EMSA
FACTS & FIGURES
2017

EMSA

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FOREWORD

The EMSA Facts and Figures 2017 publication is a shortened account of the Consolidated Annual Activity Report which details how EMSA has implemented the annual tasks set out in the work programme contained in the Agency's Single Programming Document (2017-2019).

EMSA's priorities are shaped by several guiding documents, including the founding Regulation (EC) No 1406/2002 as amended, EMSA's five-year strategy, the European Commission's Communication on the programming of human and financial resources for decentralised agencies 2014-2020, and, finally, on Regulation (EU) No 911/2014 on the multiannual funding for action in the field of response to pollution caused by ships and oil and gas installations.

Our level of performance is linked to the strong relationship we cultivate with our partners: the European Commission, European Fisheries Control Agency, European Space Agency, Frontex, Maritime Analysis and Operations Centre for Narcotics and EU Navfor, as well as each EU member country, Iceland, Norway, the Paris MoU countries, and the countries bordering the Mediterranean Sea, Black Sea and Caspian Sea under the European Neighourhood Policy.

We hope that, through this overview, our readers will see EMSA's wide-ranging and multi-faceted role in the maritime domain as well as our commitment to providing valuable, targeted services that draw on a broad base of shared knowledge and experience.

I, personally, would also like to take this opportunity to thank the staff that have worked conscientiously to meet the various challenges of the new entrusted tasks, and to overcome constraints of resource and budget. Through sound prioritisation and combined efforts, we continue to maintain high level services to Member States and the European Commission.

Markku Mylly
Executive Director

ESTABLISHMENT PLAN FIGURES
EMSA statutory staff from 2003 to 2017

number for Border Package

Year	Figure
2003	20
2004	55
2005	95
2006	132
2007	153
2008	181
2009	192
2010	200
2011	208
2012	213
2013	213
2014	210
2015	207
2016	202
2017	198

212
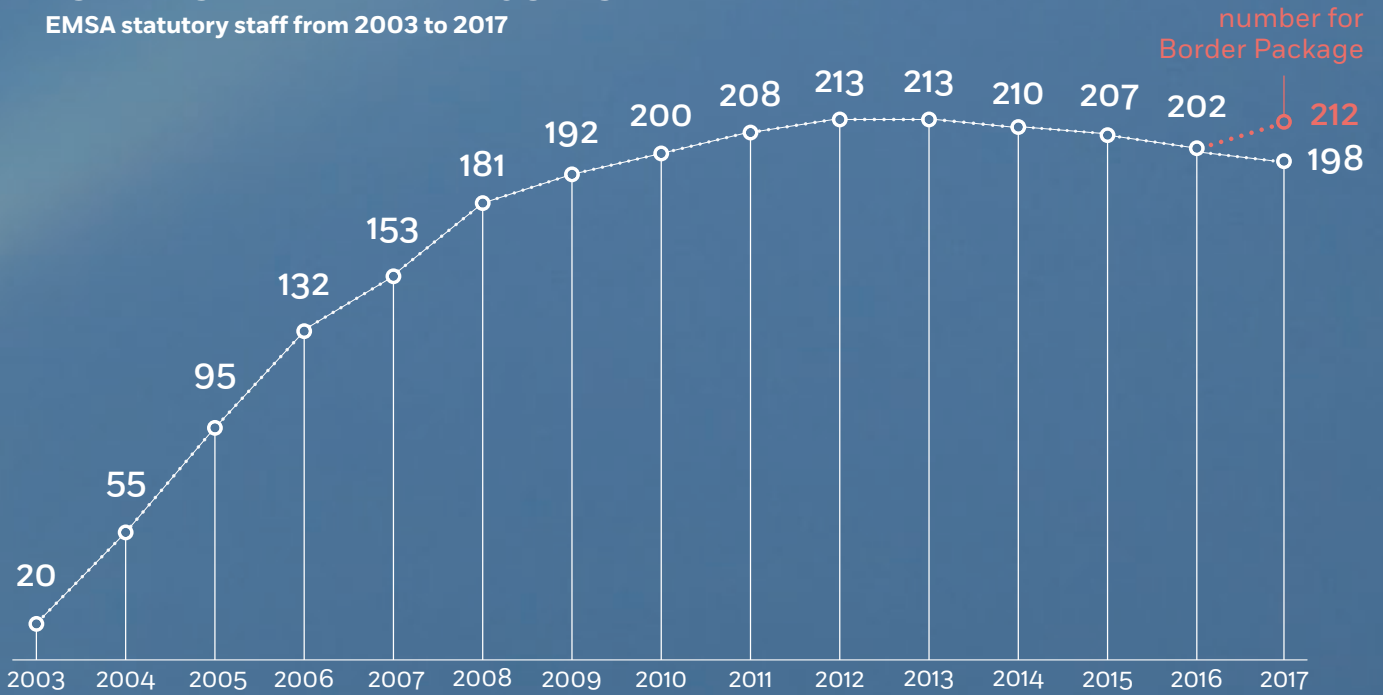
EMSA STAFF BY NATIONALITY 2017
Figures include statutory and non-statutory staff

EMSA STAFF 257

< 10
< 20
> 20

SE 1
FI 4
EE 1
LV 1
LT 1
UK 18
DK 2
NL 6
PL 14
IE 7
BE 21
DE 10
CZ 2
SK 1
AT 1
HU 2
RO 7
FR 10
BG 4
PT 69
ES 31
IT 28
EL 10
CY 3
MT 3

5

THE AGENCY IN BRIEF

The idea of a European Maritime Safety Agency (EMSA) originated in the late 1990s along with a number of other important European maritime safety initiatives. EMSA was set up as the regulatory agency that would provide a major source of support to the European Commission and the Member States in the field of maritime safety, security and prevention of pollution from ships. The Agency was established by Regulation (EC) No 1406/2002 and subsequent amendments have refined and enlarged its mandate to cover, among other measures, the efficiency of maritime transport.

Tasks and working context

EMSA, as a body of the European Union (EU), sits at the heart of the EU maritime safety network and fully recognises the importance of effective collaboration with many different interests and, in particular, between European and international institutions, Member States' administrations and the maritime industry.

EMSA's activities can be broadly described as:

- providing technical and scientific assistance to the Member States and the European Commission in the proper development and implementation of EU legislation on maritime safety, security, prevention of pollution by ships and maritime transport administrative simplification

- monitoring the implementation of EU legislation through visits and inspections

- improving cooperation with and between Member States

- building capacity of national competent authorities

- providing operational assistance, including developing, managing and maintaining maritime services related to ships, ship monitoring and enforcement

- carrying out operational preparedness, detection and response tasks with respect to pollution caused by ships and marine pollution by oil and gas installations

- at the request of the European Commission, providing technical operational assistance to non-EU countries around relevant sea basins.

The Agency's work reflects the spectrum of initiatives launched by the EU to strengthen Europe's competitiveness and sustainable growth. In this respect, of particular relevance is the contribution to the success of the Growth and Jobs Strategy in terms of supporting the implementation of an attractive framework for quality shipping and quality operators in Europe.

MISSION

To ensure a high, uniform, and effective level of maritime safety, maritime security, prevention of, and response to, pollution caused by ships as well as response to marine pollution caused by oil and gas installations

VISION

To promote a safe, clean and economically viable maritime sector in the EU

VALUES

Efficiency, effectiveness, transparency, flexibility, creating added value

CHAPTER 1

MARITIME MONITORING AND INFORMATION
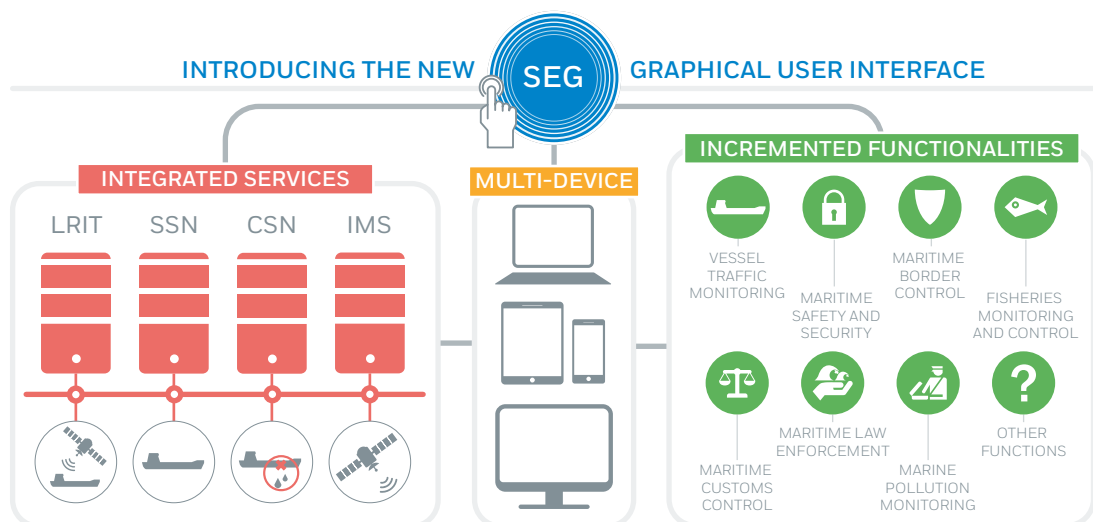## ON SHIPS AND CARGOES

MARITIME INFORMATION EXCHANGE PLATFORM

Getting a comprehensive overview of activity at sea is a challenge for most countries. To implement maritime policies effectively, governments and authorities need detailed, reliable knowledge about what happens at sea, in real time. Through EMSA's SafeSeaNet Ecosystem Graphical User Interface (SEG), users are being given access to key maritime applications and their data sets whether from mobile and tablet devices or desktop and laptop computers. The SEG interface groups together the information services of SafeSeaNet (SSN), Long Range Identification and Tracking (LRIT), Integrated Maritime Services (IMS) and CleanSeaNet (CSN):

