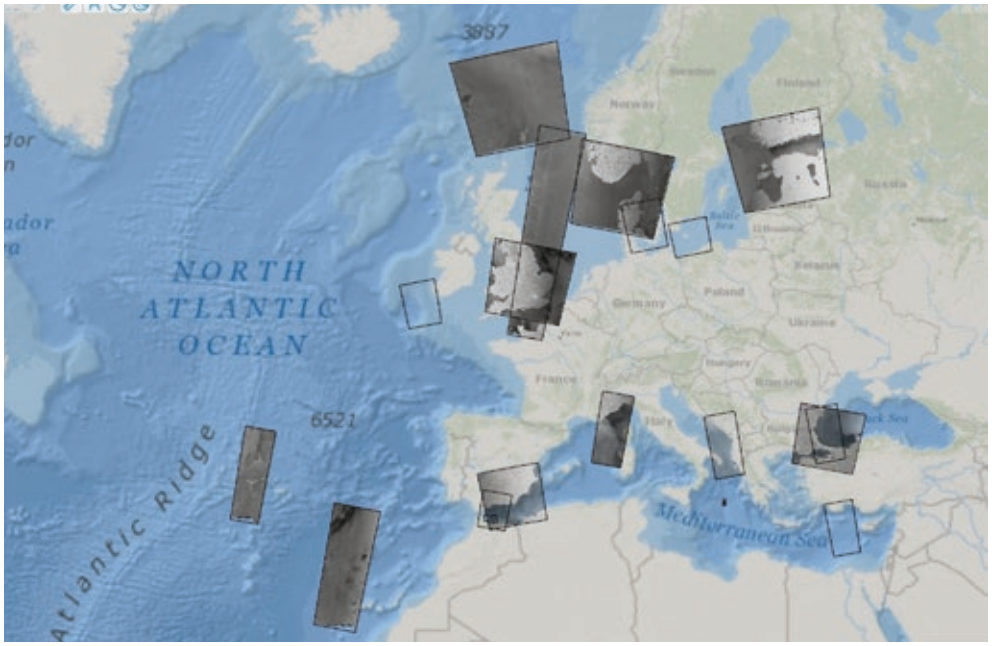


DETECTING AND DETERRING MARINE POLLUTION

2017 will mark ten years of CleanSeaNet, EMSA's satellite-based oil spill surveillance and vessel detection service. This service analyses images from earth observation satellites to detect possible oil spills on the sea surface. The data can then be correlated with vessel traffic reports to identify the likely source of the spill. CleanSeaNet acts therefore as a powerful deterrent to would-be polluters.

Upcoming developments include incorporation of the CleanSeaNet web interface into the SafeSeaNet ecosystem through EMSA's Earth Observation Data Centre (EODC) which is expected to be fully operational by the end of 2017. The EODC will be expanding its services to respond to broader maritime surveillance needs.

The Agency will be looking into enhancing access to satellites on the one hand and, on the other, into complementing satellite imagery with RPAS monitoring services to allow for more flexible and intensive detection and monitoring of illegal discharges.

