

EMSA Consolidated Annual Activity Report 2018

Document history

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- 21.03. 2019 Adopted and assessed by the EMSA Administrative Board taking into account the European Court of Auditors' observations of previous years and subject to the preliminary observations of the European Court of Auditors.
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EMSA Consolidated Annual Activity Report 2018

Assessment by the EMSA Administrative Board

The Administrative Board's assessment covers three main areas: strategic achievements (A), operational achievements (B) and the management of the Agency (C). The assessment takes into account the relevant legal, strategic, and resource framework, as well the applicable annual work programme.

The Administrative Board appreciates the structure of the Consolidated Annual Activity Report 2018. Each activity is clearly linked to its legal basis and placed in strategic context through references to the relevant articles of the EMSA Founding Regulation and to the relevant objectives of the current EMSA 5-year Strategy (as extended). This demonstrates the consistency of the annual activities with the tasks assigned by the legislator and the strategic outlook adopted by the Administrative Board. Furthermore, the allocation of budget and staff to each activity clarifies relative impact on resources.

The simplified and side-by-side representation of planned and actual output and the related achievements or difficulties encountered for each activity allows for an accurate comparison of objectives and results and assessment of the implementation of the annual programme of work for 2018 planned in the EMSA single Programming Document 2018-2020.

A) Strategic achievements

Following the approval by the Administrative Board of the External Evaluation of the Agency and the subsequent set of recommendations adopted in November 2017, the Agency presented in March 2018 its Action plan for their implementation. Actions, potential risks and related mitigating measures for each of the recommendations were identified, allowing for tangible follow-up by the actors involved in the various processes, whether legislative, operational or organisational. The Agency also provided the timeframe for the implementation of those actions as well as a realistic budgetary impact.

The current 5-year Strategy was extended for one year until the end of 2019, bridging a period in which several major developments with a direct impact on the Agency are expected to mature: negotiations for the next Multi annual Financial Framework 2021-2027, the impact of Brexit, the election of the European Parliament and the subsequent appointment of the European Commission. Moreover, the preparation of the 5-year Strategy being the prerogative of the Executive Director, after her appointment by the Administrative Board in September 2018, Ms Maja Markovčić Kostelac will prepare the new strategy in her first year in office.

The key strategic achievements in each work area in 2018 are outlined below.

1. Standards, rules and implementation

EMSA shall be a leading technical partner in cooperation with Member States for the development and implementation of EU safety standards and regulations in the maritime sector.

[contributing activities: 2.3, 3.1, 3.2, 3.3, 3.4, 3.6, 4.1, 4.2, 4.3, 4.4, 4.5]

The contribution of the Agency to the development and implementation of EU standards and regulations in the maritime sector is delivered through a programme of visits and inspections, corresponding reports and cumulative horizontal analyses. By implementing the Methodology for Visits to Member States, as adopted by the EMSA Administrative Board in 2015, the Agency succeeded to enhance the potential for reducing the administrative burden to Member States, developing and sharing best-practices and lessons learnt, and strengthening the flow and exchange of information. The integration of the cost-efficiency assessment into the horizontal analyses maximised the value added to both Member States and the Commission of EMSA visits.

In addition, the Quality Management System for Visits and Inspections, which in 2018 was extended to cover Horizontal Analyses Activities and Maritime Security Inspections, aims to guarantee high standards in terms of the reliability of information and provides a framework for continual improvement.

The technical work carried out in relation to Passenger Ship Safety, Marine Equipment, Fire Safety confirmed the leading role of the Agency for issues related to Ship Safety in support of the Commission and the Member States at EU and IMO level.

Safety analyses of data from EMCIP confirmed their added value as a tool to identify safety issues and possible improvements towards enhanced safety culture.

2. Monitoring, surveillance and information sharing

EMSA shall aim to become a major provider of reliable and efficient information services for the benefit of the EU maritime cluster and, where appropriate, for the use of other communities.

[contributing activities: 2.1, 2.2, 2.3, 2.4, 4.5, 5.2]

The process of enriching and tailoring the maritime picture made available by EMSA to its key stakeholders continued in 2018, with the integration of new data and functionalities, and EMSA's Integrated Maritime Services were delivered to more users exercising an ever wider range of maritime functions. More functionalities have been added and the development of Automated Behaviour Monitoring algorithms were stepped up together with interested Member States and EU Agencies. Efforts to support the digitalisation of maritime transport continued with amongst others the deployment of SafeSeaNet version 4, the development of the central databases and pilot projects in the field of the National Single Window and the eManifest.

The operational services under the Copernicus Maritime Surveillance Services, executed on behalf of the Commission, saw a significant growth. All earth observation contracts were retendered, providing a stable and robust basis to deliver higher quality and variety of services in the years to come.

While the deployment of RPAS services was delayed, due to the pioneering nature of civilian maritime RPAS and resulting technical and logistical issues, at the end of 2018 four services were offered in four countries in parallel. The portfolio of RPAS services was completed by another round of public procurement, adding more capacity in the field of long range RPAS and vertical take-off and landing. These services are adding unique data that the Agency can make available across its systems and for different users, from supporting the implementation of standards and rules in the environmental field and contributing to pollution prevention,

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to enriching the maritime picture for a range of functions in law enforcement, border and fisheries control, search and rescue and pollution response.

The integrated maritime picture, Automated Behaviour Monitoring, and surveillance services based on satellite imagery and RPAS were shared with Frontex and EFCA with the required customization in the framework of coast guard cooperation and specific bilateral service level agreements. Integrated Maritime Services were also developed in 2018 for EUNAVFOR, MAOC-N and a new cooperation agreement was signed with EUROPOL for similar services.

In the context of the ongoing discussions on digitalisation and the effects of more enhanced use of existing EU-wide digital maritime systems and services, EMSA is working on a number of initiatives with a view to increase efficiency, synergy and burden reduction both on administrations and on industry, in particular for ship related certificates, using THETIS as the platform to store relevant information, so as to make them available to Member States in their capacity both as Flag and Port States. Work started on a pilot basis on the possible support to Flag States for eCertificates.

3. Environmental challenges and response

EMSA shall aim to become the main EU resource to support Member States' efforts for mitigating shippingrelated environmental risks and responding to environmental accidents in the maritime and offshore sector.

[contributing activities: 2.3, 4.6, 4.7, 5.1, 5.2, 5.3]

As the developer and provider of tools and services to directly support Member State environmental enforcement effort and the expert support to the Commission at the IMO, EMSA is poised for a lead role in this sector in the future, supporting Member State efforts to implement EU and International maritime environmental legislation.

Regulation (EU) 2015/757 is the first of several steps in the EU's efforts to include the maritime transport sector in its overall policy to reduce greenhouse gas emissions. From 1 January 2018, companies are monitoring and reporting, to an accredited verifier, data on each ship's CO2 emissions (over 5000 gross tonnes, irrespective of its Flag State) and other relevant information allowing for the determination of ships' efficiency or for the further analysis of the drivers for the development of emissions, while preserving the confidentiality of commercial or industrial information. THETIS-MRV, which is a purpose-built monitoring, reporting and verification web-based system developed and hosted by EMSA, supports the aforementioned activities within the context of cost-efficient services based on the use of existing infrastructure and supporting arrangements, as well as proven concepts and expertise.

With almost 300 LNG fuelled ships confirmed, 70% of which operating in Europe, and LNG fuel capacities currently exceeding several thousands of cubic meters per ship (up to 18,600 cubic meters in the 9 confirmed CMA-CGM mega container carriers), the LNG bunkering market will witness a significant change in paradigm with a need to develop higher capacity and throughput for LNG bunkering systems and operations. The EMSA Guidance on LNG Bunkering for Port Authorities and Administrations, published in early 2018, established EMSA as one of the leading partners in the challenging activity to develop adequate control measures in ports for a fast-developing market. EMSA has provided state of the art guidance to Member States administrations, port authorities and competent bodies for the national LNG fuel frameworks on how to develop adequate control measures for LNG bunkering operations in the context of specific ports regulatory exercise.

In the field of response, the Agency is enriching its portfolio of services, besides maintaining and renewing its existing network of oil recovery vessels, by continuing to build the Equipment Assistance Service which saw a new depot in the Adriatic Sea becoming operational and the successful completion of the procurement procedure for another one in the northern Baltic Sea. EMSA also added to this service which makes

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specialised stand-alone equipment available to Vessels of Opportunity some dispersants and dispersant spraying devices thereby diversifying the options available for topping up national and regional oil pollution response capacities. The new HAZMAT (hazardous materials) database became operational and is directly accessible by Member States, which can also use the MAR-CIS database (datasheets of chemicals). In addition, the MAR-ICE network is available 24/7 for obtaining information on chemicals accidentally released in the marine environment. Information on the EMSA response capacity is automatically available in the EU civil protection mechanism system CECIS, an interface has been developed and installed for this purpose.

The Remotely Piloted Aircrafts Systems (RPAS) portfolio for pollution surveillance and support to response operations was completed in 2018 and new RPAS were contracted to support vessel's emissions monitoring campaigns.

4. Information, knowledge and training

EMSA shall aim to become one of the foremost knowledge providers within the maritime cluster.

[contributing activities: 2.1, 2.2, 2.3, 3.6, 4.1, 4.2, 4.3, 4.4, 4.5, 4.8, 5.1, 5.3]

Continuity for capacity building activities in neighbouring countries around the Mediterranean and the Black and Caspian seas is assured until 2021 through SAFEMED IV and BCSEA. These activities aim to contribute to the approximation of standards in maritime safety, security and increasingly also pollution prevention and response. This is a crucial element in the overall success of the EU's vision for its seas.

EMSA offers to Member States, candidate and potential candidate countries and neighbouring countries sharing EU sea basins an increasingly innovative, collaborative, and flexible capacity building service that can be specialised and tailor-made and relies increasingly on e-learning. The growing body of tools and guidance reflects evolving policy priorities and related stakeholder needs.

Following the interest expressed by third countries, access to tools in support of Port State Control activities in different regions of the world was authorised by the EMSA Administrative Board, thus confirming the potential for exporting the Agency's knowledge and, by extension, EU standards and solutions beyond the European geographical dimension.

B) Operational Achievements

In each of the strategic areas, key stakeholders benefitted from EMSA products and services.

1. Standards, Rules and Implementation

[contributing activities: 2.3, 3.1, 3.2, 3.3, 3.4, 3.6, 4.1, 4.2, 4.3, 4.4, 4.5]

All EU ship-safety initiatives and relevant negotiations at IMO were supported by EMSA technical assistance, while the combined effort of EMSA and Member States in the programme of visits and inspections – all those planned for 2018 were carried out - has fed into Commission initiatives to assess and fine-tune maritime safety EU legislation in order to improve the efficiency and effectiveness of measures in place. In addition, the horizontal analyses performed have provided essential feedback for the improvement of the relevant EU legislation in the area. Special emphasis was given to passenger ship safety and notably the work on fire safety, with the study FIRESAFE II completed.

EMSA also delivered the 3rd Implementing Regulation for Marine Equipment Directive, which provides the industry with the latest changes and updates of the relevant standards used for the certification of marine equipment on board EU flagged ships.

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The development of the new EMCIP was concluded, with an enhanced and more user-friendly database available for the accident investigative bodies of the Member States. A safety analysis of data on accidents involving ro-ro vessels was delivered, thus identifying safety issues of horizontal nature.

2.Monitoring, Surveillance and information sharing

[contributing activities: 2.1, 2.2, 2.3, 2.4, 4.5, 5.2]

The process of data integration and incorporating new data sources and functionalities, such as enhancing Automated Behaviour Monitoring, combining fishing vessel positions and search and rescue data, and providing a mobile application that is actively used by Member States, continued to add value for a growing number of end-users showing increasing interest in tailor-made services. Brought together and delivered under the heading Integrated Maritime Services, the Agency's systems are a pivotal part of Member State monitoring, information and surveillance systems, and benefit a steadily expanding list of other EU agencies and bodies where synergies with EMSA have been identified. Progress was made with the rolling-out of the SafeSeaNet Ecosystem Graphical User Interface (SEG) which is gradually replacing old single interfaces, offering a common and combined view of maritime information provided by several back-end systems operated by the Agency. In 2018 the Agency started offering online access through the SEG to long term storage of maritime information allowing for a more in-depth analysis by surveillance authorities of maritime patterns of vessels of interest.

Extending the possibilities of the original THETIS information system, EMSA started the development of a purpose-built dedicated voluntary module for Member States to report security inspections under Regulation 725/2004. In addition, in 2018 THETIS-EU was further enhanced enabling Member States to submit the annual reports on the implementation of the Sulphur Directive, using data already available in the system as retrieved form inspection reports, thus reducing the associated administrative burden for national competent authorities.

EMSA has developed an enhanced webservice to facilitate communication of all dates of issue, dates of expiry and date of (re) survey of all statutory certificates as issued by the RO's on behalf of flag States, to all classed ships, as a first step towards digitalisation and better use of eCertificates. A full refresh of 400.000 statutory certificates takes place every day covering all the ships classed with the ROs. Information on new ships entering into service, changes of flag (leading to renewal of statutory certificates) and changes of class implying certificate changes are immediately processed as a consequence of the requirement to update information submitted to THETIS within 72 hours after changes in the respective RO systems. By way of Proof of Concept, the same technical arrangement has been made available for those Flag States that issue statutory certificates themselves through a pilot project with the Danish Maritime Authority.

RuleCheck is a decision-support tool, developed and maintained by EMSA. It contains all applicable maritime legislation such as IMO Conventions, Codes, Resolutions and Circulars, ILO Conventions and guidelines, relevant EU Regulations and Directives as well as the respective manuals and Instructions of the Paris, Black Sea and Mediterranean Memoranda of Understanding on Port State Control. While originally developed for the Paris MoU Port State Control authorities, today approximately 1000 users from about 50 countries (Med MoU, BS MoU, Carib MoU, Indian Ocean MoU, Flag State Administrations from Member States and ENP beneficiary countries, as well as Accident Investigation Bodies from the Member States) are granted access rights. Providing access to RuleCheck beyond the EU contributes to harmonised implementation of international conventions, global harmonisation of PSC practices, and adequate access to the up-to-date regulations for inspectors worldwide. At the same time supports approximation with best practices applied in the EU, increases the visibility of the EU, showing the added value of a tool enhanced for and used by the EU Member States and its competent authorities.

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3. Environmental challenges and response

[contributing activities: 2.3, 4.6, 4.7, 5.1, 5.2, 5.3]

Services for the prevention of, preparedness and response to, pollution caused by ships as well as response to marine pollution caused by oil and gas installations have become more adaptable and flexible in order to increasingly reflect regional capacity, requirements and risk. In this regard the development of the Equipment Assistance Services ready for mobilisation in the North, Baltic and Adriatic seas, together with a regular training program for Member States constitute a real added value, highly appreciated, as can be testified by the increasing number of requests for equipment sets during national or regional exercises. Extensive support was given regarding the ship accident north of Corsica, for which an EMSA oil recovery vessel was mobilised and satellite imagery were provided for detection of oil pollution at sea and later regarding polluted beaches. For this type of pollution incident close to shore, the use of optical images for detection of pollution close to the beach was tested with success. In addition, satellite images were provided for assessing and monitoring several maritime accidents throughout the year. Dispersant from the stockpile in Malta was also made available at the request of the Bulgarian authorities during the lightering of the "MOPANG" wreck. The signature of a memorandum of understanding between EMSA, the International Oil Pollution Compensation Funds and the International Group of Protection and Indemnity Associations by which the hire rates of EMSA antipollution assets have been agreed gives certainty to Member States that the costs they will claim for the use of EMSA assets will be accepted

Support was provided to the Commission and the Member States in the ongoing discussions leading to the IMO's Green House Gases Strategy and in the revision of the PRF Directive. Alternative fuels and LNG were the subject of workshops, training and guidance. The Guidance on LNG Bunkering to Port Authorities and Administrations published at the beginning of 2018, is the result of close cooperation with the European Commission, Member States and Industry within the context of the European Sustainable Shipping Forum. It aims to support port authorities and administrations backing the use of LNG as a ship fuel, as part of a joint effort to increase safety and sustainability.

A process has been established between DG ENV and EMSA through which the Agency provides information (situational awareness) on selected ships allegedly in imminent breach of the Waste Shipment Regulation (Regulation (EC) No 1013/2006). Information includes, for each ship of interest, the track of the last seven days, the last port of call and departure date and destination and estimated arrival date. The information is provided in the form of a table including a map with print screen of the ship's track.

EMSA using data drawn from MARINFO provided reliable statistics to the European Commission and the maritime industry on the calculation of the recycling needs of the EU shipping fleet for the years 2013 to 2017.

4. Information, knowledge and training

[contributing activities: 2.1, 2.2, 2.3, 3.6, 4.1, 4.2, 4.3, 4.4, 4.5, 4.8, 5.1, 5.3]

Member State demand for training, e-learning or ad-hoc technical assistance from EMSA attests to the Agency's added value in this area, as does the Commission's increasing reliance on EMSA for the implementation, in the maritime safety field, of EU policies regarding candidate and potential candidate countries, and neighbouring countries, channelled through the IPA (Instrument for Pre-Accession Assistance), Mediterranean, and Black and Caspian Sea projects.

Within the context of the SAFEMED IV and Black and Caspian Sea Projects and in addition to the assistance offered to beneficiaries to align their national standards and practices with those of the European Union, with the aim of promoting a harmonised approach in the field of maritime safety, security and pollution preparedness/response a new action was established in 2018 in relation to the IMO Member State Audit

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Scheme (IMSAS). The activity entails pre audit actions where beneficiaries through a mock audit are guided how to better improve the implementation of the international instruments and post audit activities through which support is provided for the preparation and implementation of the corrective action plan.

C) Management

An overall effective and efficient monitoring of programme implementation was in place to track the delivery of planned outputs and performance per activity and signal potential risks throughout the year and across the Agency.

The delay in the deployment of RPAS operations led to a budget amendment which included a reduction of the EU subsidy, anticipating that some payment appropriations related to the European cooperation on coast guard functions could not be consumed in 2018. However, following events outside EMSA's control (delays caused by technical problems and bad weather) in the last quarter of 2018, this budget reduction proved to be insufficient, resulting in the under consumption of payment appropriations. The Administrative Board calls on the Agency to put in place measures to address the risks resulting from the Permits to Fly issue towards full budget execution.

Furthermore, the Agency carried out budgetary modifications to cater for salary increases. A need for extra funds was caused by factors beyond the Agency's control. The correction coefficient for Portugal and the salary adjustment increased significantly during the past two years, ending a negative trend stretching over seven consecutive years. At the time of drafting the 2018 budget these factors were not known.

The final implementation of the "redeployment pool" cuts and the phasing in of the posts related to the enlarged mandate were achieved through efficient and sound planning, deployment and monitoring of resources. The Agency's budget structure continued to allow for an overview of all project-financed activities in the Agency's portfolio, which continue to grow overall, testifying that EU agencies and Commission services appreciate the EMSA's capabilities to deliver quality work. The Administrative Board invites the Agency to address the substantial carry-over resulting from these project financed actions.

The Agency executed 99.02% of commitment appropriations and 92.84% of payment appropriations. This calculation considers the decrease of payment appropriations and budget amendment related to the European cooperation on coast guard functions mentioned above.

The Key Performance Indicators used by the Agency to measure the continuity and quality of the EMSA external services have met their respective targets overall. As per previous years, cases in which targets have not been met have been duly justified. The Administrative Board notes that for the Coast Guard activity, only 50 % of the number of RPAS Deployment Days per year was met, taking as a baseline the Key Performance Indicator target.

Based on information outlined in Parts II, III and IV of the CAAR2018 and on the work of the Administrative and Finance Committee throughout the year, the Administrative Board notes the Agency's exhaustive and thorough approach to the follow-up of the outcome of audits by the various auditing bodies. In particular, the Administrative Board appreciates the fact that the Internal Audit Service of the Commission (IAS) and the European Court of Auditors (ECA) did not issue any critical audit recommendations or observations that could lead to a reservation in the annual declaration of assurance and that at the end of 2018, all audit recommendations issued by 31/12/2018 and earlier had been implemented.

Furthermore, the Administrative Board notes that measures are in place to maintain an appropriate risk and control environment and provide an appropriate level of assurance. Building blocks of assurance leading to

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the Declaration of the Authorising Officer are in place, as are measures to address any serious management and control weaknesses identified.

Conclusion

The Administrative Board of the European Maritime Safety Agency concludes that the Agency has met its objectives in accordance with the annual work programme for 2018 and the overall multi-annual strategic framework.

The Administrative Board notes with satisfaction how the Agency is committed to its core tasks and also with dedication contributes to improved European cooperation and continues to take on a pioneering role in incorporating new technologies into the maritime situational picture as well as into services that increase the efficiency and effectiveness of maritime administration and enforcement.

Finally, the Administrative Board greatly values the excellent performance of the EMSA staff in carrying out the tasks of the Agency throughout the year, enhancing maritime safety, security and prevention of pollution and paving the way for the use of new technology to the benefit of the European maritime community.

Done at Lisbon, 21 March 2019

F.Nonth

Signed

Andreas Nordseth Chairman of the Administrative Board

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Introduction

The framework for the activities of the European Maritime Safety Agency is shaped by the Agency's Founding Regulation, in which the legislator lays down and amends the tasks of the Agency; its 5-year Strategy, through which the Executive Director and the governing body, the EMSA Administrative Board, provide a strategic outlook in an evolving policy context; and the programming of resources for decentralised agencies, which outlines the level of human and financial resources which may be made available to this particular Agency in order to carry out its tasks in the field of maritime safety and security, traffic monitoring, prevention of pollution by ships and response to oil pollution cause by ships and oil and gas installations.

The annual programme of work for 2018, as published in the EMSA Single Programming Document 2018-2020, was drawn up within the multi-annual framework outlined above.

The CAAR 2017 highlighted the setting up of RPAS services to support multi-purpose operations as the main challenge for that year. The process proved more complex than anticipated. The Agency continued to be confronted in 2018 with some delays in the deployment of this new service concept because of technical challenges, but also due to difficulties for obtaining permits to fly from the national authorities. While planning was adjusted accordingly in July 2018, with a budget amendment adopted in August 2018 by the Administrative Board, returning part of the EU subsidy granted for that purpose, continuing problems with the permit to fly led to four operations being delayed to September - October instead of early August. This resulted in a delay and the subsequent postponement of the delivery of services and consequently the associated payments to 2019.

Except for this delay, the objectives set out for 2018 were achieved overall, through a high level of implementation of the work programme for that year.

Thanks to good governance, sound management, and dedicated staff the Agency delivered the operational services, the analysis and expertise, and the technical support that the Commission, the Member States and a growing canvas of users in the maritime sector have come to expect and depend upon – to help them make the sector cleaner, safer and more efficient.

List of acronyms

Acronym	Full name	
ABM	Automated Behaviour Monitoring	
AI	Accident Investigation	
AIS	Automatic Identification System	
BC SEA	Maritime Safety, Security and Environmental Protection in the Black and Caspian Sea Regions	
BWMC	International Convention for the Control and Management of Ships' Ballast Water and Sediments	
CAAR	Consolidated Annual Activity Report	
CHD	Central HAZMAT Database	
CNTA	Consultative Network for Technical Assistance	
CMS	Copernicus Maritime Surveillance Service	
CSD	Central Ship Database	
CTG MPPR	Consultative Technical Group for Marine Pollution Preparedness and Response	
DLP	Distance Learning Package	
DUET	Dispersant Usage Evaluation Tool	
EAS	Equipment Assistance Service	
EC	European Commission	
ECGFF	European Coast Guard Functions Forum	
ECGFSQF	Development of a Sectorial Qualifications Framework for Coast Guard Functions (project acronym)	
EEA	European Economic Area	
EEDI	Energy Efficiency Design Index	
EEZ	Exclusive Economic Zone	
EFCA	European Fisheries Control Agency	
EFTA	European Free Trade Association	
EMCIP	European Marine Casualty Information Platform	
EMPOLLEX	Exchange Programme for Marine Pollution Experts	
ENP	European Neighbourhood Policy	
EODC	Earth Observation Data Centre	
ERCC	Emergency Response Coordination Centre	
ESSF	European Sustainable Shipping Forum	
EU	European Union	
EU LRIT CDC	European Union Long Range Identification and Tracking Cooperative Data Centre	
EUNAVFOR	EU Naval Forces	
EUROPOL	European Police Office	

EUROSUR	European Border Surveillance System			
Frontex	European Border and Coast Guard Agency (formerly the European Agency for the Management of Operational Cooperation at the External Borders)			
FWA	Fixed wing aircraft			
HNS	Hazardous and Noxious Substances			
HSC	High Speed Craft			
ICCAT	International Commission for the Conservation of Atlantic Tunas			
IFCD	Interface and Functionalities Control Document			
ILO	International Labour Organization			
IMO	International Maritime Organization			
IMS	Integrated Maritime Services			
IMSAS	IMO Member State Audit Scheme			
IPA	Instrument for Pre-Accession Assistance			
ISM	International Safety Management			
ITU	International Telecommunication Union			
IUU	Illegal, Unreported, and Unregulated fishing			
KPI	Key Performance Indicator			
LNG	Liquefied Natural Gas			
LRIT	Long Range Identification and Tracking			
LRIT IDE	International LRIT Data Exchange			
MaKCs	Maritime Knowledge Centre systems			
MAOC-N	Maritime Analysis and Operations Centre – Narcotics			
MAR-CIS	Marine Chemical Information Sheets			
MarED DB	Marine Equipment (Directive) Database			
MAR-ICE	Marine Intervention in Chemical Emergencies			
MARINFO	Maritime Industry Information Infrastructure			
MASS	Maritime Autonomous Surface Ships			
MMSI	Maritime Mobile Service Identity			
MoU	Memorandum of Understanding			
MRA	Mutual Recognition Agreement			
MRV	Monitoring, Reporting and Verification			
MSC	Maritime Safety Committee			
MSS	Maritime Support Services			
NSW	National Single Windows			
OLAF	European Anti-Fraud Office			
PCF	Permanent Cooperation Framework for Accidents in the Maritime Transport Sector			

PCZ	Preferred Conservation Zone	
PFA	Project Financed Activity	
PRF	Port Reception Facilities	
PSC	Port State Control	
PSCOs	Port State Control Officers	
QACE	Quality Assessment and Certification Entity	
REFIT	Regulatory Fitness and Performance programme (EC)	
RFD	Reporting Formalities Directive	
ROPAX	Roll-on/roll-off passenger ships	
ROs	Recognised Organisations	
RPAS	Remotely Piloted Aircraft Systems	
SAFEMED IV	EuroMed Maritime Safety Project	
SAT-AIS	Satellite detected Automatic Identification System	
SECA	Sulphur Emission Control Area	
SEG	SafeSeaNet Ecosystem Graphical User Interface	
SLA	Service Level Agreement	
SOLAS 74	International Convention for the Safety of Life at Sea (1974)	
SSN	SafeSeaNet	
STCW	Standards for Training, Certification and Watchkeeping of seafarers	
THETIS	Inspection database to support Directive 2009/16/EU on Port State Control	
THETIS-EU	Inspection database to support other enforcement regimes not falling within the remit of Directive 2009/16/EU on Port State Control	
THETIS-MRV	System to support Regulation (EU) 2015/757	
TWA	Tripartite Working Arrangement	
VDES	VHF Data Exchange System	
VDS	Vessel Detection System	
VHF	Very High Frequency	
VOO	Vessels of opportunity	
VTMIS	Vessel Traffic Monitoring and Information Systems	

PART I – Achievements of the Year

List of EMSA activities

Area	Activity Budgetir code		Activity name	Project Financed Activities (PFA)
			Interagency cooperation with Frontex and EFCA on coast guard functions ¹ – Common Annual Strategic Plan 2018	
	2100	7901 7210	Union maritime information and exchange system (Integrated maritime services; SafeSeaNet; Improving internal market and maritime transport efficiency)	Single window environment Project EFCA SLA
saoof	2200		EU LRIT Cooperative Data Centre and International LRIT Data Exchange	
and carg		7700		THETIS-EU
on ships	2300	7710	THETIS Information System	THETIS-MRV
ormation	rmation	7720		Emission Inventories Project
g and inf	2400		Maritime Support Services	
nonitorin	2200 7700 2300 7710 2300 7710 7720 7720 2400 7500 7500 7200			Copernicus
Traffic r				Frontex SLA
e و	3100		Classification Societies	
monitor the islation	3200 3300		STCW	
Visits and inspections to moni implementation of EU legislati			Visits to Member States to monitor the implementation of Union Law	
nd inspecentation of	3400		Maritime Security	
Visits a implem	3600		Horizontal analysis and research	

¹ The expression "coast guard functions" as used in this document is not to be taken as conflicting with the meaning or the roles and responsibilities of the EU Member States as flag, port and coastal States in the context of the International Maritime Organisation, other international bodies and the EU.

Area	Activity Budget code	Based ing (ABB)	Activity name	Project Financed Activities (PFA)
	4100		Port State Control & Flag State Enforcement	
scientific States'	4200		Accident investigation	
ical and s Member	4300	7800	Training, cooperation and capacity building	EU Funds for enlargement countries
ith techn between	4400		Marine equipment and ship safety standards (including IMO)	
nission w peration l ission	4500	7600	Ship Inspection Support	Equasis (R0 funds)
he Comn ical cool ie Comm	4600		Prevention of pollution by ships	
Providing Member States and the Commission with technical and scientific assistance and facilitating technical cooperation between Member States' Maritime Authorities and with the Commission	7100			SAFEMED IV, EuroMed Maritime Safety Project
	7400			BC Sea (Maritime Safety, Security and Environmental Protection in the Black and Caspian Sea Regions)
redness esponse	5100		Operational Pollution Response Services	
Pollution prepare detection and res	5200		CleanSeaNet and illegal discharges	
	5300		Cooperation and information relating to pollution preparedness and response	
ital S	Horizontal activities activities 6500 6100-6400		Communication, Missions & Events support	
Horizor activitie			Overhead/horizontal tasks	

The Agency implements an activity-based approach to budgeting and reporting, which is explained in detail in Annex I.

Project Financed Activities are represented in the table above either on a separate line, when there is project financed staff, or within the most relevant subsidy-financed activity.

Interagency cooperation with Frontex and EFCA on coast guard functions

Legal basis: Regulation (EC) Nº 1406/2002 as amended, Art. 2b

Actions under this heading are ventilated across the various activities of the Agency under which support to coast guard functions was already being provided and was enhanced or extended following the latest amendment of the EMSA Founding Regulation.

Multi-annual strategic objectives

- → To support the Commission and the Member States in improving ship safety. (A1)
- ➔ To increase the effectiveness and efficiency of EMSA's integrated maritime information services to its full potential based on existing applications such as SafeSeaNet. (B1)
- ➔ To explore, at reasonable cost, in a sustainable and viable way, new capabilities offered by technology in the field of maritime surveillance for the benefit of the Commission and the EU Member States with added value for maritime safety, security and environmental protection. (B2)
- > To continue to work to further develop the EU maritime traffic monitoring and information system. (B3)
- ➔ To engage in supporting other communities and enhance the Agency's role as central EU data provider of maritime related information as defined by Union law. (B4)
- → To continue developing its role as forum for discussion of best practices. (D5)
- → To consolidate its role as training provider including the use of modern techniques. (D6)

Expected result 2018

The common Annual Strategic Plan 2018 set the high-level actions which Frontex, EFCA and EMSA agreed to implement together in 2018 to advance the objectives of the interagency cooperation on coast guard functions as governed by the Tripartite Working Arrangement.

Objectives 2018	Lead organisation / Outcomes
Strategic / Horizontal	
Develop a concept and format for an annual European Coast Guard event, to be tested for the first time in Vigo (Spain) to involve national authorities performing coast guard functions and other EU and international partners for consultation and feedback on Agencies' cooperation activities.	The first Annual European Coast Guard Event was held in La Toja, Pontevedra, Spain, on the 11 and 12 April 2018. A total of 118 participants attended the event from 22 Member States and Norway and the European institutions. It was the first event after the signature of the Tripartite Working Arrangement, having the communities of the three agencies together for consultation and feed-back on the cooperation. The event was structured into an opening session, a technical session and a wrap up and closure session. The technical session covered in succession the five cooperation areas defined by the co-legislator and was the main forum for consultation and feed- back from national authorities. Referring to conclusions of the 1st annual event, the 2nd annual European Coast Guard event organized by Frontex in cooperation with EFCA and EMSA will be focused on CG topics discussed in the format of workshops representing EU Agencies and Member States. This event will be held in Poland (Swinoujscie) from 15 to 17 April 2019.
Set up the three technical subcommittees to support the implementation of the Annual Strategic Plan.	The three technical subcommittees have been set-up and chaired by EMSA (Area 1 &2), EFCA (Area 3 & 4) and Frontex (Area 5).
Identification of new areas of mutual interest for interagency cooperation including new or amendment of existing Memoranda of Understanding (MoUs)/ Service Level Agreements (SLAs).	There are bilateral Memoranda of Understanding (MoUs) and Service Level Agreements (SLAs) signed between the agencies covering different subjects, such as information sharing or procurement procedures. SLA EMSA/Frontex was amended to include an automatic renewal clause. MoU signed between Frontex and EFCA for an inter-institutional framework contract for Aerial Surveillance Services.
Increase coordination of the Agencies' communication activities related to the implementation of the interagency cooperation on coast guard functions.	Communication activities were coordinated through an agreed communication plan.

Area 1 Information sharing	
Further development of data sharing framework, and to investigate possibilities to increase interoperability between information systems.	The three Agencies' systems are fully interfaced and exchanging and sharing all maritime information that has been identified of interest for the different CG activities. The exchange of information has been reflected in an information matrix to detail the source and any restriction on access rights to be applied to the final users.
Identification of information gaps and possible new information products and development and launching of new services (see also risk analysis area).	A request from Frontex to provide additional vessel positioning data for the eastern part of the Black Sea and the Mediterranean was evaluated and will be contracted and implemented in 2019 by EMSA to share the data across Agencies.
Conduct organisational and technical work to also integrate positions of assets (active during Joint Operations) in a maritime picture.	The Agencies agree that rather than sharing the positions of assets that could be in some cases conflicting with security considerations, the maritime picture could include the areas of operations per Agency (eg: stand by Area of EMSA's pollution response vessels, area of fisheries control campaigns, Frontex joint operations or prefrontier surveillance)
Continue to validate the VDS (vessel detection system) by organising joint validation campaigns.	Five operational exercises were organised involving representatives of the three Agencies.

Area 2 Surveillance and communication services	
Integration of RPAS data into a maritime picture (IMS, Eurosur, Fusion Services).	The RPAS Data streams were integrated with other data layers of the IMS system through a specific web interface available for real time command and control of the RPAS operation and access to the information from the aircraft sensors overlaid on other maritime information.
Roll-out of Frontex FWA (fixed wing aircraft) services and EMSA RPAS services for multipurpose operations and evaluation of first results, paving the way for a new concept of common surveillance services by joint deployment of airborne (RPAS and FWAs) and seaborne means and appropriate command and control structures (Also relevant for Area 5).	New procurement in 2018 allowed to increase the available portfolio of RPAS for the three Agencies with in particular a MALE aircraft, new VTOL capabilities and smaller quadricopters, to be operated also from vessels. EMSA provided mid-size fixed wing RPAS services over Portuguese waters to FRONTEX with a payload configuration composed of optical and infrared cameras, a maritime radar, AIS and distress signal receiver. This aircraft is equipped with satellite communications which allows beyond radio line of sight operations.