- SSN - Ships transiting EU waters are tracked daily in real-time through SafeSeaNet, the EU's vessel traffic monitoring and information system. This system enables the exchange of data between national systems managed by maritime authorities across Europe

- LRIT - Ships transiting global waters are tracked through the LRIT system, introduced by the International Maritime Organisation in 2006. EMSA operates the LRIT Cooperative Data Centre, through which Member State users can access the LRIT information of their ships worldwide as well as of any third country vessel bound to or sailing within 1000 nautical miles of EU waters

- IMS - EMSA's Integrated Maritime Services allows data from EMSA applications and external sources to be integrated and correlated to provide targeted information services

- CSN - CleanSeaNet is EMSA's satellite-based oil spill surveillance and vessel detection service. Vessels detected by satellite in the vicinity of an oil spill may be correlated with vessel traffic reports to help identify the source of the spill.

In 2017, development of the SEG interface continued as planned. Several training activities and user consultations took place, as the interface came into operation and opened gradually from volunteer users to subsequently cover all authorised users. A live demonstration was given in Brussels in June to show various European Commission Directorates-General a series of operational use cases in the areas of safety, search and rescue, customs, law enforcement, and pollution prevention and response.

INTRODUCING THE NEW **SEG** GRAPHICAL USER INTERFACE

INTEGRATED SERVICES — MULTI-DEVICE — INCREMENTED FUNCTIONALITIES

LRIT SSN CSN IMS

VESSEL TRAFFIC MONITORING · MARITIME SAFETY AND SECURITY · MARITIME BORDER CONTROL · FISHERIES MONITORING AND CONTROL · MARITIME CUSTOMS CONTROL · MARITIME LAW ENFORCEMENT · MARINE POLLUTION MONITORING · OTHER FUNCTIONS

MONITORING VESSEL TRAFFIC THROUGH SAFESEANET

The EU's vessel traffic monitoring and information system, SafeSeaNet, contains data on the following key areas: ship position; ship pre-arrival, arrival and departure information; cargo (for vessels carrying dangerous or polluting goods); details of waste and cargo residues carried on board/to be offloaded; ship security-related information; and, any accident or incident posing a potential hazard to shipping, threat to maritime safety, the safety of individuals or the environment. The system assists search and rescue bodies, pollution response centres and vessel traffic services in accessing information on the cargo, and by providing information on the relevant incidents/accidents affecting ships navigating in EU waters. A new version is in the pipeline and will be based on the technical requirements developed in 2017 which accommodate a revision to the Port Reception Facilities Directive.

In 2017, EMSA and the European Commission's Directorate General for Civil Protection and Humanitarian Aid Operations (DG ECHO) delivered a training course on SafeSeaNet and the Common Emergency Communication and Information System (CECIS). The link established between the two platforms in 2016 aims to enable a more efficient response following the reporting of a pollution incident.

The development of the central databases (ship, hazmat, organisations and locations) continued in 2017. Both the central organisations and locations databases were made available to Member States, with users able to register and update their information directly in the system. The central databases also offer a set of web services to enable information sharing via a system-to-system interface with Member State national systems.

A third table top exercise on places of refuge for ships in need of assistance was held in Norway in September. Both SafeSeaNet and the Central Hazmat Database were actively used by the participants to help in the decision-making process surrounding the simulated at-sea collision involving an oil tanker and a chemical tanker.

MONITORING VESSEL TRAFFIC THROUGH LRIT

EMSA operates the EU LRIT Cooperative Data Centre (EU LRIT CDC) which disseminates long range identification and tracking information on EU-flagged ships around the world on behalf of all European flag states, and exchanges information with other data centres around the world. The EU LRIT CDC is one of the largest data centres in the LRIT system, tracking over 8 000 ships per day. Associated to this is the global LRIT International Data Exchange which serves 57 LRIT data centres worldwide covering 122 contracting governments and is hosted and operated by EMSA. In 2017, EMSA went live with new releases of both the EU LRIT CDC and LRIT IDE in response to changes in the LRIT system in compliance with IMO performance standards.

17 million
TOTAL MESSAGES RECEIVED BY EMSA IN ONE DAY

11 790 518	T – AIS
4 295 116	S – AIS
64 476	VMS
37 345	LRIT

2017
DATA PROCESSED BY EMSA INFORMATION SERVICES

ACTIVITIES COVERING:
1 day
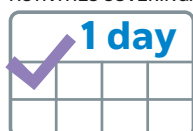
82 343
NUMBER OF DISTINCT VESSELS DETECTED IN ONE DAY BY MORE THAN ONE SOURCE