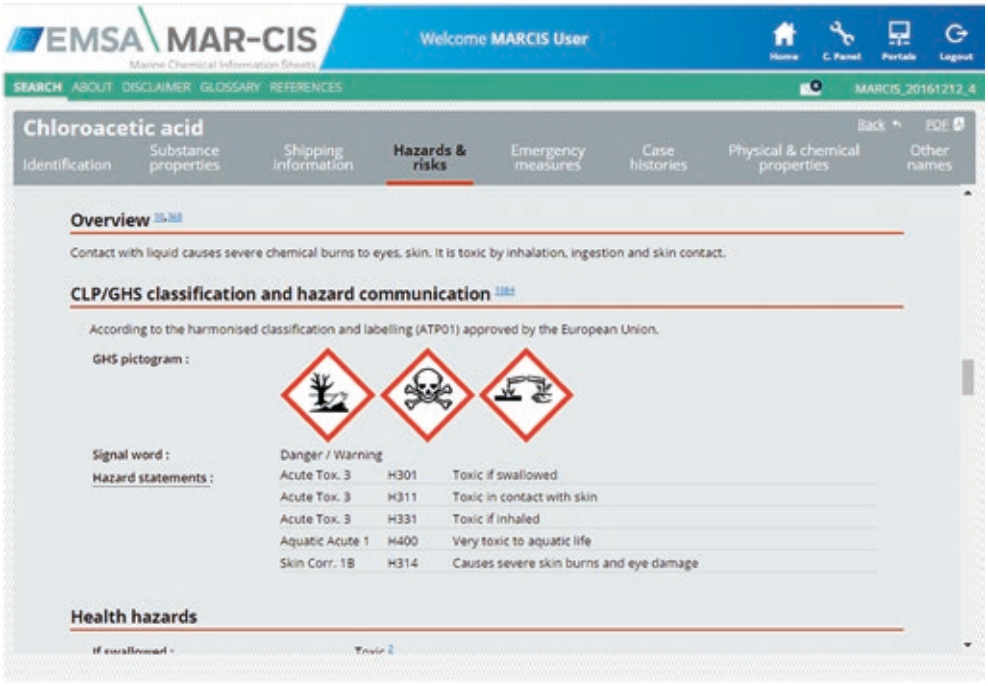


Satellite images captured over the course of one week

COOPERATION FOR EFFECTIVE POLLUTION PREPAREDNESS AND RESPONSE

Careful planning is essential to effectively deal with marine pollution incidents. EMSA's role involves disseminating best practices and exchanging information between Member States, the Regional Agreements, the International Maritime Organisation and other relevant international bodies.

Special care is required for chemical spills of hazardous and noxious substances given their wide array of properties and how these can affect the environment. EMSA offers specialist information and expertise to Member States through the MAR-ICE chemical experts network, the MAR-CIS database of information on chemical substances, as well as through the DUET dispersant usage evaluation tool. All this is provided as part of the Hazardous and Noxious Substances Action Plan.



MAR-CIS screenshot offering detailed information on the hazards and risks of a particular chemical substance

CHAPTER 5

MANAGEMENT, QUALITY CONTROL RESOURCES AND COMMUNICATION

MANAGEMENT, QUALITY CONTROL RESOURCES AND COMMUNICATION

Efficient and effective administration is essential not only for the smooth running of the Agency but also, even more importantly, for the fulfilment of its objectives. In 2017, EMSA will continue to monitor its performance and make efficiency gains where possible.

In December 2016, EMSA's visits and inspections activities received ISO9001:2015 certification from TÜV Rheinland Portugal. These activities have now entered into a three-year cycle of annual verification and re-certification.

The Administrative Board whose main task it is to supervise the work undertaken by the Agency – adopting the work programme, budget and establishment plan, for example – will meet three times in 2017.

In line with EMSA's founding regulation, the results of the next evaluation will be available in 2017. The Administrative Board has already begun the process of commissioning an independent external evaluation on the implementation of the Agency's founding regulation in order to complete the process and particularly the adoption of recommendations by the Administrative Board to the European Commission by mid-2017.

EMSA will foster staff development and redeployment to enhance overall efficiency and increase mobility in response to the new priorities. Efforts will also continue to put in place an efficient document and record management and archiving policy within the Agency.

In the field of ICT, EMSA will prioritise service delivery and business continuity, striving for improvements in performance and reductions in costs. The overall task in 2017 will be to support efficient, reliable, stable and secure operations with smooth releases of application/infrastructure enhancements, new applications and pilots, all in line with EMSA's evolving ICT landscape.

Communication remains a crucial aspect of EMSA's activities and efforts throughout 2017 will be directed towards four focus areas as per the 2014-2020 communication strategy: providing general communication support to ensure concise, up-to-date information on EMSA's activities is readily available; increasing the user friendliness of this information; rationalising the use of resources through greater synergies within the Agency to avoid duplication of effort; and, tailoring information to the Agency's core stakeholders to ensure it suits their specific needs.

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ABOUT THE EUROPEAN MARITIME SAFETY AGENCY

The European Maritime Safety Agency is one of the European Union's decentralised agencies. Based in Lisbon, the Agency's mission is to ensure a high level of maritime safety, maritime security, prevention of and response to pollution from ships, as well as response to marine pollution from oil and gas installations. The overall purpose is to promote a safe, clean and economically viable maritime sector in the EU.

Get in touch for more information

European Maritime Safety Agency
Praça Europa 4
Cais do Sodré
1249–206 Lisboa
Portugal

Tel +351 21 1209 200 / Fax +351 21 1209 210
emsa.europa.eu / Twitter@EMSA_Lisbon