Area 3 Capacity building	
Assist the Commission in the preparation of the Practical Handbook of European Cooperation on Coast Guard Functions.	In March 2018, the European Commission prepared a concept note establishing the general scope of the handbook, recommending that the Handbook should be developed in close cooperation with national competent authorities and requesting that the Agencies coordinate the drafting process by setting up a cross-sectoral framework. The Handbook should cover the five cooperation areas and focus on cross-sector cooperation. During the annual European Coast Guard Event, in April 2018, a dedicated session was held on the Handbook and general feed- back was provided by the national authorities. The Agencies started the drafting process by requesting their governing boards to nominate experts in the five cooperation areas. The nomination process was concluded at the end of November 2018 and a kick-off meeting was planned for January 2019. A discussion document was prepared for the kick-off meeting, proposing specific content and a structure of the Handbook.
Collect training needs from Member States national authorities and Agencies staff and identification and preparation of joint training modules among agencies.	During 2018, the three Agencies consulted their respective communities (EMSA: Consultative Network on Technical Assistance – CNTA, Frontex: Annual Training Conference, EFCA: Steering Group on Training and Exchange of Experience - SGTEE) and raised awareness on the coast guard cooperation and the importance of cross-sectoral training. During 2018, joint cross-sector training modules prepared and implemented included Maritime safety and fisheries control, for

Identifying opportunities and preparation of joint capacity building projects for non-EU Partner Countries, taking into account existing projects.	the EMSA and EFCA Communities; Air Crew preparation for Joint Operations, for the Frontex Community and pre- deployment briefings for multipurpose operations also for the Frontex Community. During the Annual Coast Guard Event held in April 2018, two possible training topics were identified by the national authorities. These included Search and Rescue for MRCC operators and Maritime Surveillance for surveillance operators. The Agencies are currently analysing how existing training modules could be combined to cover the three communities. The agencies are currently working on additional channels to collect cross-sector training needs from national authorities. The three Agencies are currently implementing capacity building sessions or projects independently with non-EU Countries. As a first step, the three Agencies did an inventory and mapping of these current activities and specifically for 2019 set up a map by quarter and region (EU enlargement countries, Black Sea and Caspian Sea, Middle East and North Africa and West Africa) to specifically analyse where synergies could be developed. The Agencies consider that the development of fully joint capacity building projects could be challenging due to constrains within the scope and terms of reference of existing projects and also due to possible different communities within the non-EU partner countries that are targeted by the current projects. The Agencies consider therefore that, as a first step, back to back training and capacity building events could be organised by the three Agencies. If the feedback and experience is positive, the cooperation could be in deepened to greater levels of integration at a later stage.
Assess the need and feasibility of a common training event on coast guard Functions.	Currently, the three Agencies organise different training events for their own communities. During the Annual Coast Guard Event, the Agencies requested input from national authorities on possible cross-sectoral training needs. Also, the Agencies raised awareness on the European cooperation on coast guard functions. Therefore, the Agencies considered it premature at that stage to develop a common training event on coast guard functions.

Area 4 Risk Analysis	
Developing an understanding of the type of data, methodology and analytical output that each agency is producing and which of these analytical products have interest for the other Agencies and can be shared with them.	The three Agencies developed their own risk analysis frameworks within their mandate to support national authorities performing coast guard functions (e.g. providing risk assessment tools, risk assessment analysis and products and/or Abnormal Behaviour Monitoring). In order to develop a common understanding, the three Agencies exchanged information about the types of data, methodologies (steps, levels and objective of risk assessment) and analytical products that are currently used by each agency. Also a common terminology of risk analysis in a form of a glossary is being developed.
Determine which type of analytical products can be jointly developed by the three agencies which can lead to a more comprehensive analysis of operational challenges and emerging risks in the maritime domain.	The different mandates of the Agencies resulted in the development of different analytical products. The Agencies discussed therefore possible levels of integration and respective analytical products, considering advantages and disadvantages of each level. The adequate spatial and temporal dimensions would be important to consider. The levels of planning between strategic planning vs tactical day-to-day monitoring were also considered. The identification of complementarities that could be relevant for each agency (data poor situations, low risks with high impacts) was also considered.
Test mechanisms on periodical exchange of data related to risks and threats at maritime domain.	The technical subcommittee plans to identify types of information (and/or data) to be potentially exchanged. Once the data and information and products are identified, the mechanism can be considered and proposed.
Develop a first joint risk assessment of emerging risks	The main objective of this priority is to inform multipurpose

in the Mediterranean area to contribute to the preparation and development of capacity sharing.	operations of risks and threats in the Mediterranean area. This could be structured by season and geographical area. The development of joint risk assessment products was considered by the three Agencies as challenging due to their different risk assessment frameworks. The Agencies started therefore to map currently available information of risks and threats in the Mediterranean. This information has fundamental different characteristics, in some cases it includes observations of real past events, in other cases it includes statistical likelihood (possible events). The different nature of the data and information is not a problem per se, but the end product of overlaying different risk information to assist decisions making. The Agencies are currently analysing the different possibilities of a joint risk assessment, but the central question is on how the Member States needs could be addressed. The development of a joint risk assessment products shall be carried out only if it brings a benefit to the Member States.
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Area 5 Capacity sharing	
Introduction of the concept of multipurpose missions during planning and implementation of operations in the areas of mutual concern keeping a geographical balance. Planning shall be shared between the Agencies, including periods and type of operational means to be used.	The concept draft of the European Multipurpose Maritime Activities (EMMA), with integration in operational modules of operations, is under the development. Interagency concept will be further discussed with Member States during the 2nd Annual European Coast Guard Event.
Continue involving national authorities to steer the sharing of capacities process for multipurpose operations, look for synergies in the Agencies' operations and provide an analysis of the results.	It has been conducted a mapping of the existing authorities performing coast guard functions. The mapping is based on the authorities participating at the agencies' level but also relies on European and International forums related to coast guard functions (BSRBCC, ECGFF, NACGFF, MCGFF, CGGS). The document is under finalization.
Establishment of cooperation between Agencies Operational Centres for exchange of information in real time and provision of responses to threats in the areas of operation (also relevant for Area 1).	It has been conducted the mapping of Agencies Operational Centres for exchange of information in real time. The document is under finalization.
Analyse the legal aspects that may impact the implementation of multipurpose operations in European cooperation on coast guard functions.	Legal issues reflecting to flag state enforcement powers in the International Waters have been explored, including EU flag, also in relation to leasing/ chartering of the Agencies equipment.
Sharing information about existing and planned sea and air surveillance capabilities (Agencies, commercial procurement, governmental assets) and preparation of a database accessible to the Agencies.	A memorandum of understanding has been signed between Frontex and EFCA on new FASS. Cooperation with EFCA in the use of Frontex RPAS pilot was established. Frontex and EFCA have established operational contacts and exchange information on periodical basis in connection with EFCA OPV operational activity.

Maritime Transport and Surveillance - information on ships, cargoes and ship movements 2.1. THE UNION MARITIME INFORMATION AND EXCHANGE SYSTEM

Planned	input	Actual Input
CA	29,853,840 €	26,924,855 €
PA	28,454,952 €	17,590,913 €
Staff	34 AD², 12 AST³, 3 SNE	35 AD, 12 AST, 3 SNE

Multi-annual strategic objectives

- → To support the Commission and the Member States in improving ship safety. (A1)
- ➔ To increase the effectiveness and efficiency of EMSA's integrated maritime information services to its full potential based on existing applications such as SafeSeaNet. (B1)
- ➔ To explore, at reasonable cost, in a sustainable and viable way, new capabilities offered by technology in the field of maritime surveillance for the benefit of the European Commission and the EU Member States with added value for maritime safety, security and environmental protection. (B2)
- → To continue to work to further develop the EU maritime traffic monitoring and information system. (B3)
- → To engage in supporting other communities and enhance the Agency's role as central EU data provider of maritime related information as defined by Union law. (B4)
- → To become a reliable source of information and statistics for the EU on maritime matters. (D4)
- → To continue developing its role as forum for discussion of best practices. (D5)

a. Integrated Maritime Services

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.4 (a), 2.4 (b), 2.5, 2a.2(d) and 2b

Multi-annual strategic objectives

- ➔ To explore, at reasonable cost, in a sustainable and viable way, new capabilities offered by technology in the field of maritime surveillance for the benefit of the European Commission and the EU Member States with added value for maritime safety and security. (B2)
- → Work to further develop the EU maritime traffic monitoring and information system. (B3)
- ➔ To prepare IPA and ENP countries for association to EMSA's traffic monitoring services and for use of EMSA's pollution response services. (D3)
- → To continue developing its role as forum for discussion of best practices. (D5)

Expected result 2018

Provision of Integrated Maritime Services to EU Member States authorities executing functions in the maritime domain, EU bodies and/or third countries will continue in 2018. New satellite data streams from national missions will be provided where available, RPAS operations will be offered as a service to interested Member States.

Member States will be given the opportunity to share experiences, identify, develop and implement 'best practice' approaches based on the principles of integrating and sharing relevant maritime information.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The number of users of the Integrated Maritime Services (IMS) doubled in 2018, reaching an overall total of more than 3,300 (corresponding to 240 organisations). Users are authorities that use the quasi real time EU maritime information of ships, their cargoes and voyages for surveillance activities related to maritime safety, pollution control, fisheries monitoring, law enforcement, customs, border anti-piracy activities among others. In 2018, this service was enhanced to allow for online searches and queries on vessels and their voyages based on historical data.

IMS services are provided through different platforms: web application (SafeSeaNet Ecosystem Graphical User Interface – SEG); an app available on mobile devices (IMS Mobile App), and; system-to-system interfaces integrating data into national systems. All these platforms were further developed throughout 2018 based on new requirements from users. In addition,

² 9 AD for the European cooperation on coast guard functions in planned and 8 AD for the European cooperation on coast guard functions in actual input.

³ 1 AST for the European cooperation on coast guard functions (in planned and actual input).

users were offered more system-to-system interfaces responding to specific needs. The maritime authorities involved in coast guard activities could, free of charge, combine, based on their access rights, through this single interface the information from SafeSeaNet reports, from the Equasis and Port State Control information systems, satellite imagery, including vessel and oil spills detection services from Copernicus Maritime Surveillance (CMS) and CleanSeaNet (specific detailed fiches below) as well as from the Automated Behaviour Monitoring (ABM) tool.

The use of the ABM grew systematically during 2018. New algorithms were implemented allowing the authorities to be alerted when specific vessels or incidents are detected at sea such as entry in an area of specific interest or encounters at sea. On average over 300 ABM instances were routinely running, generating 2000 alerts per day for over 200 recipients.

The number of trainings and ad-hoc operational support provided to IMS users expanded in 2018 as EMSA started providing routine IMS webinars and on request information sessions targeted at Member States.

To complete the maritime picture at sea with continuous information in areas of particular risk, EMSA also provided maritime surveillance information services based on Remotely Piloted Aircrafts (RPAS). RPAS services for pollution detection and monitoring to Portugal, Spain and Croatia and FRONTEX (over Portuguese waters) were provided by EMSA under the command of the requesting authority. Another service for emission monitoring was provided to Greece. All these services will be continued in 2019. The RPAS Data Centre was further developed to provide RPAS users with a comprehensive data distribution tool integrating the existing EMSA maritime services and complementing these with video and streaming data as derived from RPAS.

New procurement in 2018 extended the portfolio of RPAS with in particular a MALE aircraft, new VTOL capabilities and smaller quadricopters to be operated also from vessels. In addition, a procurement for satellite communication services was launched to support communication with the RPAS.

The Agency is following the development of a new airborne platform called HAPS (High Altitude Pseudo Satellites), which should fly in the stratosphere for very extended periods (months) and bridge the gap between satellites and aerial surveillance information products to enhance and complement the Integrated Maritime Services portfolio. EMSA is supporting the European Space Agency in this exploratory undertaking by evaluating the most appropriate platforms and proposals for operation.

EMSA continued to procure a global feed of SAT-AIS data from a commercial SAT-AIS data provider and to receive SAT-AIS data from Norway's national SAT-AIS programme. EMSA hosted and chaired the 6th meeting of EU National Satellite AIS Collaborative Forum during which further collaboration took place on SAT-AIS matters with Norway, Germany, and Poland. Future cooperation on the VHF Data Exchange System (VDES) for exchanging digital data using Norway's space assets was agreed.

EMSA provided support to the Commission in creating the framework for the first meeting of the ad hoc Expert Sub-Group on Maritime Autonomous Surface Ships (MASS) during which aspects related to autonomous vessels from the perspective of the VTMIS directive were looked at.

Objectives 2018	Achievement
Continue the operation, delivery and development of Integrated Maritime Services in line with user requirements from EU Member States authorities executing functions in the maritime domain, EU bodies and/or third countries, including provision of operational support such as training and helpdesk activities.	~
Offer maritime surveillance services with Remotely Piloted Aircraft Systems and further develop the RPAS Data centre and complete the integration with other data.	~
Explore and analyse new technologies and information products to enhance and complement the Integrated Maritime Services portfolio, such as HAPS (High Altitude Pseudo Satellites).	~
Further collaboration within the context of the ESA-EMSA VDES collaboration and with those Member States that have SAT-AIS or VDES missions or programmes, in order to continue the provision of global feeds of SAT-AIS data to EMSA's users and to explore the potential use of VDES for port reporting formalities and other maritime applications.	~

Planned output 2018	Achievement / Actual output 2018
Provide Integrated Maritime Services for Member States and other EU stakeholders with maritime related tasks / functions.	~
Further development of the platform for the provision of Integrated Maritime Services. Training support for end-users and stakeholders provided as appropriate, for individual systems or combined data services.	~
Continue to process, store, and distribute global satellite AIS data to end-users.	~
Provide RPAS Services for Member States executing coast guard functions	~
Provision and integration of image related data (including video/streamed data) derived from RPAS for the enrichment of the Agency's Integrated Maritime Services to Member States and EU bodies.	~
Maintain and develop as appropriate the RPAS DC capabilities to support the needs of integrated maritime services.	~
Establish the EMSA RPAS User Group by meeting at least once per year.	~
Explore the feasibility of new surveillance technologies, such as HAPS and explore the VTS challenge of managing autonomous vessels.	~
Explore the use of VDES in support of port reporting formalities.	~

Output Indicators		Target 2018	Result 2018
Integrated Maritime Services Availability	percentage per year availability of platform	99	99.79
	hours maximum continuous downtime of IMS platform	max 12	4h:05min
	percentage per year availability to Member States	99	99.58
Integrated Maritime Services Availability	percentage per year availability to EUNAVFOR Atalanta	99	99.58
	percentage per year availability to IMS mobile application users	99	99.79
SAT-AIS	global data stream availability	99	99.57
RPAS operations	number of RPAS available for deployment for multipurpose operations	5	6
	number of Deployment Days per year	450	2264

⁴ Annual target not reached because of delays in getting the permit to fly by national authorities during the first quarters of the year.

b. SafeSeaNet

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.2(a), 2.2. (c), 2.3(a), 2.3(b), 2.4(a), 2.4(b), 2.4(h) and 2.4(i)

Multi-annual strategic objectives

- ➔ To explore, at reasonable cost, in a sustainable and viable way, new capabilities offered by technology in the field of maritime surveillance for the benefit of the European Commission and the EU Member States with added value for maritime safety and security. (B2)
- → Work to further develop the EU maritime traffic monitoring and information system. (B3)
- ➔ To prepare IPA and ENP countries for association to EMSA's traffic monitoring services and for use of EMSA's pollution response services. (D3)
- → To continue developing its role as forum for discussion of best practices. (D5)

Expected result 2018

The Agency will assist Member States to continue improving the monitoring of maritime traffic, safety and logistics.

Operational/technical training regarding existing and new functionalities will be available for Member State personnel. Member States will be given the opportunity to share experiences, identify, develop and implement "best practice" approaches based on experience operating SafeSeaNet and other maritime related information e.g. working groups and/or development and revision of guidelines.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The central SafeSeaNet service continued to function well throughout 2018, complying with the performance and reliability requirements defined by the Interface and Functionalities Control Document (IFCD). SafeSeaNet (version 4) was implemented at central level in June. Support was provided to Member States for testing their national SafeSeaNet systems, to incorporate the new message requirements (i.e. revision of the waste and Hazmat, new implementation for the exchange of information on bunkers on board ships). The focus on data quality improvements remains and EMSA continued to work closely with Member States for concrete improvements of their systems.

The transition to the SafeSeaNet ecosystem web interface (SafeSeaNet Ecosystem GUI – SEG) proceeded as planned and training was provided for all MS on the SEG in June. In co-operation with DG ECHO, a development started on a new elearning module for maritime authorities on the use of SafeSeaNet and the Common Emergency Communication and Information System (CECIS) in the event of marine pollution.

A new service in development are the Traffic Density Maps (TDM). These are a simple and effective way of displaying vessel movement patterns, which contributes to a better understanding of maritime traffic. The methodology, access rights policy and implementation plan for a new TDM service was agreed at the 3rd HLSG. Development of the TDM generating tool and web service for display of the TDMs in the SEG started in 2018. DG MARE and the European Environment Agency (EEA) requested and the HLSG agreed to grant them access to the TDM service when it becomes available in 2019.

Developments continued on the central databases (Common Ship Database (CSD), Common Organisation Database (COD), Common Hazmat Database (CHD), Common LOCODES Database (CLD)). At the 4th HLSG, a way forward for testing how to make certain information in SSN (Terrestrial-AIS) available to the public via a new prototype public maritime picture, was agreed in principle.

Objectives 2018	Achievement
Ensure that the SafeSeaNet central service is available on a 24/7 basis, and provide operational support to all users, including necessary training and help desk activities.	~
Maintain and upgrade as appropriate the central SafeSeaNet system, improving functionality and efficiency in line with Union legislation and requirements of stakeholders.	~
Subject to the agreement of the HLSG, further develop an EMSA Traffic Density Map Service.	 ✓
Provide support to Member States regarding the operation of their national SafeSeaNet systems in particular the incorporation of any new message and business logic.	~
Support the Commission in any work related to preparing legislative proposals in this field.	~

Support the Commission with the evaluation and revision of the VTMIS Directive.	\checkmark
Refine and improve the SafeSeaNet Ecosystem common Graphical User Interface as launched in 2017.	\checkmark
Refine and improve the Central Ship Database.	\checkmark
Develop further the eLearning platform for SSN courses.	~
Subject to the agreement of the HLSG, create a public version of SafeSeaNet only with vessel positioning data (AIS).	~
Refine and improve the CHD.	\checkmark
Possibly expand the portfolio of EMSA maritime information databases to support users' statistical needs (dependent on the outcome of work undertaken in support of Eurostat).	\checkmark
Implement SafeSeaNet version 4 at central level and provide support to Member States in the implementation and testing of the upgraded versions of their national SafeSeaNet systems.	\checkmark
Provide support to the MS cooperation group on Places of Refuge.	~

Planned output 2018	Achievement / Actual output 2018
SafeSeaNet is operational on a 24/7 basis to support Member States to undertake activities related to maritime monitoring.	~
EMSA will provide support to Member States regarding compatibility of national systems with SafeSeaNet and potential improvements.	~
The SafeSeaNet Ecosystem Central databases will be operational and available to use in national systems and improve data quality on related national databases.	~
The SafeSeaNet Ecosystem Graphical User Interface and the Common (User) Management Console phased-in across all maritime applications.	~
Setting-up of a simplified SafeSeaNet version for the public at large.	Presented to the 4 th HLSG in December.
Delivery of an aggregated Traffic Density Map Service.	Under development. Service expected to be available in April 2019.
Subject to ongoing needs, support to the Commission and Member States regarding the revision of the Directive 2002/59/EC as amended, will be provided as appropriate.	~

Output Indicators		Target 2018	Result 2018
SafeSeaNet system including requirements	percentage per year availability of central SafeSeaNet system	99	99.47
under the Reporting Formalities Directive (2010/65/EU): Service Operation	hours maximum continuous downtime of central SafeSeaNet system	max 12	05h:49min
SafeSeaNet system including requirements	percentage of notifications processed in time in accordance with SafeSeaNet IFCD requirements	99	100
under the Reporting Formalities Directive 2010/65/EU: Reporting Performance	percentage of responses to Member States' requests delivered in accordance with SafeSeaNet IFCD (time) requirements	99	100

c. Improving internal market and maritime transport efficiency

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.3, 2.2(a), 2.2(d), 2.4(i) and 2a.3(a)

Multi-annual strategic objectives

- ➔ To increase the effectiveness and efficiency of EMSA's integrated maritime information services to its full potential based on existing applications such as SafeSeaNet. (B1)
- → Work to further develop the EU maritime traffic monitoring and information exchange system. (B3)
- Subject to the provision of financial and human resources the Agency shall engage in supporting other communities and enhance its role as central EU data provider of maritime related information as defined by its Founding Regulation. (B4)
- → To become a reliable source of information and statistics for the EU on maritime matters. (D4)
- → To continue developing its role as forum for discussion of best practices. (D5)

Expected result 2018

The Agency will assist the Commission and Member States in achieving EU wide harmonisation through the revision of the Reporting Formalities Directive.

Based on new technological developments, EMSA will test the use of VDES and other means available to improve service quality and support the implementation of the NSW and the EMSW.

The Agency will support the Commission, using its expertise in electronic data transmission and in maritime information exchange systems, to simplify reporting formalities for ships with a view to the elimination of barriers to maritime transport.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

EMSA provided the requested support to the Commission which presented a proposal for a new Regulation (COM(2018) 278) on establishing a European Maritime Single Window environment (EMSWe) and repealing Directive 2010/65/EU. The proposed new EMSWe would bring together all reporting associated with a port call. In December 2018, the COREPER endorsed the general approach on the draft Regulation.

Meanwhile EMSA continued to assist the Commission in monitoring the implementation of the existing Directive and in implementing measures to further achieve simplification, harmonisation and rationalisation of reporting formalities within the development guidelines for Single Windows, providing the grounds for a harmonised implementation of the Directive by the Member States.

Efforts to support the digitalisation of maritime transport continued with pilot projects in the field of the National Single Window and e-Manifest. Concrete results were achieved and the new version (v.3) of the EMSW demonstrator was implemented. The final report of the current e-Manifest pilot project was drafted.

Following EMSA's submission of a proposal to DG MARE for the "Project on connecting industry and competent authorities in the European Maritime Single Window Environment (2018-2020)", an agreement was signed with DG MARE in September 2018. More details are provided in the next section project: "Promotion of interoperability between industry and competent authorities in the European Maritime Single Window environment under the CISE Process)".

EMSA continued its cooperation with ESA and Norway regarding the VDE-SAT demonstration project which aims to explore the possibility of testing the exchange of ship reporting and other digital data via a reporting gateway to be developed using Norway's VDES microsatellite.

Objectives 2018	Achievement
Assist the Commission in the revision of the Reporting Formalities Directive and other legislation related to the simplification of reporting formalities.	~
Provide technical assistance in the implementation of amendments to Directive 98/41/EC on registration of persons on board and Directive 2010/65/EU on reporting formalities, including organisation of workshops.	~
Work on measures which will facilitate the overall effectiveness/efficiency for ships in relation to reporting formalities, such as the eManifest pilot project.	~
Further develop interoperability solutions allowing for seamless information exchange between the EU and national authorities' systems, including enhancing the functionalities of the EMSW prototype.	~

Participate in a project with Norway to test the exchange of ship reporting (reporting formalities) using their 2 VDES satellites.

V	/	

Planned output 2018	Achievement / Actual output 2018
Assist the Commission in the evaluation of and preparatory work for the revision of the Reporting Formalities Directive and in assessing its implementation.	~
Implement measures which will further achieve simplification, harmonisation and rationalisation of reporting formalities for ships.	~
Providing assistance to Member States and the Commission in the implementation of amendments to Directive 98/41/EC on registration of persons on board and Directive 2010/65/EU on reporting formalities, including organisation of workshops.	~

Output Indicators	
SafeSeaNet system data exchange	The information exchange requirements of the Reporting Formalities Directive are
in support of the Reporting	integrated in the PortPlus message, and therefore covered by the SafeSeaNet
Formalities Directive (2010/65/EU)	indicators.

Project: Promotion of interoperability between industry and competent authorities in the European Maritime Single Window environment under the CISE Process⁵

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.3, 2.2(a), 2.2(d), 2.4(i) and 2a.3(a)

Project	Interoperability project
Funding source	DG MARE
Time frame	2018-2020
Envelope	3,000,000 €
Expenditure 2018	18,000 €
Staff	No extra staff

Multi-annual strategic objectives

- → To increase the effectiveness and efficiency of EMSA's integrated maritime information services to its full potential based on existing applications such as SafeSeaNet. (B1)
- → Work to further develop the EU maritime traffic monitoring and information exchange system. (B3)
- Subject to the provision of financial and human resources the Agency shall engage in supporting other communities and enhance its role as central EU data provider of maritime related information as defined by its Founding Regulation. (B4)
- → To become a reliable source of information and statistics for the EU on maritime matters. (D4)
- → To continue developing its role as forum for discussion of best practices. (D5)

Expected result 2018

Once the project has been approved a Steering Committee will be established composed of the relevant Commission DG's and EMSA. The outcome of the project must be achieved by 2020; the intermediate steps will have to be defined once the project is approved.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

EMSA signed an agreement with DG MARE on 18 September 2018 to implement an ad-hoc grant action for the "Promotion of interoperability between industry and competent authorities in the European Maritime Single Window environment under the CISE Process".

This new project will run for 36 months and will assist Member States in improving their interfaces with SSN; establish a more harmonised baseline in the EU on NSW systems; enhance the overall functionalities of SSN; and examine how interoperability with other EU IT systems (e.g. NSWs, Mandatory Reporting Systems, VHF Data Exchange System, eCustoms, Eurostat) can be handled.

The project Steering Committee composed of DG MOVE, MARE, DIGIT and TAXUD and EMSA met in November 2018 and agreed to first launch two pilot projects with volunteer Member States. The Steering Committee decided that all other activities of the Interoperability project related to the European Maritime Single Window environment (EMSWe) would be put on hold as long at the EMSWe Regulation proposal is under preparation.

Objectives 2018	Achievement
The project will demonstrate over a three-year period how to achieve:	project initiated in September 2018
 a more efficient data exchange between different authorities of Member States using SafeSeaNet, including exchange of cargo information, 	ongoing
 better connectivity among all relevant authorities and end-users in the different Member States, 	ongoing
- harmonised national single window interfaces, and	ongoing
- an improved information exchange between ship to shore, a so-called reporting gateway,	ongoing

⁵ Title in the SPD 2018-2020 was "Connecting industry and competent authorities in the Single Window environment (Single window environment project)".

using VHF Data Exchange-satellite (VDE-SAT) communications. Wh cooperate with Norway using their experimental satellite with a VDE- and validation		
Planned output 2018	Achievement / Act	ual output 2018
To be confirmed by the Steering Committee after project approval by the Commission and the Administrative Board	~	

Project: EFCA

Legal basis: Regulation (EC) Nº 1406/2002 as amended, Art. 2b

Project Funding source	EFCA SLA EFCA
Time frame	Automatic renewal since 2015
Envelope	500,000 €
Expenditure 2018	357,030 €
Staff	No extra staff

Multi-annual strategic objectives

- ➔ To explore, at reasonable cost, in a sustainable and viable way, new capabilities offered by technology in the field of maritime surveillance for the benefit of the European Commission and the EU Member States with added value for maritime safety, security and environmental protection. (B2)
- → To continue to work to further develop the EU maritime traffic monitoring and information system. (B3)
- → To engage in supporting other communities and enhance the Agency's role as central EU data provider of maritime related information as defined by Union law. (B4)
- → To become a reliable source of information and statistics for the EU on maritime matters. (D4)

Expected result 2018

Integrated maritime services are offered to EFCA in accordance with their user requirements and their end users in Member States.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

Fisheries authorities under the coordination of EFCA are the main beneficiary of the integrated maritime services (IMS) provided by EMSA. In the framework of the pilot project "Modernising fisheries controls and optimising vessel monitoring through the use of innovative European Systems", EMSA, in close cooperation with EFCA, has set-up a worldwide service to support Member States authorities and the Union in their fight against Illegal, Unreported, and Unregulated (IUU) fishing. Atlantic, Mediterranean, and IUU services were merged into a single EFCA IMS service customised for fisheries control benefiting from all enhancements developed under the IUU project.

Over the course of the year, positive results from the project have led Member States to request EMSA to implement additional requirements to be incorporated in a version 2 of the EFCA IMS application.

In 2018 the number (760) of EFCA IMS users at DG MARE, EFCA and in the Member States has more than doubled. A SEG training video and user guide tailored for EFCA users were provided. An average of 80,000 VMS messages per day were received and integrated in the EFCA IMS services. Some 300 satellite images were delivered to EFCA in 2018 for fisheries control purposes in the Framework of the Copernicus Maritime Service. Storage of historical vessel position data has been extended from an initial 6 months to 18 months. Actions to improve data quality have significantly improved the tracking and identification of fishing vessels.

In February 2018, the EMSA contracted oil spill response vessel AEGIS I completed a six-month charter with EFCA in the Central Mediterranean Sea.

Objectives 2018	Achievement
Implement the Service Level Agreement signed between EMSA and EFCA.	\checkmark
Service delivery based on the SLA and associated specific agreement signed with EFCA.	\checkmark
Following identification of appropriate business needs, further develop services for EFCA and their end users in Member States.	~
Provide operational and training support to users.	 ✓
Evaluate possible needs for sharing of resources (vessels).	\checkmark

Planned output 2018		Achievement / Actual output 2018		
Provision of integrated maritime services under the existing EFCA-EMSA SLA framework.		~		
Output Indicators Target 2018 Result 2018				
Integrated Maritime Services	percentage per year availability to EFCA	99		99.60

2.2 EU LONG RANGE IDENTIFICATION AND TRACKING (LRIT) COOPERATIVE DATA CENTRE (CDC) AND INTERNATIONAL LRIT DATA EXCHANGE (IDE)

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.3(a), 2.4 (a) and 2.4(h)

Planned input		Actual Input
CA	3,651,610€	4,019,455 €
PA	3,793,606 €	3,865,689€
Staff	7 AD, 7 AST	7 AD, 7 AST

Multi-annual strategic objectives

- ➔ To explore, at reasonable cost, in a sustainable and viable way, new capabilities offered by technology in the field of maritime surveillance for the benefit of the European Commission and the EU Member States with added value for maritime safety, security and environmental protection. (B2)
- → To continue to work to further develop the EU maritime traffic monitoring and information system. (B3)
- → To continue developing its role as forum for discussion of best practices. (D5)

Expected result 2018

The Agency will continue to operate the EU LRIT CDC in compliance with the IMO Performance Standards in the most efficient and economical manner. The Agency will monitor the discussion at IMO regarding the e-Navigation concept and improvement of the LRIT system as appropriate.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The Long Range Identification and Tracking (LRIT) services hosted by EMSA, consisting of the European Union LRIT Cooperative Data Centre (EU LRIT CDC), the International LRIT Data Exchange (LRIT IDE), the EU LRIT Ship Database, and LRIT Consumption Tool, were fully operational throughout the year. The LRIT IDE provided services and testing support to 61 LRIT Data Centres all over the world.

During 2018, the migration of the 4 Inmarsat C I-3 satellites to a newer constellation I-4 caused some disruption to the ship reporting. At the end of the year, the reporting went back to a normal level of 91% of ships reporting properly.

In June 2018 the European Commission accepted Tunisia's request to become part of the EU LRIT CDC, in accordance with the criteria listed in the Council Resolution concerning the EU LRIT CDC. A similar request was received from Georgia in November 2018 and evaluation is ongoing. On the other hand, the United Kingdom, part of the EU LRIT CDC since its set-up in 2009, validated its National LRIT DC in November 2018 and asked the assistance of EMSA to migrate the UK ships from the EU LRIT CDC to UK LRIT DC.

Objectives 2018	Achievement
Continue operation and maintenance of the EU LRIT CDC in accordance with IMO performance standards.	~
Provide operational support to all users of the EU LRIT CDC, including training and helpdesk activities.	~
Provide LRIT services to new participants wishing to join the EU LRIT CDC.	~
Organise regular meetings with relevant LRIT users.	~
Provide training on EU LRIT CDC to LRIT users.	✓
Meet legal and financial obligations concerning the exchange of LRIT data.	~

Planned output 2018	Achievement / Actual output 2018
Continued operations and ongoing maintenance of the LRIT CDC.	~
Perform necessary upgrading of the EU LRIT CDC, as requested by Member States or IMO.	~

Support to Member States for use of the EU LRIT CDC.	~
LRIT IDE testing support to LRIT Data Centres.	~
Quality of the services maintained.	~

Output Indicators		Target 2018	Results 2018
EU LRIT DATA CENTRE			
System operational	percentage per month availability	99	99.93
	hours maximum continuous downtime	4	0h:52min
EU CDC reporting performance	percentage position reports delivered in accordance with IMO requirements (periodic reports: 15 min; polls: 30 min)	99	99.59
Web user interface	percentage per year availability to users	99	99.73
System operational ⁶	percentage per year availability of LRIT IDE in accordance with IMO requirements	n/a	99.95
	hours maximum continuous downtime of LRIT IDE	n/a	2h:30min

⁶ Discussions on the hosting of the LRIT-IDE are on-going. The service is listed nevertheless, pending their outcome. As long as the service is running at EMSA the output indicators continue to apply, with respective annual targets of 99.9% availability and maximum downtime of 4h.

2.3 THETIS

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.2(a), 2.3(a) and 2.2.(b)

Planned input		Actual Input
CA	2,022,338€	2,561,496 €
PA	2,166,146 €	2,401,562 €
Staff	5 AD, 1 AST, 1 SNE, 1 CA	4 AD, 1 AST
Project		THETIS - EU
Funding source		EC, DG ENV
Time frame		2018-2020
Envelope		200,000 €
Expenditure 2018		35,455 €
Staff		No extra staff

Multi-annual strategic objectives

- → To maximise its support role for an efficient and expanded scope of the PSC regime. (A8)
- To increase the effectiveness and efficiency of EMSA's integrated maritime information services to its full potential based on existing applications such as SafeSeaNet. (B1)
- To assist the Commission, Member States and the maritime industry, where appropriate, in meeting, implementing and monitoring international and European legislation and initiatives on the reduction of SOx and NOx emissions. (C1)
- To assist the Commission and the Member States in the implementation of Regulation on the monitoring, reporting and verification of emissions of carbon dioxide, from maritime transport. (C2)
- → To assist Member States in the implementation of the new rules in the field of ship related pollution. (C5)
- → To continue developing its role as forum for discussion of best practises. (D5)

Expected result 2018

The Agency operates the Port State Control information system in line with the Port State Control Directive (2009/16/EC) as amended, including the Implementing Acts and the Paris MoU text, the RoPax Directive (1999/35/EC), Regulation 391/2009 on common rules and standards for ship inspection and survey organisations, the BWMC and Regulation 1257/2013 on Ship Recycling.

THETIS-EU caters enforcement of the provisions of Directive 2016/802/EU1999/32/EC and the calculation of frequency of inspections and samples and the future targeting system.

THETIS-EU accommodates the Port Reception Facilities Directive (2000/59/EC).

THETIS-MRV will cater the provisions of Regulation (EU) 2015/757.

Operations of THETIS and its modules are supported technically and operationally by a helpdesk. All elements of THETIS will be communicating with a dedicated tool for analysis and statistics where appropriate.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

THETIS and THETIS-EU continued to be the reporting and information systems providing uninterrupted combined port call information, alerts, targeting and inspection data to end users. The milestones for 2018 were the development of a dedicated voluntary module in THETIS-EU for Member States to report security inspections under Regulation (EC) No 725/2004, the enhancement of THETIS-EU enabling Member States to submit their annual reports on the implementation of the Sulphur Directive in automated form, thus reducing associated administrative burden for national competent authorities and the development of an enhanced webservice to facilitate communication of all dates of issue, dates of expiry and date of (re) survey of all statutory certificates as issued by the ROs on behalf of Flag States, as a first step towards digitalisation and sharing of eCertificates. The same technical arrangement has been made available as a Proof of Concept for those Flag States that issue statutory certificates themselves, through a pilot project with the Danish Maritime Authority. Finally, and by extending the possibilities of the original THETIS information system, EMSA was designated to develop in 2019 an inspection database to support the work of the MeD MoU, namely THETIS-MED (see assistance to ENP Countries and the project SAFEMED IV).