T – AIS	34 603
S – AIS	54 778
VMS	3 540
LRIT	9 449

CENTRAL DATABASES

The Central Ship Database is one of several databases run by EMSA

MEMBER
STATES DB

SAFESEANET

OTHER EMSA
APPLICATIONS

CSD

CENTRAL SHIP
DATABASE

VERIFICATION AND
VALIDATION
ACCESS
RIGHTS

MEMBER
STATES DB

COMMERCIAL DB

OTHER SOURCES

POSITION REPORTS

FISHING VESSEL DB

LRIT DB

THETIS DB

SAFESEANET
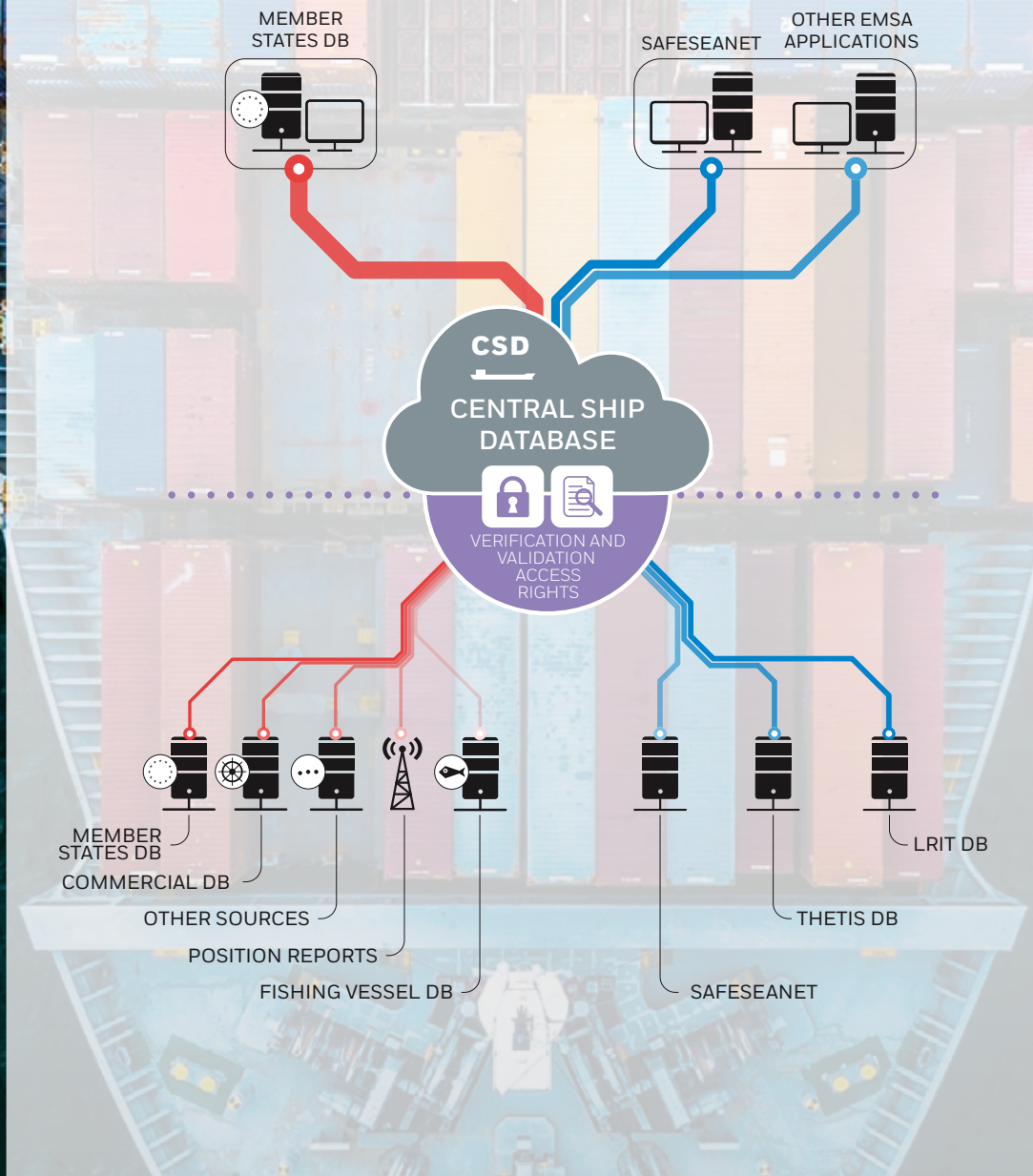
INTEGRATED MARITIME SERVICES

Through EMSA's Integrated Maritime Services (IMS), there is the operational and technical capability to integrate and correlate data from EMSA applications and external sources for a variety of different user needs-based services.
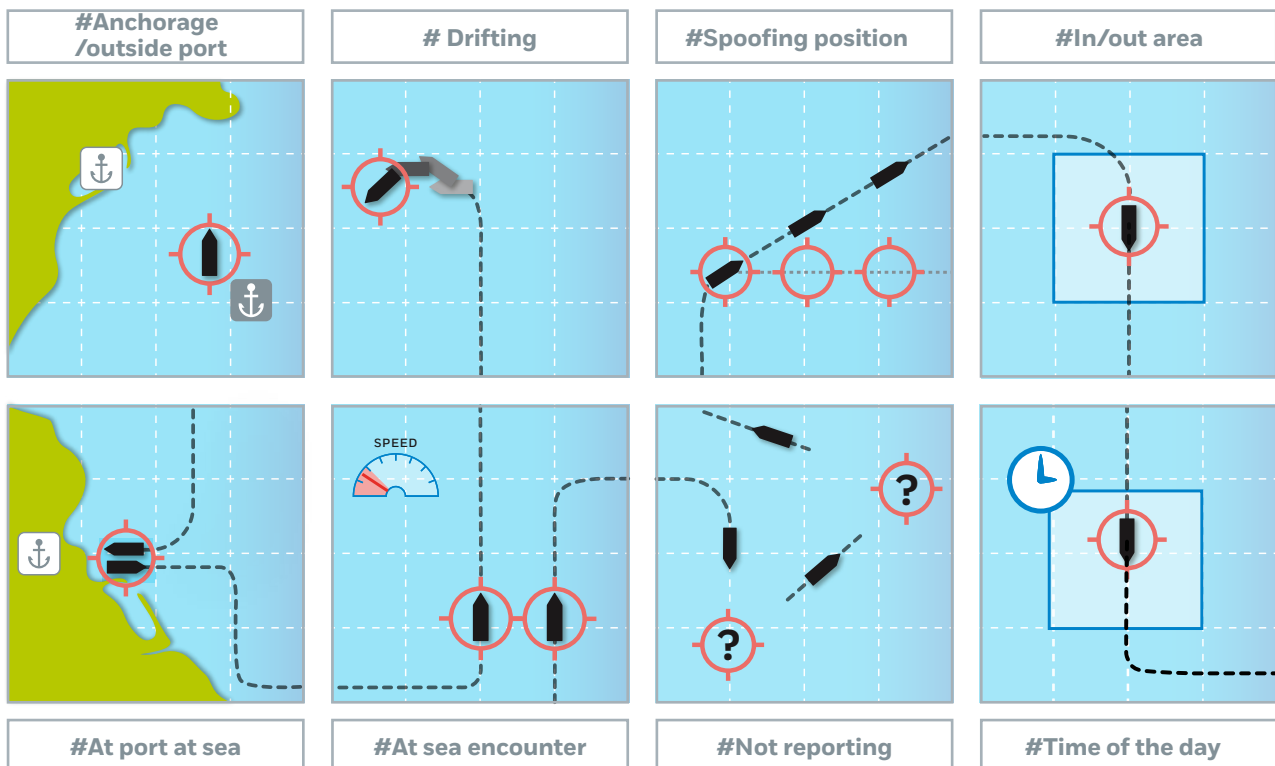
Satellite AIS capabilities have, for example, led to an extended geographical range over which ships can be tracked using the AIS system. New data streams are also in the process of being added as contracts get underway for remotely piloted aircraft systems and as the Copernicus Maritime Surveillance Service offers data from Earth Observation satellites.

The total number of IMS users grew from 920 in 2016 to over 1500 in 2017 and the number of Member States rose to 26. Services continued to be provided to Member State authorities as well as EU bodies, including Frontex (border control), EFCA (fisheries monitoring), EU Navfor (anti-piracy) and MAOC-N (law enforcement – narcotics).

Automated Behaviour Monitoring (ABM) tools were provided throughout the year to IMS users to support them in their maritime surveillance functions by providing an enhanced situational picture. Through the different algorithms used, patterns such as entering an area of interest, encounters at sea, approaches to shore, drifting and deviations from usual routes, are detected and operators automatically alerted in real time. The system has over 20 algorithms with the possibility of more being added as the system grows according to user needs.

AUTOMATIC DETECTION AND ALERT TRIGGERING OF SHIP BEHAVIOUR

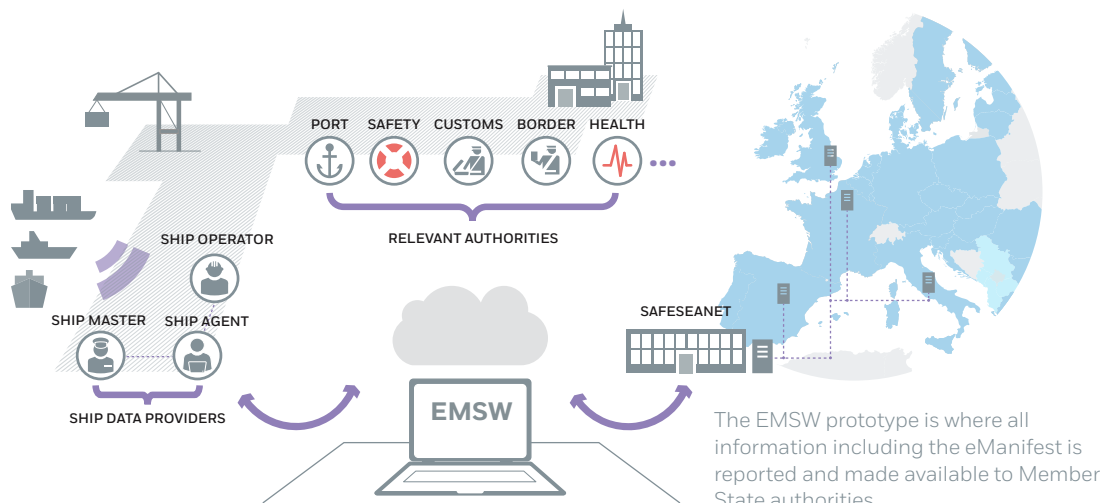| #Anchorage /outside port	# Drifting	#Spoofing position	#In/out area
#At port at sea	#At sea encounter	#Not reporting	#Time of the day

SIMPLIFYING REPORTING FORMALITIES

EMSA continues to support the implementation of the Reporting Formalities Directive which aims to simplify the administrative procedures applied to ships arriving in and/or departing from EU ports. The directive set an obligation for Member States to establish National Single Windows through which information would be submitted electronically and made available as necessary to several different authorities. In 2017, EMSA developed guidelines for these National Single Windows to help ensure a harmonised implementation of the directive. In addition, peer reviews – to identify best practices as well as any concerns – were carried out in five Member States (Croatia, Estonia, Germany, Italy and Spain).

The eManifest pilot project aims to demonstrate how cargo information, required by both maritime and customs authorities, can be submitted together with the other reporting formalities foreseen by the directive in a harmonised manner. As a tool for this pilot project, EMSA has been testing and improving the European Maritime Single Window (EMSW) in coordination with the European Commission, participating Member States, and shipping industry representatives.

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 non-stop monitoring of these systems to ensure high availability and performance, as well as to facilitate early incident management. The MSS centre is the first point of contact for Member States whenever assistance is required within the context of EMSA's contingency plan. This plan was activated on seven occasions in 2017.

The EMSW prototype is where all information including the eManifest is reported and made available to Member State authorities.
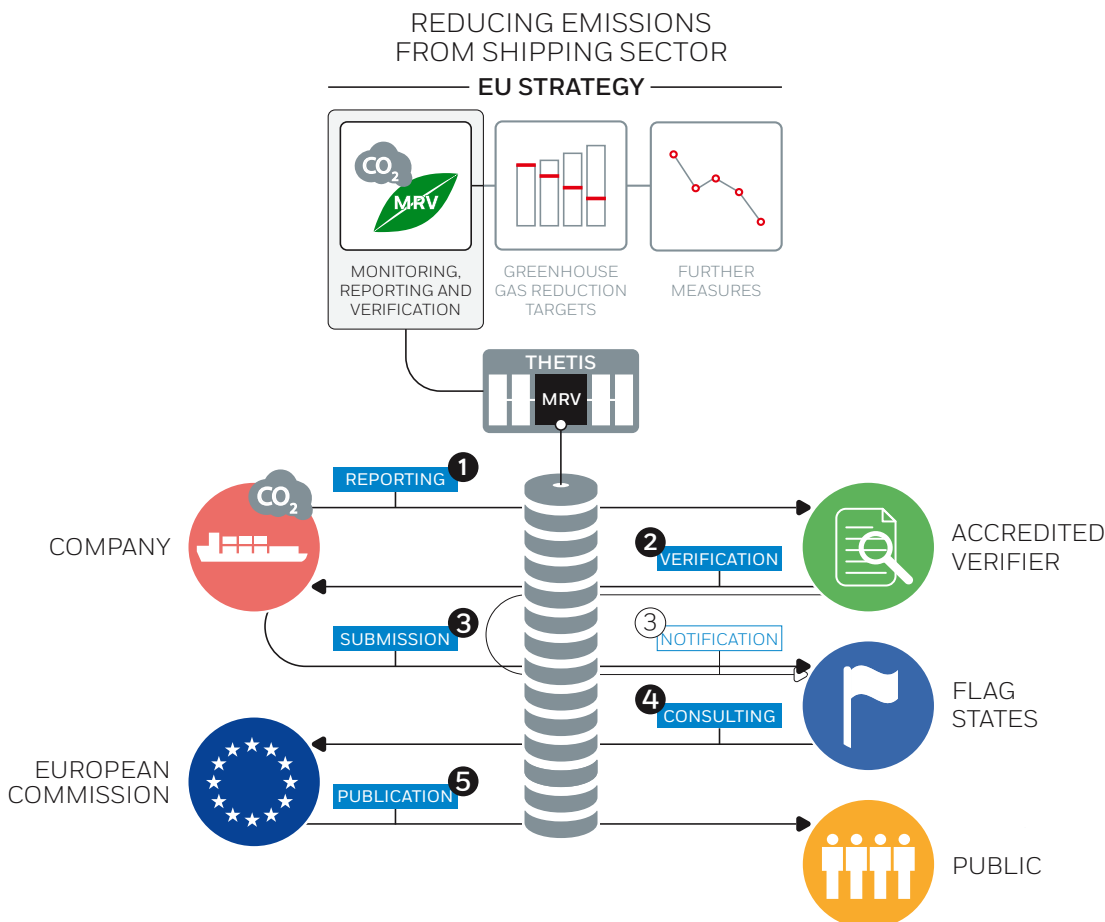
THETIS INFORMATION SYSTEM AND MODULES

The THETIS information system was set up to allow port state authorities in the EU and other 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. In 2017, some 18 000 Port State Control inspections were recorded by 600 users from 28 countries.

New functionalities continue to be 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, most recently, the CO_2 Monitoring, Reporting and Verification (MRV) Regulation are all catered for in this flexible system. Accordingly, some 12 000 sulphur inspections and close to 3 000 port reception facility related inspections were recorded in the system in 2017. The new MRV module went live on 7 August 2017 enabling companies responsible for the operation of large ships to report their CO_2 emissions. The development is the first of several steps to include maritime transport in the EU's overall policy to reduce greenhouse gas emissions.

EMSA also continued to enhance its shipping emissions inventory tool throughout the year. This tool quantifies SOx, NOx and PM emissions resulting from the combustion of marine fuel from international and domestic shipping. In particular, the coverage of local area pollution was extended to include the Mediterranean Sea and Irish Sea.

REDUCING EMISSIONS
FROM SHIPPING SECTOR
EU STRATEGY

CO₂ / MRV
MONITORING, REPORTING AND VERIFICATION

GREENHOUSE GAS REDUCTION TARGETS

FURTHER MEASURES

THETIS / MRV

COMPANY — REPORTING ① → ACCREDITED VERIFIER

② VERIFICATION

③ SUBMISSION   ③ NOTIFICATION

④ CONSULTING — FLAG STATES

EUROPEAN COMMISSION — ⑤ PUBLICATION

PUBLIC

COPERNICUS

2017 saw the first full year of operations for the Copernicus Maritime Surveillance Service through which EMSA provides satellite images to support a better understanding and improved monitoring of human activities at sea. EMSA is responsible on behalf of the European Commission for implementing all related technical and operational activities for the duration of the delegation agreement (2015-2020). The services delivered in 2017 were extended to cover user communities in several fields of activity: fisheries control (725), maritime safety and security (159), law enforcement (453), customs (509), defence and support to international organisations (18). Overall, just under 2000 services were delivered consisting of Earth Observation and value added products. The new users are supported through an iterative process in which they define their user requirements and existing users are given training to ensure maximum benefit is gained from the services on offer.

VESSEL DETECTION
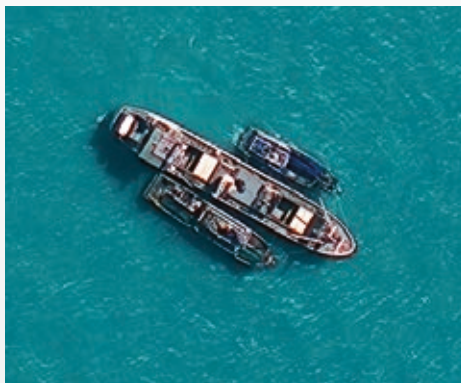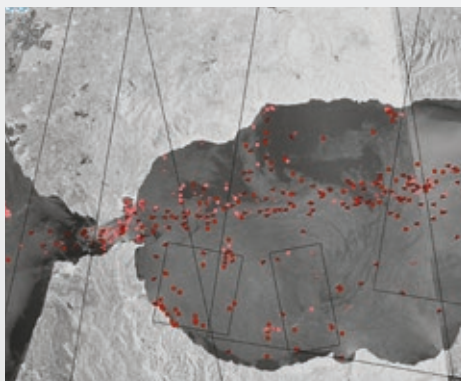

Vessel detection © WorldView-3, European Space Imaging / Digital Globe (2015)
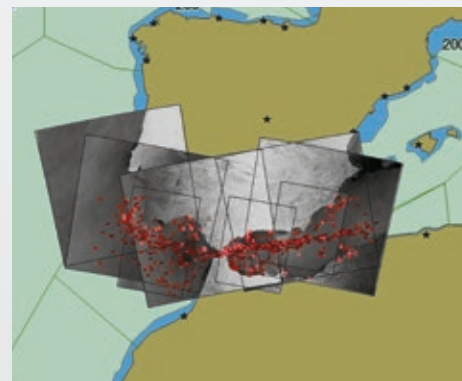

Vessel detection © European Space Imaging / Digital Globe (2016)

CORRELATION WITH VESSEL REPORTING INFORMATION

Correlation with vessel reporting information © EMSA

Fusion products © EMSA

CHAPTER 2

VISITS AND INSPECTIONS TO MONITOR

THE IMPLEMENTATION

OF EU LEGISLATION

CLASSIFICATION SOCIETIES

Classification societies develop and apply technical standards to the design, construction and assessment of ships. Some 12 classification societies are recognised by the EU and are inspected by EMSA as part of its core tasks. Based on the reports submitted, the European Commission makes the relevant assessments and takes policy decisions and/or requests corrective measures.

In 2017 EMSA carried out 22 inspections of recognised organisations, the locations and scope of which were determined on a risk basis. The first inspections of the Indian Register of Shipping following its recognition in 2016 took place, for example. Also, as part of the ro-pax structural fire protection campaign, six ships were visited to check that certain corrective actions had been properly implemented. Finally, EMSA submitted assessments for four recognised organisations to the European Commission.

INSPECTIONS CONDUCTED IN 2017

22 RECOGNISED ORGANISATIONS

Offices
- **3** UAE
- **2** Spain
- **2** China
- **2** Greece
- **2** UK
- **1** Croatia
- **1** India
- **1** Italy
- **1** Russia
- **1** Netherlands

Visits to ships
- **2** Spain
- **2** Finland
- **2** Sweden

4 STANDARD FOR TRAINING, CERTIFICATION & WATCHKEEPING
- Morocco
- Philippines
- Senegal
- South Africa

STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING

Many EU registered ships are manned by seafarers who are not EU nationals. To ensure that these crew members are properly trained, EMSA carries out inspections of the maritime education, training and certification systems of their country of origin. Compliance is assessed on the basis of the International Maritime Organisation's STCW Convention (Standards of Training, Certification and Watchkeeping). In 2017, inspections were carried out in Morocco, the Philippines, Senegal and South Africa.

As part of the follow-up process, EMSA evaluated the corrective action plans submitted by five non-EU countries in response to the inspection reports and the European Commission's subsequent assessments. Encouragingly, the action taken by the inspected countries shows significant improvements to their systems.

Another important development in 2017 was the statistical review published by EMSA on the European labour market. The data shows that 182 662 masters and officers hold valid certificates of competency (CoC) issued by EU Member States while another 102 861 masters and officers hold original CoCs issued by non-EU countries with endorsements issued by EU Member States. The review is based on data registered by EU Member States and recorded in EMSA's STCW Information System (STCW IS) up until the end of 2015.

MONITORING THE IMPLEMENTATION
OF EU MARITIME LEGISLATION

EMSA assists the European Commission and the EFTA Surveillance Authority in their efforts to achieve a convergent and effective implementation of EU maritime law by conducting visits to Member States, Iceland and Norway. In 2017, visits were carried out to monitor the implementation of five EU directives: on accident investigation; on the sulphur content of marine fuels; on port state control; on marine equipment; and on fishing vessel safety.