Objectives 2018	Achievement
Ensure the proper operation of THETIS, THETIS-EU and other newly developed modules.	~
Ensure on time development to comply with new or amended International or EU legislation coming into force.	~
Ensure relevant training.	✓
Ensure regular meetings with relevant end users.	 ✓
THETIS-MRV operational (see also project: THETIS-MRV).	✓

Planned output 2018	Achievement / Actual output 2018
Information System THETIS: operational, maintained and under continuous enhancement to meet new requirements. Enhanced to support the PSC provisions of the Directive on a system of inspections for the safe operation of ro-ro passenger ships and high-speed passenger craft in regular service and amending Directive 2009/16/EC of the European Parliament and of the Council on port State control and repealing Council Directive 1999/35/EC.	~
Information System THETIS-EU: operational, maintained, and under continuous enhancement to meet new requirements. Enhanced to support the FS provisions of the Directive on a system of inspections for the safe operation of ro-ro passenger ships and high-speed passenger craft in regular service and amending Directive 2009/16/EC of the European Parliament and of the Council on port State control and repealing Council Directive 1999/35/EC.	~
Interface with SafeSeaNet operational.	~
THETIS-MRV operational and maintained.	~
Cooperation with Paris MoU and Member States to supervise, verify and validate the operation and further enhancement of the THETIS system.	~
Cooperation with the Med MoU for the development of new module to support the MeD MoU with an inspection database.	~
Cooperation with the Commission and the Sulphur Committee to supervise, verify and validate the operation and further enhancement of THETIS-EU (Sulphur Module).	~
Training to users.	~

Output Indicators		Target 2018	Result 2018
System operational	availability in percentage	96	99.65
	hours maximum continuous downtime	max 6	4
Helpdesk Service	percentage of requests closed in less than 5 days ⁷	75	n/a

⁷ The statistics required to report on this KPI have not been available since November 2016, following a change of contractor and ticketing tool. The capability to support this KPI is expected to be re-established by mid-2019. In the meantime, working methodologies and procedures remain in place and stable and would suggest that the targets continue to be met.

Project: THETIS-MRV

Legal basis: Regulation (EU) 2015/757 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport, and amending Directive 2009/16/EC.

Project	THETIS - MRV
Funding source	EC, DG CLIMA
Time frame	2016-2020
Envelope	500,000 €
Expenditure 2018	274,748€
Staff	No extra staff

Multi-annual strategic objectives

- → To maximise its support role for an efficient and expanded scope of the PSC regime. (A8)
- Subject to the provision of financial and human resources the Agency shall engage in supporting other communities and enhance its role as central EU data provider of maritime related information as defined by its Founding Regulation. (B4)
- ➔ To support if necessary the Commission in setting up a Monitoring, Reporting and Verification system for emissions in line with future policy developments in this area. (C3)
- \rightarrow To contribute to the protection of the marine environment in the EU. (C4)
- → To assist Member States in the implementation of the new rules in the field of ship related pollution. (C5)
- → To become a reliable source of information and statistics for the EU on maritime matters. (D4)

Expected result 2018

THETIS-MRV operational.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

Regulation (EU) 2015/757 is the first of several steps in the EU's efforts to include the maritime transport sector in its overall policy to reduce greenhouse gas emissions. From 1 January 2018, companies are monitoring and reporting, to an accredited verifier, data on each ship's CO2 emissions (over 5000 gross tonnes, irrespective of its Flag State) and other relevant information allowing for the determination of ships' efficiency or for the further analysis of the drivers for the development of emissions, while preserving the confidentiality of commercial or industrial information.

THETIS-MRV, which is a purpose-built monitoring, reporting and verification web-based system developed and hosted by EMSA, is supporting the aforementioned activities, offering services to the maritime industry within the context of costefficient services based on the use of existing infrastructure and supporting arrangements, as well as proven concepts and expertise.

Objectives 2018	Achievement
Implementation of the tasks defined in the relevant cooperation agreement with the Commission.	~
THETIS-MRV operational.	~
Setting-up of Helpdesk for Member States and end-users.	~
Organisation of workshops and/or trainings for users.	~
Provision of technical assistance to the Commission with respect to delegated and implementing acts adopted pursuant to the MRV Regulation.	~

Planned output 2018	Achievement / Actual output 2018
THETIS-MRV operational.	✓
Organisation of awareness and technical workshops for stakeholders (industry, MRV shipping verifiers) and competent authorities of Member States.	✓

Output Indicators		Target 2018	Result 2018
THETIS-MRV	timely delivery of tasks foreseen	THETIS-MRV operational. Companies able to register	yes
	by the cooperation Agreement	activity data in the system as from 1st January 2018.	yes

Project: EMISSION INVENTORIES

Legal basis: Directive 1999/32/EC as amended, Art. 7

Project	Emissions Inventories Project
Funding source	EC, DG ENV
Time frame	2015-2018
Envelope	150,000 €
Expenditure 2018	45,987 €
Staff	No extra staff

Multi-annual strategic objectives

- To assist the Commission, Member States and the maritime industry, where appropriate, in meeting, implementing and monitoring international and European legislation and initiatives on the reduction of SOx and NOx emissions. (C1)
- Subject to the provision of financial and human resources the Agency shall engage in supporting other communities and enhance its role as central EU data provider of maritime related information as defined by its Founding Regulation. (B4)
- → To contribute to the protection of the marine environment in the EU. (C4)
- → To assist Member States in the implementation of the new rules in the field of ship related pollution. (C5)
- → To become a reliable source of information and statistics for the EU on maritime matters. (D4)

Expected result 2018

Functionality operational in THETIS-EU to evaluate the inventories of shipping emissions based on shipping activity data for domestic, short sea and international shipping.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The Air Emission calculator (AEC) was developed in 2015 on request of DG Environment (DG ENV) with an aim to calculate emissions by ships while operating in the economic zones of the Member States. Calculations were performed based on SafeSeaNet position data available in EMSA, and results were delivered to DG ENV and the Member States. Initially the calculations covered 2011 to 2015 while a later calculation covered 2016 and 2017. The agreement ended in September 2018 and a final report was presented to DG ENV. The outcome of the inventories was welcomed by DG ENV and Member States and will be further analysed and discussed within the context of the relevant subgroup (air emissions) of the European Sustainable Shipping Forum.

Objectives 2018	Achievement
Implementation of the tasks defined in the relevant cooperation agreement with the Commission.	~
Quantification of the bottom-up emissions (SOx, NOx and PM) resulting from combustion of marine fuel from international and domestic shipping, covered by the AIS data.	~
Assessment, as appropriate, of the positive effect on air quality of specific measures such as the stricter sulphur requirements under Directive 2016/802/EU.	~

Provide operational and training support to users	Achievement / Actual output 2018
Emission inventory modelling functionality, relevant enhancements and results for emission inventories based on shipping activity data.	~
Organisation of awareness and technical workshops for competent authorities of Member States.	f 🗸

Output Indicato	ors	Target 2018	Result 2018
Emission	inventories of shipping emissions based on shipping activity data will have to be attributed	New functionality in THETIS-EU operational.	yes
Inventories	('alculation and analysis of	yes	

2.4 MARITIME SUPPORT SERVICES

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2

Planned input		Actual Input
CA	1,681,446 €	1,372,993 €
PA	1,764,861 €	1,340,897 €
Staff	5 AD, 1 AST, 4 SNE, 4 CA	3 AD, 1 AST, 4 SNE, 3 CA

Multi-annual strategic objectives

To increase the effectiveness and efficiency of EMSA's integrated maritime information services to its full potential based on existing applications such as SafeSeaNet. (B1)

Expected result 2018

Users of the vessel traffic and maritime information services benefit from timely and appropriate helpdesk and monitoring services.

Users of EMSA's operational services benefit from 24/7 availability to activate and mobilise such resources during an emergency, by triggering the EMSA contingency plan.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The Maritime Support Services (MSS) performed well above target, providing an uninterrupted 24/7 operational and technical helpdesk services to users using vessel traffic monitoring and surveillance systems hosted by the Agency. The MSS provided a single point of contact in case of emergencies and provided continuous monitoring of all EMSA hosted maritime applications, thus ensuring the availability of such applications with high performance standards.

Regular assessments and reporting of SafeSeaNet data quality, implementation, and performance to the SafeSeaNet National Competent Authorities have shown the effectiveness that such assessments may have in Member States in terms of improvement of their existing applications.

Objec	tives 2018		Achievement
Ensure timely and appropriate helpdesk and monitoring services.			~
Plann	ed output 2018	Achievement / Act	ual output 2018
Maritir	ne Monitoring Services to be provided on a 24/7 basis including:		
_	Monitoring availability and performance of EMSA maritime systems.	\checkmark	
_	Ensuring continuity of dataflow by data providers.	✓	
_	Verifying and reporting on quality of data in systems.	✓	
_	Maintaining ship watch reference lists (banned ships, single hull tankers, location codes, reference ship identifiers, Member State contacts or responsible authorities).	~	
_	Providing timely and appropriate operational and technical helpdesk to the Commission and Member State users of the maritime information services.	~	
	Implementing a survey assessing user perception of MSS services.	✓	
_	Refining procedures to maximise efficiency in relation to pending requests.	~	
In the event of maritime emergencies, the MSS will:			
_	Act as single point of contact.	~	

 Provide reporting to EMSA and the Commission on maritime accidents of EU interest in accordance with the EMSA contingency plan. 	✓
If appropriate, initiate the procedure of mobilising EMSA operational services in accordance with pre-defined procedures.	~

Output Indicators		Target 2018	Result 2018
Maritime Support Services available 24/7 ⁸	average time in hours for feedback or resolution of issues relating to emergencies, incidents in maritime applications or urgent helpdesk requests	<2	n/a
	average time in hours for feedback or resolution of issues relating to non-urgent helpdesk requests or scheduled interventions	<8	n/a
MSS Data Quality Reports	reporting on the SafeSeaNet implementation and data quality (overall and per Member State)	20 Reports	25 Reports

⁸ The statistics required to report on these KPIs have not been available since November 2016, following a change of contractor and ticketing tool. The capability to support these KPIs is expected to be re-established by mid-2019. In the meantime, working methodologies and procedures remain in place and stable and would suggest that the targets continue to be met.

Project: COPERNICUS MARITIME SURVEILLANCE SERVICE

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.4 (a), 2.4 (b) and 2a.2(c)

Regulation (EU) Nº 377/2014 of the European Parliament and of the Council establishing the Copernicus Programme and repealing Regulation (EU) No 911/2010

Project	Copernicus
Funding source	EC, DG GROW
Time frame	2015-2020
Envelope	40,000,000 €
Expenditure 2018	11,471,138 €
Staff	3 CA ⁹

Multi-annual strategic objectives

- ➔ To explore, at reasonable cost, in a sustainable and viable way, new capabilities offered by technology in the field of maritime surveillance for the benefit of the European Commission and the EU Member States with added value for maritime safety, security and environmental protection. (B2)
- → To continue to work to further develop the EU maritime traffic monitoring and information system. (B3)
- ➔ To engage in supporting other communities and enhance the Agency's role as central EU data provider of maritime related information as defined by Union law. (B4)
- → To become a reliable source of information and statistics for the EU on maritime matters. (D4)

Expected result 2018

Copernicus services are offered through EMSA to stakeholders in the maritime surveillance domain in accordance with user requirements, based on an implementation plan approved by the Commission.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

In 2018 the Copernicus Maritime Surveillance (CMS) service entered the second full year of operations. In addition to providing services in the function areas of fisheries control, maritime safety and security, law enforcement, and support to international organisations, this was the first year in which services were provided for the marine environment (pollution monitoring), extending the capabilities of the EMSA CleanSeaNet service to EU States' overseas territories and other areas of interest beyond EU coastal waters.

From 2017 to 2018, the number of user organisations more than doubled, from 14 to 29. The number of products delivered also increased by almost 40%, from 1,924 to 3,088. The biggest increase was in services to law enforcement authorities, while some function areas (fisheries control, and maritime safety and security) actually requested fewer image and value added products, as a result of the learning process in the previous year, resulting in more targeted requests and better use of more carefully selected services in coordination with on site resources.

The first annual Copernicus Maritime Surveillance User Group event took place in October 2018 and provided a forum for exchange and feedback on the service for the 72 participants. Two training sessions were also organised for 21 participants.

Objectives 2018	Achievement
Implement the activities defined in the Copernicus Maritime Surveillance Services Annual Implementation Plan for 2018.	~
Develop EMSA's portfolio of earth observation products and services in areas relevant for Copernicus activities.	~
Expand the Copernicus component to users already served by EMSA (maritime safety and security, fisheries control, law enforcement, customs, and marine pollution. Border control is addressed under a separate project with Frontex).	~

⁹ These posts are part of the establishment plan of the Agency and will be covered by EMSA's subsidy.

Assess new user requirements with a view to implementation in EMSA's Earth Observation Data Centre Explore new technologies that can enhance the Copernicus service portfolio and support the Copernicus Maritime Surveillance Service delivery process.	~
Organise promotion, training and user up-take of Copernicus services.	\checkmark

Planned output 2018	Achievement / Actual output 2018
Provision of Copernicus Maritime Surveillance service usually delivered through the existing Integrated Maritime Services platform.	✓

Output Indicators		Target 2018	Result 2018
Copernicus Maritime Surveillance service earth observation (EO) image delivery	percentage per year EO image delivery ratio	90	94

Project: FRONTEX

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.4 (a), 2.4 (b), 2a.2(d) Regulation (EC) N° 1052/2013 Art. 18. (EUROSUR)

Project	Frontex SLA
Funding source	Frontex
Time frame	2018 - indefinite
Envelope	11,000,000 € - 12,000,000 € per year
Expenditure 2018	16,832,164 €
Staff	7 CA

Multi-annual strategic objectives

- → To support EU strategies on regional sea basins. (D1)
- > To become the implementing body of maritime safety related projects for IPA and ENP countries. (D2)
- ➔ To prepare IPA and ENP countries for association to EMSA's traffic monitoring services and for use of EMSA's pollution response services. (D3)
- → To consolidate its role as training provider including the use of modern techniques. (D6)

Expected result 2018

Through the implementation of the project the Agency contributes to improving the relevant capacities of maritime administrations in the Mediterranean partner countries in the field of maritime safety, security and prevention of marine pollution as well as preparedness and response.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The five services to Frontex were all provided in 2018, with the delivery of 4.9 billion vessel positions and 2,435 satellite images directly to Frontex user interfaces. A direct link between Frontex and EMSA's Earth Observation Data Centre was established, ensuring that the border guard user community can benefit from EMSA's best processing capacity. For detecting specific kinds of behaviour of interest to the Frontex user community, a total of 491 behaviour monitoring algorithms were configured over the course of the year. EMSA participated in five operational exercises coordinated by Frontex, giving hands-on guidance to the users of the SLA services at the Member State level.

An e-Learning module was rolled out to 44 Frontex users, in line with the objective of providing operational and training support to end users. The EMSA-Frontex SLA was renewed in August for an indefinite period, removing the need to renew the agreement and providing a solid base for longer term planning.

Operationally, the SLA services were used in support of several operations, including the confiscation of over 24 million cigarettes in March and the seizure of approximately 6 tonnes of processed cannabis in December.

Objectives 2018	Achievement
Implement the Service Level Agreement signed between EMSA and Frontex.	~
Following identification of appropriate business needs, further develop services to Frontex and their end users in Member States.	~
Service delivery based on the SLA annual programme and associated specific agreement signed with Frontex.	~
Provide operational and training support to users.	~
Launch the renewal of the SLA for the period after April 2019.	~

Provide operational and training support to users	Achievement / Actual output 2018
Provision of integrated maritime services under the existing Frontex-EMSA SLA framework, and in support of the implementation of the EUROSUR regulation.	~

Output Indicators		Target 2018	Result 2018
Frontex Service platform	percentage per year availability to Frontex	99	99.51
Frontex Service platform	Hours maximum continuous downtime	12	0
Frontex Operational Exercises	minimum number of exercises EMSA participates in	2	5

Visits and Inspections to monitor the implementation of EU legislation

3.1 CLASSIFICATION SOCIETIES

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.2(a), 2.2 (b), 2.3(c), 2.4(h) and 3

Planned	input	Actual Input
CA	1,905,321€	1,901,865 €
PA	1,905,321€	1,870,397 €
Staff	10 AD, 1 AST, 1 SNE	9 AD, 1 AST, 1 SNE

Multi-annual strategic objectives

- → To support the Commission and the Member States in improving ship safety. (A1)
- ➔ To increase resource effectiveness and efficiency through the development of a "risk-based" approach to inspections. (A2)
- To increase efficiency of the Commission's assessments of recognised organisations, in particular through a riskbased approach to inspections. (A5)
- → To develop ideas for more effective sharing of information on inspections. (A6)
- To assist the Commission in verifying the correct implementation by the EU recognised organisations of quality assessment and certification entity (QACE). (A7)

Expected result 2018

Based on the reports submitted by the Agency, the Commission should be able to make a sound assessment and, where appropriate, request corrective measures of Recognised Organisations or take decisions on withdrawal of recognition or other sanctions, in order to improve the overall quality of the certification work undertaken by those organisations.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

In 2018, EMSA carried out sixteen office inspections of Recognised Organisations (ROs). The locations and scope of the inspections were determined on a risk-basis, taking into account, inter alia, the EMSA inspection history, results of Member States' monitoring activities, the outcome of the Commission's assessments and follow-up on corrective actions, as well as industry developments. Preparation of inspections included remote auditing techniques whereby detailed information was evaluated before the inspection, enabling a focussed approach during the inspection itself. Where possible, inspections were combined to minimise mission costs.

Findings were established in all inspections, triggering voluntary corrective actions in all cases, the implementation of which will be verified in the next round of inspections.

There was a continued focus on common issues for ships in operation (including International Safety Management (ISM) audits) and on newbuilding activities (application of rules and statutory requirements, development and application of software tools to support newbuilding activities, projects of Ultra Large Container Ships, LNG carriers and cruise ships), as well as on internal verification activities as part of the ROs' control over their survey and certification processes. The inspections also focussed on the consulting activities of ROs in relation to their survey and certification activities.

EMSA also continued to verify corrective actions reported by the ROs concerned following visits in previous years. These visits focussed on structural fire safety issues and also included verification of fire safety in the machinery spaces and special category spaces.

Objectives 2018	Achievement
Maintain the same inspection effort per RO as in 2017.	~
Continue to apply a risk-based approach for RO inspections.	~
Provide assistance to the Commission and Member States as concerns the monitoring of Recognised Organisations.	~
Develop and implement ideas for more effective sharing of information on inspections.	~

Assist the Commission in the periodic assessment of the quality assessment and certification entity (QACE).	\checkmark
Provide end-of cycle inspection and draft assessment reports to support the Commission's	\checkmark
assessments of Recognised Organisations.	

Planned output 2018	Achievement / Actual output 2018
16-20 inspections of Recognised Organisations' offices.	✓ 16 in total
Upon request of the Commission, initial inspections of classification societies following any new request for EU recognition.	no requests received
Upon request of the Commission, provide technical assistance in the periodic assessment of the Quality Assessment and Certification Entity set up by the Recognised Organisations in accordance with Article 11 of Regulation (EC) No. 391/2009.	~
End-of-cycle inspection reports and draft assessment reports and recommendations, to assist the Commission in its preparation of the assessments of Recognised Organisations and their follow-up.	✓
Support to the Commission and the Member States in the implementation of Regulation (EC) No. 391/2009 on common rules and standards for ship inspection and survey organisations and Directive 2009/15/EC on common rules and standards for ship inspection and survey organisations and for the relevant activities of maritime administrations, as necessary.	✓
Upon request by a Member State, after consultation with the Commission, provision of appropriate information resulting from the inspections of the ROs, in order to support the Member State's monitoring of the ROs that carry out certification tasks on its behalf.	No requests received

Output Indicators ¹⁰		Target 2018	Results 2018
Inspections	number of RO inspections per year	16-20	16
Reports	number of reports per year	16-20	15 ¹¹
End-of-cycle inspection and draft assessment reports	number of reports per year	5-7	5

 ¹⁰ Indicators exclude inspections and reports of candidate ROs and ad hoc ship visits.
 ¹¹ The number of reports produced was one below target. This was because the inspections were concentrated in the latter part of the year and the associated reports have deadlines for completion in 2019.

3.2 STCW

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.2(a), 2.2 (b), 2.4(e), 2.4(h) and 3.

Planned input		Actual Input
CA	1,529,444 €	1,654,813 € 1,532,956 €
PA	1,529,444 €	1,532,956 €
Staff	6 AD, 2 AST, 1 SNE	6 AD, 2 AST, 1 SNE

Multi-annual strategic objectives

- → To support the Commission and the Member States in improving ship safety. (A1)
- → To become a reliable source of information and statistics for the EU on maritime matters. (D4)

Expected result 2018

Based on the reports submitted by the Agency, the Commission should be able to take policy decisions and/or request corrective measures of third countries or Member States, in order to improve the overall quality of the education and training of seafarers and the correctness of their certification in line with the STCW Convention or Directive 2008/106/EC, as amended, respectively.

The assistance provided by the Agency to the Commission for the REFIT exercise should contribute to better legislation within the EU.

The Agency continued to carry out inspections of the maritime education, training and certification systems in third countries. In 2018, inspections were carried out in Azerbaijan, Bangladesh, Indonesia, Israel and Ukraine. In addition, the Agency continued the second cycle of visits to Member States, conducting three such visits.

EMSA completed one technical opinion on a corrective action plan submitted by one third country and four evaluations of responses to the Commission's assessments from three third countries. Furthermore, the Agency also completed five opinions on the responses to EU pilots and Letters of Formal Notice provided to the Commission by four EU Member States. Finally, EMSA provided technical advice to the Commission on Letters of Formal Notice concerning two EU Member States at different stages of their preparation.

In 2018, a third statistical review on the number of seafarers holding valid EU certificates and endorsements of recognition, representing a snap-shot of the European labour market, was published. The report was based on data extracted from certificates and endorsements registered by EU Member States up to 31 December 2016 and recorded in the STCW Information System. In addition, the fourth set of data on certificates and endorsements issued to seafarers by the Member States up to 31 December 2017 was collected. EMSA will continue to receive such data in the coming years, providing statistics and trends on potential seafaring manpower in the EU, for the benefit of policy makers and the industry.

EMSA updated the two training packages 'Comprehensive Training on the STCW Convention and Code' and 'Enhance your Knowledge on the STCW Convention and Code'. These training packages were offered to EU Member States and third countries (see also Activity 4.3 Training, Cooperation and Capacity Building). Furthermore, EMSA organised a workshop on Maritime Education, Training and Certification of Seafarers where three main topics were presented and discussed, namely the STCW-IS Seafarers' Statistical Reviews, the Digitalisation of STCW Certificates and the Mid-Cycle Horizontal Analysis.

Finally, EMSA continued assisting the European Commission in the review of Directives 2008/106/EC and 2005/45/EC following the completion of the support study for the REFIT Evaluation of both directives.

Objectives 2018	Achievement
Same effort of visits and inspections as in 2017.	✓
Ensure the availability of the STCW Information System.	✓
Produce an Annual Review of Seafarer Statistics	✓
Provide any necessary technical assistance on aspects related to the education, training and certification of seafarers and social issues.	~
Assist the Commission in any development of relevant legislation arising from the fitness check (REFIT – Regulatory Fitness) of Directives 2008/106/EC and 2005/45/EC, initiated in 2016.	~

Planned output 2018	Achievement / Actual output 2018
4-5 inspections in third countries.	✓ 5 in total
3-4 visits to Member States.	✓ 3 in total
Maintain the STCW Information System; minimising down-time, ensuring a high level of availability and providing system support to users.	~

Output Indicators		Target 2018	Results 2018
Inspections and visits	number of inspections and visits per year	7-9	8
	percentage of visit notifications sent to Member States with at least three months' notice	95	100
Reports	number of reports per year	7-9	8
	percentage of draft reports submitted to the visited Member State or third country within 90 days from the end of the visit/inspection	95	87.5 ¹²
STCW Information System	percentage per year availability	96	99.61

 $^{^{\}rm 12}$ One draft report missed the deadline in Q1.

3.3 VISITS TO MEMBER STATES TO MONITOR THE IMPLEMENTATION OF UNION LAW

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.2 (b) and 3

Planned input		Actual Input
CA	1,200,359€	1,290,765 €
PA	1,200,359€	1,313,641 €
Staff	5 AD, 2 AST, 1 SNE	5 AD, 2 AST, 1 SNE

Multi-annual strategic objectives

- → To support the Commission and the Member States in improving ship safety. (A1)
- → To maximise its support role for an efficient and expanded scope of the PSC regime. (A8)

Expected result 2018

Provide advice to enable the Commission and the EFTA Surveillance Authority to assess and verify the implementation of EU maritime legislation in the Member States visited.

Assist EU and EFTA Member States in their understanding of the requirements of EU legislation and the resources needed for its effective implementation.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

EMSA continued the agreed cycles of visits to Member States carried out to assist the Commission and the EFTA Surveillance Authority fulfil their obligation to assess Member States' effective implementation of Union maritime law. The visits were carried out in the agreed format based on the specific technical methodology for each visit cycle agreed with the Commission and in accordance with the Methodology for Visits to Member States, with the additional objective of creating value for the visited Member States in the form of advice and guidance.

In 2018, 19 visits were carried out in respect of four EU Directives dealing with: the sulphur content of marine fuels (Directive 2016/802/EU), port State control (2009/16/EC), marine equipment (Directive 2014/90/EU) and harmonised requirements for the safe loading and unloading of bulk carriers (Directive 2001/96/EC), this last cycle starting in the second quarter. The outcome of each visit was presented to the Member State in question and the Commission (and where appropriate the EFTA Surveillance Authority) through EMSA's visit reports.

The detailed information assembled from each cycle is the essential source of information needed for the horizontal analysis on operational implementation of the respective piece of legislation and on the cost effectiveness of the measures in place for such implementation, conducted once a full cycle of visits has been completed.

Objectives 2018	Achievement
Sound implementation of the Methodology for Visits to Member States.	✓
Primary focus on port State control, the sulphur content of marine fuels and marine equipment.	✓
Begin preparation of a new cycle of visits on passenger ship safety legislation.	 ✓

Planned output 2018	Achievement / Actual output 2018
5-6 visits to Member States in respect of Directive 2009/16/EC on port State control and related activities	✓ 5 in total
4-5 visits on the implementation of the Sulphur Directive and related Commission Implementing Decisions.	✓ 5 in total
3-4 visits in respect of Directive 2014/90/EU on marine equipment.	✓ 4 in total
3-4 visits in respect of Directive 2001/96/EC on the safe loading and unloading of bulk carriers.	✓ 4 in total
Upon request of the Commission, assistance to verify the implementation of any other EU legislative acts in the field of maritime safety or ship-sourced pollution.	✓ No requests received.

Upon request by the EFTA Surveillance Authority other visits to EFTA Member	✓ 1 in total
States to monitor the implementation of relevant legislation.	

Output Indicators		Target 2018	Result 2018
	number of visits per year	15-19	19
	percentage of visit notifications sent to Member States with at least three months' notice	95	100
	number of reports per year	15-19	18
Reports	percentage of draft reports submitted to the visited Member State within 90 days from end of visit	95	95

3.4 MARITIME SECURITY

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2 and 2.2 (b)

Planned input		Actual Input
CA	715,895€	787,320 €
PA	715,895€	763,392 €
Staff	3 AD, 1 SNE, 1 CA	3 AD, 1 SNE, 1 CA

Multi-annual strategic objectives

➔ Adding value from visits and inspections (Strategic Action Area¹³).

Expected result 2018

Provide technical assistance to enable the Commission and the EFTA Surveillance Authority to assess and verify the implementation of EU maritime security legislation in the Member States visited and identify any changes that may be needed in the conduct of the Commission inspections in order to improve the overall level of maritime security.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

EMSA continued to assist the Commission in monitoring Member State implementation of Regulation (EC) No 725/2004 on enhancing ship and port facility security. The practical arrangements for EMSA's technical assistance are set out in a Working Arrangement between the Commission and EMSA. A revised Working Arrangement was signed in January 2018, further enhancing EMSA's participation in the maritime security inspection process. Technical assistance to the EFTA Surveillance Authority can be provided in respect of ship security only, pending amendments to the EEA Agreement to extend the scope of EMSA's assistance to the full scope of Regulation (EC) No 725/2004, as is provided to the Commission. However, no such requests were received in 2018.

The number of inspection missions was slightly higher than recent years following a decision by the Commission to increase its inspection effort. The number of individual inspections was also higher, at 46, reflecting Commission priorities in terms of the types of inspection carried out during each mission.

EMSA's reports highlighted observations identified during the inspections and provided recommendations and information on Member States' implementation of maritime security measures, procedures and structures. EMSA also provided technical input for future inspections for the Commission's consideration.

Three training courses on ship security were developed and delivered: one was delivered in Ireland with the participation of officers from the Irish Administration as part of a regional training cooperation, and the other two in EMSA, to officers of the administrations with experience and knowledge in ship security of the Member States and SAFEMED IV beneficiary countries, respectively. A distance learning training module on cybersecurity awareness for officers working in the maritime administration (see also Activity 4.3 Training, Cooperation and Capacity Building) was also made available in 2018.

A new reporting module in THETIS-EU to assist the Member States in the recording and reporting of maritime security inspections by Duly Authorised Officers was developed and presented to the Member States during 2018, prior to its going live in January 2019.

EMSA continued to participate in the MARSEC (Maritime Security) Committee and the Stakeholders' Advisory Group on Maritime Security chaired by the Commission, contributing to the MARSEC agenda on specific issues of interest to the Member States. Additionally, EMSA assisted the Commission in the process of accreditation for national security inspectors in the framework of the implementation of Regulation (EC) No 725/2004.

¹³ Activity 3.4 Maritime Security has no corresponding strategic objective – the reference is therefore to the strategic action area "Adding value from visits and inspections".

Objectives 2018	Achievement
Similar effort of missions as in 2017.	✓
Provide the Commission and the EFTA Surveillance Authority with timely advice on the level of security implementation by the Member States.	~

Planned output 2018	Achievement / Actual output 2018
10-12 missions to EU Member States, upon request of the Commission.	✓ 12 in total
2-3 missions to Norway and Iceland, upon request of the EFTA Surveillance Authority.	No requests received.
Upon request of the Commission, contribute to the updating and enhancement of the procedures for performing maritime security inspections.	✓
Upon request of the Commission, provide assistance on the follow-up of the deficiencies identified during inspections	✓

Output Indicators		Target 2018	Result 2018
Inspections	number of missions per year	12-15	12
	number of reports per year ¹⁴	30	24 ¹⁵
Reports	percentage of inspection reports concluded within the deadline agreed with the European Commission	95	92.22 ¹⁶

 ¹⁴ More than one report may be prepared following an inspection mission, e.g. if more than one Member State is inspected.
 ¹⁵ There were fewer individual inspections than expected during the missions undertaken. In addition, in the case of 2 missions, EMSA did not write a report for every inspection carried out.
 ¹⁶ The inspection reports of 3 missions were delayed, due to the increased workload because only one inspector was available to carry out inspections during part of the year.

3.6 HORIZONTAL ANALYSIS AND RESEARCH

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.2(a), 2.2(c) and 3.5

Planned in	put	Actual Input
CA	486,256 €	Actual Input 522,167 € 505,347 €
PA	486,256 €	505,347 €
Staff	3 AD ¹⁷	3 AD

Multi-annual strategic objectives

- → To support the Commission and the Member States in improving ship safety. (A1)
- To provide the Commission with objective, comparable audit information and generic findings based on analysis of completed inspection cycles and the whole range of related information available as well as with technical recommendations as appropriate. (A3)
- To enhance an effective dissemination of relevant Horizontal Analysis results not only to the Commission but also to Member States' maritime administrations, including sharing best practices. (A4)
- → To continue developing its role as forum for discussion of best practices. (D5)
- ➔ To use available technical knowledge to analyse research projects with a maritime safety or environmental protection interest, where appropriate. (D7)

Expected result 2018

Provide advice to enable the Commission and the EFTA Surveillance Authority to assess and verify the implementation of EU maritime legislation and to identify whether and if so what changes are needed to Union law to improve the level of maritime safety and the prevention of pollution by ships in the EU.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

When a cycle of visits or inspections has been concluded, or when deemed appropriate, such as mid-cycle, the Agency analyses its visit and inspection reports with a view to identifying horizontal findings on operational implementation and general conclusions on the effectiveness and cost efficiency of the measures put in place for such implementation. These analyses are intended to facilitate discussions with the Commission and Member States, to draw relevant lessons and disseminate good working practices.

In 2018, two horizontal analyses (HA) were completed: an analysis of the full cycle of visits to Member States on accident investigation, and a mid-cycle analysis of the findings from the second cycle of visits to Member States related to Directive 2008/106/EC, as amended, on the minimum level of training of seafarers.

The methodology and the findings of these two horizontal analyses were presented to Member States during two workshops organised by EMSA - a periodical PCF meeting on accident investigation, and a workshop on Maritime Education, Training and Certification of Seafarers.

In addition, work continued on the other cycles of visits already underway. This focussed on collating information from Member States and other sources, process analysis, the monitoring of problematic areas, the analysis of findings and the identification of major issues arising from the visits as they are carried out and developing cost-effectiveness analyses of the measures in place.

A specific cost-effectiveness model was also developed for the new visit cycle that started in 2018, concerning Directive 2001/96/EC establishing harmonised requirements and procedures on the safe loading and unloading of bulk carriers. The cost-effectiveness models developed in 2017 in relation to Directive (EU) 2016/802 on Sulphur content of marine fuels and on Directive 2014/90/EU on marine equipment were applied to analyse the preliminary data gathered through dedicated questionnaires to Member States.

In relation to places of refuge, preparation started for the fourth biennial table top exercise to take place in 2019, as one of the measures to strengthen the implementation of Directive 2002/59/EC on vessel traffic management and information systems and to benefit from the conclusions of the Horizontal Analyses carried out in previous years.

¹⁷ 1 AD for the European cooperation on coast guard functions (in planned and actual input).

Objectives 2018	Achievement
Carry out horizontal analyses of cycles and part cycles of visits and inspections to identify horizontal findings and general conclusions on the effectiveness and cost-efficiency of the measures in place, including the identification of good practices.	~
Hold workshops, as relevant and appropriate, with the Commission and Member States to review the horizontal analyses and provide the Member States with a forum for the sharing of lessons learnt and best practices and identifying possible future training needs	~
Support the Commission in its assessment of the results of visits and inspections, including follow-up with Member States and, when required, in any wider follow-up action (e.g. consultations with Member States, workshops on best practice, possible changes to Union law including contributions to impact assessments, etc.).	~
Conduct analyses of research projects to assist the Commission, upon request, with preparatory work for updating/developing legislation.	No requests received.
Analyse research instrumental to other tasks (especially in relation to environmental protection issues).	No requests received

Planned output 2018	Achievement / Actual output 2018
1-2 Horizontal Analyses of full or part cycles or series of visits and inspections.	~
Analyses of research projects, upon request, to assist the Commission with preparatory work for updating/developing legislation.	No requests received.
Support the Commission and the Member States by sharing the results of and knowledge gained from the Horizontal Analyses through workshops and seminars.	~

Output Indicators		Target 2018	Result 2018
Analyses on the basis of full or part cycles or series of visits and inspections	number of horizontal analyses per year	1-2	2

Providing Member States and the Commission with technical and scientific assistance and facilitating technical cooperation between Member States' Maritime Authorities and with the Commission.

4.1 PORT STATE CONTROL & FLAG STATE ENFORCEMENT

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.2(a), 2.4(d) and 2.4(h).

Amended Directive on a system of inspections for the safe operation of ro-ro ferry and high-speed passenger craft in regular service and amending Directive 2009/16/EC of the European Parliament and of the Council on port State control and repealing Council Directive 1999/35/EC.