2017

47
VISITS AND
INSPECTIONS

VISITS TO EU &
EFTA / EEA COUNTRIES

4 ACCIDENT INVESTIGATION

4 STANDARDS FOR TRAINING,
CERTIFICATION & WATCHKEEPING

5 SULPHUR CONTENT IN
MARINE FUELS

5 PORT STATE CONTROL

2 MARINE EQUIPMENT

1 FISHING VESSEL SAFETY

INSPECTIONS

22 RECOGNISED
ORGANISATIONS

4 STANDARDS FOR TRAINING
CERTIFICATION& WATCHKEEPING

2 HORIZONTAL
ANALYSES
41 REPORTS
SUBMITTED

EUROPEAN
COMMISSION

As port state control is one of the most effective means of verifying that ships comply with international safety and pollution prevention regulations, EMSA also visits Member States' competent authorities and their ports to verify the appropriate implementation of the EU's port state control directive. In 2017, five visits were made to Member States.

The visits give Member States the opportunity to better plan resources, assess training requirements and review any gaps and shortcomings, in order to improve the level of compliance with EU law. This enhances cooperation between the European Commission and Member States and facilitates greater consistency and shared targets.

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 in this area by monitoring the implementation of Regulation (EC) No 725/2004 on enhancing ship and port facility security. It also provides technical assistance to the EFTA Surveillance Authority on ship security.

EMSA's inspection reports detail the maritime security measures, procedures and structures of the countries visited and give recommendations where necessary. EMSA then assists the European Commission in its response to the corrective action proposed by the countries concerned. In 2017, ten missions took place, resulting in 17 reports.

EMSA continues to participate in the European Commission's maritime security committee (MARSEC) and in the stakeholders' advisory group on maritime security chaired by the European Commission.

Also in 2017, EMSA organised a workshop on cyber-attack prevention in the maritime domain in cooperation with the European Coast Guard Functions Forum.

HORIZONTAL ANALYSIS AND RESEARCH

EMSA drafts reports for each of the visits and inspections it conducts and then analyses these to identify any common findings and draw general conclusions on the effectiveness of the measures in place. Two analyses were completed in 2017:

- the first covering issues identified during Member State visits relating to vessel traffic managment and information systems, as well as to places of refuge for ships in need of assistance

- and, the second dealing with findings from Member State visits on the implementation of the Port State Control Directive.

In addition to this, the third table top exercise on places of refuge was held in Norway in an effort to strengthen the implementation of the Vessel Traffic Monitoring Directive and to learn from the conclusions of the horizontal analsis. The simulation used for this particular exercise involved granting a place of refuge in the event of a chemical pollution threat.

CHAPTER 3

PROVIDING TECHNICAL AND SCIENTIFIC ASSISTANCE AND FACILITATING TECHNICAL COOPERATION
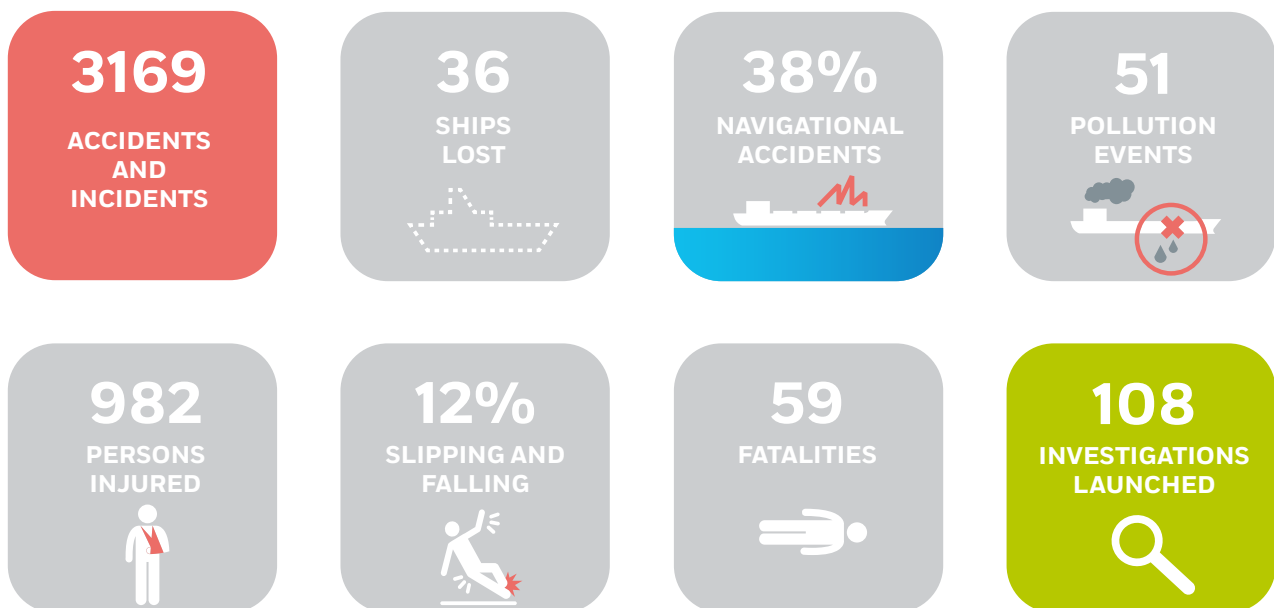
ACCIDENT INVESTIGATION

EMSA helps the European Commission and Member States to improve maritime safety by analysing accident investigation reports and producing maritime casualty statistics. The European Marine Casualty Information Platform (EMCIP) run by EMSA is a centralised database where Member States store and analyse information on marine casualties and incidents. Based on the information extracted from EMCIP, EMSA published the fourth edition of the Annual Overview of Marine Casualties and Incidents in 2017. The number of occurrences reported for 2016 was 3145.

This data holds valuable potential for maritime safety. To explore this potential, EMSA developed a methodology in 2017 to analyse EMCIP data and detect potential safety issues. This methodology would then be applied and tested on the data held for fishing vessels in early 2018.

EMSA also hosts the Permanent Cooperation Framework (PCF) where Member States and the European Commission work together to facilitate cooperation among accident investigation bodies. In 2017, the first inter-sessional seminar was held on the human element in accident investigation and EMSA continued to provide training activities for accident investigators from EU Member States and neighbouring countries.

2017
MARITIME CASUALTIES
KEY FIGURES (extracted from EMCIP on 28/3/2018)

3169 ACCIDENTS AND INCIDENTS

36 SHIPS LOST

38% NAVIGATIONAL ACCIDENTS

51 POLLUTION EVENTS

982 PERSONS INJURED

12% SLIPPING AND FALLING

59 FATALITIES
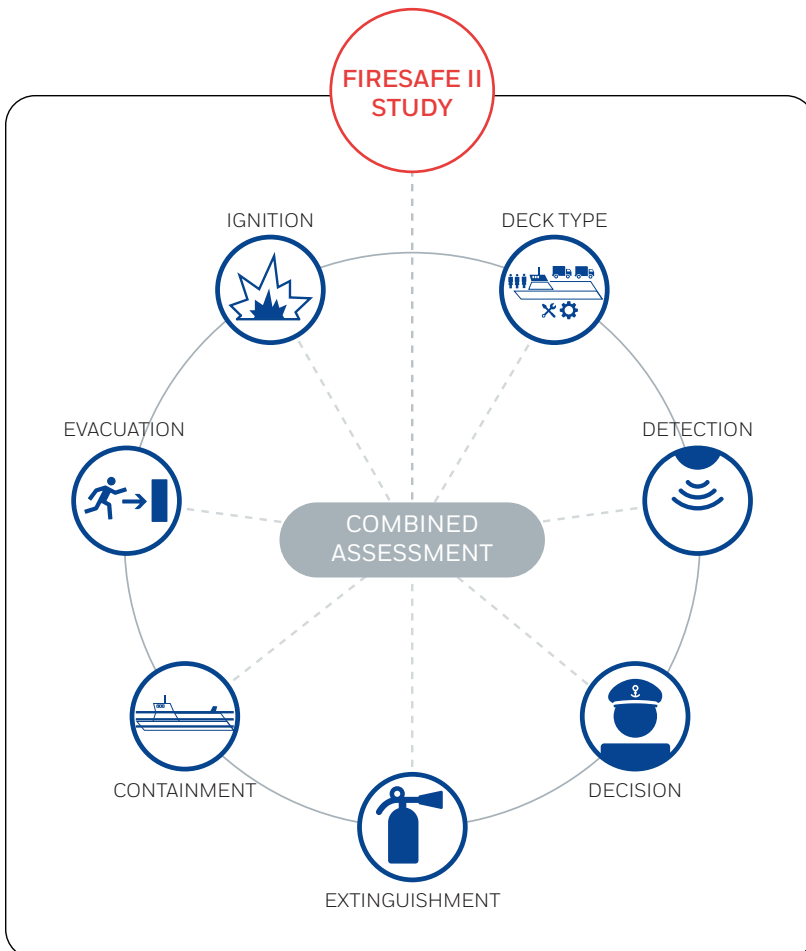
108 INVESTIGATIONS LAUNCHED

MARINE EQUIPMENT AND SHIP SAFETY STANDARDS

EMSA contributes to the safety of ships and marine equipment by closely monitoring the development of safety standards. In 2017 EMSA contributed to the European Commission's fitness check of passenger ship safety legislation by providing data and conducting analyses. As a result, three amending directives were proposed by the Commission, adopted by the Parliament and Council, and subsequently published in the Official Journal in November 2017. Also within the context of the fitness check, EMSA prepared a guide for small passenger ships using a performance standards approach which was finalised with the support of Member States and industry, and delivered to the Commission in December.