Planned i	nput	Actual Input
CA	511,256€	373,111 €
PA	511,256€	458,741 €
Staff	3 AD	2 AD

Multi-annual strategic objectives

- → To support the Commission and the Member States in improving ship safety. (A1)
- → To maximise its support role for an efficient and expanded scope of the PSC regime. (A8)
- To assist the Commission, Member States and the maritime industry, where appropriate, in meeting, implementing and monitoring international and European legislation and initiatives on the reduction of SOx and NOx emissions. (C1)
- → Support EU Strategies on regional sea basins. (D1)

Expected result 2018

The Agency will continue to support the Port State Control system in line with the PSC Directive (2009/16/EC) as amended. The support includes inter alia the maintenance and further enhancement of the information system (THETIS), the maintenance and further development of RuleCheck and MaKCs and technical assistance to the Member States and the Commission on matters related to PSC.

The Agency is working towards harmonising Port State Control in and by Member States, by developing and organising common training and common PSC tools. This will contribute to a more harmonized level of PSC in the European Union, establishing a more unified level of maritime safety.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

EMSA participated and contributed actively in all the bodies of the Paris Memorandum of Understanding on Port State Control. The contribution included leading of two task forces and providing operational support as data manager, as well as up to date rules and regulations, through RuleCheck and MaKCs, and training (see also Section 2.3 - THETIS and Section 4.5 – Ship Inspection Support).

EMSA also provided support to the European Commission in the preparation of and the discussion on the amended Directive on a system of inspections for the safe operation of ro-ro ferry and high-speed passenger craft in regular service and amending Directive 2009/16/EC of the European Parliament and of the Council on port State control and repealing Council Directive 1999/35/EC. The support entailed written proposals, analysis of Member States' comments and data analysis to support tabled proposals.

Objectives 2018	Achievement
Assist in the publication of information relating to ships (PSC Directive 2009/16/EC as amended).	~
Provide technical assistance as concerns the Paris MoU on Port State Control.	~
Provide technical assistance in the implementation of the Directive on a system of inspections for the safe operation of ro-ro ferry and high-speed passenger craft in regular service and amending Directive 2009/16/EC of the European Parliament and of the Council on port State control and repealing Council Directive 1999/35/EC	~
Assist the Commission in any development of relevant legislation arising from the fitness check & REFIT evaluation of Directive 2009/16/EC, initiated in 2016.	~

Planned output 2018	Achievement / Actual output 2018
Management and enhancement of harmonised training tools.	✓
Keeping up-to-date the publication of banned vessels.	✓
Ensuring the daily publication of the list of poor performing companies.	✓
Providing statistics upon request.	✓
Supporting the Commission in the implementation of the PSC Directive (2009/16/EC) as amended.	✓
Supporting the Commission and the Member States in the implementation of the RoPax Directive (1999/35) for as long as it is still applicable.	✓
Providing assistance to Member States and the Commission on the implementation of a Directive on a system of inspections for the safe operation of ro-ro ferry and high-speed passenger craft in regular service and amending Directive 2009/16/EC of the European Parliament and of the Council on port State control and repealing Council Directive 1999/35/EC.	✓
Providing technical assistance to the Commission on the deliberations for the amendments of Directive 2009/16/EC on port State control.	✓
Participation in all technical meetings and working groups of the Paris MoU, and certain policy meetings, on behalf of the Commission.	✓
Assistance to the Commission in the potential revision of Annexes of the PSC Directive 2009/16/EC.	✓

4.2 ACCIDENT INVESTIGATION

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.2(a) and 2.4(c)

Planned input		Actual Input
CA	1,207,810€	1,133,719 €
PA	1,240,965€	1,145,121 €
Staff	4 AD, 1 AST, 1 SNE	4 AD, 1 AST

Multi-annual strategic objectives

- → To support the Commission and the Member States in improving ship safety. (A1)
- To develop practical solutions for providing operational support to Member States at their request concerning investigations related to serious and very serious maritime accidents. (A9)
- To support the European Commission and EU Member States to enhance maritime safety through the analysis of accident investigation reports and by producing maritime casualty statistics and analysing trends. (A10)
- → To become a reliable source of information and statistics for the EU on maritime matters. (D4)

Expected result 2018

EMSA's activities will improve the accident investigation capabilities of Member States. By analysing data held in EMCIP, EMSA will add value by identifying relevant lessons learned at EU level.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The Agency put in production the new European Marine Casualty Information Platform (EMCIP) and coordinated a working Group of Member States' experts to enhance its functionalities. Users recognised that the new application is more userfriendly and may effectively support the Accident Investigation Bodies in their daily work. The quality of data reported was systematically monitored and several documents to support EMCIP users were updated, including tutorials and reporting guidelines.

EMSA continued to provide the Secretariat to the Permanent Cooperation Framework (PCF) and support its working groups and organised the 3rd PCF Inter-sessional seminar with focus on evidence collection relevant to Human Element.

Two safety analyses aimed at detecting potential safety issues relevant for fishing vessels and Ro-Ro ships were published, using the Agency methodology to analyse EMCIP data.

Training activities included two sessions of the "Core Skills for Accident Investigators" course (CSC) dedicated to both Member States and countries within the BCSEA project.

The 5th edition of the "Annual Overview of marine casualties and incidents" was published, providing extensive data on ships involved and consequences.

Data from EMCIP were also used to support specific projects, requests from Member States as well as internal needs.

Finally, the Agency provided support to the Commission for the potential revision of the Accident Investigation Directive.

Objectives 2018	Achievement
Ensure the proper running of EMCIP throughout the transition to the new platform.	~
Have the new EMCIP operational by mid-2018.	✓
Carry out analysis of the safety investigation data reports made available to EMSA.	✓
Publish the annual overview of marine casualties and incidents on the basis of EMCIP data.	✓
Support the Permanent Cooperation Framework set-up under Art.10 of the Directive.	✓
Continue to support the Commission in the potential revision of the Accident Investigation Directive	✓

Planned output 2018	Achievement / Actual output 2018
Supporting the Member States and the Commission in the implementation of the Accident Investigation Directive.	~
Providing the Secretariat of the Permanent Co-operation Framework, as foreseen by Regulation (EU) No 651/2011 adopting the rules of procedure of the PCF.	~
Maintaining the current European Marine Casualty Information Platform (EMCIP) until the delivery of the new platform.	~
Completing the development of the new EMCIP and providing a smooth transition.	~
Monitoring EMCIP data quality through sampling verification.	✓
Investigating practical solutions for providing operational support, if requested by Member States, in investigations related to serious or very serious maritime accidents.	No requests received
Analysing data and reports from casualty investigations and proposing any appropriate Safety Recommendations to the Commission.	~
Developing safety indicators and a safety analysis scheme based on casualty data	~
Publishing the annual overview of marine casualties and incidents on the basis of data provided by the Member States.	~
Assist the Commission in the potential revision of the Accident Investigation legislation.	~

Output Indicators		Target 2018	Result 2018
EMCIP meetings	number of meetings per year	2	6
PCF meetings	number of meetings per year	1	2

4.3 TRAINING, COOPERATION AND CAPACITY BUILDING

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.3(a), 2.3(b), 2.5 and 2b

Planned ir CA PA Staff	nput 2,294,002 € 2,272,902 € 5 AD ¹⁸ , 1 AST, 2 SNE	Actual Input 2,075,486 € 1,782,559 € 5 AD, 1 AST, 1 SNE
Project Funding so Time fram	ource	EU Funds for Candidate and Potential Candidate Countries EC, DG NEAR Ongoing
Envelope Expenditui Staff	re 2018	n/a 148,337 € No extra staff

Multi-annual strategic objectives

- → To support the Commission and the Member States in improving ship safety. (A1)
- → To become the implementing body of maritime safety related projects for IPA and ENP countries. (D2)
- To prepare IPA and ENP countries for association to EMSA's traffic monitoring services and for use of EMSA's pollution response services. (D3)
- → To continue developing its role as forum for discussion of best practices. (D5)
- → To consolidate its role as training provider including the use of modern techniques. (D6)

Expected result 2018

To promote best practices between EU Member States and increase knowledge and awareness of solutions found, benefiting maritime safety, ship security and prevention of and response to marine pollution by ships.

To support the process of approximation to EU maritime safety "acquis" for enlargement countries.

To develop specialised training courses to tackle end-users' pre-defined needs and support national authorities carrying out coast guard functions at national and Union level within the domain of the Agency.

To extend the use of e learning modules and, where applicable, consider the completion of a relevant e-Learning module as a pre-requirement for the participation to specialised house training.

To extend training capabilities with new technologies, such as using virtual reality and 3D simulation of vessel inspections for training purposes.

To organise and deliver training through seminars for Port State Control Officers.

To strengthen cooperation, within their mandate, between EMSA, Frontex and EFCA and with the national competent authorities, to increase maritime situational awareness as well as to support coherent and cost-efficient action. To promote exchange of best practices and increase knowledge and awareness with a cross-sectoral approach for the different coast guard functions.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The Agency enriched both the portfolio of specialised training (including the Harmonized Community Scheme for the training and assessment of competences of port State control inspectors and training on the use of integrated maritime information services and systems) and the e-Learning modules and webinars to reflect to the increasing demand from the Member States and helping to increase capacity of national authorities exercising coast guard functions, creating common approaches at EU level, which will ultimately facilitate multinational cooperation and joint operations.

In close cooperation with the relevant services of the Commission, the Agency also developed best practices & guidance notes for selected legal acts, in line with the requests and priorities set by the Member States. The Agency also tendered a framework contract for training in virtual reality and 3D simulation of vessel inspections for training purposes, in order to enhance the services offered to the Member States within the context of capacity building.

The cooperation with EFCA and Frontex continued and a joint training with EFCA was developed and delivered twice, enhancing cooperation and synergies between the relevant user communities and the two agencies in relation to fishing

¹⁸ 2 ADs for the European cooperation on coast guard functions (in planned and actual input).

vessels. Finally, the Agency contributed to the development of a set of common standards for education across the EU, within the European Coast Guard Functions Forum Sectorial Qualifications Framework project (ECGFSQF) led by the Italian Coast Guard.

Objectives 2018	Achievement
Offer an enhanced portfolio of trainings and e-Learning modules for Member States and Enlargement countries.	~
Enrich training capabilities with new technologies, such as using virtual reality and 3D simulation of vessel inspections for training purposes	~
Development of Best Practices and Guidance Notes as relevant.	✓
Provision of training to enlargement countries (specific budget provided by the Commission).	~
PSC training for countries taking part in the Paris MoU.	~
Cooperation with Frontex and EFCA.	~
Participation to the work of the European Coast Guard Functions Forum.	~
Participation and support to the work of the Mediterranean Coast Guard Functions Forum.	~

Planned output 2018	Achievement / Actual output 2018
Up to 18 training sessions for Member States on the range of topics covered by EMSA's mandate.	~
Up to 6 sessions for training/technical assistance for officials from enlargement countries related to EU-legislation and EMSA activities.	~
Up to 2 Best Practices and Guidance Notes for the implementation of EU Legal acts (subject to agreement by the Commission where relevant)	~

Output Indicators		Target 2018	Result 2018
Training for Member	number of MS training sessions per year	Up to 18	24
States	number of MS experts attending per year	360	603
Training for enlargement countries	number of AC training sessions per year	Up to 6	21
	number of AC experts attending per year	50	77
Customer satisfaction	level of customer satisfaction	>85%	>85%

4.4 MARINE EQUIPMENT AND SHIP SAFETY STANDARDS (including IMO)

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.2(a), 2.2(c) and 2.4(h)

Planned	input	Actual Input
CA	1,865,716 €	2,422,259
PA	2,015,716€	2,361,741
Staff	7 AD ¹⁹ , 1 AST, 1 SNE	8 AD, 1 AST, 1 SNE

Multi-annual strategic objectives

- → To support the Commission and the Member States in improving ship safety. (A1)
- → To become a reliable source of information and statistics for the EU on maritime matters. (D4)

Expected result 2018

The Agency will contribute to the safety of ships and marine equipment at European level by supporting the implementation, update and development of appropriate and harmonised safety standards. It will also contribute to the functioning of the internal market by assessing individual safety problems and market distortions due to differences in application of standards.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

EMSA continued to support the Commission's Fitness Check of EU Passenger Ship Safety legislation and associated follow-up actions. Concerning Directive 2009/45/EC on safety rules and standards for passenger ships, EMSA developed a new technical annex with a revised structure and in-depth technical review following several consultation rounds and dedicated meetings with experts from Member States and Industry. In addition, the development of the Small Passenger Ship Safety Guide, on safety goals and functional requirements for ships below 24 metres in length, was finalised for its adoption by Member States as a Council Recommendation.

Regarding the work on fires on the vehicle decks of ro-ro passenger ships, the EMSA FIRESAFE II study was delivered, investigating the risk control options in relation to detection and decision as well as containment and evacuation following a ro-ro space fire incident on any ro-ro passenger ship. EMSA also hosted the fourth, and final, workshop on this subject with the participation of representatives from the Accident Investigation Bodies and the Maritime Administrations of the Member States. This work led to related EU submissions to IMO.

EMSA also ensured technical support for the implementation and update of the Marine Equipment Directive (MED - 2014/90/EU), notably initiating the development of a new MarED Database to be hosted and operated by the Agency and able to support electronic tagging for marine equipment. This will substantially improve the level of control and monitoring of equipment placed on EU flagged ships.

The 3rd Implementing Regulation of the MED was also finalised successfully by the end of the year.

Objectives 2018	Achievement
Assist the Commission in finalising the follow-up actions arising from the REFIT on passenger ship safety legislation initiated in 2014 and provide technical assistance in the implementation of amended Directives, i.e. Directives 2009/45/EC on safety rules and standards for passenger ships, 98/41/EC on the registration of persons on board and 1999/35/EC on mandatory surveys of ro-ro ferry and HSC passenger services. Continue to coordinate the technical discussions on Ro-Ro vehicle deck fire safety and have a third FireSafe Study if needed.	~
Assist the Commission with technical advice in relation to their "Study on the safety level of specific stability requirements for ro-ro passenger ships", which aims to provide evidence on the potential safety gap between SOLAS 2009 (as amended) and Directive 2003/25/EC (Stockholm Agreement) and the impacts of updating or repealing the Directive.	~
Support the Commission and the Member States in relation to the submissions and work of the technical bodies of the IMO on passenger ship safety and to the Member States' expert group	~

¹⁹ 1 AD for the European cooperation on coast guard functions (in planned and actual input).

meetings, with regard to matters of Union competence.	
Update the list of standards for marine equipment subject to flag State approval and conduct technical review of safeguard clause cases.	~
Support the Commission and the Member States in work arising from the co-ordination group of Notified Bodies, authorised by the Member States to carry out the conformity assessment procedures in accordance with the Marine Equipment Directive.	~
Maintenance and enhancement of the MarED database.	\checkmark
Follow-up of the EU-USA Mutual Recognition Agreement and management of the alert system.	~
Analysis of research projects relevant to ship safety.	\checkmark
Technical support for the implementation, update in line with the development of international legislation and development of Ship Safety and Marine Equipment legislation, including technical review of notified exemptions and derogations.	~

Planned output 2018	Achievement / Actual output 2018
Providing technical support to the Commission and the Member States on the work at IMO in the field of Maritime Safety Standards.	~
In particular, the Agency will provide technical support regarding developments on passenger ship damage stability, fire safety, the ISM code and Goal Based Standards.	~
Providing technical support to the Commission in finalising relevant actions identified during the REFIT process of passenger ship safety legislation (Directive 2009/45/EC on safety rules and standards for passenger ships, Directive 2003/25/EC on specific stability requirements for ro-ro passenger ships. Directive 1998/41/EC on the registration of persons on board and Directive 1999/35/EC on mandatory survey of ro-ro ferry and HSC passenger services.	~
Facilitating and providing technical assistance in the implementation of amended passenger ship safety legislation.	✓
Providing technical assistance in the assessment of notified exemptions and derogations.	✓
Preparation of the update to the list of standards for marine equipment that is subject to flag State approval (yearly basis).	✓
Examination of safeguard clause cases submitted under the Marine Equipment Directive.	✓
Management of the alert system foreseen by the MRA signed between the EU and the USA and providing the Commission with a revised list of marine equipment and associated legislative, regulatory and administrative provisions that the EU and the USA may determine to be equivalent.	✓

Output Indicators		Target 2018	Result 2018
MarED Database	percentage per year availability of MarED DB	99	99.83

4.5 SHIP INSPECTION SUPPORT

Legal basis Regulation (EC) N° 1406/2002 as amended, Art. 1.2 and 2.4(d) Regulation (EC) N° 1406/2002 as amended Directive 2000/59/EC Art. 12.3 Regulation (EU) 2015/757 Art.21.6 Commission Implementing Decision 2015/253 Art.8 Directive 2009/16/EC as amended Planned input Actual Input СА 1,557,033€ 1,994,763€ PA 1,557,033€ 1,703,825€ 5 AD20, 1 SNE, 1 CA 6 AD, 2 SNE, 1 CA Staff Project finances input **EQUASIS** Funding source Equasis Member States Envelope

Ongoing n/a 746,819 € No extra staff

Multi-annual strategic objectives

- → To support the Commission and the Member States in improving ship safety. (A1)
- → To maximise its support for an efficient and expanded scope of the PSC regime. (A8)
- → To become a reliable source of information and statistics for the EU on maritime matters. (D4)

Expected result 2018

Time frame

Staff

Expenditure 2018

Reliable information systems that can significantly contribute towards rationalising and optimising assessment of the compliance with the requirements of International and EU legislation.

Reliable and compatible data support the Agency's tasks in preparing and making use of up-to-date and validated information on maritime safety.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

RuleCheck is a decision–support tool, developed and maintained by EMSA. It contains all applicable maritime legislation such as IMO Conventions, Codes, Resolutions and Circulars, ILO Conventions and guidelines, relevant EU Regulations and Directives as well as the respective manuals and instructions of the Paris, Black Sea and Mediterranean Memoranda of Understanding on Port State Control. While originally developed for the Paris MoU Port State Control authorities, today approximately 1000 users from about 50 countries (MedMoU, BS MoU, Carib MoU, Indian Ocean MoU, Flag State Administrations from Member States and ENP beneficiary countries, as well as Accident Investigation Bodies from the Member States) are granted access rights. Providing access to RuleCheck beyond the EU contributes to harmonised implementation of international conventions, global harmonisation of PSC practices, and adequate access to the up-to-date regulations for inspectors worldwide. At the same time, it supports approximation with best practices applied in the EU and increases the visibility of the EU, showing the added value of a tool enhanced for and used by the EU Member States and its competent authorities.

EMSA using data drawn from MARINFO provided reliable statistics to the European Commission and the maritime Industry on the calculation of the recycling needs of the EU shipping fleet for the years 2013 to 2017 as well as the potential additional burden from the proposed ROPAX and PRF Directives.

²⁰ 2 ADs for the European cooperation on coast guard functions (in planned and actual input).

Objectives 2018	Achievement
Enhance and promote reliable statistics using the MARINFO Project.	~
Address complex requests through the MARINFO HelpDesk.	~
Increase the number of data providers contributing to Equasis.	~
Search for new signatory parties for the Equasis	~
Implement the five-year strategy of Equasis.	
Promote and disseminate regular maritime-related statistics (possibly a publication) with particular focus on the EU ships and EU waters.	~
Support to the Commission by providing reliable statistics.	~
Ensure proper operation of RuleCheck and MaKCs for Paris MoU, and ENP beneficiary countries, EU Accident Investigation bodies and EU Flag Administrations.	~
Enrich MaKCs with new modules available for end-users beyond the PSC community, thus supporting national authorities in their different coast guard functions.	~
Ensure, upon request, the creation of more and different User Groups in RuleCheck, thus offering the option of uploading folders relevant to the work of end-users (national legislation folders).	~
Provide the necessary support to the IOMoU and the Caribbean MoU for the use of MaKCs.	~
Develop a dynamic portal with added value for the national authorities performing coast guard functions falling within the remit of the Agency.	~

Planned output 2018	Achievement / Actual output 2018
Management of Equasis.	✓
Publishing the annual statistical report on the world merchant fleet in Equasis.	✓
Production of statistical products (regular or ad hoc) from the THETIS environment including MARINFO database, as well as analyses, services and publications, for internal and external use, as appropriate.	~
Support data analysis pilot projects.	 ✓
Analysis of statistics on the basis of the reports submitted by the Member States through THETIS-EU, on the appropriate implementation of Directive 2016/802/EU as regards the sulphur content of marine fuels.	~
Further development of RuleCheck and MaKCs in order to support distance learning options for different end-users and national authorities carrying out coast guard functions.	~
Development of a Flag State module in THETIS-EU.	✓
Initiating the development of a dynamic portal with added value for the national authorities performing coast guard functions falling under the remit of the Agency.	~

Output Indicators		Target 2018	Result 2018
EQUASIS - Availability of the system	percentage per year availability	99.5	99.94
EQUASIS - Users	number of users per month	32,000	34.360
EQUASIS - Contributors	number of contributing members	9-10	10
RuleCheck system operational	percentage per year availability	85	99.91
	days maximum continuous downtime	9d	0
RuleCheck Helpdesk Service	percentage of requests closed in less than 9 days	75	n/a ²¹
MaKCs system operational	percentage per year availability	85	98.91
	days maximum continuous downtime	9d	0
	number of modules developed per year	4	7
MaKCs Helpdesk Service	percentage of requests closed in less than 9 days	75	n/a ²²

²¹ The statistics required to report on these KPIs have not been available since November 2016, following a change of contractor and ticketing tool. The capability to support this KPI is expected to be re-established by mid-2019. In the meantime, working methodologies and procedures remain in place and stable and would suggest that the targets continue to be met.
²² See above.

4.6 PREVENTION OF POLLUTION BY SHIPS

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.2(d), 2.4(h), 2a.2(a) and 2a.2(b)

Planned	l input	Actual Input
CA	1,121,426€	1,151,188 €
PA	1,121,426€	1,140,382 €
Staff	5 AD	Actual Input 1,151,188 € 1,140,382 € 5 AD, 1 SNE

Multi-annual strategic objectives

- To assist the Commission, Member States and the maritime industry, where appropriate, in meeting, implementing and monitoring international and European legislation and initiatives on the reduction of SOx and NOx emissions. (C1)
- To assist the Commission, Member States and the industry in the technical development related to alternative fuels for ships. (C2)
- ➔ To support if necessary the Commission in setting up a Monitoring, Reporting and Verification system for emissions in line with future policy developments in this area. (C3)
- → To contribute to the protection of the marine environment in the EU. (C4)
- → To assist Member States in the implementation of the new rules in the field of ship related pollution. (C5)

Expected result 2018

The Agency's expertise in matters related to environmental protection assists the Commission and Member States to better tackle a variety of ship-sourced pollution and emission problems, with regard to implementation as well as new legal developments.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

With almost 300 LNG fuelled ships confirmed, 70% of which operating in Europe, and LNG fuel capacities currently exceeding several thousands of cubic meters per ships, the LNG bunkering market will witness a significant paradigm shift with a need to develop higher capacity and throughput for LNG bunkering systems and operations. The EMSA Guidance on LNG Bunkering for Port Authorities and Administrations, published in early 2018, established EMSA as one of the leading partners in the challenging activity for developing adequate control measures in ports for a fast developing market. EMSA has provided state of the art guidance to Member State administrations, port authorities and competent bodies for the national LNG fuel frameworks on how to develop adequate control measures for LNG bunkering operations in the context of specific ports' regulatory exercise.

A process has been established between DG ENV and EMSA through which the Agency provides information (situational awareness) on selected ships allegedly in imminent breach of the Waste Shipment Regulation (Regulation (EC) No 1013/2006). Information includes, for each ship of interest, the track of the last 7 days, the last port of call and departure date and destination and estimated arrival date. The information is provided in the form of a table including a map with print screen of the ship's track.

EMSA actively participated in all the discussions held in the IMO for the GHG Strategy, particularly on the development of the EEDI Reference Line revision concept in MEPC 70/INF.29, adapted in view of MEPC 72 - being one of the two possible methodologies to strengthen the EEDI in the context of the implementation of short-term measures within the IMO GHG Strategy. Finally, the Agency contributed to the adoption by the co-legislators of the revised PRF Directive and drafted proposals for the information system to be established and the enforcement regime.

Objectives 2018	Achievement
Technical assistance to the Commission in monitoring compliance with the requirements relating to sulphur content in fuel.	~
Technical assistance to the Commission in implementing the Directive on Port Reception Facilities, including monitoring the Guidelines and Technical Recommendations. (SafeSeaNet and THETIS-EU evolution in response to amendments of the PRF Directive are covered under the relevant sections 2.1.b. and 2.3).	~
Technical assistance to the Commission in the revision of the Directive on Port Reception Facilities, at the various stages of the legislative process.	~

Technical assistance to the Commission for further actions related to air quality.	\checkmark
Provide assistance to Member States mainly by appropriate training of Sulphur inspectors.	\checkmark
Provide technical assistance to the ESSF and the relevant subgroups.	\checkmark
Follow-up of international developments in IMO and provide technical assistance to the Commission in IMO.	~
Monitoring, Reporting and Verification (MRV) Regulation: Assist the Commission in the implementation of the MRV legislation, including training of national authorities for the use of THETIS-MRV.	~
Provide technical assistance to the Commission and to the Member States on the availability, the approval and use of abatement methods for different air pollutants.	~
Technical assistance to the Commission for the implementation of Title II of the Ship Recycling Regulation.	~
Support the Commission and Member States in matters regarding maritime liability and compensation.	~
Support the Commission and the Member States in the implementation of Regulation (EC) 782/2003 on the prohibition of organotin compounds on ships.	~
Support as appropriate the Member States in the implementation of the Ballast Water Management Convention.	~

Planned output 2018	Achievement / Actual output 2018
Port reception facilities:	
Organising workshops for Member State experts to improve the implementation of the existing Directive (guidelines, exchange of information), the reporting and enforcement (guidance on reporting in THETIS-EU), or support to the Commission in the revision of the Directive on PRF at the various stages of the legislative process.	~
Providing assistance to Member States for the uniform implementation of the Directive on the basis of the interpretative guidelines if the amended directive is not yet entered into force.	~
Providing assistance to the PRF ESSF subgroup as technical secretariat.	✓
Greenhouse gases:	-
Providing technical assistance to the Commission on the implementation of Regulation (EU) 2015/757 on the monitoring, reporting and verification of emission of carbon dioxide from maritime transport, and amending Directive 2009/16/EC, in particular for the analysis of reports in THETIS-MRV. Providing technical assistance to the Member States on the implementation of Regulation (EU) 2015/757 on the monitoring, reporting and verification of emission of carbon dioxide from maritime transport, and amending Directive 2009/16/EC, in particular for the analysis 2009/16/EC, in particular for the use (consultation) of information from THETIS-MRV.	~
Providing technical assistance to the Commission in reviewing and assessing various voluntary and mandatory technical and market-based measures to reduce greenhouse gases from ships, depending on the regulatory choices made at international or EU level.	~
Providing assistance to the Commission in following the international developments, notably in relation to the Energy Efficiency Design Index, its review and its extension to additional ship types.	~
Providing assistance to the Commission in following the international developments for the Global Data Collection System for maritime transport covering fuel consumption and greenhouse gas emissions as well as for further technical and operational measures to enhance the energy efficiency of ships.	~
Providing technical assistance for the alignment of THETIS-MRV to the Global Data Collection System if the latter is adopted by IMO.	~

Air emissions:	
Providing technical assistance to the Commission in the implementation of Directive 2016/802/EU as regards the sulphur content of marine fuels. Assistance could include analysis of the reports submitted by Member States as foreseen by article 7 of the Directive and by the Commission Implementing Decision 2015/253, analysis of the data extracted from THETIS-EU, calculation and monitoring of inspection and sampling obligations of Member States.	~
Offering RPAS services to interested Member States aiming at measuring the amounts of sulphur dioxide that are emitted by individual ships travelling into or in the requested Member States' waters as well as integration of the said measurements to THETIS-EU and their subsequent sharing with other Member States.	~
Building up on the results of the Emission Inventories project (See also 2.3 Project- Emission Inventories) to support the implementation of Directive 2016/802/EU.	~
Providing technical assistance to the Member States in the implementation of Directive 2016/802/EU as regards the sulphur content of marine fuels. Assistance could include further enhancement of guidance manuals for control, sampling and analysis, training for Sulphur Inspectors and workshops for the exchange of best practices.	~
Providing technical assistance to the Commission and the Member States on the development of alternative emission abatement methods such as alternative fuelling (LNG, methanol, etc.), exhaust gas cleaning systems (scrubber), biofuels and other alternative methods as required by Directive 2016/802/EU as regards the sulphur content of marine fuels.	~
Providing assistance to the Commission as technical secretariat of the Air Emissions Sub- Group of the ESSF.	~
Providing technical support to the Commission within the context of the Sulphur Committee foreseen by Directive 2016/802/EU.	~
Ship recycling:	1
Providing technical assistance to the Commission on the implementation of the Hong Kong Convention by participating in IMO deliberations as technical advisor.	~
Organising training and workshops for Flag State and Port State Inspectors with reference to the enforcement provisions of Title II of the SRR.	~
Ballast water and anti-fouling systems:	-
Supporting the implementation of the IMO Convention by following and contributing to the development on various issues, notably the TF33 of the Paris MoU.	~
Helping Member States implement the Convention as requested by the CNTA (i.e. guidance notes/best practises for sampling).	~
Providing technical assistance to the Commission and the Member States regarding the issue of anti-fouling systems, as appropriate.	~
Other:	
Provision of technical assistance and support to the Commission and Member States in the implementation related to other environmental issues such as Maritime Spatial Planning (see Section 4.3) and Conservation and Management Tools in Areas beyond National Jurisdiction.	~
Provision of technical assistance and support to the Commission and Member States in the implementation of international conventions in EU law relevant for the area of liability and compensation. This will translate into participation in the IMO meetings, organisation of workshops by EMSA and conducting of relevant studies as necessary.	~

Project: SAFEMED IV, EuroMed Maritime Safety Project

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 2.5

Project	SAFEMED IV, EuroMed Maritime Safety Project
Funding source	EC, DG NEAR
Time frame	2017-2021
Envelope	4,000,000 €
Expenditure 2018	1,780,966 €
Staff	2 CA + ½ SNE ²³

Multi-annual strategic objectives

- → To support EU strategies on regional sea basins. (D1)
- → To become the implementing body of maritime safety related projects for IPA and ENP countries. (D2)
- ➔ To prepare IPA and ENP countries for association to EMSA's traffic monitoring services and for use of EMSA's pollution response services. (D3)
- → To consolidate its role as training provider including the use of modern techniques. (D6)

Expected result 2018

Through the implementation of the project the Agency contributes to improving the relevant capacities of maritime administrations in the Mediterranean partner countries in the field of maritime safety, security and prevention of marine pollution as well as preparedness and response.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

Following the achievements of the three previous SAFEMED projects (EuroMed Cooperation on Maritime Safety and Prevention of Pollution from Ships), the European Commission and the Mediterranean partner countries agreed to launch a fourth SAFEMED project (SAFEMED IV). Acknowledging the knowledge and expertise of the Agency and noting the successful implementation by EMSA of the previous project, the European Commission delegated the implementation of SAFEMD IV to the Agency for the period 2018 to 2021 thus ensuring continuity for capacity building activities in neighbouring countries around the Mediterranean Sea.

In 2018 EMSA implemented the agreed action plan aiming at the approximation of standards in maritime safety, security and increasingly also pollution prevention and response. The highlights for 2018 were access to RuleCheck and MaKCs by users from ENP countries, the implementation of the training scheme for the Med MoU, preparation of the development of THETIS-MED (see section 2.3) for the Med MoU on Port State Control, the sharing of T-AIS data, the launching of a procedure for donation of AIS base stations, the provisions of CSN images and the provision of mock audits in preparation for the IMO Member State Audit Scheme (IMSAS).

Objectives 2018	Achievement
Continue with the implementation of the new project for assistance in the Mediterranean Region covering the period between 2017 until 2021.	~
Contribute to improvement of cooperation at regional level.	~
Continuing to provide Beneficiary countries with access to RuleCheck; developing appropriate modules and providing access to Beneficiary countries for MaKCs for PSCOs.	~
Continue with the implementation of the pilot projects to extend the cooperation on AIS related issues and the provision of CleanSeaNet services to interested beneficiary countries according to the project's Terms of Reference.	~
Continue to involve beneficiary country in the EMSA's activity on pollution response, particularly with the Network of Stand-by Oil Spill Response Vessels.	~
Support the beneficiaries in the context of the Mediterranean Coast Guard Functions Forum, including	~

²³ Project financed activities 7100 and 7400 (SAFEMED IV and Maritime Safety, Security and Environmental Protection in the Black and Caspian Sea Regions) will share 1 SNE.

its Secretariat.
Support a harmonised scheme for the training and assessment of competences of port state control inspectors.

Planned output 2018	Achievement / Actual output 2018
Up to 5 technical meetings per year (seminars, workshops, training sessions).	✓
Up to 6 activities per year (studies, technical support, exercise, bilateral activities, etc.).	✓
Provision of RuleCheck and DLP for relevant authorities of the beneficiaries as relevant.	✓
Provision of pilot service on cooperation on AIS matters and CleanSeaNet.	✓

Output Indicators		Target 2018	Result 2018
Implementation of SAFEMED IV, EuroMed Maritime Safety Project	number of training sessions per year	Up to 5	12
	number of activities per year	Up to 6	21
	number of ENP experts attending per year	90	207
	level of customer satisfaction	>80%	>80%

Project: Maritime Safety, Security and Environmental Protection in the Black and Caspian Sea Regions (BC Sea)

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 2.5

Project	BC Sea (Maritime Safety, Security and Environmental Protection in the Black and Caspian
	Sea Regions)
Funding source	EC, DG NEAR
Time frame	2016-2021
Envelope	4,000,000 €
Expenditure 2018	1,524,546 €
Staff	2 CA + ½ SNE ²⁴

Multi-annual strategic objectives

- → To support EU strategies on regional sea basins. (D1)
- → To become the implementing body of maritime safety related projects for IPA and ENP countries. (D2)
- ➔ To prepare IPA and ENP countries for association to EMSA's traffic monitoring services and for use of EMSA's pollution response services. (D3)
- → To consolidate its role as training provider including the use of modern techniques. (D6)

Expected result 2018

By providing complementary activities to those implemented by the current DG NEAR contractor the Agency contributes to achieving an improved level of quality by the Beneficiary countries maritime administrations in the field of maritime safety, security and prevention of marine pollution as well as preparedness and response.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

Following the achievements of the two previous projects (TRACECA I and II), the European Commission and the partner countries in the Black and Caspian Seas agreed to launch a new project "Maritime Safety, Security and Environmental Protection in the Black and Caspian Sea Regions" (BCSEA). Acknowledging the knowledge and expertise of the Agency and noting the successful implementation by EMSA of the previous project, the European Commission delegated the implementation of BCSEA to the Agency for the period 2018 to 2021 thus ensuring continuity for capacity building activities in neighbouring countries around the Black and Caspian seas.

EMSA in 2018 implemented the agreed action plan aiming at the approximation of standards in maritime safety, security and increasingly also pollution prevention and response. The highlights for 2018 were access to RuleCheck and MaKCs by users from ENP countries, the provision of training for Flag State and PSC inspectors, the sharing of T-AIS data, the launching of a procedure for donation of AIS base stations, the provision of CSN images and the provision of mock audits in preparation of IMSAS.

Objectives 2018	Achievement
Continue with the implementation of the new project for technical assistance in the region of the Black and Caspian Seas covering the period between 2017 until 2021.	~
Contribute to improvement of cooperation at regional level.	~
Continue to provide Beneficiary countries with access to RuleCheck; developing appropriate modules and providing access to Beneficiary countries for the Distant Learning Package (DLP) for PSCOs.	~
Launch a pilot project to extend the cooperation on AIS related issues and continue the provision of CleanSeaNet services to interested Beneficiary countries.	~
Continue to involve beneficiary country in the EMSA's activity on pollution response, particularly with the Network of Stand-by Oil Spill Response Vessels.	~

²⁴ Project financed activities 7100 and 7400 (SAFEMED IV and Maritime Safety, Security and Environmental Protection in the Black and Caspian Sea Regions) will share 1 SNE.

Planned output 2018	Achievement / Actual output 2018
Up to 5 technical meetings per year (seminars, workshops, training sessions).	\checkmark
Up to 6 activities per year (studies, technical support, practical exercises etc.).	✓
Provision of RuleCheck and DLP for PSCOs as relevant.	✓
Provision of CleanSeaNet services.	✓

Output Indicators		Target 2018	Result 2018
Implementation of Maritime Safety, Security and Environmental Protection in the Black and Caspian Sea Regions	number of training sessions per year	Up to 5	14
	number of activities per year	Up to 6	10
	number of ENP experts attending per year	70	205
	level of customer satisfaction	>80%	>80%

Pollution preparedness, detection and response

5.1 OPERATIONAL POLLUTION RESPONSE SERVICES

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2(b), 2.3(d) and 2.5

Planned	input	Actual Input
CA	19,145,127 €	22,353,904 €
PA	21,157,140 €	24,241,062 €
Staff	10 AD, 2 AST, 1 SNE, 3 CA	10 AD, 2 AST, 1 SNE, 2 CA

Multi-annual strategic objectives

- → To contribute to the protection of the marine environment in the EU. (C4)
- ➔ To maintain pollution preparedness and response capability to assist Member States to effectively respond to marine pollutions from ships. (C6)
- → Subject to financial and human resources availability the Agency shall extend its scope of activities to include marine pollutions from oil and gas installations. (C7)
- → To support EU strategies on regional sea basins. (D1)
- → To prepare IPA and ENP countries for association to EMSA's pollution response services. (D3)
- → To continue developing its role as forum for discussion of best practices. (D5)

Expected result 2018

The network of stand-by oil spill response vessels, the stand-alone equipment available through the EAS and the dispersant stockpiles offer a European tier of pollution response resources to top-up the capacities of coastal States protecting their coastlines from marine pollution caused by ships or oil and gas installations.

In 2018, the operational cooperation with the Member States will be enhanced through a specific programme of activities focussed on the use of the pollution response services.

The Agency will participate in international at sea response exercises and multipurpose operations with Member States as well as with EFCA and FRONTEX within the context of coast guard functions, including joint deployment of pollution response assets, as requested.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The network of standby oil spill recovery vessels consisted of 17 vessels. One new vessel (Bay of Biscay) was accepted in September 2018 whereas another was not renewed due to a technical failure of the ship (Adriatic Sea). Two contracts were renewed for one year only instead of four (Atlantic North Cobh and Northern North Sea), as a result of commercial uncertainties. The operational capacity of the network has been maintained by overhauling or replacing some ageing equipment on board of three vessels. In order to improve the detection capacity of the network, two improvement projects for the use of RPAS on two vessels (Ria de Vigo and VM Partisan) were launched. In order to increase the available response options, dispersants capacities have been added in the North Sea, Southern Europe and Black Sea.

The Equipment Assistance Service (EAS) for Southern Europe became operational in 2018 and the procurement for a new EAS for the Northern Baltic was successfully completed. The service will be operational by mid 2019. Training activities with Member States on the specific equipment have increased with three training sessions organised. In relation to exercises, 11 vessels and three equipment sets were mobilised for nine operational exercises.

The efficiency of the equipment on board the Brezzamare (the EMSA vessel in Genoa) was tested with the response operations that followed the collision between the Ulysse and the Virginia near Corsica. The oil content ratio of the recovered product was 48% which is well beyond average standards. In connection with this operation, the MoU for the hire rate of EMSA assets was finally signed with the IOPC Fund and the International group of P&I clubs. This MoU guarantees that rates used for the use of EMSA assets will not be challenged by these organisations when asked for compensating the costs incurred by Member States in using them.

Objectives 2018	Achievement
Support coastal States in case of pollution caused by ships or oil and gas installations, by making available upon request via the ERCC:	~
 the network of response vessels; the Equipment Assistance Service (EAS), through the provision of specialised stand-alone equipment; limited stock of dispersants; technical expertise. 	
Ensure operational integration of EMSA's pollution response services within Member State, Regional Agreement and third country response chains through participation in exercises, as well as meetings with end users.	~

Planned output 2018	Achievement / Actual output 2018
Manage the current stand-by service contracts, including supervision of vessel and equipment performance as well as crew capability for oil pollution response.	~
Following the expected signature of the Vessel Availability Contract for the Bay of Biscay in 2017, the vessel will undergo the preparation phase in 2018.	✓
Retender the stand-by oil spill response service for the East Mediterranean Sea to replace the non-renewable contract ending in 2019.	✓
Renewal of four vessel availability contracts covering the Northern North Sea, the Atlantic North, the Adriatic Sea and the Aegean Sea for an additional 4-year period.	~
Manage the Equipment Assistance Service (EAS) contracts for the North Sea, the Baltic Sea and the Adriatic Sea.	✓
Renewal of two EAS contracts for the North Sea and the Baltic Sea for an additional 1-year period.	✓
Launch procurement procedures for the relocation of the EAS North Sea and the establishment of a second EAS for the Northern Baltic.	✓
Management of existing dispersant stockpiles.	✓
Enhance the response capacity of existing Vessel Network and EAS arrangements through equipment improvements and/or setting-up of additional dispersant capability.	✓
Replace or overhaul ageing or obsolete oil spill response equipment, in line with the 'Equipment Policy' of the Agency.	✓
Organise the participation of EMSA's pollution response assets in international exercises, using the mobilisation procedure of the ERCC.	✓
Mobilise pollution response assets in case of request for assistance by a Requesting Party.	✓
Provide expertise to Member States and/or the European Commission in case of pollution incidents.	✓
Support multipurpose operations within the context of coast guard functions, including joint deployment of pollution response assets.	✓

Output Indicators		Target 2018	Result 2018
Stand-by Oil Spill Response Vessel Network	number of fully equipped vessels for mechanical recovery	18	17 ²⁵
	number of fully equipped vessels for dispersant application	4	4
New vessels pre-fitting	number of newly contracted vessels pre-fitted	1	2
Equipment Assistance Service (EAS)	number of stockpiles	4	3 ²⁶
Vessel/Equipment replacement/adaptation/upgrade	number of projects completed per year	5	8
Vessel/Equipment drills and exercises	number of Vessel drills (acceptance drills and quarterly drills) per year	70	74
	number of operational exercises per year	10	14
	number of Equipment Assistance Service (EAS) drills	9	23
	number of notification exercises per year	10	34
Training on the use of the Pollution response services	number of seminars and "hands-on" training sessions	3	4
Response to requests for vessel/equipment services	mobilisation time in hours	24	24
Dispersant stockpiles	number of stockpiles	4	6
	minimum quantity of dispersants available at any time	800 tonnes	1400 tonnes

 ²⁵ 1 contract could not be renewed as planned due to technical issues with the contractor.
 ²⁶ 1 new stockpile, currently in preparation phase, will become operational in 2019.

5.2 CLEANSEANET AND ILLEGAL DISCHARGES

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2, 2.3(a), 2.3 (d), 2.4 (f), 2.4(g) and 2.5

Planned	input	Actual Input 5,958,821 € 5,159,508 € 6 AD ²⁷
CA 8,505,166 €		5,958,821 €
PA	8,611,856€	5,159,508 €
Staff	7 AD	6 AD ²⁷

Multi-annual strategic objectives

- ➔ To increase the effectiveness and efficiency of EMSA's integrated maritime information services to its full potential based on existing applications such as SafeSeaNet. (B1)
- To explore, at reasonable cost, in a sustainable and viable way, new capabilities offered by technology in the field of maritime surveillance for the benefit of the European Commission and the EU Member States with added value for maritime safety and security. (B2)
- Subject to the provision of financial and human resources the Agency shall engage in supporting other communities and enhance its role as central EU data provider of maritime related information as defined by its Founding Regulation. (B4)
- → To contribute to the protection of the marine environment in the EU. (C4)
- To maintain pollution preparedness and response capability to assist Member States to effectively respond to marine pollutions from ships. (C6)
- Subject to financial and human resources availability the Agency shall extend its scope of activities to include marine pollutions from oil and gas installations. (C7)

Expected result 2018

The Agency provides a satellite image based service to support coastal States and the Commission in their efforts to improve the identification and pursuit of ships making unlawful discharges, and to respond to large-scale marine pollution incidents. CleanSeaNet provides a sustainable service upon which users can base their activities for targeting illegal discharges in European waters.

The Earth Observation Data Centre (EODC) also supports other maritime surveillance services, such as detection of targets by satellite radar (Vessel Detection System, VDS). The EODC capabilities will be extended to match new user requirements, not only from CleanSeaNet but from across EMSA's range of maritime services, as these develop. The Agency provides RPAS based services to support coastal States and the Commission in their efforts to protect the

marine environment. With respect to oil spills, operational activities will include routine monitoring of ships and oil and gas installations making potentially unlawful discharges, and to respond to large-scale marine pollution incidents.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

CleanSeaNet is based on permanent monitoring of coastal waters through the near real time analysis of Earth Observation (EO) Synthetic Aperture Radar (SAR) images. It is available to 28 EU, EFTA and candidate country coastal States, as well as to SAFEMED IV and BCSEA project beneficiary countries.

In 2018, 4,860 images were delivered: 4,645 for coastal States, and 215 for the SAFEMED and BCSEA programmes. A total of 6,515 possible oil spills were detected, 3,292 of which with the highest level of confidence regarding the probable detection of hydrocarbons. 11 requests for additional support were received from coastal States regarding accidental spills and emergencies, including a request from French authorities to support monitoring of the spread of oil following a collision off the coast of Corsica (see previous activity), for which 15 images were provided between 8 and 19 October. Eleven operational pollution response exercises were supported by CleanSeaNet.

A new contract for provision of SAR and optical services was awarded in September 2018. Improvements will include access to a wider range of satellites, faster delivery, and an extended portfolio of products.

Objectives 2018	Achievement
Provide the CleanSeaNet service to Member States, Commission and interested enlargement and	 ✓
ENP countries.	

²⁷ 1 AD for the European cooperation on coast guard functions (in actual input).

Further utilise the Sentinel-1 missions as appropriate and phase-in other missions if cost efficient.	~
Apply homogeneous quality management across the different data sources.	~
Cooperate with existing regional arrangements related to marine pollution.	\checkmark
Respond to ad hoc requests for assistance in case of pollution emergencies or threat thereof.	~
Participate in oil spill response exercises by providing satellite feasibility planning for the operations.	\checkmark
Provide RPAS based monitoring activities in support of the protection of the marine environment.	\checkmark

Planned output 2018	Achievement / Actual output 2018
Provide CleanSeaNet satellite images and alerts to coastal States on a regular basis for the monitoring of seas and detection of illegal discharges and polluting vessels.	~
Provide assistance to coastal States and the Commission in case of accidental spills, if operationally feasible.	✓
Participate in oil spill response exercises organized by Member States	✓
Provide training to coastal States on CleanSeaNet.	✓
Organise meetings of the EMSA CleanSeaNet User Group at least once per year.	~
Develop activities with enforcement authorities to promote effective follow-up to CleanSeaNet detections.	✓
Extend the EODC capabilities to support the needs of integrated maritime services.	✓
Provide RPASs based services to coastal States on a regular basis for the monitoring of seas and detection of illegal discharges and polluting vessels (see chapter 2).	✓

Output Indicators		Target 2018	Result 2018
CleanSeaNet service earth observation (EO) image delivery	percentage per year EO image delivery ratio	90	94
Assistance for accidental spills	percentage response rate to assistance requests	100	100
Participation in oil spill response exercises	percentage response rate to requests for participation in oil spill response exercises.	80	100
Earth Observation Data Centre operational availability	EODC availability (interface or alert reports distribution) for scheduled acquisitions of the CleanSeaNet Service	97.5	98.32
RPAS systems available	number of RPAS systems available for environmental protection (pollution and emissions)	3	6
RPAS monitoring	number of deployment days per year (pollution monitoring and emission monitoring)	135	62 ²⁸

²⁸ Annual target not reached because of non-readiness of contractors and the need to cancel one contract.

5.3 COOPERATION AND INFORMATION RELATING TO POLLUTION PREPAREDNESS AND RESPONSE

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2 and 2.3(d)

Planned i	input	Actual Input
CA	957,756 €	964,299 €
PA	947,336€	842,535 €
Staff	4 AD	4 AD

Multi-annual strategic objectives

- → To contribute to the protection of the marine environment in the EU. (C4)
- → To become a reliable source of information and statistics for the EU on maritime matters. (D4)
- → To continue developing its role as forum for discussion of best practices. (D5)
- → To consolidate its role as training provider including the use of modern techniques. (D6)
- To use available technical knowledge to analyse research projects with a maritime safety or environmental, protection interest, where appropriate. (D7)

Expected result 2018

Activities of the Agency support the preparedness structures and response capabilities of Member States with regard to marine pollution incidents, as well as at disseminating best practices and promoting the exchange of information between Member States, the Regional Agreements, IMO and other relevant international bodies.

The Agency aims to disclose as much relevant information as possible regarding chemicals and operational response to chemical spills in the marine environment to assist Member States dealing with spills involving hazardous and noxious substances.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The Agency continued to provide information services in the field of Hazardous and Noxious Substances (HNS) in accordance with the HNS Action Plan. The MAR-ICE (Marine Intervention in Chemical Emergencies) Service continued and was activated four times for drills and exercises. The MAR-CIS (Marine Chemical Information Sheets) database was updated and a new Framework contract for enhancement and maintenance signed.

EMSA provided oil spill modelling for two spills. Furthermore, support continued for the Dispersant Usage Evaluation Tool (DUET).

The dissemination of information on EMSA's pollution response services also continued through the Inter-Secretariat meeting with DG ECHO and the secretariats of the Regional Agreements and in the context of the CTG MPPR (Consultative Technical Group for Marine Pollution Preparedness and Response) and the Pollution Response Service (PRS) User Group workshop. Project work under the umbrella of the CTG MPPR included surveillance training, held in Lisbon, and the continued work on the development of guidelines and a training curriculum for oil sampling for oil "fingerprinting". The first oil sampling training was held in Spain and a workshop on risk assessment and response planning, co-organised by EMSA and DG ECHO, was held in London.

The Agency participated in two HELCOM Response meetings and one OTSOPA meeting on behalf of DG ECHO, coorganised and hosted a workshop on ship sourced pollution with DG MOVE, and actively engaged in the 2018 INTERSPILL conference and exhibition in London.

EMSA also participated in a workshop of the Arctic Exchange in Amsterdam.

Finally, the Agency supported DG ECHO in the organisation and delivery of the Technical Expert Course for Maritime Incidents.

Objectives 2018	Achievement
Implementing the HNS Action Plan to ensure the proper operation, maintenance and development of the MAR-ICE service and the MAR-CIS database.	~
Cooperate with coastal States and relevant regional cooperation arrangements in coordination with the Commission, in order to facilitate the exchange of best practices and develop added value projects.	~
Provide technical assistance to coastal States regarding pollution preparedness and response to	~

contribute to relevant work of technical bodies of the International Maritime Organization (IMO), and relevant Regional Agreements.

Planned output 2018	Achievement / Actual output 2018
Implement the HNS Action Plan:	✓
 Maintain the network of specialised chemical experts (MAR-ICE Network). Maintain and update database/datasheets of chemical substances for marine pollution response (MAR-CIS 2). 	
Maintain and update marine pollution preparedness and response related information, studies, tools, reports and inventories. Maintain the Dispersant Usage Evaluation Tool (DUET).	~
Coordinate the PRS User Group, Inter-Secretariat and CTG MPPR meetings, workshops, and implement the CTG MPPR Rolling Work Programme. The envisaged events under the CTG MPPR include training courses on specific subjects such as maritime surveillance and oil spill sampling ("fingerprinting"), as well as a workshop on risk assessment and response planning.	~
Support activities of the Commission, Regional Agreements, the IMO and other relevant bodies/organisations (including participation in the Arctic Council) where appropriate.	~

Output Indicators		Target 2018	Result 2018	
HNS operational support	HNS operational support			
Response to requests for assistance to MAR-ICE	percentage of responses within 2 hrs.	>75	100	
	percentage of responses within 4 hrs.	<25	0	
Developing datasheets	number of datasheets produced/revised	25	34	
Cooperation, coordination and	l information			
Coordination of the CTG MPPR	number of CTG MPPR/InterSec meetings and workshops	3	6	
Coordination of the PRS User Group Meeting	number of meetings	1	1	
Development of decision support tools	number of decision support tools	1	0 ²⁹	

²⁹ Due to delays of contributions from DG ECHO, the project is delayed and completion is anticipated for Q1 2019.

Horizontal activities

6.5 COMMUNICATION, MISSIONS AND EVENTS SUPPORT

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 4 and 7

put	Actual Input
1,734,444 €	Actual Input 1,594,592 €
1,734,444 €	1,563,757 €
3 AD, 3 AST, 6 CA	3 AD, 3 AST, 6 CA
	1,734,444 €

Multi-annual strategic objectives

→ To become a reliable source of information and statistics for the EU on maritime matters. (D4)

Expected result 2018

Activities should aim at giving public and interested parties objective, reliable and easily understandable information with regard to the Agency's work (Reg. 1406/2002/EC, Art. 4.2).

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

Communication

EMSA's communication activities aim to rapidly deliver objective, reliable and easy-to-understand information to the general public and any interested parties. These activities include: updating the website, extranet and intranet; answering external enquiries; supporting EMSA workshops and events; media relations; and publications. Data visualisation is increasingly used for awareness-raising of key activities on multiple channels.

In 2018, EMSA published several key publications (e.g. EMSA Outlook 2018, EMSA Facts & Figures 2017, Annual Overview of Marine Casualties & Incidents), released videos (e.g. EMSA Annual Highlights 2017, oil spill sampling, places of refuge, and gifs covering ABMs and Copernicus services), prepared branded material (e.g. roll-up stands, posters for Interspill 2018) and created data visualisations (e.g. various EMCIP related visuals including the safety studies on fishing vessels & ro-ro vessels, electronic tagging for marine equipment).

Missions

The Missions team is in charge of the preparation and reimbursement of operational and administrative missions for EMSA staff in line with the provisions in place (Mission Guide, EMSA Financial Regulations), using an electronic missions management tool, MiMa. During 2018 new mission rules were adopted and as a result, MiMa, procedures and working practices were updated accordingly.

Events support

The events support coordinated and made the necessary administrative, financial and logistic arrangements for meetings, trainings, workshops, seminars or any other event organised by EMSA (internal and external) during 2018. Furthermore, it managed the Agency's Conference Centre (including the implementation of the SLA with the EMCDDA for use of this centre), and handled the reimbursement of experts participating in EMSA events as well as the operational management of the various service framework contracts for catering, translation, etc. The reimbursement of experts became electronic during 2018 in line with the overall agency objective of a paperless administration.

Objectives 2018	Achievement
Continue to implement the new communication strategy 2014-2020 aiming to build up effective communication practices.	~
Increase EMSA's visibility in the host country.	~
Make use of data visualisation to make our activities more easily understood.	~
Continue supporting the organisation of events ensuring high quality standards and added value for Member States, industry and the Commission.	~
Develop working practices and streamline procedures to allow for further efficiency gains in the field of missions management.	~

Planned output 2018	Achievement / Actual output 2018
Prepare regular publications and completing/updating brochures and leaflets including the new EMSA general brochure.	~
Continue to improve internal communication through the Agency's intranet.	✓
Enhance the communication role of EMSA's website through new features and functionalities in line with current developments. Continue implementing the new visual identity for EMSA.	~
Deliver presentations at meetings, exhibitions and conferences.	✓
Support the organisation of events/meetings in the Agency.	✓
Ensure timely organisation and reimbursement of missions.	✓

Output Indicators		Target 2018	Results 2018
Publications	number of publications/leaflets/brochures produced per year	16	18
Events	number of meetings/workshops organised by EMSA per year	40	98
	number of participants at EMSA meetings/workshops per year	1250	2553

6.1, 6.2, 6.3 AND 6.4 OVERHEAD/HORIZONTAL TASKS

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 5, 6, 13.7, 15, 18 and 19

Planned HR input ³⁰		Actual
Management/bureau/horizontal tasks ³¹	10 AD, 8 AST	11 AD, 8 AST
Human Resources	4 AD, 5 AST, 7 CA	4 AD, 5 AST, 7 CA
Legal and Financial Affairs, facilities and logistics	6 AD, 5 AST ³² , 5 CA	6 AD, 6 AST, 4 CA
Operations support (ICT)	1 AD, 8 AST, 2 CA	1 AD, 7 AST, 3 CA

Multi-annual strategic objectives

- \rightarrow Continuously align EMSA with institutional standards and rules.
- → Obtain best value for money from the Agency's assets and from EU family joint resources (e.g. inter-institutional procurement procedures).
- → Achieve efficiency gains, streamline organisational structures and build flexibility, agility.
- → Further develop effective, innovative and results oriented solutions.
- \rightarrow Ensure good corporate governance and transparency.

Expected result 2018

The functions mentioned should further structure and facilitate the working practices and projects of the Agency to enable staff with the allocated resources to work towards meeting the objectives in an efficient and cost-effective manner in line with the Financial and Staff Regulations.

2018 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

Management team

The Agency's management team aims to deliver added value to EMSA's key stakeholders in full alignment with the EU political priorities and its objectives, with sound and resource-efficient management. In 2018 the Executive Director was directly supported by three Heads of Department and the Head of the Executive Office.

Two organisational changes were made in 2018. The first in July was to formalise the independence of the key horizontal function, the Accounting Officer. Later in the year, the Agency's management assessed that the increasing complexity of applications and services needed to be addressed. This second reorganisation was also a response to the steady growth over the years in project-financed activities and related staff and the need to balance the workload between units in general.

The Agency continued to participate in the EU Agencies Network and its various sub-networks such as ICTAC (the Network of Heads of ICT of the European Agencies), the IALN (the Inter Agency Legal Network), the PDN (the Performance Development Network) and NAPO (the Network of Agency Procurement Officers) and contributed to the surveys and general information requests launched by the coordination linked to assessing the implementation of and providing input to the future revision of the Commission Roadmap on the follow-up of the Common Approach on EU decentralised agencies, and other Agency-wide exercises.

Human resources and Protocol

The Agency completed the recruitment of the remaining new posts granted for the European cooperation on coastguard functions tasks, in line with Regulation (EU) No 2016/1625 of the European Parliament and of the Council amending Regulation (EC) No 1406/2002 establishing a European Maritime Safety Agency.

EMSA continued to make efforts to automatize, digitalise and streamline procedures in order to enhance efficiency and effectiveness. In 2018 there were changes to HR procedures following the adoption of new implementing rules, as well as further development of the electronic requests application (HR Portal and E-personal file).

A new Learning and Development Policy was adopted in July 2018. Learning and Development is seen as an on-going process of continuous professional development during the career of staff, more aligned to EMSA's key competencies, so

³⁰ Financial resources not applicable here as already distributed across the activities.

³¹ This number includes the Executive Director and his staff, Heads of Department and their staff, Heads of Horizontal Units as well as the ICC and Accountancy functions.

³² 1 AST for the European cooperation on coast guard functions (in planned and actual input).

staff are in a better position to contribute to the achievement of EMSA's objectives. Cooperation with the EMCDDA was further enhanced through participation of both Agencies in training sessions. A new tender procedure was launched for maritime and audit training. The framework contract is expected to be signed in 2019.

Protocol activities focused on assisting the Agency and its staff in the application of the EU Protocol of Privileges and Immunities and the Protocol between EMSA and the Portuguese Government. EMSA successfully worked together with the Portuguese authorities in finding solutions to apply the existing Protocol between EMSA and the Portuguese Government.

Legal Financial and Facilities Support

Ex-ante verification of all budgetary and legal commitments and other financial operations was carried out, thus ensuring legal and financial assistance and advice. More than 13,000 files were handled for verification, and 59 procurement procedures were initiated in 2018.

EMSA implemented its e-procurement both internally and externally i.e. e-notices, e-tendering and e-submission. A project for the implementation of e-invoices was also initiated. Internal Rules, guidelines and templates were kept up-to-date, especially considering the upcoming entry into force of General Financial Regulation. In addition, helpdesk assistance and in-house training were provided.

The main focus in facilities and logistics was to complete several projects related to the fitting of EMSA premises taking into account security, safety, environmental and occupational health aspects.

Operations support (ICT)

Reliable ICT service operations for EMSA's Maritime & Corporate Applications and directly to end-users were provided. Besides ICT service operations, the sector also provides on service design, development and continuous improvement to ensure long term service sustainability.

Infrastructure global availability was high for EMSA hosting (99.9%) and Business Continuity Facility (BCF) hosting (99.1%) and on corporate services - internal availability was 99.9% and external availability was 99.8%. Overall, 584 incidents were handled. The ICT Service Desk handled 2,759 tickets in addition to phone and face-2-face requests. 160 application releases and deployments were handled. All of these figures are broadly in line with previous years.

In addition, Identity Management version 2 was finalised, rolled out into production and the 8,000+ users were migrated from the version 1 system. A new Oracle 'Exadata' Very High Performance Database System was purchased and installed at EMSA and the 'old' Exadata was moved to EMSA's Business Continuity Facility in Madrid.

Objectives 2018	Achievement
Monitor the implementation of the annual programme (Section III of the relevant Single Programming Document).	~
Further implementation of remaining requirements and principles emanating from the possible revision of the Financial Regulation, the Joint Statement of the European Parliament, the Council of the EU and the European Commission on decentralised agencies (Common Approach, Road-map).	~
Development and Implementation of a new Internal Control Framework;	~
Development and Implementation of new Implementing Rules giving effect to the Staff Regulations.	~
Job screening exercise with the aim of enabling the Agency to take sound decisions on resource allocation. The exercise will contribute to better reporting to stakeholders and increased transparency concerning the utilisation of jobs at EMSA and will facilitate redeployment.	~
Simplify and streamline administrative and financial procedures in order to further improve efficiency and cost effectiveness.	~
Continue the development of the document management archiving policy and implementation of a tool to support electronic workflows throughout the Agency.	~
Maintain good relations with the Portuguese Authorities to allow for a smooth implementation of the existing Protocol between EMSA and the Government of Portugal	~
Ensure business continuity and advanced ICT services.	~

Planned output 2018	Achievement / Actual output 2018
Management team	
Work programme, including staff and budget planning (Single Programming Document).	~
Action Plan for Pollution Preparedness and Response.	✓
5-year Strategy implementation.	✓
Annual report (Consolidated Annual Activity Report) and accounts.	✓
Preparation of meetings of the Administrative Board, decisions, minutes.	 ✓
Regular monitoring of on-going projects.	✓
Quality Management development.	✓
Internal Control Standards.	✓
Monitoring and reporting on the implementation of the work programme and the budget.	~
Organising and executing transfers.	✓
Budget follow-up.	✓
Human resources	
Management of the establishment plan (new recruits, redeployment, turnover, etc.).	~
Management of staff related budget.	✓
Preparation and Implementation of rules giving effect to the Staff Regulations.	✓
Implementation of rights and obligations of EMSA staff members.	 ✓
Improvement and updating of e-HR tools.	 ✓
Implementation and improvement of existing HR policies.	 ✓
Implementation of the Staff Development Policy.	✓ (renamed "Learning and Development Policy")
Staff Helpdesk on HR matters and communication on staff related issues.	✓
Implementation of the National Experts on Professional Training programme and traineeship policy.	✓
Implementation of the Protocol Agreement.	✓
Legal Financial and Facilities Support	
Providing legal, financial and budgetary advice to the Executive Director and the Units.	~
Legal verification of procurement procedures and legal commitments.	✓
Implementation of E-procurement.	✓
Verification of commitment and payments files.	✓
Preparation and implementation of internal rules, guidelines, templates and procedures; development and maintenance of procurement, contract and budget management tools of the Agency.	~
Maintaining and operating EMSA's premises and infrastructure including safety, security and providing numerous support services.	✓
Operations support (ICT)	
Maintaining and enhancing a state-of-the-art Data Centres to host maritime applications.	 ✓
Providing advanced business continuity and ICT security services.	\checkmark

	1
Maintain the Business Continuity Facility.	\checkmark
Providing 24/7 ICT Operations for hosting of maritime applications.	✓
Providing technical expertise to support operational maritime applications.	✓
Providing technical support to the development and rollout of new maritime applications and major upgrades to existing ones.	~
Providing Horizontal ICT Service Platforms for Maritime Applications.	✓
Providing solutions to share and exchange documents more efficiently and in a secured fashion with the Commission.	~
Providing EMSA's Corporate Services Platforms (email, Electronic Document Management System, file & print, etc.) and associated Business Continuity Platforms and Services.	~
Providing advanced ICT desktop, mobility and collaboration services to staff.	 ✓

Output Indicators		Target 2018	Result 2018
Audit	ECA recommendations implemented in time	as close as possible to 100%	100
	IAS recommendations implemented in time	as close as possible to 100%	100
Planning	Implementation of the Work Programme	as close as possible to 100%	High level of implementation except for RPAS services delay. A budget amendment was adopted to return unused subsidy to EU budget.
Establishment plan execution rate	execution rate establishment plan	as close as possible to 100% (multi-annual target)	98.58
Budget execution rate	execution rate commitment appropriations	as close as possible to 100%, and in any case above 95%	99
appropriations	execution rate payment appropriations	as close as possible to 100%, and in any case above 95%	93 ³³

³³ The payment execution is rated at 92.84 % when only counting C1 funds; after taking into account automatic carry-overs of PA (C8 funds: appropriations carried over automatically), the Agency reached 93.47 % of payment execution, equalling a cancellation of 6.55 % and is thereby not meeting the target set by the Commission (less than 5% cancellation). The calculation takes into consideration the decrease of payment appropriations related to the European Cooperation on Coast Guard Functions which the Administrative Board approved via the 2018 1st amending budget. The under consumption of payment appropriations is mainly related to the setting up of an EU RPAS service.

Part II – Management

2.1 Administrative Board

New Chairmanship of the Agency's Administrative Board

Following their election by acclamation in November 2017, the new Chairman and Deputy Chairman of the EMSA Administrative Board, Mr Andreas Nordseth (DK) and Mr Nicola Carlone (IT), took up their positions as of 5 December 2017.

Meetings

EMSA's Administrative Board held three ordinary meetings in 2018 and each was preceded by a meeting of the Administrative and Finance Committee where technical, financial and administrative matters were reviewed in detail. Recommendations and opinions to the Administrative Board in accordance with the mandate of the Administrative and Finance Committee were provided, allowing the Administrative Board to focus on strategic orientations for the Agency's activities and discussions on substance.

In addition, the EMSA Administrative Board held an extraordinary meeting in September 2018 entirely dedicated to the appointment of the new EMSA Executive Director. The outcome of the extraordinary meeting was successful and the new EMSA Executive Director, Ms Maja Markovčić Kostelac, took up duties in January 2019.

Extension of the EMSA 5-year Strategy

The current EMSA 5-year Strategy was adopted by the Administrative Board in November 2013 and was therefore set to expire at the end of 2018. However, a series of developments that will have an impact on EMSA in the medium to long term will be more advanced in the course of 2019, notably the negotiations for the next Multi annual Financial Framework 2021-2027, the impact of Brexit and the election of the European Parliament and subsequent appointment of the European Commission. Information on the future political and financial framework will be more accurate.

In addition, the preparation of the 5-year Strategy is the prerogative of the Executive Director, in line with Article 15(2)(ab) of the EMSA Founding Regulation that states that the Executive Director shall "prepare the multiannual strategy of the Agency and submit it to the Administrative Board after consultation of the Commission at least eight weeks before the relevant Board meeting, taking into account the views and suggestions of the Administrative Board".

In this context, the EMSA Administrative Board considered it more appropriate and constructive to extend the validity of the current 5-year Strategy by one year, until the end of 2019. The new Executive Director will prepare a new 5-year Strategy covering the years 2020-2024 in her first year of office, during the course of 2019.

Steering and monitoring the work of the Agency

The Administrative Board continued to play its essential role in steering the work of the Agency through the consideration and adoption of the major programming and reporting documents of the Agency.

The Administrative Board welcomed and agreed on the initiative taken by the Agency to streamline the Programming Document (PD) and Consolidated Annual Activity Report (CAAR) processes by inverting the traditional focus of the March and June Administrative Board meetings and shifting the programming document to the June meeting whilst bringing the CAAR forward to the March meeting. This would enhance the programming exercise because of the higher level of maturity in June of processes relevant to annual and multi-annual programming including the budgetary procedure, EFTA rate estimations, the discharge procedure and development of the coast guard annual strategic plan. Bringing the CAAR to March would both free up the June meeting for programming and conclude reporting on previous year much earlier. The approach, which aimed to increase the efficiency and added value of the programming and reporting exercises, reduce duplication, and maintain compliance with institutional deadlines, had been discussed with the Commission and would be fine-tuned and piloted in cooperation with them.

Moreover, the Administrative and Finance Committee's mandate was amended at the November 2018 Administrative Board meeting, essentially to enhance and formalise, through the involvement of the Administrative and Finance Committee, the role of the Administrative Board in future recruitments, contract extensions and probationary reports of the Agency's Accounting Officer, and thus ensuring the independence of the accounting function. Moreover, the Committee mandate was also extended in relation to the new Internal Control Framework. Finally, a minor adjustment was brought per anticipation with respect to the next revision of the EMSA Financial Regulation to take place in 2019.

Procedure for third countries' requests to access EMSA's tools for capacity building

EMSA cooperates with the Member States and the European Commission and provides them with technical, operational and scientific assistance in the fields of maritime safety, maritime security and prevention of pollution within the limits of its core tasks and, as well as and when applicable, in relation to ancillary tasks. Throughout the years EMSA has developed numerous technical solutions to support and enhance the building up of the necessary national capacity: THETIS-EU, RuleCheck, MaKCs allowing for a uniform implementation of EU legal acts.

With the aim of fostering harmonization and approximation of standards, some of these tools have been made accessible to third countries and access was requested either directly or indirectly. Following the request from Canada to access e-Learning modules developed by EMSA and not related to Port State Control and thus assess the added value for them, the Administrative Board asked the Agency to come forward with an approach to assess possible requests from non-EU States to access technical solutions developed, hosted and maintained by EMSA within the context of capacity building.

At its 50th meeting, the Administrative Board considered and agreed on the approach put forward by the Agency for handling third-countries request to access EMSA's tools for capacity building, which aims to support such initiatives under certain conditions and while safeguarding Agency resources and EU interests.

Administrative Agreements

In 2018, the Administrative Board considered and approved the following draft administrative arrangements, service level agreements, memoranda of understanding and working arrangements, as foreseen by Article 10(2)(cc) of the revised Founding Regulation:

- draft administrative arrangement with the Caribbean MoU;
- draft administrative arrangement with the Indian Ocean MoU;
- draft grant agreement with DG MARE on Promotion of interoperability between industry and competent authorities in the European Maritime Single Window (EMSW) environment under the CISE Process (by written procedure n° 5/2018);
- draft administrative arrangement "Working Arrangement establishing cooperative relationships between the European Maritime Safety Agency (EMSA) and the European Union Agency for Law Enforcement Cooperation (EUROPOL)", as foreseen by Article 10(2)(cc) of the revised Founding Regulation.

Written procedures

In 2018, the Administrative Board continued to use the "written procedure" as an efficient means of consultation and decision making in relation to both Administrative Arrangements and Implementing Rules, given possible operational or administrative time constraints that are not synchronised with the actual convening of Administrative Board meetings. The Agency's practice of informing the Administrative Board of developments prior to the written procedures, in the case of Administrative Arrangements, and of providing an accompanying explanatory note in the case of Implementing Rules, continued.