EMSA continued to build on the work developed in the area of fires on the vehicle decks of ro-ro pasenger ships, notably by facilitating discussions among accident investigation bodies and maritime administrations, as well as by coordinating the consultation on two submissions and one paper at IMO. As a follow-up to the Firesafe I study, EMSA has been managing Firesafe II, which is being taken forward under a specific framework contract.

EMSA continued to support the Commission on the Marine Equipment Directive, the first implementing regulation of which was adopted and subsequently published in February 2017. This includes a list of marine equipment standards and, for the first time, sets out corresponding application dates. In line with article 11 of the directive, assistance was given to the MarED technical secretariat for notified bodies which perform conformity assessments based on the Marine Equipment Directive.

FIRESAFE II STUDY

IGNITION
DECK TYPE
EVACUATION
DETECTION
COMBINED ASSESSMENT
CONTAINMENT
DECISION
EXTINGUISHMENT

The ongoing Firesafe II study investigates cost efficient measures for reducing the risk of fires on ro-ro passenger ships

PREVENTION OF POLLUTION BY SHIPS

EMSA provided technical and scientific assistance to the European Commission and Member States throughout 2017 in the area of prevention of pollution by ships as many legislative acts were either under discussion, in the process of being adopted or entering into force. This assistance covered:

- contributions to the evaluation reports and impact assessment of the Port Reception Facilities Directive (providing reliable statistics, and drafting proposals for the enforcement regime and new inspection database)

- holding technical workshops (to share best practices in the implementation of the Sulphur Content of Marine Fuels Directive, and to present and finalise EMSA's Guidance on LNG Bunkering to Port Authorities and Administrations)

- organising training courses for sulphur inspectors and port reception facilities inspectors

- developing training courses for flag state representatives on the use of THETIS-MRV to ensure compliance with the monitoring, reporting and verification of CO_2 Regulation

- finalising a study on the hazardous materials included in the EU's Ship Recycling Regulation (PFOS and HBCDD).

On the international front, EMSA continued to provide technical assistance to the European Commission on measures to enhance the energy efficiency of international shipping, on discussions for the global data collection system for maritime transport (covering fuel consumption and greenhouse gas emissions), and on the development of the Energy Efficiency Design Index (EEDI).
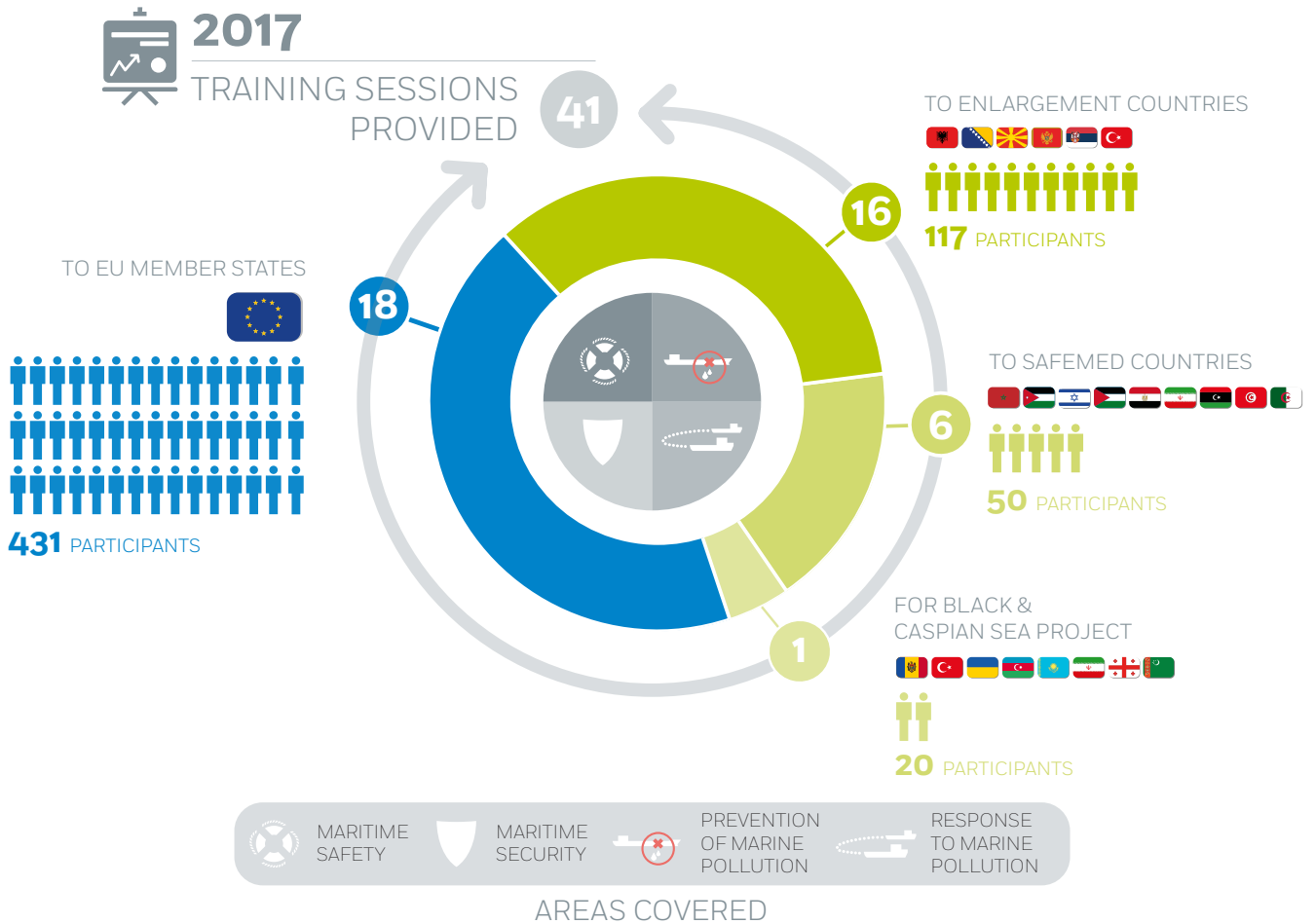
TRAINING AND COOPERATION

In 2017, EMSA organised 18 training sessions, seminars and best practice exchanges that were attended by 431 participants from the EU Member States, Iceland and Norway. Through this form of technical assistance, the beneficiaries were given updated information on selected technical subjects and benefited from exchanges with both EMSA and other stakeholders on the general effectiveness and harmonisation of standards. In addition, 14 new distance learning modules on EU maritime legislation were developed and made available through MaKCs, EMSA's e-learning platform. Sixteen training courses were held by EMSA for the enlargement countries (Albania, Bosnia-Herzegovina, FYROM, Montenegro, Serbia, Turkey) included in the grant agreement signed by EMSA and the European Commission's Directorate General for neighbourhood and enlargement negotiations (DG NEAR).

The technical assistance provided to SAFEMED beneficiary countries (Algeria, Egypt, Jordan, Israel, Lebanon, Libya, Morocco, Palestine and Tunisia) resulted in six training sessions attended by 30 participants. In 2017 EMSA successfully completed the TRACECA project, which is followed by a new project for the Black Sea and Caspian Sea (BCSEA) areas expected to run until January 2021. This offers the beneficiary countries (Azerbaijan, Georgia, Kazakhstan, Moldova, Ukraine, Turkey and Turkmenistan) technical assistance in a number of key areas, including flag state, port state, VTMIS, human element, environmental projection and International Ship and Port Facity Security. Both SAFEMED and BCSEA beneficiary countries were given access to some of EMSA's operational tools, including CleanSeaNet.

During 2017 EMSA continued to host and support the information system, RuleCheck, through which port state control officers are given direct access to up-to-date EU legislation, IMO and ILO Conventions and Paris MoU documents. RuleCheck is also now available to flag states. The e-learning platform, MaKCs, was also maintained, offering dedicated courses to port state control officers on ship inspections. These services were also extended to SAFEMED and BCSEA countries.

2017
TRAINING SESSIONS
PROVIDED

41

TO ENLARGEMENT COUNTRIES

16

117 PARTICIPANTS

TO EU MEMBER STATES

18

431 PARTICIPANTS

TO SAFEMED COUNTRIES

6

50 PARTICIPANTS

FOR BLACK &
CASPIAN SEA PROJECT

1

20 PARTICIPANTS

| MARITIME SAFETY | MARITIME SECURITY | PREVENTION OF MARINE POLLUTION | RESPONSE TO MARINE POLLUTION |

AREAS COVERED

SHIP INSPECTION SUPPORT

Valuable information on the safety and quality of the world's merchant fleet can be found online, free of charge through the Equasis information system. By publishing reliable and objective information on the safety of ships and their operation, this system helps to encourage quality shipping and eradicate substandard practices. EMSA hosts the management unit of the system whose main focus is on port state control inspections, classification societies, and protection and indemnity cover. The data which is supplied by port state control regimes, class societies and other industry-based organisations counts a monthly average of 33 911 individual users (based on 2017 figures) viewing the pages in the Equasis database over 2169 million times in 2017. EMSA's role includes: manning a user helpdesk to ensure the system runs smoothly; preparing biannual meetings for the editorial board and supervisory committee; handling the accreditation of data providers; and, publishing the Equasis annual report on the world merchant fleet. In 2017, the website was redesigned and went live in April 2017.

Alongside this is the MARINFO information system which collects data from commercial sources worldwide on ship characteristics, accidents, movements, ownership, and ship history. This system is particularly useful to EMSA staff when preparing their visits and inspections, as well as to the European Commission when making ex-post assessments of legal provisions. MARINFO received over 70 data requests in 2017.

CHAPTER 4

POLLUTION PREPAREDNESS

DETECTION AND RESPONSE

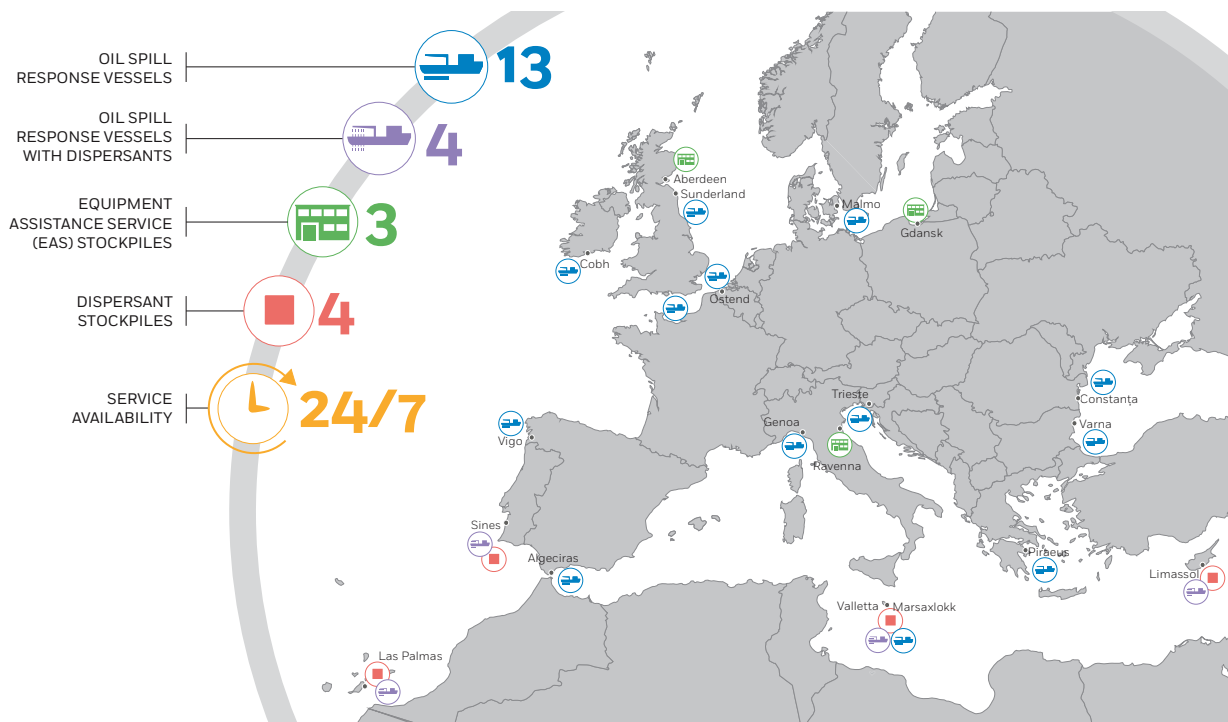## NETWORK OF STANDBY OIL SPILL RESPONSE VESSELS

A network of oil spill response vessels is on standby across Europe to reinforce the ability of individual EU Member States to protect their coastlines from marine pollution. EMSA maintains operational contracts for each of the vessels in this network, mainly by monitoring and assessing the performance of the contracted vessels during quarterly drills and international exercises. At the end of 2017, 17 fully equipped oil spill response vessels were available for mobilisation.

While the EU had another year without a major oil pollution disaster, the sinking of the Agia Zoni II off Piraeus in September did pollute many kilometres of coastline and led Greece to contract one of EMSA's oil pollution response vessels. The contingency plan was activated on this and six other occasions in 2017.

As part of the routine procedures, 70 drills took place to test the quality of the service and ensure the vessel, equipment and crew would meet the standards set by the Agency. In addition, 11 operational exercises were held with Member States using 12 of EMSA's contracted response vessels and two Equipment Assistance Service systems. The new Equipment Assistance Service for the Adriatic Sea also became fully operational in 2017. With this service and the two existing ones in the North Sea and the Baltic Sea, Member State authorities can request rapid mobilisation of specialised, stand-alone equipment – such as firebooms and integrated oil containment and recovery systems – for use on board vessels of opportunity.

In 2017 EMSA continued to deliver on its mandate to offer a response service to marine pollution caused by oil and gas installations. Four vessels were equipped to provide seaborne dispersant application, with associated dispersant stocks of 200 tonnes each, in the Canary Islands, Cyprus, Malta and Portugal.

NETWORK OF EMSA CONTRACTED VESSELS, DISPERSANTS & EQUIPMENT STOCKPILES

OIL SPILL RESPONSE VESSELS — 13

OIL SPILL RESPONSE VESSELS WITH DISPERSANTS — 4

EQUIPMENT ASSISTANCE SERVICE (EAS) STOCKPILES — 3

DISPERSANT STOCKPILES — 4

SERVICE AVAILABILITY — 24/7

DETECTING AND DETERRING MARINE POLLUTION

EMSA helps to identify, trace and track the origin of illegal discharges through the satellite image-based service known as CleanSeaNet. The service is available to 28 coastal states (all 23 EU coastal states; two EFTA coastal states, Iceland and Norway; three candidate countries, Albania, Montenegro and Turkey). In 2017, the service was also available to Greenland. Through the SAFEMED and BCSEA cooperation projects, the service was also made available across the Mediterranean, Black and Caspian Sea areas.

Overall, 4066 analysed images were delivered: 3816 to coastal state users; 177 to Greenland; and, 73 to SAFEMED and BCSEA beneficiary countries. A total of 4899 potential spills were detected, half of which ranked in the highest probability category regarding the detection of hydrocarbons.

In 2017, the European Space Agency's satellite, Sentinel-1B, was brought into CleanSeaNet operations adding to the existing Sentinel-1A. Both Sentinel 1 data licenses are provided to EMSA free of charge, thereby allowing for clear economic benefits and maximised output.

CleanSeaNet provided support to seven emergency requests from Member States and the Commission with a total of 32 images ordered. One such request came from Greece, following the sinking of the Agia Zoni II oil tanker, to monitor the Saronikos Gulf.
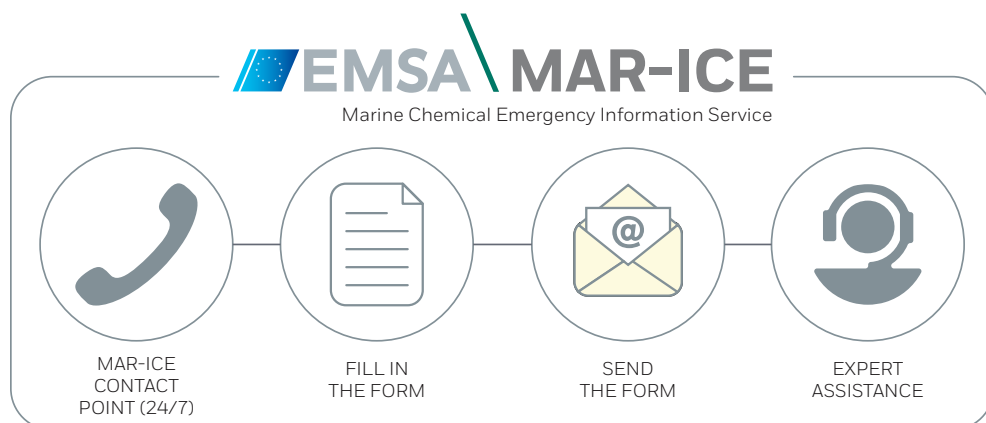
2017 also marked the tenth anniversary of CleanSeaNet and provided an opportunity to look back at a service which had provided almost 25000 images for a coverage of 4300 million km^2 of sea surface. During this decade, the number of possible spills detected in European waters had dropped by half from an average of 11 possible spills per million km^2 monitored in 2007 to five possible spills per million km^2 monitored in 2017. CleanSeaNet has so far proven to be an important resource for monitoring maritime areas, providing detections that allow for prompt follow-up action.

COOPERATION FOR EFFECTIVE POLLUTION PREPAREDNESS AND RESPONSE

EMSA supports the preparedness and response capabilities of Member States for marine pollution incidents. This role involves disseminating best practices and exchanging information between Member States, the Regional Agreements, the International Maritime Organisation and other relevant international bodies.

EMSA shares information with Member States on chemicals and their treatment in the marine environment to assist them in dealing with spills involving hazardous and noxious substances. MAR-ICE is a service offering information from experts in the event of a marine chemical incident. The MAR-ICE network was activated five times for drills and exercises and once for a real release during a national exercise. Special datasheets are also available for over 200 chemicals through MAR-CIS web portal which is now available through a new application for mobile devices and is available both online and offline.