New Internal Control Framework

The Administrative Board adopted the new Internal Control Framework (ICF) on 15 November 2018. The updated ICF is based on the framework adopted by the Commission in 2017 and consists of five internal control components. EMSA's framework also includes the principles that are included in the Commissions framework, each of them complemented by several characteristics. EMSA's updated ICF is fully in line with the Commission's framework but has been adjusted to reflect the organisational set-up and characteristics of the Agency (E.g. the existence of Departments and Units, the role of its Administrative Board etc). It has also been simplified where possible (e.g. grouping of several principles covering the same subject).

2.2 Major events

Organisational changes

In 2018, the Agency continued its constant effort of improvement of procedures and organisational processes. In order to ensure maximum consistency and efficiency, two reorganisations took place in 2018.

The first reorganisation took place in July 2018, aiming at clearly articulating the functional independence of the Accounting Officer. The Accounting Officer should report functionally to and therefore have access to the Administrative Board. In that

respect, the EMSA Organigramme was reviewed representing the Executive Director as Reporting Officer and adding the Administrative Board.

The second reorganisation of the Agency took place in November 2018, aiming at better handling the increasing complexity of applications and services and enabling the organisation to deliver integrated and new services for users' needs. The existing workload between the units and the detailed staff mapping was evaluated and balanced. A number of activities turned out to be more demanding and labour intensive than originally foreseen, entailing complex procurement which had to be repeated due to termination of a number of contracts. The set-up and roll-out of RPAS services required intensive staff and management involvement in order to make progress. Also, the increase in the number of project financed staff, resulted in a significant increase in the size of some unit (C.3). In terms of nature of activities, all directly ICT tasks have now been combined as part of one and same unit. These changes mainly affected the Department C and units C.2, C3 and C.4.

Appointment of the new EMSA Executive Director

As stated previously, 2018 was an important year for the management on the Agency. At its Extraordinary Board meeting in September 2018, the EMSA Administrative Board appointed the new EMSA Executive Director, Ms Maja Markovčić Kostelac who took up duties in January 2019.

EMSA Accounting Officer

Following a vacancy in 2017 of the EMSA Accounting Officer post, the Agency successfully introduced contingency measures for the good functioning of the Agency to ensure business continuity: after the appointment of the Accounting Officer *ad interim* performed by the SRB Accounting Officer, the Agency set up a task-force composed of staff with relevant profiles to ensure the day-to-day tasks related to the accounts (payments, treasury, etc).

Nevertheless, after a thorough analysis of the specificities and complexity of the EMSA's accounting environment and the available options, including entering into an agreement with the Commission (DG BUDG) for the provision of accountancy services, the EMSA management, in agreement with the appointing authority (Administrative Board), chose to fulfil the accountancy function with an in-house Accounting Officer.

The Selection Committee, which included a Commission Official from DG BUDG and a former official from the European Court of Auditors, choose the successful candidate and the EMSA Accounting Officer was formally appointed by the Administrative Board by written procedure n° 3/2018 of 28 March 2018 with effect from 1 July 2018.

In addition to this and following the suggestion from the Commission to enhance the involvement of the Administrative Board in future recruitments, contract extensions, probationary reports of the Accounting Officer, the mandate of the Administrative and Finance Committee was amended to that effect in November 2018.

Ensuring Business Continuity in accounting remains a priority for the Agency's management and governance. EMSA and EFCA are working on a Service Level Agreement for the mutual back-up in the Accounting function.

EMSA 1st 2018 budget amendment

During the course of 2018, the Agency faced continuing technical and regulatory challenges related to the pioneering nature of the civilian RPAS services under development. From a budgetary perspective, with RPAS operations representing over 80% of the budget allocated for European cooperation on coast guard functions, and therefore crucial to its execution, the proposal to return the under-executed funds to the Commission was noted, with the commitment from the Agency to provide a final calculation of the funds to be returned to the Commission at the end of July.

The return of such funds (6 M EUR in payment appropriations) required an amendment of the EMSA 2018 budget. This 1st 2018 budget amendment was adopted by the EMSA Administrative Board on 28 August 2018 by written procedure n° 8/2018.

2.3 Budgetary and financial management

The Agency executed 81,057,871 € in Commitment Appropriations (CA)³⁴, representing 99% of the total budget of the year, and 71,584,025 € in Payment Appropriations (PA)³⁵, amounting to 93% of the total budget when only counting C1 Funds

³⁴ Commitment appropriations cover the total cost of the legal commitments entered into during the current financial year - even if such a legal obligation extends over more than one year.

³⁵ Payment appropriations cover expenditure arising from commitments of the current year and/or earlier years, which are due for payment in the current year.

(appropriations voted in the current budget). After taking into account automatic carry-overs of payment appropriations (C8 Funds, appropriations carried over automatically), 6.55 % of payment appropriation were cancelled, whereby the target of less than 5% cancellation set by the Commission (DG BUDG) was not reached.

The budgetary structure of the Agency was presented in titles: Title 1 and 2 are for Administrative Expenditure and Title 3 and 4 are for Operational Expenditure and Anti-Pollution Measures respectively, covering the cost of implementation of the operational projects and activities funded by the EMSA subsidy and outlined in the Agency's annual work programme. Actions in Title 3 and 4 can have a multi-annual dimension, extending over more than one financial year. Anti-Pollution Measures with its multiannual funding for the action of EMSA in the field of response to pollution caused by ships and to marine pollution caused by oil and gas installations represented one third of total commitment and payment appropriations, respectively; 99% of commitment appropriations were committed³⁶ and 97% of payment appropriations were paid. Cooperation on Coast Guard Functions represented one quarter of total commitment appropriations and one sixth of payment appropriations, respectively; 99% of commitment appropriations were committed and 78% of payment appropriations were paid. The multi-Annual Schedule of Payments and specific follow-up on Anti-Pollution Measures and Cooperation on Coast Guard Functions were regularly reported to the Administrative Board and the Commission.

Planning and monitoring tools and processes were in place to ensure a close follow-up of the activities and projects and related budget. This provided for aligning activities with objectives, streamlining costs and improving business practices, as well as consistent follow-up of work programme objectives.

Effective and efficient internal control and transparency were also in place to support sound financial management throughout the year and across the Agency. Each operation was subject to at least one ex-ante verification.

There were eleven budget transfers in total, which were managed in line with the relevant rules (Article 27 & 28 of the EMSA Financial Regulation and Article 10 of EMSA Implementing Rules). Agency transfers were below 10% of the appropriations for the financial year of the budget line from which the transfer is made in the case of transfers from one title to another, with the exception of transfers made at year-end in line with the Administrative Board decision adopted by written Procedure N°9/2018 on budget transfers from one title to another beyond the limit of a maximum of 10%.

41,003,051.30€ of budgetary commitments associated with the EU subsidy were carried forward from 2018 to 2019. They are mostly related to the multi-annual operations of the Agency. In 2018, 58% were paid (consumed), 35% remained as "open amount" (amount due, not yet paid) and 7% of the total has been de-committed (cancelled).

The Administrative Board adopted EMSA Amending Budgets (Article 34 of EMSA Financial Regulation) in order to record extra income generated during the course of the financial year for SAFEMED IV, FRONTEX Service Level Agreement, COPERNICUS, EQUASIS, THETIS-EU, THETIS-MRV, Emissions Inventories, the Interoperability project. LRIT and Miscellaneous Revenue. These funds could only be loaded once cash payment was received by the Agency in the bank account.

2.4 Human Resources management

Implementing Rules

Implementing rules in the following areas were adopted in 2018:

- Framework for Learning and Development;
- Guidelines on Whistleblowing;
- Temporary Occupation of Management Posts;
- Middle Management Staff;
- Function of the Adviser.

Human Resources' policies and processes were adapted to comply with the adopted rules. In addition, EMSA continued to develop new Implementing Rules in close cooperation with the Standing Working Party on Implementing Rules and with the opinion of the EMSA Staff Committee, which will come into force in the course of 2019.

³⁶ A budgetary commitment is money reserved for payments to be executed at a future date.

Human Resources Policy

In 2018, an 'Action Plan for Gender Balance at EMSA' was prepared where three main goals were identified: Promotion of values of non-discrimination by gender, equal opportunities in attracting and recruiting staff and retaining women. In order to achieve these goals, actions were agreed. One of these actions was for EMSA to participate in specific outside activities. This was accomplished by the signature of the "*Declaration on equal opportunities for women and men in the transport sector*" by the Agency's Executive Director on 12/11/2018. As a consequence, EMSA's name is published among the signatories of the declaration in the European Commission website *Women in Transport – EU Platform for Change*.

Mobility

During 2018 internal mobility has continued to be an integral part of the HR dynamics in EMSA, as a follow up of the adoption of the general implementing rule on the engagement of CEOS Article 2(f) temporary agents and in order to ensure that the Agency can fulfil its tasks whilst being able to meet the required staff cuts.

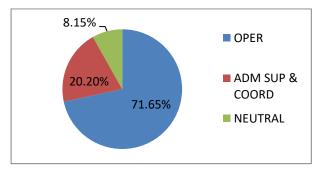
eHR Tools

The Agency carried out further developments to make its e-personal file application even more user friendly and time efficient. Staff can now submit their application and supporting documents at the same time. Management and HR can then electronically approve these requests and the respective supporting documents are automatically stored in the relevant section of the personal file. This application continues to result in time savings for both staff members and the HR team.

Benchmarking

The Framework Financial Regulation establishes the obligation for Agencies to carry out a benchmarking exercise to provide justification of administrative expenditure in a more structured way. At this stage, the implementation of these provisions consists of a job screening exercise, which is an essential element of the wider benchmarking exercise, with a special focus on the ratio of jobs in the area of administration and coordination. Screening also improves transparency on how jobs are assigned and facilitates better informed strategic decisions on resource allocation. The common screening methodology for Agencies was developed by the Sub-Working Group on Benchmarking set up by the EU Agencies Network, in close cooperation with the relevant Commission services.

For 2018 the methodology was applied for the fifth time to EMSA's situation in order to identify a screening type and a screening category for each EMSA post at 31/12/2018. The results are as follows:



The total 'overheads' figure (corresponding to the 'administration and coordination' category) in EMSA at 31/12/2018 is 20.20%, slightly lower than the figure of 20.42% reported for 2017.

The detailed results broken down by screening type and category can be found in Annex IV.

2.5 Assessment by management

The Agency's operational and administrative activities in 2018 were carried out in accordance with the work programme for the corresponding year, with the necessary guidance and support of the Administrative Board. Regular consultations through the Administrative Board meetings and the written procedure mechanism allowed for transparent and constructive exchange of information between the Agency and its governing body.

The Agency focused on delivering core tasks and maintaining a high level of quality alongside the implementation of the "redeployment pool" cuts on the one hand with minus 3 additional posts on existing tasks in 2018 (in addition to the 5% cut

required and implemented over the period 2013-2018 implemented in 2016), and the phasing in of the new tasks related to cooperation on coastguard functions and the resources assigned to it - plus 3 posts for new tasks - the Agency's establishment plan in 2018 represents zero growth. This was achieved through efficient planning, deployment and monitoring of financial and human resources. Organisational adjustments in 2018 focused on key horizontal tasks to support and enhance management information, and the new budget structure effective from 2016 continued to have a positive impact on the Agency's performance.

The budget was implemented in accordance with the principle of sound financial management. In particular, on the basis of the cascade of declarations provided in accordance with Annex 1 of the "Procedure for drawing up the CAAR of EMSA" and of the underlying controls and control procedures performed by the staff of the Agency; and supported by the assessment of the effectiveness of the internal control systems presented under Part III, the management has reasonable assurance of the achievement of the five internal control objectives listed under Article 30.2 of the EMSA Financial Regulation:

(a) effectiveness, efficiency and economy of operations;

(b) reliability of reporting;

- (c) safeguarding of assets and information;
- (d) prevention, detection, correction and follow-up of fraud and irregularities;

(e) adequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multiannual character of programmes as well as the nature of the payments concerned.

2.6 Budget implementation tasks entrusted to other services and entities

Not applicable for EMSA

2.7 Assessment of audit results during the reporting year

During the reporting year the Agency's auditing bodies - the Internal Audit Service of the Commission (IAS) and the European Court of Auditors (ECA) did not issue any critical audit recommendations or observations that could lead to a reservation in the annual declaration of assurance.

All recommendations and observations stemming from various audits from years before 2018 were addressed and there were no pending actions that could have a negative influence on the risks linked to the Agency's activities in 2018. In particular, all action plans stemming from past audits were implemented within the agreed time frame; by 31 December 2018 all action plans were implemented and all information regarding the completion of the actions related to IAS audits was forwarded to IAS for review and formal closing.

In line with EMSA's Founding Regulation and following a decision of the Administrative Board extending the mandate of the Administrative and Finance Committee to provide assistance to the Administrative Board to "monitor the findings and the recommendations stemming from various audit reports and evaluations, whether internal of external, and the EMSA follow up", the outcome of the different audits as well as the state-of-play of the implementation of the different action plans to address detected shortcomings were reported on a regular basis throughout the year to EMSA's Administrative Board.

EMSA's internal audit function is ensured by the Commission's Internal Audit Service (IAS), which remains the official internal auditor of the Agency, in accordance with the EMSA Financial Regulation. Moreover, financial audits are performed annually by the European Court of Auditors. On average the Agency is audited 3 times per year by these auditing bodies and their audits cover all identified audit risks. Finally, a number of specific programmes were audited by external audit firms.

2.7.1 IAS

In line with the IAS "Strategic Audit Plan for the European Maritime Safety Agency", IAS performed, during the course of 2018, an audit on Visits and Inspections (focusing on the Quality Management System) in EMSA. The final audit report related to this audit was issued early 2019.

The objective of the audit was to assess the design and the effectiveness and efficiency of the management and control systems put in place by EMSA to carry out Visits and Inspections activities, focusing on the QMS.

The scope of the audit covered the activities of Visits and Inspections and their support processes, in particular the quality management system and its effective implementation, covering scope of the QMS at the time of the audit. The audit did not

cover the technical content of the visit and inspections reports. The period on which the audit focused is 2016-2017, for ongoing files up to the date of the IAS fieldwork which took place during the first week of June 2018.

IAS concluded that EMSA's management and control systems put in place for Visits and Inspections are adequately designed, efficient and effectively implemented and support the Agency in achieving its strategic objectives.

Following this audit IAS pointed out that "EMSA demonstrated commitment and skill in setting up the QMS for Visits and Inspections and successfully achieved their certification and, as a result, the already mature processes related to the Visits and Inspections are largely documented. The procedural framework (the QMS) is well advanced and demonstrates continuous improvement which ensures the consistent application of the rules in force. The team is adequately staffed, resourced and supported by the appropriate tools".

In arriving at the above conclusion, no critical or very important risks that may affect the achievement of the business objectives for the processes audited were identified. Notwithstanding the overall positive conclusion, IAS identified four important recommendations. The Agency accepted all recommendations and will take the necessary actions to address all suggested improvements.

During the course of 2018 the Agency implemented all actions plans related to the IAS Audit on Human Resources Management at EMSA that took place in 2017³⁷.

2.7.2 ECA

Following its audit for the financial accounts for 2017 the European Court of Auditors issued the opinion that the Agency's annual accounts were reliable and the transactions underlying the annual accounts were legal and regular in all material aspects. As a result of this audit, the ECA issued three observations which do not call the Court's opinion into question. All observations were fully addressed by the Agency and there are no outstanding actions to be taken in relation to the comments from the Court.

In accordance with Article 107 of the Agency's Financial Regulation, the audit on the Agency's financial accounts 2017 was partially performed by an external audit firm, Ernst and Young. To this end, the Agency launched, early 2017, a tender procedure. The costs for the audit performed by the external audit firm (27,663.65 EURO covering the audit on the Accounts 2016 and 2017) were borne by the Agency.

2.7.3 QMS and other Audits

Beginning of 2018, the Agency has expanded the scope of the Visits & Inspections Quality Management System (V&I QMS) to include the maritime security inspections and the horizontal analysis process. The annual verification audit of the enlarged QMS was successfully performed by TUV Rheinland Portugal without any non-conformity. The audit took place in December 2018 and concluded that the V&I QMS is effectively established and maintained in line with the Quality Policy and objectives and in full compliance with ISO 9001:2015 requirements.

During March 2018 the external audit firm, Baker Tilly Belgium conducted two audits related to the reported costs with regards to the

- Earth observation services provided in 2017 by EMSA to Frontex in the framework of the Copernicus Border Control Delegation agreement (and in accordance with the EMSA/Frontex SLA);
- EMSA Copernicus Maritime Surveillance Annual Implementation for 2017 in the framework of the delegation agreement between the European Union (DG-GROW) and EMSA on the implementation of the maritime surveillance component of the Copernicus security service.

In both cases the auditor concluded that the financial and implementation reports gave a true and fair view, that the control systems put in place are strong and function properly and that the underlying transactions were legal and regular. The audits did not lead to any recommendations.

The European Commission (DG-GROW) performed an ex-post audit linked with the annual implementation for 2017 of the Delegation on the implementation of the maritime surveillance component of the Copernicus security service. The objective of this audit was to ascertain that the costs declared have been properly incurred and were eligible.

³⁷ All information regarding the completion of the actions related to IAS audit on HR management was forwarded to IAS prior to 31/12/2018 for review and formal closing.

The audit took place in November 2018 and did not lead to any material adjustments (a total negative adjustment of 0,018% of the declared amount in favour of the Commission was proposed).

2.8 Follow up of audits plans, audits and recommendations

The Agency has developed its own follow-up tool where relevant recommendations issued by the IAS and the European Court of Auditors (ECA) as well as the corresponding actions to address the detected weaknesses are recorded.

The Agency considers the follow-up on the progress of the action plan on audit recommendations as an important element of its Internal Control System. A quarterly indicator is discussed by senior management and reported to the Commission.

Equally, a detailed overview of the progress of the implementation of the action plans following the different audits is presented to the Administrative and Finance Committee of the Administrative Board, in accordance with the mandate of the Committee, at each meeting. Consequently, this information is provided to the Administrative Board.

At the end of 2018, all audit recommendations issued by 31/12/2018 and earlier had been implemented³⁸.

2.9 Follow up of observations from the Discharge authority

In reply to observations and comments made by the European Parliament in its discharge of 2016, the Agency confirmed that it has implemented all the necessary actions to address previously identified areas for improvement.

The follow up regarding the European Parliament's horizontal questions that concern all Agencies is ensured by the Coordination of Agencies. Although the Agency did not receive individual questions, the Agency provided information on the general questions, as described below.

Following the concern of the European Parliament regarding the significant differences in the rates of absence from work due to staff sick leave between agencies and the European Parliament's opinion that measures promoting health and safety in the work-place, regular medical checks and staff well-being activities form a preventive health policy that, when fully implemented, increases job satisfaction and allows for a much higher savings than the initial investment the Agency reported that it has put in place several measures to promote health and safety in the work place. Some examples (non exhaustive) include

- Free of charge annual medical visits are organised for staff members upon request. The results of which can be discussed with our medical advisor (in-house);
- An annual flu vaccination campaign is organised every year for staff free of charge;
- The Agency has made available bicycles that can be used by staff;
- Organisation of Ergonomics trainings (Provision of ergonomic chairs and desks where needed);
- Availability of an activity room for staff (the Staff Committee has organised sports activities such as Pilates and yoga lessons - paid by the staff members);
- OHSC tips are published on our intranet on a regular basis;
- Organisation of fire drills;
- Availability of healthy food in the cafeteria.

The Agency also provided the Discharge authorities with an accurate breakdown spent on well-being activities per staff member for 2017.

Part II (b) External Evaluations (when relevant)

The last evaluation from May 2017 concluded that by operating at EU level, EMSA is providing significant added value in all its areas of activities and for all its stakeholders. EMSA has become an important and respected player in the maritime community, offering world-class services that made the EU maritime sector safer and more secure. The agency's efficiency has increased, demonstrated by a lower share of overhead expenditure, the accomplished new tasks without additional resources and also due to the performance management system used by the Agency, which sets multiannual objectives and quarterly KPI indicators as one element in the periodic monitoring of the implementation of the annual work programmes. The cost effectiveness of the Agency's activities is assessed positively: A number of activities provide high

³⁸ As regards recommendations stemming from IAS audits the Agency has provided IAS with all relevant information on the closure of the actions (IAS audit on HR management) for review and formal closing. These actions are categorised as "ready for review". IAS has already formally closed 3 out of 5 actions and is currently reviewing - in view of final closure - the remaining two.

value for money compared to alternative models of provision at the national or regional level. EMSA's activities also contribute to reducing the administrative burden for Member States and to improving Member States' efficiency in implementing their legal obligations. None of EMSA's activities have been assessed as redundant, and EMSA's work is generally assessed as being complementary to that of the Member States. As a result, the evaluation concludes that EMSA's services and products are cost-effective and that EMSA provides value for money within the context of the EU maritime sector and within all areas of work. The full evaluation report is available on the agency's website:

http://emsa.europa.eu/who-are-we/admin-board/evaluation-activities.html

Furthermore, following the Administrative Board recommendations issued in November 2017, in March 2018 the EMSA Administrative Board welcomed the EMSA Action Plan and regular updates on their implementation continue to be provided by the Agency.

Part III Assessment of the effectiveness of the internal control systems

3.1 Risk Management

Since 2012 EMSA implemented a Risk Management Policy which aims to provide clear guidance on how to analyse and evaluate risks (i.e. identify and assess risks), decide on actions and controls to terminate or mitigate the risks, assign ownership and finally to implement these actions and controls and monitor and review the risk management process.

The Agency has developed a rigorous approach to risk management. This includes a risk register, which covers all identified internal and external risks related to all EMSA's activities and action plans to reduce the potential consequence of each identified risk to an acceptable level.

It should be noted that the EMSA Risk Management Policy is fully aligned and integrated with the Agency's Quality Management System for Visits & Inspections. As part of the audit of this Quality Management System (see 2.7.3), the Risk Process was fully audited, and no non-conformities were found.

During the course of 2018 the Agency continued with the further development and fine-tuning of its risk management more in particular to make sure the policy is fully alignment with the new ISO Standard. To this end a customised training on ISO 31000:2018 – Risk Management Guidelines was organised and consequently the policy was updated and renamed to Risk Management Framework.

In accordance with the new Risk Management Framework the risk register was fully updated in 2018. The update of the Agency's risk register did not result in any major changes and no critical risks that could lead to a formal reservation to the Authorising Officer's annual declaration of assurance were identified.

During 2018 none of the previously identified risks materialised.

3.2. Compliance and effectiveness of Internal Control Standards

Since the start of its activities, and in pace with the growth of the Agency, EMSA has progressively developed and implemented a series of internal measures to ensure that its activities are subject to control and to provide reasonable assurance to management of the achievement of the Agency's objectives.

These internal control measures help to ensure that EMSA's operational activities are effective and efficient while also certifying that all legal and regulatory requirements are met, that financial and management reporting is reliable, and that assets and information are safeguarded.

Examples of measures in place are: implementation of organisational structures; development of several staff policies and operational procedures; provision of training in various areas; setting of clear objectives and monitoring them through welldeveloped management reporting and monitoring tools including performance indicators, risk management and business continuity plan. Taken together, these measures constitute the internal control system of the Agency.

Following the revision of the European Commission's own Internal Control Framework (ICF) during 2017 and in line with the Article 44 §2 of the EMSA Financial Regulation, the Agency has prepared an updated Internal Control Framework to replace the minimum standards for internal management and control systems that were adopted by the EMSA Administrative Board on 20 November 2009.

This revised ICF is designed to provide reasonable assurance regarding the achievement of five objectives set in Article 30 of the Financial Regulation of the Agency:

- (1) effectiveness, efficiency and economy of operations;
- (2) reliability of reporting;
- (3) safeguarding of assets and information;
- (4) prevention, detection, correction and follow-up of fraud and irregularities, and

(5) adequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multiannual character of programmes as well as the nature of the payments concerned.

The framework supplements the Financial Regulation and other applicable rules and regulations.

EMSA's updated ICF is based on the framework adopted by the Commission and consists of five internal control components. EMSA's framework also includes the principles that are included in the Commissions framework, each of them complemented by several characteristics. EMSA's updated ICF is fully in line with the Commission's framework but has been adjusted to reflect the organisational set-up and characteristics of the Agency (e.g. the existence of Departments and

Units, the role of its Administrative Board etc). It has also been simplified where possible (e.g. grouping of several principles covering the same subject).

The new ICF was adopted by EMSA's Administrative Board in its 53rd meeting in November 2018.

One of the key elements of EMSA's internal control framework is the control and registration of exceptions to established regulations, policies, (implementing) rules and procedures. An exception is any transaction, financial or operational, which requires an approach that deviates from EMSA's regulations, policies, (implementing) rules and procedures.

A total of 19 of such exceptions were registered in 2018, of which ten ex-ante (approval for a future foreseeable deviation) and nine ex-post (approval after the deviation had occurred) exceptions.

The areas in which exceptions were reported mainly concerned contract management and payments (4 exceptions) and exceptions related to the reimbursement of experts (6 exceptions). Six a-posteriori commitments varying between 266.50 and 11,065.46 EUR were recorded.

None of the exceptions were material and of a nature that could lead to a formal reservation to the Authorising Officer's annual declaration of assurance. Where necessary, corrective actions were carried out or clarifications were given to avoid similar situations occurring in the future.

The Annual risk analysis carried out by the Agency's Internal Control Coordinator did not reveal any risks that could lead to a reservation in the Annual Declaration of Assurance.

Part IV Management assurance

4.1 Review of the elements supporting assurance

On the basis of elements of the internal control systems and the assurance they provide – the building blocks of assurance – the Executive Director was in a position to sign the Declaration of Assurance of the Authorising Officer which accompanies this Consolidated Annual Activity Report. The building blocks of assurance that are normally in place and were available to the Executive Director in 2018 are outlined below.

Monitoring and reporting – budget implementation

The monthly report on budget, procurement and financial management mentioned above provides information on budget execution per budget line for all fund sources, as well as per unit and budget line; financial and accounting information including transfers, commitments a-posteriori, open invoices, guarantees and recovery orders; and procurement information including progress of planned procurement and contracts, negotiated procedures, comparison with other procedures and expiring contracts.

The annual report on budget, procurement and financial management builds on these monthly reports to provide an overview of the performance of the agency in all the above-mentioned areas.

Monitoring and reporting – programme implementation

Regular unit, department, management and senior management meetings provided ongoing monitoring of the implementation of the work programme throughout the year, drawing on a series of data and exercises including: monthly report on budget, procurement and financial management; quarterly scoreboard - Key Performance Indicators; monthly horizontal indicators; and various progress reporting exercises at unit and department level. In addition, a comprehensive exercise to consolidate existing data and assess the overall level of implementation of the Work Programme, as well as signal potential risks and workload issues throughout the activities, was exercised in 2018. The exercise was conducted twice, in April and in November, and the Agency remained, with the exception of the delay in the start of RPAS operations and possible impact on the execution of payments, on track towards a high level of implementation of the Work Programme 2018. Annual reporting occurs at various organisational levels, and the present Consolidated Annual Activity Report was produced in line with the "Procedure for drawing up the CAAR of EMSA".

Delegation of powers and declarations of assurance

The Executive Director delegated powers to members of the management team to sign legal acts and make commitments and payments, and the delegated staff members' in turn reported on the use of those powers. In addition, sub-delegation of other powers and responsibilities occurs by virtue of the organisational hierarchy, and the use of these powers, were also reported on.

A cascade of annual declarations, in reverse order to the delegation of powers and to hierarchical "sub-delegation" by virtue of organisational hierarchy, was established in accordance with the "Charter of tasks and responsibilities of authorising officers by delegation" and with Annex 1 of the "Procedure for drawing up the CAAR of EMSA".

The materiality criteria for formal reservations to the annual declarations of assurance are defined in the "Procedure for drawing up the CAAR of EMSA".

Certification of the Agency's year-end accounts by the Accounting Officer

The Accounting Officer's certification of the provisional accounts have been provided by 1 March 2019 (Art. 98 and 99, EMSA Financial Regulation) and should provide reasonable assurance to the Executive Director that the accounts present a true and fair view of the financial situation of the Agency.

Other internal control tools

A series of other internal control tools contributed to the Executive Director's reasonable assurance including the assessment of audit results, follow-up and of audit plans, and the follow-up of observations from the discharge authority (as reported under 2.7, 2.8 and 2.9 respectively), reporting on risks and risk management and on the effectiveness and efficiency of the internal control systems, including the registration of exceptions and the annual review of the status of implementation of the Internal Control Standards (as reported under 3.1. and 3.2 respectively).

The work of the Internal Audit Service and the European Court of Auditors concerning the Agency in 2018 and the follow-up by the Agency is reported in section 2.7.

The Internal Control Coordinator ensures and assesses, on a continuous basis, the effectiveness of the Agency's internal control framework. As part of the CAAR, the Internal Control Coordinator signs a statement to the best of his/her knowledge, on the accuracy and exhaustiveness of the information on management and internal control systems (Part V).

Use of ISO³⁹ Standards for better management assurance

The Agency is also using ISO Standards as a mean to achieve assurance that best management practices are used for the relevant activities. Specifically, EMSA uses the ISO 9001:2015 for Quality Management System (QMS) as the framework for organising and performing its visits and inspections activities (V&I). The V&I QMS was certified by TUV Rheinland Portugal in 2016 and the annual verification audit of 2018 revealed a very good level of efficiency and effectiveness of the system, thus providing additional assurance that the Agency's core tasks (visits and inspections activities) are performed at highest management standard.

Based on the positive experience of using ISO QMS Standard (9001:2015), the Agency has decided to initiate a new project for using ISO Standard 20001:2011 – IT Service Management System (IT SMS) as the main framework for organising and performing its IT based activities and maritime information systems.

4.2 Reservations (where applicable)

There were no reservations.

4.3 Overall conclusion on assurance

The Executive Director was in a position to sign the Declaration of Assurance of the Authorising Officer which accompanies this Consolidated Annual Activity Report.

³⁹ ISO – International Organization for Standardization - <u>https://www.iso.org/home.html</u>

Part V Declarations of assurance

Internal Control Coordinator

EMSA
European Maritime Safety Agency
Declaration of assurance
Declaration of the EMSA Internal Control Coordinator
I declare that in accordance with the Commission's communication on clarification of the responsibilities of the key actors in the domain of internal audit and internal control in the Commission, I have reported my advice and recommendations to the Executive Director on the overall state of internal control at EMSA.
I hereby certify that the information provided in Part III of the present Consolidated Annual Activity Report is, to the best of my knowledge, accurate and exhaustive.
Internal Control Coordinator
Place Lisbon date 14.11. 2019
Signed:
Tom K.A. Van Hees
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Executive Director



Declaration of assurance

Declaration of the Executive Director

I, undersigned, Maja Markovčić Kostelac, Executive Director of the European Maritime Safety Agency, in my capacity as authorising officer,

Declare that the information contained in this report gives a true and fair view;

State that I have reasonable assurance that the resources assigned to the activities described in this report have been used for their intended purpose in accordance with the principles of sound financial management, and that the control procedures put in place give the necessary guarantees concerning the legality and regularity of the underlying transactions;

This reasonable assurance is based on my own judgement and on the information at my disposal, such as handover file received from my predecessor Mr. Markku Mylly, in particular information in respect of use of resources in year 2018, the results of assessment of internal controls, the work of the Internal Control Coordinator, the observations of the Internal Audit Service and the Court of Auditors and the recommendations from the European Parliament's Committee for Budgets for years prior to the year of this declaration;

Confirm that I am not aware of anything not reported here which could harm the interests of the Agency and the institutions in general.

Executive Director

Place Lisbon date - 1 MAR 2019 Signed: Marfa Voloc

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Annexes

Annex I. Core business statistics

EMSA Key Performance Indicators 2018

Activity name	KPI number	Indicator		Target	Result	
2100 UNION MARITIME INFORMATION AND EXCHANGE SYSTEM						
	1	Percentage per year availability of IMS		99	99.79	
	2	Hours maximum continuous downtime of IMS Platform		12	4h:05min	
	3	percentage per year availability to Member States		99	99.58	
	4	percentage per year availability to EUNAVFOR Atalanta		99	99.58	
	5	percentage per year availability to IMS mobile application use	ers	99	99.79	
	6	global data stream availability		99	99.57	
	7	number of RPAS available for deployment for multipurpose o	perations	5	6	
	8	number of Deployment Days per year		450	226 ⁴⁰	
	9	percentage per year availability of central SafeSeaNet system	n	99	99.47	
	10	hours maximum continuous downtime of central SafeSeaNet	system	max 12	05h:49min	
	11	percentage of notifications processed in time in accordance v SafeSeaNet IFCD requirements	with	99	100	
	12	percentage of responses to Member States' requests delivered accordance with SafeSeaNet IFCD (time) requirements	ed in	99	100	
7210 EF	CA					
	13	percentage per year availability to EFCA		99	99.60	
		NGE IDENTIFICATION AND TRACKING (LRIT) COOPERATI DATA EXCHANGE (IDE)	IVE DATA CE	NTRE (CDC) AN	D LRIT	
	14	percentage per month availability EU LRIT Data Centre		99	99.93	
	15	hours maximum continuous downtime		4	0h:52min	
	16	percentage position reports delivered in accordance with IMC requirements (periodic reports: 15 min; polls: 30 min))	99	99.59	
	17	percentage per year availability to users		99	99.73	
	17a	percentage per year availability of LRIT IDE in accordance wirequirements ⁴¹	ith IMO	n/a (99.9)	99.95	
	17b	hours maximum continuous downtime of LRIT IDE		n/a (4h)	2h:30min	
2300 TH	ETIS					
	18	availability in percentage THETIS		96	99.65	
	19	hours maximum continuous downtime THETIS		max 6	4	
	20	percentage of requests closed in less than 5 days THETIS He	elpdesk	75	n/a ⁴²	
7710 THETIS MRV						
	21	timely delivery of tasks foreseen by the cooperation Agreement	HETIS-MRV o	perational.	yes	
	22	Agreement ac	ompanies able ctivity data in t om 1st Januar	he system as	yes	
7720 EM	ISSION IN	VENTORIES PROJECT				
	23		ew functionalit J operational.		yes	

⁴⁰ The annual target has not been reached because of delays in getting the permit to fly from national authorities during the first quarter. ⁴¹ Discussions on the hosting of the LRIT-IDE are on-going. The service is listed nevertheless, pending their outcome. As long as the service is running at EMSA the output indicators continue to apply, with respective annual targets of 99.9% availability and maximum downtime of 4h.

⁴² The statistics required to report on KPIs 20, 25, 26, 61 and 65 have not been available since November 2016, following a change of contractor and ticketing tool. The capability to support these KPIs is expected to be re-established by mid-2019. In the meantime, working methodologies and procedures remain in place and stable and would suggest that the targets continue to be met.