EMSA \ MAR-ICE
Marine Chemical Emergency Information Service

| MAR-ICE CONTACT POINT (24/7) | FILL IN THE FORM | SEND THE FORM | EXPERT ASSISTANCE |

FRONTEX
EUROPEAN BORDER AND COAST GUARD AGENCY

EMSA

EUROPEAN COOPERATION ON
COAST GUARD FUNCTIONS

EFCA, Frontex and EMSA are working together to provide efficient and cost effective support to Member State authorities carrying out coast guard functions. This enhanced cooperation follows the adoption of the European border and coastguard package by the European Parliament and Council in 2016. In parallel, the European Commission put forward an 18-month pilot project to serve as a test bed for cooperation in the area of European coast guard functions. The pilot project reached a successful conclusion in June 2017, the results of which were presented to over 110 participants representing various European and national bodies during the closing workshop. The areas of cooperation covered:

- sharing information – EMSA shared integrated maritime data with EFCA to help them in the detection of illegal, unreported and unregulated fishing. Similarly, EMSA offered tailored information to Frontex to support the detection, identification and tracking of vessels for enhanced border control surveillance

- joint maritime surveillance services – EMSA carried out a week-long remotely piloted aircraft system (RPAS) demonstration in Spain whose multipurpose nature made it possible to address tasks involving all three agencies, i.e. marine pollution monitoring and detection, ship emissions monitoring, border control and fisheries control. The demonstration also provided an opportunity for Member State authorities to observe the ongoing flight missions

- outlining guidelines for interagency cooperation – EMSA actively contributed to this process which covers operational cooperation, training, R&D and situational awareness and is expected to serve as the basis for a handbook on European cooperation on coast guard functions.

The three agencies have now signed a Tripartite Working Arrangement, the first steering committe of which was hosted by EFCA in 2017 and resulted in the adoption of an annual strategic plan and the setting up of three technical sub-committees for follow-up action.

CHAPTER 5

EMSA MANAGEMENT

Administrative Board

EMSA's Executive Director reports to an Administrative Board whose job it is to steer the work of the Agency through the review and adoption of its work programme, associated budget and establishment plan, staff policy plan, and finally the assessment and adoption of the consolidated annual activity report detailing the Agency's performance output. The Administrative Board met three times in 2017 gathering 28 government representatives from each EU country, two non-voting government representatives from Iceland and Norway, four representatives from the European Commission, and four non-voting representatives from the maritime cluster.

Leadership changes

In November 2017, Frans Van Rompuy (BE) stood down as chair of the board, a position he had held since 2011, and Andreas Nordseth (DK) and Nicola Carlone (IT) were voted in respectively as chair and deputy chair from 5 December 2017. A vacancy notice was also published in December for the position of successor to the current Executive Director, Markku Mylly.

External evaluation

The final evaluation report on the implementation of the Agency's founding regulation was adopted by the board in June 2017. On the whole, the evaluation was positive stating: "The challenges faced by the maritime sector cannot be overcome at national level. By operating at EU level, EMSA is providing significant added value to the Member States." In particular, it mentions EMSA's role in coordinating and aggregating expertise and knowledge (information systems, training, visits), harmonising the implementation of legislation and practice (inspections) and topping up Member State capabilities (oil pollution reponse). The full report is available on EMSA's website.

Follow-up action plan

Based on the evaluation report, the Administrative Board has issued a number of recommendations covering a broad swathe of EMSA activities. The implementation of these recommendations has been addressed in an action plan drawn up by the Agency.

Budget structure

The budget for 2017 was in the region of € 65 million, with anti-pollution measures accounting for some € 23 million. The budget structure was presented in titles covering administrative expenditure, operational expenditure and anti-pollution measures.

THIRD PARTY	SUBJECT	START	END
CEDRE - CEFIC	MAR-ICE Network	17/10/2014	16/10/2017
DG CLIMA	Support for the implementation of the regulation on the monitoring, reporting and verification of emissions of carbon dioxide, from maritime transport and amending Directive 2009/16/EC on Port State Control and relevant technical assistance	30/03/2016	29/03/2020
DG ECHO	Cooperation in the framework of maritime emergencies, including marine pollution preparedness, monitoring and response	13/11/2014	No end date
DG ENV	Cooperation Agreement for the development of inventories of shipping emissions based on shipping activity data for domestic, short sea and international shipping through a functionality in THETIS-S including the relevant technical assistance	06/10/2015	05/10/2018
DG ENV	Cooperation Agreement for the support of the implementation of Directive 2012/33/EU as regards the sulphur content of marine fuels and relevant technical assistance	03/09/2014	02/09/2017
DG GROW	Implementation of the maritime surveillance component of the Copernicus security service	03/12/2015	31/12/2026
DG MARE	Creation of a European coastguard function	15/09/2016	31/12/2017
DG MOVE	Provision by EMSA of technical assistance for maritime security	29/10/2013	No end date
DG NEAR	Grant contract for the implementation of the Action 'TRACECA Maritime Safety & Security II'	16/06/2014	31/01/2017
DG NEAR	Grant Contract for the implementation of the SAFEMED III Action	16/06/2013	15/03/2017
DG NEAR	Preparatory measures for the participation of enlargement countries in EMSA's work	23/10/2015	22/04/2018
DG NEAR	Maritime safety, security and environmental protection in the Black and Caspian Sea regions	01/11/2016	28/03/2021
DG NEAR	SAFEMED IV, EuroMed Maritime Safety Project	01/01/2017	21/03/2021
EFCA - European Fisheries Control Agency	EFCA MARSURV	26/06/2015	25/06/2018
EFCA - European Fisheries Control Agency	MARSURV-3 EFCA	17/12/2012	16/12/2018
Equasis members	MoU on the establishment of the Equasis information system	17/05/2000	No end date
ESA - European Space Agency	Agreement concerning cooperation for the use of space based systems and data in support of maritime activities	02/07/2010	01/07/2020
ESA - European Space Agency	SAT-AIS Data Processing Centre (DPC) Block 2 software	18/02/2015	No end date
ETSI - European Tecommunications Standards Institute	MoU ETSI - EMSA for collaboration in the field of marine equipment	26/05/2014	25/05/2017
EU Navfor - Athena Atalanta	Delivery of an integrated maritime monitoring service	06/04/2011	05/04/2019
EUROCONTROL	Navigation safety for RPAS	13/12/2016	No end date
European Free Trade Association Surveillance Authority	MoU on the release of classified information in the framework of the technical cooperation in maritime security	05/02/2014	No end date
European Free Trade Association Surveillance Authority	Provision by EMSA of technical assistance for maritime security 2	05/02/2014	No end date

THIRD PARTY	SUBJECT	START	END
Frontex	Service Level Agreement between the European Agency for the Management of Operational Cooperation at the External Borders of the Member States of the European Union (Frontex) and the European Maritime Safety Agency (EMSA) for the provision of surveillance tools and services in support of Frontex activities, including for the implementation of the EUROSUR framework	01/05/2016	30/04/2019
Frontex and EFCA	Interagency cooperation between Frontex, EFCA and EMSA on coast guard functions	17/03/2017	16/03/2021
International Mobile Satellite Organisation	IMSO AUDIT	18/02/2016	30/06/2017
	IMSO AUDIT – LRIT-IDE	06/06/2017	No end date
Interspill LTD	Interspill Series of Conferences and Exhibitions - Memorandum of Understanding	13/12/2016	No end date
Italian Coast Guard – Comando Gen. del Corpo delle Capitanerie di Porto	SLA EMSA ICG Regional SSN Server (16/17)	22/10/2016	28/02/2018
	Mediterranean Regional SSN Server	22/10/2015	28/02/2019
JRC - Joint Research Centre	Hosting, maintenance and enhancement of EMCIP platform	04/12/2013	03/12/2017
	Hosting and maintenance of EMCIP platform	02/09/2016	01/09/2017
	Hosting and operation of EMCIP platform and support for the transfer of ECCAIRS/EMCIP relevant data from the JRC to EMSA	14/12/2017	13/12/2018
MAOC	Operational assistance and training	12/08/2014	11/08/2019
Paris MoU	Conditions of use for and level of access to the THETIS information systems for PSC	01/01/2011	No end date
Marine Environmental and Technology Centre - Instituto Superior Tecnico	Cooperation agreement MARETEC-IST - EMSA Oil Spill Modelling	15/06/2014	14/06/2019
Danish Maritime Authority	HELCOM and North Sea AIS Server	11/12/2016	31/01/2017
Norwegian Coastal Administration	SLA EMSA and NCA for hosting, maintenance and operation of North Atlantic, North Sea and HELCOM AIS Regional Servers and SSN	20/12/2016	28/02/2019
	SLA EMSA NCA Regional SSN Server	20/12/2016	28/02/2018
République Française	Hosting & Development of Equasis	27/02/2009	No end date
Royal Belgian Institute of Natural Sciences	Development and implementation of an operational capability between oil spill models and CNS DC	09/12/2013	08/12/2018
Swedish Meteorological and Hydrological Institute, Gov Agency	Develop and implement an operational capability to set to a data exchange mechanism between the oil spill model and the EMSA CDC	21/06/2013	20/06/2018

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.