Activity	KPI	Indicator	Target	Result
name	number	in their relevant sea areas (EEZ, PCZ, SECAs) for the period 2012-2017		
	24	inventories of shipping emissions based on shipping activity data will have to be attributed per Member State in their relevant sea areas (EEZ_PCZ_SECAs) for the	on and analysis of as of shipping s for 2017.	yes
2400 MA	RITIME SU	PPORT SERVICES		
	25	average time in hours for feedback or resolution of issues relating to emergencies, incidents in maritime applications or urgent helpdesk requests	<2	n/a ⁴³
	26	average time in hours for feedback or resolution of issues relating to non-urgent helpdesk requests or scheduled interventions	<8	n/a ⁴⁴
	27	reporting on the SafeSeaNet implementation and data quality (overa and per Member State)	II 20 Reports	25 Reports
7500 CO	PERNICUS			
	28	percentage per year EO image delivery ratio	90	94
7200 Fro	ntex SLA			
	29	percentage per year availability to Frontex	99	99.51
	30	hours maximum continuous downtime	12	0
3100 CLA	31 ASSIFICAT	minimum number of exercises EMSA participates in ION SOCIETIES	2	5
	32	number of RO inspections per year	16-20	16
	33	number of reports per year	16-20	15 ⁴⁵
	34	number of end-of-cycle reports per year ⁴⁶	5-7	5
3200 STC	-		01	U
	35	number of inspections and visits per year	7-9	8
	36	percentage of visit notifications sent to Member States with at least three months' notice	95	100
	37	number of reports per year	7-9	8
	38	percentage of draft reports submitted to the visited Member State or third country within 90 days from the end of the visit/inspection	-	87.50 ⁴⁷
	39	percentage per year availability STCW	96	99.61
3300 V	ISITS TO I	MEMBER STATES TO MONITOR THE IMPLEMENTATION OF UNIC	ON LAW	
	40	number of visits per year	15-1	9 19
	41	percentage of visit notifications sent to Member States with at leas three months' notice		
	42	number of reports per year	15-1	
	12	percentage of draft reports submitted to the visited Member State		
	43	90 days from end of visit		5 95
3400 N		SECURITY		
	44	number of missions per year (marsec)	12-1	5 12
	45	number of reports per year (marsec)	3	2448
	46	percentage of inspection reports concluded within the deadline ag	ireed 9	5 92.22 ⁴⁹

 $^{^{\}rm 43}$ See footnote for KPI n° 20.

⁴⁴ See footnote for KPI n° 20.

⁴⁵The number of reports produced was one below target. This was because the inspections were concentrated in the latter part of the year ⁴⁶ These reports are now referred to as "draft assessment reports".
 ⁴⁷ One draft report missed the deadline in Q1.

⁴⁸ There were fewer individual inspections than expected during the missions undertaken. In addition, in the case of 2 missions, EMSA did

not write a report for every inspection carried out. ⁴⁹ The inspection reports of 3 missions were delayed, due to the increased workload because only one inspector was available to carry out inspections during part of the year.

Activity name	KPI number	Indicator	Target F	Result
		with the European Commission (marsec)		
3600	HORIZONTA	L ANALYSIS		
	47	number of horizontal analyses per year	1-2	2
4200 /	ACCIDENT I	NVESTIGATION		
	48	number of EMCIP meetings per year	2	6
	49	number of PCF meetings per year	1	2
4300	TRAINING, C	COOPERATION AND CAPACITY BUILDING		
	50	number of MS training sessions per year	up to 18	24
	51	number of MS experts attending per year	360	603
	52	number of AC training sessions per year	up to 6	21
	53	number of AC experts attending per year	50	77
	54	level of customer satisfaction	>85%	>85%
4400		UIPMENT AND SHIP SAFETY STANDARDS (including IMO)		
	55	percentage per year availability of MarED DB	99	99.83
4500 \$	SHIP INSPE	CTION SUPPORT		
	56	percentage per year availability (EQUASIS)	99.5	99.94
	57	number of users per month (EQUASIS)	32,000	34,360
	58	number of contributing members (EQUASIS)	9-10	10
	59	percentage per year availability (RuleCheck)	85	99.91
	60	days maximum continuous downtime (RuleCheck)	9d	C
	61	percentage of requests closed in less than 9 days (RuleCheck)	75	n/a ⁵⁰
	62	percentage per year availability (MaKCs)	85	98.91
	63	days maximum continuous downtime (MaKCs)	9d	0
	64	number of modules developed per year (MaKCs)	4	7
	65	percentage of requests closed in less than 9 days (MaKCs)	75	n/a ⁵¹
7100 \$	SAFEMED I	/, EuroMed Maritime Safety Project		
	66	number of training sessions per year	Up to 5	12
	67	number of activities per year	up to 6	21
	68	number of ENP experts attending per year	90	207
	69	level of customer satisfaction	>80%	>80%
7400	Maritime Saf	fety, Security and Environmental Protection in the Black and Caspian	Sea Regions (BC S	Sea)
	70	number of training sessions per year	Up to 5	14
	71	number of activities per year	up to 6	10
	72	number of ENP experts attending per year	70	205
	73	level of customer satisfaction	>80%	>80%
5100 0	OPERATION	IAL POLLUTION RESPONSE SERVICES		
	74	number of fully equipped vessels for mechanical recovery	18	17 ⁵²
	75	number of fully equipped vessels for dispersant application	4	4
	76	number of newly contracted vessels pre-fitted	1	2
	77	number of EAS stockpiles	4	3 ⁵³
	78	number of projects completed per year	5	8
	79	number of Vessel drills (acceptance drills and quarterly drills) per year	70	74
	80	number of operational exercises per year	10	14
	81	number of Equipment Assistance Service (EAS) drills	9	23

⁵⁰ See footnote for KPI n° 20.
 ⁵¹ See footnote for KPI n° 20.
 ⁵² One contract could not be renewed as planned due to technical issues with the contractor.
 ⁵³ One new stockpile, currently in preparation phase, will become operational in 2019.

Activity name	KPI number	Indicator		Target R	esult
	82	number of notification exercises per year		10	34
	83	number of seminars and "hands-on" training sess	ions	3	4
	84	mobilisation time in hours		24	24
	85	number of dispersant stockpiles		4	6
5200 0	86 CLEANSEA	minimum quantity of dispersants available at any NET AND ILLEGAL DISCHARGES	time	800 tonnes	1400 tonnes
	87	percentage per year EO image delivery ratio		90	94
	88	percentage response rate to assistance requests		100	100
	89	percentage response rate to requests for participa response exercises.		80	100
	90	EODC availability (interface or alert reports distrib acquisitions of the CleanSeaNet Service	oution) for scheduled	97.5	98.32
	91	number of RPAS systems available for environme (pollution and emissions)	ental protection	3	6
	92	number of deployment days per year (pollution monitoring)	-	135	62 ⁵⁴
5300 0	COOPERAT	ION AND INFORMATION RELATING TO POLLUTI	ON PREPAREDNESS	S AND RESPONSE	
	93	percentage of responses within 2 hrs.		>75	100
	94	percentage of responses within 4 hrs.		<25	0
	95	number of datasheets produced/revised		25	34
	96	number of CTG MPPR/InterSec meetings and wo	orkshops	3	5
	97	number of meetings		1	2
	98	number of decision support tools		1	0 ⁵⁵
6500 0	COMMUNIC	ATION, MISSIONS AND EVENTS SUPPORT			
	99	number of publications/leaflets/brochures produce	ed per year	16	18
	100	number of meetings/workshops organised by EM	SA per year	40	98
	101	number of participants at EMSA meetings/worksh	lops per year	1250	2553
6100,	6200, 6300 <i>/</i>	AND 6400 OVERHEAD/HORIZONTAL TASKS			
	102	ECA recommendations implemented in time	as close a	s possible to 100%	100
	103	IAS recommendations implemented in time	as close a	s possible to 100%	100
			as close as possible to full	High level of implement RPAS services delay. amendment was adopt	A budget oted to return
	104	Implementation of the Work Programme	implementation	unused subsidy to EU	6
	105	execution rate establishment plan		s possible to 100%	98.58
	106	execution rate commitment appropriations		ssible to 100% and ny case above 95%	99
	107	execution rate payment appropriations		ssible to 100% and ny case above 95%	93 ⁵⁶

⁵⁴ Annual target not reached because of non-readiness of contractors and the need to cancel one contract. In Q4 the quarterly target was

 ⁵⁵ Due to delays of contributions from DG ECHO, the project is delayed and completion is anticipated for Q1 2019.
 ⁵⁶ The under consumption of payment appropriations is mainly because of some delays in the deployment of an EU RPAS service due to technical challenges as well as continuing difficulties to obtain the permits to fly from the national authorities, thereby postponing the payments foreseen.

Operational Agreements active in 2018

Contractor	Subject	Start Date	End Date
CEDRE - CEFIC	MAR-ICE Network	17/10/2014	16/10/2022
DG CLIMA	Support for the implementation of 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 (EU) 2016/802 of the European Parliament and of the Council of 11 May 2016 relating to a reduction in the sulphur content of certain liquid fuels, and technical assistance actions relevant to the Energy Community	08/03/2018	07/09/2020
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	02/02/2018
DG GROW	Implementation of the maritime surveillance component of the Copernicus security service	03/12/2015	31/12/2026
DG MOVE	Provision by EMSA of technical assistance for maritime security 1	29/10/2013	No end date
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
DG NEAR	Grant Contract – Preparatory measures for the participation of IPA II beneficiaries in EU Agencies	01/05/2018	30/04/2020

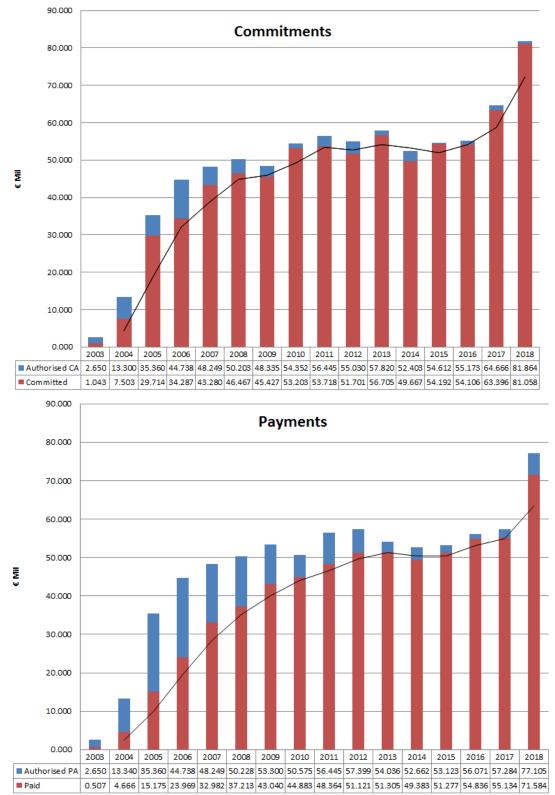
Contractor	Subject	Start Date	End Date
DG MARE	Interoperability between industry and competent authorities in the EMSW environment under the CISE Process	19/09/2018	18/09/2021
EFCA - European Fisheries Control Agency	EFCA MARSURV	26/06/2015	25/06/2018
EFCA - European Fisheries Control Agency	MARSURV-3 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-IAS Data Processing Centre (DPC) Block 2 software	18/02/2015	No end date
EUNAVFOR - 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
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

Contractor	Subject	Start Date	End Date
FRONTEX and EFCA	Interagency cooperation between Frontex, EFCA and EMSA on coast guard functions	17/03/2017	16/03/2021
International Mobile Satellite Organization	IMSO AUDIT – LRIT-IDE	17/07/2018	30/06/2019
International Mobile Satellite Organization	IMSO AUDIT – LRIT-DC	27/05/2009	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 (17/18)	25/10/2017	28/02/2018
Italian Coast Guard - Comando Gen.del Corpo delle Capitanerie di Porto	MEDITERRANEAN REGIONAL SSN SERVER	22/10/2015	28/02/2019
JRC - Joint Research Centre	Hosting and operation of EMCIP Platform and support for the transfer of ECCAIRS/EMCIP relevant data from the JRC to the EMSA	14/12/2017	13/12/2018
MAOC - Maritime Analysis and Operations Centre	Operational assistance and training	12/08/2014	11/08/2019
MARine Environmental and TEchnology Centre - Instituto Superior Tecnico	Cooperation agreement MARETEC-IST - EMSA Oil Spill Modelling	15/06/2014	14/06/2019

Contractor	Subject	Start Date	End Date
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
Norwegian Coastal Administration	SLA EMSA NCA REGIONAL SSN SERVER	01/03/2018	28/02/2019
Paris MoU	Conditions of Use for and Level of access to the THETIS Information Systems for PSC	01/01/2011	No end date
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
EUROPOL	Cooperation between the European Maritime Safety Agency and the European Union Agency for Law Enforcement Cooperation	18/12/2018	No end date

Annex II. Statistics on financial management





Negotiated procedures

Article 74(10) of the Financial Regulation⁵⁷ (FR 2018) stipulates the obligation to report on negotiated procedures without publication of a contract notice referred to in points (a) to (f) of point 11.1 and point 39 of Annex I to the Financial Regulation, *i.e.* "special negotiated procedures".

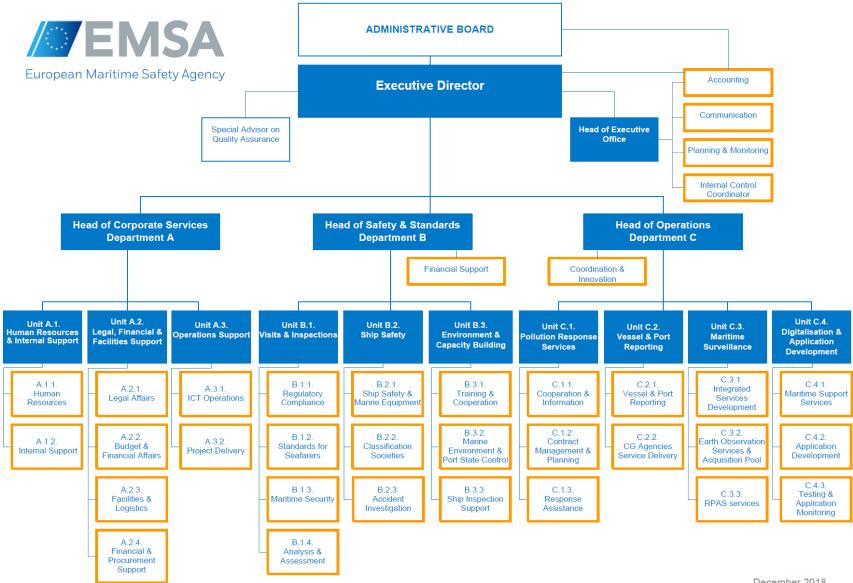
"The authorising officer by delegation shall, for each financial year, record contracts concluded by negotiated procedures in accordance with points (a) to (f) of point 11.1 and point 39 of Annex I. If the proportion of negotiated procedures in relation to the number of contracts awarded by the same authorising officer by delegation increases significantly in relation to earlier years or if that proportion is distinctly higher than the average recorded for the Union institution, the authorising officer responsible shall report to the Union institution setting out any measures taken to reverse that trend. Each Union institution shall send a report on negotiated procedures to the Summary of the annual activity reports referred to in paragraph 9 of this Article."

The table below shows comparison of contracts awarded following special negotiated procedures with contracts awarded following open, restricted, competitive with negotiation and low or middle value negotiated procedures.

Type of procedure	2018
SPNEG	3
OP + RES + CPNEG + LV-N + MV-N	60

⁵⁷ Regulation (EU, Euratom) No 2018/1046 of the European Parliament and of the Council on the financial rules applicable to the general budget of the Union, amending Regulations (EU) No 1269/2013, (EU) 1301/2013, (EU) 1303/2013, (EU) 1304/2013, (EU) 1309/2013, (EU) 1316/2013, (EU) 223/2014, (EU) 283/2014 and Decision No 541/2014/EU and repealing Regulation No 966/2012.

Annex III. Organisational chart



.

December 2018

Annex IV. Establishment plan and additional information on Human Resources management

Establishment plan 2018

Function Group	2017 Au	thorised	2018 Authorised		
and Grade	Permanent	Temporary	Permanent	Temporary	
AD15		1		1	
AD14		1		1	
AD13	1	4	1	4	
AD12	1	10	1	10	
AD11		14		14	
AD10	1	19	1	19	
AD9		28		28	
AD8		29		31	
AD7		26		26	
AD6		12		8	
AD5		5		7	
Total AD	3	149	3	149	
AST11					
AST10		1		1	
AST9					
AST8		1		1	
AST7		4		4	
AST6		15		19	
AST5		20		20	
AST4		16		12	
AST3		3		3	
AST2					
AST1					
Total AST		60		60	
Total	3	209	3	209	
Grand Total	2′	12	21	12	

Entry level for type of post

Key functions (examples)	Type of contract	Function group, grade of recruitment	Function is dedicated to administration support or policy (operational) or mixed
CORE FUNCTIONS			
Head of Department (level 2)	ТА	AD12	Operational
Head of Unit (level 3)	ТА	AD9, AD10, AD11 or AD12, related to the mandate and dimension of the Unit	Operational
Head of Sector (level 4)	ТА	AD8	Operational/Support/Mixed
Senior Officer	ТА	AD8	Operational
Officer	ТА	AD6 or AD7 depends on the functions that will be allocated	Operational
Junior Officer	ТА	AD5	Operational
Senior Assistant	ТА	AST10	Operational
Junior Assistant	ТА	AST1 or AST3 depends on the functions that will be allocated	Operational/Mixed
SUPPORT FUNCTIONS			_
Head of Administration (Level 2)	ТА	AD12	Support
Head of Human Resources (Level 3)	ТА	AD9	Support
Head of Finance (Level 3)	ТА	AD9	Support
Head of Communication	ТА	AD8	Mixed
Head of IT (Level 3)	TA	AD10	Mixed
Senior Officer	ТА	AD8	Support
Officer	ТА	AD6	Support
Junior Officer	ТА	AD5	Support
Webmaster- Editor	ТА	AST3	Mixed
Secretary	CA	FGII	Support
Mail Clerk	CA	FGI	Support
SPECIAL FUNCTIONS	1	·	
Data Protection Officer	ТА	AD8	Mixed
Accounting Officer	ТА	AD8	Mixed
Internal Auditor	ТА	AD8	Mixed
Secretary to the Director	ТА	FG II	Mixed

Results of the screening exercise

Job type (sub) category	Year N (%)	Year N-1 (%)
Administrative support and Coordination		
Administrative support	15.54%	15.83%
Coordination	4.66%	4.58%
Operational		
Top Level Operational Coordination	2.03%	2.17%
Programme Management & Implementation	54.53%	53.88%
Evaluation & Impact assessment	11.23%	11.81%
General Operational	3.86%	4.22%
Neutral		
Finance/Control	8.15%	7.50%
Linguistics	0%	0%

Planned and Actual Resources 2018*		Planned Hu	man Re	sources			Actual Hu	man Res	ources		Planned Finan	cial Resources	Actual Financ	ial Resources
		MAN	IPOWEF	2			MAI	MANPOWER			Total allocated Total allocated		Total allocated Total allocated	
LIST OF ACTIVITIES EMSA	TEMPORAR	Y AGENTS				TEMPORAR	AGENTS				costs	costs	costs	costs
	AD	AST	END	CA	TOTAL	AD	AST	END	CA	TOTAL	Commitments	Payments	Commitments	Payments
2100 Union maritime information and exchange system (integrated maritime												,		
services; SafeSeaNet; Improving internal market and maritime transport	34	12	4	1	51	35	12	3		50	29,853,839	28,454,952	26,924,855	17,590,913
efficiency) ¹														
2200 EU LRIT Cooperative Data Centre and LRIT International Data	7	7			14	7	7			14	0.054.040	0 700 000	4,019,455	2.005.000
Exchange	1	'			14	1	1			14	3,651,610	3,793,606	4,019,455	3,865,689
2300 Information System for PSC (THETIS)	5	1		1	7	4	1			5	2,022,338	2,166,146	2,561,496	2,401,562
2400 Maritime Support Services	6	2	4	2	14	3	1	4	3	11	1,681,446	1,764,861	1,372,993	1,340,897
3100 Classification Societies	10	1	1		12	9	1	1		11	1,905,321	1,905,321	1,901,865	1,870,397
3200 STCW	6	2	1		9	6	2	1		9	1,529,444	1,529,444	1,654,813	1,532,956
3300 Visits to Member States to monitor implementation of Union Law	-	0			8	F	0			8	4 000 050	4 000 050	4 000 705	4.040.044
Formerly "Implementation of PSC Directives in Member States and EFTA"	5	2	1		•	5	2	1		•	1,200,359	1,200,359	1,290,765	1,313,641
3400 Maritime Security	3		1	1	5	3		1	1	5	715,895	715,895	787,320	763,392
3600 Horizontal analysis and research ²	3				3	3				3	486,256	486,256	522,167	505,347
4100 Port State Control	3				3	2				2	511,256	511,256	373,111	458,741
4200 Accident investigation	4	1	1		6	4	1			5	1,207,810	1,240,965	1,133,719	1,145,121
4300 Technical assistance (training and cooperation) ³	5	1	2		8	5	1	1		7	2,294,002	2,272,902	2,075,486	1,782,559
4400 Marine equipment and ship safety standards (including IMO) ⁴	7	1	2		10	8	1	1		10	1,865,716	2,015,716	2,422,259	2,361,741
4500 Ship Inspection Support ⁵	r			1	7			2	_	9	4 557 000	4 557 000	4 00 4 700	4 700 005
Formerly "Maritime Information, Equasis and statistics"	5		'	1	'	6		2	1	9	1,557,033	1,557,033	1,994,763	1,703,825
4600 Prevention of pollution by ships	5		1		6	5		1		6	1,121,426	1,121,426	1,151,188	1,140,382
6500 Communication, Missions & Events support	3	3		7	13	3	3		6	12	1,734,444	1,734,444	1,594,592	1,563,757
5100 Operational Pollution Response Services	10	2	1	3	16	10	2	1	2	15	19,145,127	21,157,140	22,353,904	24,241,062
5200 CleanSeaNet and illegal discharges ⁶	7				7	6				6	8,505,166	8,611,856	5,958,821	5,159,508
5300 Cooperation and information relating to pollution preparedness and	4				4	4				4	957,756	947,336	964,299	842,535
response					-					4	951,150	947,330	904,299	042,000
6100 Management/bureau/horizontal tasks	10	7		2	19	11	8			19				
6200 Human Resources	3	5		6	14	4	5		7	16				
6300 Legal and Financial Affairs, facilities and logistics	6	5		5	16	6	6		4	16	_			
6400 Operations support (ICT)	1	8		2	11	1	7		3	11	_			
6100, 6200, 6300,and 6400 Total Overhead/horizontal tasks	20	25		15	60	22	26		14	62	_			
Subtotals	152	60	20	31	263	150	60	17	27	254				
Copernicus staff financed by EMSA budget*				3	3				3	3	-			
TOTAL	152	60	20	33	266	150	60	17	30	257				
Total EMSA subsidy	21				266	21				257	81,946,244	83,186,914	81.057.871	71.584.025

Planned and Actual Resources 2018	Planned Human Resources	Actual Human Resources	Planned Financial Resources		Actual Financial Resources	
LIST OF EMSA PROJECT FINANCED ACITIVITIES	END CA	END CA	Commitments	Payments	Committed	Paid
7100 SAFEMED III	0.5 2	0.5 2	p.m.	p.m.	1,780,966	603,971
7200 FRONTEX SLA	8	8	p.m.	p.m.	16,832,164	9,650,867
7210 EFCA SLA			p.m.	p.m.	357,030	342,821
7300 CSN GREENLAND			p.m.	p.m.	89,327	21,052
7310 CSN Dutch Islands			p.m.	p.m.	13,519	0
7400 Black & Caspian Sea	0.5 2	0.5 2	p.m.	p.m.	1,524,546	569,719
7500 COPERNICUS	(3 CA covered by EMSA subsidy) (3 CA covered by EMSA subside	p.m.	p.m.	11,471,137	7,080,331
7600 EQUASIS (R0 FUNDS)			p.m.	p.m.	746,819	501,878
7700 THETIS EU (formerly THETIS-S)			p.m.	p.m.	35,455	31,040
7710 THETIS MRV			p.m.	p.m.	274,748	274,748
7720 Emissions Inventories Project			p.m.	p.m.	45,987	45,987
7800 EC Funds for candidate and potential candidate			p.m.	p.m.	148,337	96,155
7901 Single Window Environment Project			p.m.	p.m.	18,000	0
Total Project Financed Activities	1 12	1 12			33,338,035	19,218,569

Grand total Contract Agents/SNEs (Operational + PFA)	21	43	18 42			
Grand Total Financial Resources				11	14,395,906	90,802,594

* ABB methodology: The Agency implements an activity based approach to budgeting and reporting on all activities funded by the EMSA subsidy. The lifecycle stretches from initial planning of the draft budget preparation which starts towards the end of year N-2 to the final presentation of actuals in the Consolidated Annual Activity Report in year N+1. Activity Based Budgeting (ABB) codes are tagged to commitments and payments, tracking the cost of both direct and indirect activities. Direct staff is allocated to one operational activities, based on the number of direct staff allocated to each activity. For the purposes of the ABB exercise, the 3 Contract Agents foreseen for the project-financed activity Cognicus but financed by the EMSA Budget are treated as indirect staff.

Footnotes:

1. 9 AD for the European cooperation on coast guard functions in planned and 8 AD for the European cooperation on coast guard

functions in actual input. 1 AST for the European cooperation on coast guard functions (in planned and actual input).

2. 1 AD for the European cooperation on coast guard functions (in planned and actual input).

3. 2 ADs for the European cooperation on coast guard functions (in planned and actual input).

4. 1 AD for the European cooperation on coast guard functions (in planned and actual input).

5. 2 ADs for the European cooperation on coast guard functions (in planned and actual input).

6. 1 AD for the European cooperation on coast guard functions (in actual input).

Annex VI. Specific annexes related to Part II – Management

Not relevant for CAAR 2018

Annex VII. Specific annexes related to Part III - Assessment of the effectiveness of the internal control systems

Not relevant for CAAR 2018

Annex VIII. Draft annual accounts

Economic outturn account

	2018	2017
Revenues from administrative operations	1,232,399	596,522
Other operating revenue	90,569,353	72,214,372
TOTAL OPERATING REVENUE	91,801,752	72,810,894
Administrative expenses	38,650,507	-35,718,754
All Staff expenses	22,279,062	-19,976,298
Fixed asset related expenses	8,368,077	-8,216,369
Other administrative expenses	8,003,368	-7,526,087
Operational expenses	48,133,338	-39,604,640
TOTAL OPERATING EXPENSES	86,783,845	-75,323,395
SURPLUS/(DEFICIT) FROM OPERATING ACTIVITIES	5,017,907	-2,512,501
Financial revenues	2,801	0
Financial expenses	-7732	-2,560
SURPLUS/ (DEFICIT) FROM NON OPERATING ACTIVITIES	-4,931	-2,560
ECONOMIC RESULT OF THE YEAR		5,012,976

ECONOMIC RESULT OF THE YEAR

Summary of data provided by the Agency in its annual financial statement.

These accounts are drawn up on an accrual basis and are rounded.

Balance sheet

	2018	2017
NON CURRENT ASSETS	34,466,756	32,276,626
Intangible fixed assets	9,877,463	8,546,264
Tangible fixed assets	24,299,157	23,440,226
Long-term pre-financing	290,136	290,136
Long-term receivables	0	0
CURRENT ASSETS	41,859,308	28,849,420
Inventories	4,485,916	2,137,960
Short-term pre-financing	2,059,737	1,259,044
Short-term receivables	4,552,817	3,193,658
Cash and cash equivalents	30,760,838	22,258,758
TOTAL ASSETS	76,326,064	61,126,046
	70,520,004	01,120,040
NON-CURRENT LIABILITIES	105,510	105,510
Provisions for risks and charges	0	0
Other long-term liabilities	105,510	105,510
CURRENT LIABILITIES	35,192,640	25,005,598
Provisions for risks and charges	0	0
Accounts payable	35,192,640	25,005,598
TOTAL LIABILITIES	76,326,064	61,126,046
TOTAL NET ASSETS		41,027,913

Annex IX MAF report

Annex IX - EMSA's Report on the Multi-Annual Funding of the Agency's pollution preparedness and response activities as laid down in Regulation (EU) No 911/2014.

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Chapter 1: Report Objective and Executive Summary

Regulation (EU) No 911/2014 of the European Parliament and of the Council of 23 July 2014 on multiannual funding for the actions of the European Maritime Safety Agency in the field of response to marine pollution caused by ships and oil and gas installations states, that "In accordance with Regulation (EC) No 1406/2002, the Agency should report on the financial execution of the multiannual funding of the Agency in its annual report." This report is presented here.

The activities of the Agency in the field of marine pollution preparedness, detection and response caused by ships and oil and gas installations are focused on providing operational assistance and information to Member States. The main services are:

- The provision of additional response capacity through the Network of Stand-by Oil Spill Response Vessels and the Equipment Assistance Service (EAS), these services being adapted to also address spills from offshore oil and gas installations;
- CleanSeaNet: the satellite based oil spill and vessel detection and monitoring service, completed recently by the Remotely Piloted Aircraft Systems capacity for detection, identification and monitoring;
- The MAR-ICE (Marine-Intervention in Chemical Emergencies) Information Service in case of chemical spills at sea;
- Cooperation and coordination with the EU Commission, EU Member States, EFTA/EEA Coastal Countries, Candidate Countries, Acceding Countries, Regional Agreements and other relevant international organisations such as the International Maritime Organization (IMO);
- The provision of information through publications and workshops.

At the end of 2018, seventeen fully equipped vessels for mechanical recovery were available for mobilisation; with four of these vessel arrangements also equipped for seaborne dispersant application including dispersant stock.

The vessel contracted at the end of 2017, covering the area of Atlantic coast and Bay of Biscay, successfully completed the preparation phase and entered into operational service mid-2018. One of the vessels from the pool covering the Atlantic North was replaced by the contractor.

Following a public procurement, one vessel contract was awarded for the East Mediterranean Sea, to replace the non-renewable contract ending in the first semester of 2019.

The contract covering the Aegean Sea was renewed for an additional 4-year period. Two vessel contracts for the Northern North Sea and the Atlantic North were renewed for a 1-year period.

Following the collision of the Ro-Ro *Ulysse* with the container ship *CSL Virginia* in the vicinity of Corsica and the subsequent release of fuel oil, EMSA's oil pollution response vessel *Brezzamare* was activated by France and conducted oil recovery and lightering operations.

Furthermore, EMSA delivered 18 tonnes of Radiagreen OSD dispersant to Bulgaria for the potential oil spill during the lightering operation of the sunken wreck *Mopang*. In addition, the EMSA contracted (back-up) vessel *Aegis I* was made available to the European Fisheries Control Agency (EFCA) within the context of cooperation between EU Agencies on Coast Guard functions.

In order to ensure a high level of preparedness 74 quarterly and acceptance drills were conducted on board EMSA contracted vessels.

A fourth Equipment Assistance Service (EAS) arrangement was contracted for the Northern Baltic Sea. This new arrangement complements the existing EAS stockpiles in the Adriatic, Baltic and North Sea and provides specialised stand-alone equipment for Vessels of Opportunity (VOO). Moreover, two new dispersant stocks were established in the EAS North Sea and EAS Southern Europe.

A total of 23 Equipment Condition Tests (ECTs) were completed by EAS contractors. Member States were introduced to the new equipment during one seminar to present the newly established EAS

Southern Europe and three hands-on training sessions for MS equipment operators, organised and supported by EMSA at the location of the EAS arrangements.

The Equipment Policy, providing a framework for the management of the EMSA oil spill response equipment was implemented through a number of actions including overhauling and/or replacement of aging equipment sets purchased in 2007-2009.

To further strengthen the operational integration of EMSA's pollution response services within Member States, Regional Agreements¹ and third country response chains, eleven EMSA contracted vessels and three EAS systems were deployed in nine Operational Exercises covering all European seas.

In addition, 14 Notification Exercises aiming at the signature of 34 Incident Response Contracts with 27 vessel contractors and seven EAS contractors were conducted.

CleanSeaNet, the satellite oil pollution and vessel detection monitoring service, provided daily monitoring over European waters to detect and deter marine pollution. In addition, CleanSeaNet also supported eleven accident or incident emergency requests, as well as periodic operations or exercises such the 'Tour d'Horizon'² aerial operations. The conclusion of a new contract for provision of Earth Observation SAR and optical services was a major undertaking in 2018, which will result in faster delivery and a wider range of products from 2019 onwards.

Lightweight RPAS quadcopters were installed to support operations from EMSA's contracted pollution response vessels Partisan and Ria de Vigo, in order to enhance the oil detection capabilities on board of these vessels.

The Consultative Technical Group for Marine Pollution Preparedness and Response (CTG MPPR), established in 2007, continued its work in 2018 on the Rolling Work Programme. The 12th meeting of the CTG MPPR was held in October 2018. Under the umbrella of the CTG MPPR, the sixth Surveillance Training took place at EMSA premises and included a visit of all participants to the Portuguese air force base in Montijo, where in addition to a presentation of their aerial surveillance missions visits of their Casa 295 equipped with pollution detection systems were conducted. As a new activity, EMSA provided a two-day training workshop on Oil Spill sampling to delegates from the Member States. The training took place at the Jovellanos training facility near Gijon, Spain, which proved to be excellent as it allowed the practical sampling in a large pool from small vessels and on board of a SASEMAR vessel in addition to classroom training.

The MAR-ICE (Marine-Intervention in Chemical Emergencies) Network, which provides expert information and advice during hazardous and noxious substance (HNS) spills was activated on four

^{1 &#}x27;Regional Agreements' refer to the agreements signed by countries around a particular sea area to plan for pollution preparedness and coordinate responses in case of a large-scale marine pollution incident. The EU has an official role in some, but not all, of these. Regional Agreements have been developed for all the sea areas along the European coastline: the North Sea (Bonn Agreement), the Baltic Sea (HELCOM), the Mediterranean (the Barcelona Convention), the Black Sea (Bucharest Convention for which EMSA has observer status), and the North East Atlantic (Lisbon Agreement).

² The Bonn Agreement Contracting Parties have adopted a plan for all coastal states to conduct periodic and random surveillance flights for the detection of spillages in the offshore oil and gas industry areas in the North Sea. Irrespective of the main aim, all other suspected polluters are also to be identified and reported. These surveillance flights are entitled 'Tour d'Horizon Flights'.

occasions for drills. The MAR-ICE Cooperation Agreement was amended in 2017 and the service will continue through 2022.

MAR-CIS (Marine Chemical Information Sheets), which first went live on EMSA's web portal in December 2016, was updated again. In addition, the datasheets of 34 substances has been revised with updated information. MAR-CIS is available for download as a free-standing app for mobile devices such as tablets and smart phones thus providing all information offline.

Funding of Actions

The Budgetary Authorities provided EMSA with EUR 25,925,000 (24,675,000 MAF and 1,250,000 injected from other operational appropriations) in commitment appropriations and EUR 27,235,382 (26,783,282 MAF and 452,100 injected from other operational appropriations) in payment appropriations for its pollution preparedness and response task for 2018. In terms of budget execution 97.71% was achieved for commitments and 96.83% for payments.

Budget execution for Anti-Pollution Measures was challenging in 2018 due to unforeseen events outside the Agency's control. The main reasons were: the expiration and non-renewal of the contract for oil spill response services in the Adriatic Sea that lead to anticipation of the contract renewal in the Atlantic coast; the two vessel contracts in the Northern North Sea and the Atlantic North were renewed for one year only instead of the initially foreseen 4-year period..

The table below provides an overall summary of commitments and payments:

	Commitments	Payments
TOTAL allocation	25,925,000	27,235,382
TOTAL utilisation	25,331,843 (97.71%)	26,371,163 (96.83%)

Table 1 Overall summary of commitment and payment appropriations in 2018

Chapter 2: Introduction

Following the sinking of the oil tanker *Prestige*, the Agency was given, in 2004, additional tasks in the field of marine pollution preparedness and response. The initial framework for such activities was described in the Action Plan for Oil Pollution Preparedness and Response³ and the Action Plan for Hazardous and Noxious Substances Pollution Preparedness and Response⁴. With the adoption of Directive 2005/35/EC as amended on ship-sourced pollution⁵, the task of monitoring spills was elaborated and incorporated into the Action Plan. Furthermore, following the *Macondo* incident and with the entry into force of Regulation (EU) No 100/2013, amending the Founding Regulation (EC) No 1406/2002, EMSA's mandate for operational assistance was enlarged to also include response to marine pollution for Response to Marine Pollution from Oil and Gas Installations⁶. The activities identified and defined in the Action Plans are updated annually and approved by EMSA's Administrative Board as part of the annual Work Programme. The Agency's activities build upon existing cooperation frameworks and the mandate of Regional Agreements.

Regulation (EU) No 911/2014 reserves a financial envelope for the implementation of these tasks for the duration of the current 2014-2020 Financial Perspectives⁷. The financial execution of the Multiannual Funding (MAF) framework program should be reported as part of the Agency's annual report. This is the fifth time the MAF reporting is included as an Annex in the Consolidated Annual Activity Report (CAAR) detailing the Agency's pollution preparedness and response. EMSA's activities under this umbrella are presented, and described in more detail in three categories:

- Operational Assistance;
- Cooperation and Coordination;
- Information.

7 A financial perspective is a seven-year spending framework of the European Union.

³ EMSA Action Plan for Oil Pollution Preparedness and Response as adopted by the Agency's Administrative Board in October 2004. It can be downloaded from the EMSA website: www.emsa.europa.eu

⁴ EMSA Action Plan for HNS Pollution Preparedness and Response as adopted by the Agency's Administrative Board in Jun 2007. It can be downloaded from the EMSA website: www.emsa.europa.eu

⁵ Directive 2009/123/EC of 21 October 2009 amending Directive 2005/35/EC on ship-source pollution and on the introduction of penalties for infringements (OJ L280, 27/10/09)

⁶ EMSA Action Plan for Response to Marine Pollution from Oil and Gas Installations as adopted by the Agency's Administrative Board in November 2013. It can be downloaded from the EMSA website: www.emsa.europa.eu

Chapter 3: Operational Assistance

EMSA provides four main operational assistance services to coastal States with regard to marine pollution preparedness and response:

- The network of stand-by oil spill response vessels;
- The Equipment Assistance Service (EAS);
- Dispersant stockpiles, associated with the vessel and EAS arrangements;
- CleanSeaNet (CSN), the satellite based oil spill and vessel monitoring and detection service;
- Remote Piloted Aircraft systems to complement the CSN service for monitoring and detection and to increase efficiency of response operations; and
- Pollution response expertise to provide operational and technical assistance for oil and HNS incidents.

3.1 Operational assistance: vessel network, equipment and dispersants

Mindful of the principle of 'subsidiarity' and the roles and responsibilities of Member States, this operational service is intended as a 'logical part' of the marine pollution response mechanism options available to coastal States requesting support, i.e. it should 'top-up' the national response capacity of the affected Member State. It is clear that Member States have the primary responsibility regarding response to pollution incidents in their waters. Consequently, the State requesting assistance will have the EMSA resources at its disposal under its operational control. Assistance will be channelled to requesting States through the Emergency Response Coordination Centre (ERCC) of the European Commission in Brussels.⁸

At the end of 2018, 17 fully equipped oil spill response vessels and three EAS arrangements were available for mobilisation. In addition, four vessel and two EAS arrangements were complemented with dispersant stockpiles. These services are available for responding to oil spills at sea caused by ships as well as by oil and gas installations at the request of a coastal State⁹, a Private Entity¹⁰, and/or the European Commission.

Associated activities included maintaining the service level for operational contracts, primarily through:

 Monitoring and evaluating vessel/equipment readiness and crew performance during quarterly drills and equipment condition tests (ECTs);

⁸ The Emergency Response Coordination Centre (ERCC) is the heart of the Community Mechanism for Civil Protection. It is operated by DG Humanitarian Aid & Civil Protection (DG ECHO) of the European Commission and accessible 24 hours a day. It plays key coordination role during emergencies.

⁹ EU Member States, EU Candidate States, Norway and Iceland as well as those third countries sharing a regional sea basin with the European Union (Regulation (EU) 100/2013).

¹⁰ Private Entity means the ship owner or oil and gas installation operator controlling the activity causing the marine pollution or the imminent threat of it. The Private Entity is responsible for the oil spill cleaning operations.

- Participation of the contracted vessels/EAS systems in operational at-sea exercises organised in cooperation with EU Member States and/or Regional Agreements;
- Identifying and implementing appropriate technical improvements to the vessel network and EAS arrangements and developing projects to upgrade the management of the service as a whole.

3.1.1 Network of Stand-by Oil Spill Response Vessels and Equipment Assistance Service - Vessel Network

The network of stand-by oil spill response vessels has been built up and maintained through annual procurement procedures starting in 2005. The current network provides at-sea oil recovery services from vessels based in all the regional seas of Europe. It should be noted that in case of an incident of extreme magnitude all vessels are at the disposal of all Member States regardless of their actual area of operation.

At the end of 2018, EMSA maintained contracts for 17 operational fully equipped stand-by oil spill response vessels available, upon request, to assist coastal States in oil spill recovery operations. Four of these vessel arrangements are also equipped for seaborne dispersant application with associated dispersant stockpiles of 200 tonnes each, in Malta, Cyprus, Sines (Portugal) and the Canary Islands (Spain).

Moreover, of the 17 operational contracted vessels eleven were certified for recovery of oil with flashpoints < 60° C. All the contracted vessels based in areas with the presence of oil and gas installations are now certified for recovery of oil with flashpoints < 60° C.

The map in Figure 1 shows the distribution of vessels and equipment stockpiles around Europe. More technical and operational specifications of all the contracted services are available on the Agency website www.emsa.europa.eu.

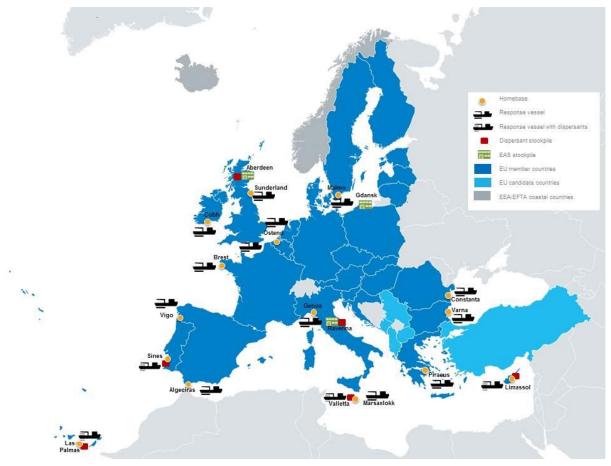


Figure 1 Distribution of EMSA's contracted vessels and EAS arrangements at the end of 2018

There were three main activities in relation to the vessel network in 2018, namely:

- The vessel contract for the Eastern Mediterranean Sea will expire without the possibility of further renewal in mid-2019. Accordingly, a procedure following publication of a Contract Notice in the Official Journal of the European Union (OJEU) to replace the response capacity in that area was launched. As a result, a new contract for the Eastern Mediterranean was awarded.
- The new arrangement contracted end-2017 to re-establish additional capacity for the Bay of Biscay was brought into operation. The supply ship VN Partisan, based in Brest (France) successfully completed the Preparatory Phase and became fully operational in September 2018. In addition, the vessel Forth Fisher, part of the pool of the Atlantic North contract, was replaced by the contractor with the Corrib Fisher.
- Contract renewal of the response arrangements covering the Northern North Sea and the Atlantic North, based in Sunderland (UK) and Cobh (Ireland) respectively, for a 1-year period and of the arrangement for the Aegean Sea, based in Piraeus (Greece) for an additional 4-year period. The contract covering the Adriatic Sea could not be renewed due to technical issues with the contractor and consequently, the renewal of the contract for the Atlantic coast was anticipated.

- Equipment Assistance Service (EAS)

The main activities implemented in relation with the EAS were:

- Following the successful conclusion of a procurement procedure, award of a new contract to establish the fourth EAS stockpile in the northern Baltic (Tolkkinen, Finland). This new equipment depot will become fully operational in the first half of 2019;
- Renewal of the two EAS operational contracts in the North Sea and Baltic Sea to extend the service for one additional year;
- Establishing two new dispersant stocks of 200 tonnes and 400 tonnes respectively associated with the EAS Southern Europe, located in Ravenna (Italy), and the EAS North Sea, located in Oldmeldrum (UK).

Moreover, in order to enhance the operational integration of the EAS arrangements at National and Regional level, EMSA continued with the implementation of the EAS training programme and organised three 3-day "hands-on" training sessions, one for each of the three operational arrangements in the Baltic Sea, North Sea and in the Adriatic Sea, for Member States equipment operators.

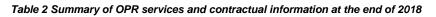
Detailed information on the contracted vessels, EAS, and the areas covered at the end of 2018 can be found in the table below:

Area covered	Contractor / Contract	Vessel(s) / Assets	Vessel type / storage capacity(m³) / dispersant stock	Service 2018
		1. Contracted vessels		
Southern Baltic	Stena Oil EMSA/NEG/1/2015 Lot 2	Norden	Oil Tanker / 2880	Whole year service
Northern North Sea	James Fisher Everard Ltd EMSA/NEG/1/2013 Lot 1	Mersey Fisher, Thames Fisher	Product Tankers / 5028 / 5028	Whole year service

Channel and	DC Industrial S.A. 2014/EMSA/NEG/1/2014 Lot 3.1	Interballast 3	Hopper Dredger / 1886	Whole year service
Southern North Sea	DC Industrial S.A. 2014/EMSA/NEG/1/2014 Lot 3.2	DC Vlaanderen 3000	Hopper Dredger / 2744	Whole year service
Atlantic North	James Fisher Everard Ltd. EMSA/NEG/1/2013 Lot 2	Galway Fisher, Forth Fisher, Corrib Fisher	Product Tankers / 4754 / 4754 / 6248	Whole year service. As of 8 November 2018, Forth Fisher was replaced with Corrib Fisher
Atlantic Coast	Remolcadores Nossa Terra S.A. EMSA/NEG/1/2014 Lot 1	Ria de Vigo	Offshore Supply / 1522	Whole year service
Bay of Biscay	Seaowl 2017/EMSA/CPNEG/01/2017	VN Partisan	Offshore Supply / 1022	Entered into service on 1 September 2018
Southern Atlantic Coast	Mureloil EMSA/NEG/1/2012 Lot 1	Bahia Tres	Oil Tanker / 7413 / Dispersant 200 t.	Whole year service
Canary Islands and Madeira	Petrogas EMSA/NEG/1/2015 Lot 1	Mencey	Oil Tanker / 3500 / Dispersant 200 t.	Vessel was out of service from 31 August to 20 December due to propulsion failure
Western	Naviera Altube EMSA NEG/1/2011 Lot 4	Monte Anaga	Oil Tanker / 4096	Whole year service
Mediterranean	Ciane EMSA/NEG/34/2012	Brezzamare	Oil Tanker / 3288	Whole year service
Central	Tankship EMSA NEG/1/2011 Lot 2	Balluta Bay	Oil Tanker / 2800 / Dispersant 200 t.	Whole year service
Mediterranean	SL Ship Management Ltd EMSA/NEG/1/2012 Lot 2	Santa Maria	Oil Tanker / 2421	Whole year service
Adriatic Sea	Castalia EMSA/NEG/1/2013 Lot 4	Marisa N	Oil Tanker / 1562	Vessel out of service from 10 July. Contract expired on 28 November 2018.
Aegean Sea	Environmental Protection Engineering S.A.	Aktea OSRV (Aegis I as a back-up	Oil Tanker / 3000	Whole year service (until 3 February 2018 Aegis

	EMSA/NEG/1/2013 Lot 3	vessel)	Offshore Supply / 950	contracted to EFCA)
Eastern Mediterranean	Petronav EMSA/NEG/1/2010 Lot 1	Alexandria	Oil Tanker / 7458 / Dispersant 200 t.	Whole year service
Northern Black Sea	Petronav EMSA/NEG/1/2014 Lot 2	Amalthia	Oil Tanker / 5154	Whole year service
Southern Black Sea	COSMOS 2016/EMSA/CPNEG/6/2016 – Lot1	Galaxy Eco	Oil Tanker / 2969	Whole year service

		2. EAS arrangements		
Baltic Sea	Labelpoland.com EMSA/NEG/8/2015 – Lot 2	10 stand-alone equipment sets	Contracted storage area: 800m ² (Gdansk, Poland)	Whole year service
North Sea	Sureclean / NRC EMSA/NEG/8/2015 – Lot 1	9 stand-alone equipment sets Dispersant 200 t.	Contracted storage area: 600m ² (Oldmeldrum, UK)	Whole year service
Southern Europe	Ottavio Novella 2017/EMSA/CPNEG/38/2016	10 stand-alone equipment sets Dispersant 400 t.	Contracted storage area: 800m² (Ravenna, Italy)	Whole year service



3.1.2 Operational Assistance to Member States and EU Agencies

Following the collision of the ferry *Ulysse* with the container ship *CSL Virginia* in the vicinity of Corsica and the subsequent release of fuel oil, the French authorities requested the services of the EMSA contracted vessel *Brezzamare*. The vessel was on site, providing at-sea oil recovery services from 8 to 20 October. The discharge of recovered oil and cleaning of the vessel was completed on 1 November.

The *Brezzamare* recovered 223 m³ of oil-water mixture, with an estimated amount of 107 m³ content of oil, which makes percentages of 48% of oil and 52% of water. Additionally, the *Brezzamare* took about 257 m³ of oil-water mixture, with an estimated content of 10% of oil, from the other oil recovery vessels engaged in the operations.

Furthermore, EMSA delivered 18 tonnes of Radiagreen OSD dispersant to Bulgaria on their request to increase readiness for the potential oil spill during the lightering operation of the sunken wreck *Mopang*.

Within the context of cooperation between EU Agencies on Coast Guard functions, and as a continuation of the collaboration initiated in 2017 with the European Fisheries Control Agency (EFCA), the back-up vessel Aegis I was made available to EFCA to perform fisheries inspections and ancillary SAR duties in Mediterranean waters at the beginning of 2018. EMSA monitored the implementation of this charter in close collaboration with EFCA.

3.1.3 Maintaining the Service: Drills and Exercises

3.1.3.1 Drills

In order to maintain the appropriate level of readiness during the Stand-by Phase of the contracts, the companies and vessels concerned carry out different types of activities. The primary activity is the vessel/crew drills, which take place on a quarterly basis. Each drill verifies that the capability of the vessel and specialised equipment, and the skill of the crew, is at an appropriate level.

These drills are primarily an internal event between the Agency and contractors, however Member State representatives and journalists have taken part in or attended such drills, and the Agency encourages such participation.

In 2018, a total of 68 quarterly drills and six Acceptance Drills were performed by the vessels' operators under contract to the Agency. The acceptance drills are of particular importance as they are the major milestone for new vessels and/or equipment to enter into the Stand-by Phase of a contract.

With regard to the EAS arrangements, the drills are called 'Equipment Condition Tests' (ECTs) and the contracts have defined a maximum number of six ECTs per arrangement and year. In 2018, 23 ECTs were conducted by EAS contractors in order to verify readiness and performance of the newly acquired stand-alone equipment.

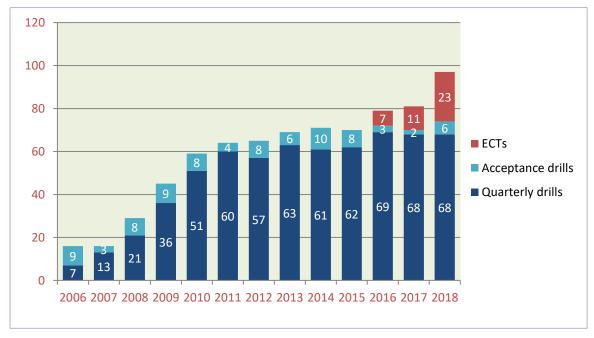


Figure 2 Number of vessel drills and ECTs 2006 - 2018

3.1.3.2 Exercises

In addition to the abovementioned drills, a range of exercises were conducted. These types of event are, in addition to being a useful method of maintaining pollution response skills, an important tool for identifying potential areas that could be improved. At-sea operational exercises in particular greatly assist the integration of EMSA's resources within the response mechanisms of Member States, improving the necessary coordination and cooperation of the EMSA vessels with the coastal State response units.

In the course of 2018, eleven EMSA stand-by oil spill response vessels and three EAS systems were deployed in 9 at-sea operational exercises, organised in cooperation with EU Member States and/or

Regional Agreements in the Baltic Sea, North Sea, Bay of Biscay, Atlantic Coast, Mediterranean Sea, Adriatic Sea and Black Sea.

In addition, in 2018 the Agency participated in 14 notification exercises, involving 27 activations of EMSA vessels contractors and seven activations of EAS contractors.

Detailed information regarding preparedness activities conducted by EMSA contracted vessels and EAS arrangements in 2018 can be found in the "EMSA Pollution Response Services - Drills and Exercises Annual Report 2018" available online at http://emsa.europa.eu/oil-recovery-vessels/opr-documents/opr-reports.html.

3.1.4 Improvements to the Service

In 2018 the Equipment Management Policy was implemented through the overhauling or replacement of several ageing equipment sets part of the Vessel Network, purchased in 2007-2009. Main actions included:

- Overhauling of the high capacity skimmer and of the boom on board Santa Maria, stationed in Malta;
- Replacement of the boom and overhauling of the skimmer on board the *Brezzamare,* stationed in Genoa, Italy;
- Replacement of the boom on board the Aktea OSRV stationed in Piraeus, Greece.

In addition, the response capacity on board the contracted vessel *Bahia Tres*, stationed in Sines, Portugal, was upgraded through a technical improvement project consisting of the installation of a new high capacity skimmer.

Besides, the following vessel improvements were launched and the associated procurements successfully concluded with the relevant vessel contractors. The improvements, which will be finalised at the beginning of 2019, comprise:

- Setting-up dispersant application capability on *Galaxy Eco*, Varna (Bulgaria), and associated dispersant stock of 200 tonnes;
- Setting-up RPAS on the EMSA contracted vessels *Partisan* and *Ria de Vigo*, in order to enhance the oil detection capabilities on board of these vessels.

Moreover, the response capacity of the EAS arrangements was strengthened through the delivery of three high capacity skimmers, one for the Adriatic stockpile and two for the Baltic region.

Furthermore, the procurement for a framework contract for the purchase of oil storage crafts was concluded and equipment orders placed to upgrade the response capabilities in all the EAS arrangements. The lack of sufficient storage capacity in most of the response vessels of a small size used by Member States has been identified as limiting the efficiency of response operations. Through these systems, EMSA intends to complement the existing stand-alone equipment systems with storage capacity for the recovered oil, for use by Vessels of Opportunity without own or with limited storage capacity.

3.2 CleanSeaNet Satellite Service for Oil Spill Monitoring

3.2.1 Introduction

CleanSeaNet, the European satellite-based oil spill monitoring and vessel detection service, was launched in 2007. The service was set up to support Member States' actions to combat deliberate or accidental pollution in the marine environment in the framework of Directive 2005/35/EC (amended by Directive 2009/123/EC) on ship-source pollution and on the introduction of penalties, including criminal penalties, for pollution offences and in particular Article 10.

The service, based on a permanent monitoring of coastal waters through the near real time analysis of Earth Observation (EO) Synthetic Aperture Radar (SAR) images, is available to 28 coastal States: all of the 23 EU coastal Member States (Belgium, Bulgaria, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Malta, Netherlands, Poland, Portugal, Romania, Slovenia, Spain, Sweden, United Kingdom); two EFTA coastal States (Norway and Iceland); and three candidate countries (Turkey, Montenegro and Albania). Through the SAFEMED IV and BCSEA cooperation programmes, CleanSeaNet was made available across the Mediterranean, the Black Sea and the Caspian Sea to the official project beneficiary countries.

When a potential spill is detected by the service, a pollution alert is sent to national authorities. The alerts are available within 30 minutes of the satellite acquiring the image and the service supports the identification of polluters by combining EO products with vessel traffic information. After receiving this information, the national authority then decides on the appropriate operational response.

In cases of accidental pollution, coastal States can request support from the service in the form of increased SAR satellite coverage over the accident area to enable the monitoring of the spill over time, thus providing support to response operations. Additionally, EMSA can also provide very high-resolution optical products in support to these emergency activations; these can provide an overview of the accident area and potentially help in the identification of coastal areas impacted by the spill.

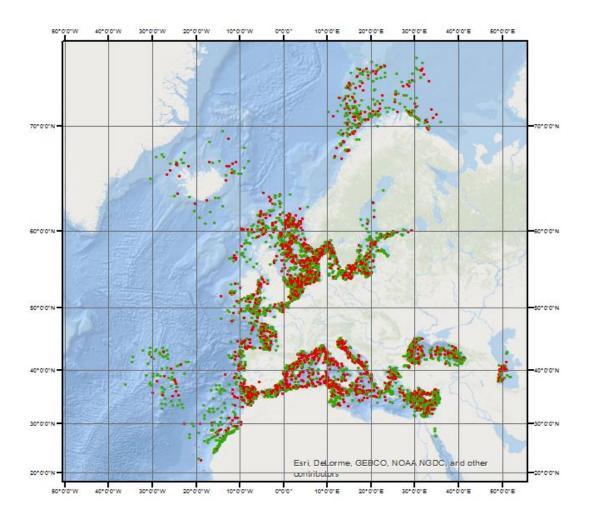
3.2.2 CleanSeaNet detections in 2018

In 2018, of the 4,860 images delivered by the CleanSeaNet service (4,645 for coastal States; 215 for the SAFEMED IV and BCSEA programmes), a total of 6,515 possible oil spills were detected of which 3,292 were Class A and 3,223 were Class B (see explanation below).

CleanSeaNet detections are separated into two classes:

- Class A spills which have a higher detection confidence level;
- Class B spills which have a lower detection confidence level.

Given the limitations of radar detection for the identification of spills, it is important to note that CleanSeaNet does not detect 'oil spills' but 'possible oil spills'. Other substances with a similar effect include, for example, fish or vegetable oil, ice, algae, and other lookalikes.



CleanSeaNet Service 2018: map of spills detected with higher and lower confidence level, except French Outermost Regions (Red: Class A; Green: Class B)

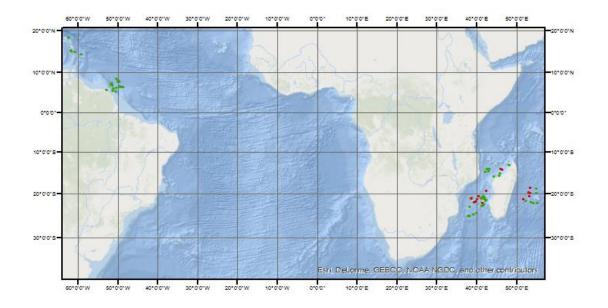


Figure 3: CleanSeaNet Service 2018: map of spills detected with higher and lower confidence level in French Outermost Regions (Red: Class A; Green: Class B)

3.2.3 Support to Aerial Surveillance operations in 2018

Countries that are members of the Bonn Agreement conduct aerial surveillance operations at regular intervals to monitor oil and gas platforms in the North Sea. In 2018, EMSA supported three "Tour d'Horizon" operations. In addition to the services already foreseen through regular CleanSeaNet planning, ten further EO services were delivered to the aircraft crews or national centres supporting the operations.

Eleven additional operational pollution response exercises were supported by CleanSeaNet in 2018: SHEN (February, UK), MOSPA (February, FI), BALEX DELTA pre-exercise (March-April 2018, Poland), TROIA (May, PT), ADRIATIC (May, HR), ATLANTIC POLEX (June, PT), BRAVO/BREEZE (July, BU), HELCOM BALEX DELTA 2018 (August 2018, SE), DMS CYPRUS (October, CY), NEMESIS (October 2018, CY), PACE (November 2018, hybrid exercise).

3.2.4 CleanSeaNet service improvements in 2018

A new tender for provision of Earth Observation services based on SAR and optical imagery was launched and awarded in 2018. Some limited SAR services based on the new contract were delivered from December 2018, and it is expected that by mid-2018, following a test period, all services delivered will be based on the new contracts. Improvements include access to a wider range of satellites, faster delivery (approximately 20 minutes following satellite overpass for SAR and 30 minutes for optical), and an extended portfolio of products including additional value-added products.

In 2018 the Earth Observation Data Centre (EODC) processing system was upgraded. The new system can process a higher diversity of data sets, provide quality checks on the received products, and distribute products to end users. The performance and scalability of the system were greatly improved. These upgrades enable the EODC to cope with a significant increase in the volume and size of products received, and at the same time ensures an improvement in the quality of the data by implementing automatic validations and data quality checks. The performance of the system was also substantially improved by the implementation of a state of the art processing system.

3.3 Support to Coastal States and the Commission for Accidental Spills and Emergencies

In 2018, 11 requests for additional support from EMSA's CleanSeaNet service were received from coastal States addressing accidental spills and emergencies. An additional 43 images were ordered to support these requests. The support provided is listed below.

3.3.1 United Kingdom (29 May), three SAR images

Support was requested following reported sighting of oil in the vicinity of the semi-submersible rig, Ocean Guardian, located between the Shetlands (UK) and Norway on 29 May 2018. Three additional images were planned from 30 May – 02 June.

3.3.2 Portugal (2 June), one SAR image

Following an EPIRB alert received by the MRCC Ponta Delgada on 2 June related to a vessel with MMSI 224146550 located on the open sea (approx. 663 nautical miles to Ponta Delgada), the Portuguese authorities requested support. One additional RadarSat-2 image was provided.

3.3.3 Iceland (5 August), one SAR image

An oil slick was sighted in the north of Iceland (Eyjafjördur) on the morning of 5 August. At the request of the Icelandic authorities, one additional image was provided later the same day.

3.3.4 Germany (17 August), two SAR images

Aerial surveillance detected an oil spill west of the island of Helgoland. Three additional satellite images were ordered; two were delivered but the third was cancelled following no detections on the first two images and no further sightings of oil from reconnaissance flights.

3.3.5 Bulgaria (20 August), three optical and seven SAR images

On 20 August the Bulgarian Maritime Administration contacted EMSA to report that oil was leaking from a sunken wreck off the Bulgarian coastline, six nautical miles from the port of Sozopol, and request emergency assistance. The *M/V Mopang*, an American cargo ship, had sunk in 1921. It was

estimated that 60-70 m3 of heavy fuel oil had been released into the marine environment, of an estimated 600m3 on board. EMSA immediately ordered more CleanSeaNet images to monitor the extent and spread of the oil. Between 20 and 31 August, EMSA delivered three optical and seven SAR images over the area. The Bulgarian authorities acted quickly to seal the hull of the vessel. An inspection of the area on 30 August found no further signs of pollution.

3.3.6 France (27 August), one SAR image

A CleanSeaNet report on 27 August promoted French authorities to follow up on a possible pollution, which was confirmed by nautical means. Given the proximity to an ecologically sensitive area, France requested an additional image from CleanSeaNet to monitor the situation. The pollution was visible on the image.

3.3.7 Bulgaria (7 September), two optical and two SAR images

Following the sealing of the hull of the *M/V Mopang*, Bulgaria subsequently embarked on an underwater operation (11-18 September) to pump-out the remaining oil. In additional to the routine CleanSeaNet images delivered in the area, EMSA also provided four additional images during the period of the operation for monitoring purposes.

3.3.8 France (16 September), three SAR images

A 45 km long pollution was discovered 15 nautical miles off the coast of Marseille, France. Three additional satellite images were provided by EMSA.

3.3.9 Spain (18 September), three SAR images

The fishing vessel *Roymar* caught fire and was adrift on the north-west coast of Spain, with risk of sinking and/or pollution. One additional Sentinel-1 and two additional RadarSat-2 images were acquired.

3.3.10 France (7 October), four optical and 11 SAR images

CleanSeaNet images were requested to monitor the spread of oil following a collision between two vessels north of Corsica on Sunday 7 October, the Tunisian flagged Passenger/RO-RO cargo *Ulysse* collided with Cypriot flagged general cargo *CSL Virginia*. From 8-19 October, the service delivered 15 images to assist French authorities monitoring the spread of the spill. Radar satellite images tracked the overall development of the spill, with optical images to provide more detail on small patches of oil approaching the shore as the spill spread. French authorities provided positive feedback on the support provided by CleanSeaNet, noting particularly that some of the pollution onshore was located thanks to the optical images, thereby assisting the clean-up operations.

3.3.11 Spain (20 November), no additional images

Following the sinking of the fishing vessel *Hermanos Landrove* north of Spain on 20 November (all crew rescued), CleanSeaNet images were used to monitor the site where the vessel sank. No additional images were requested, as images were already planned over the area during the following days. No oil was detected in the images.

3.4 RPAS - Utilising State of the Art Remote Sensing Technology for Oil Spill Detection, Monitoring and Response

The CleanSeaNet satellite service provides a large coverage and high resolution imageries and are the core source of information for large area and routine coverage. Such imageries are ideal to detect maritime pollution. But these satellites cannot stay on-site and are not providing data during night. Filling this gap, aerial and in particular Remotely Piloted Aircraft Systems (RPAS) with their long endurance allow covering large areas for pollution detection at all time and having the ability to stay on spot for investigation of these objects in detail.

EMSA contracted from Nordic Unmanned AS, Norway several lightweight quadcopters to support operations from vessels. RPAS were already installed end of 2018 on the EMSA contracted vessels *Partisan* and *Ria de Vigo*.

Installed and operated on the EMSA oil spill response vessels, these lightweight RPAS provide real time information which can greatly facilitate on-site the decision making process regarding the efficient and effective deployment of response resources. An RPAS service for emission monitoring was provided to Greece.

Chapter 4: Cooperation and Coordination

4.1 Introduction

The work of the Consultative Technical Group for Marine Pollution Preparedness and Response (CTG MPPR) continued in 2018. EMSA also continued its cooperation with the pollution response experts of EU Member States, EFTA/EEA coastal Countries, EU Candidate Countries, the Regional Agreements Secretariats, the Commission (DG ECHO) and, on behalf of the Commission, with the International Maritime Organization (IMO).

4.2 Activities with regard to Cooperation

4.2.1 Pollution Response Services User Group (PRS UG)

The 8th Pollution Response Services User Group meeting took place on 18 October 2018 at EMSA's premises in Lisbon, Portugal. Recent developments on all of EMSA's Pollution Response Services were presented and discussed in detail. Lessons learnt from recent incidents and exercises, how to enhance cooperation and other relevant developments at national level were also discussed by the group, with several follow-up actions agreed in view of the next PRS User Group Meeting, which will take place on 16 October 2019, one day before the CTG MPPR meeting.

4.2.2 Inter-Secretariat Meeting

The annual Inter-Secretariat meetings with the Secretariats of the Regional and Sub-Regional Agreements and Chairpersons of relevant Technical Groups of these Agreements, DG ECHO and EMSA focus on facilitating the exchange of information and enhancing the sharing of best practices in marine pollution preparedness and response across the European regional seas. The 14th Inter-Secretariat meeting was hosted by Denmark on 21 February 2018 in Copenhagen.

4.2.3 Cooperation within the Consultative Technical Group for Marine Pollution Preparedness and Response (CTG MPPR)

The CTG MPPR provides an EU level platform for Member States to contribute to the improvement of preparedness and response to accidental and deliberate pollution from ships. The CTG MPPR is intended to facilitate and strengthen the exchange of information, views and opinions, share best practice and define the current and future priority actions in this field among the EU national experts, as defined in its Rolling Work Program. This is done through dedicated workshops, training, technical studies, guidelines and reports.

The status of ongoing priority actions and planned activities was reviewed at the 12th CTG MPPR meeting held on 17 October 2018. There was strong support to continue with the Group's ongoing projects, listed below, providing added value at European level. It was agreed that the next (13th) CTG MPPR meeting will be held on 17 October 2019 in Lisbon.

With regard to the ongoing CTG MPPR projects, the following actions were undertaken in 2018:

- Oil Spill Sampling and oil spill identification:

The Correspondence Group (CG) on oil spill sampling, comprised of Member States experts, is tasked to prepare a training curriculum on oil sampling and to develop interdisciplinary, practical guidelines on oil spill sampling and oil identification, based on the OSINet expertise, under the lead of Germany. In 2018, the training curriculum was finalised and based on this, EMSA organised on 19-20 September 2018 the first training on oil spill sampling for EU/EFTA coastal Member States. The course was hosted by SASEMAR in the Jovellanos Training Centre in Spain. Oil spill sampling experts (trainers) from EU Member States provided the training and contributed with presentations and practical exercises. The course aimed to facilitate the exchange of expertise and knowledge

among countries, as well as widen cooperation among experts in the field of oil spill sampling. The focus was the various oil spill sampling procedures used in Europe, based on existing practices. The training addressed operational, practical and legal elements of oil spill sampling, and in addition to classroom presentations, it included the demonstration of national sampling kits by the trainers and participants, and several practical exercises, simulating and practicing real oil spill sampling.

- Joint workshop on Risk Assessment and Response Planning in Europe:

EMSA and DG ECHO co-organised the 4th Joint Workshop on 'Risk Assessment and Response Planning in Europe', on 14 March 2018 in London. The workshop, which brought together maritime and civil protection authorities and Regional Agreements Secretariats, looked into the current EU requirements for risk management (Union Civil Protection Mechanism framework), lessons learnt from the recent regional MPPR risk assessment projects and the main challenges in conducting risk assessments and in implementing their outcomes. The importance of coordination at national level in risk assessment planning and management was highlighted and the need for further EU guidance on this topic was identified.

Training on the use of surveillance systems for marine pollution detection and assessment:

EMSA organised the 6th Training course on "The Use of Surveillance Systems for Marine Pollution Detection and Assessment" on 15 - 17 May 2018. The training had an operational focus on marine pollution surveillance, including presentations on relevant legal elements. It was provided by experts from EU/EFTA national administrations, aiming to share national experiences among aerial surveillance operators. The course also included a visit to the airbase of the Portuguese Airforce in Montijo to see and discuss the aircraft used in Portugal for maritime surveillance.

- EMPOLLEX:

The EMSA Marine Pollution Expert Exchange Programme (EMPOLLEX) was launched to promote the exchange of best practices and to enhance contacts, networking and cooperation between Member States in the field of marine pollution. In 2018, no requests for exchanges under the EMPOLLEX Programme were received.

4.2.4 Cooperation with Third Countries

From the operational perspective and through the SAFEMED IV and BCSEA cooperation programmes and associated dedicated budgets (not through the APM budget), CleanSeaNet was made available to those official beneficiary countries across the Mediterranean, the Black Sea and the Caspian Sea, who showed interest and signed the applicable Conditions of Use. Within the same projects an antipollution exercise took place in Cyprus where EMSA pollution response assets were demonstrated.

4.2.5 Technical Assistance to the European Commission

Member States have repeatedly requested more frequent training sessions on SSN and CECIS MP. As a result, EMSA and DG ECHO jointly worked in 2018 with a contractor to develop an e-learning course on the use of these two systems.

EMSA again supported DG ECHO and the training consortium in the development of course contents and training curricula for the Technical Expert Course for Maritime Incidents (TEC-MI). The prime objective of the TEC-MI is to prepare maritime experts for interventions and deployments in an affected country as part of a Union Civil Protection Mechanism (UCPM) Team.

4.2.6 Cooperation with Regional Agreements and the International Maritime Organization

With respect to the Regional Agreements, the Agency also provides technical support to the European Commission, and participates as part of the European Union delegation in the technical and operational meetings of these Agreements. For example, EMSA participates in the annual Operational, Technical and Scientific Questions Concerning Counter Pollution Activities (OTSOPA) meetings of the Bonn Agreement, in the HELCOM Response Group (two meeting in 2018), and is also a member of the HELCOM Informal Working Group on Aerial Surveillance (IWGAS), which meets once a year.EMSA also participated in regional activities in the Mediterranena Sea, in particular an HNS workshop organized by REMPEC where available guides and tools to support in an HNS incident were introduced and discussed. EMSA contributes to these meetings by submitting

papers, participating in discussions and also by involvement in the various operational exercises organised around Europe.

The IMO re-organised its plenary meetings in 2013, as a result of which, the Oil Pollution Preparedness, Response and Cooperation Hazardous and Noxious Substances (OPRC-HNS) Technical Group was discontinued as a separate group. The work of the Group is now undertaken under the umbrella of the Pollution Prevention and Response subcommittee (PPR), which meets annually. EMSA continues monitoring the work related to pollution preparedness and response under this subcommittee.

4.2.7 Cooperation with industry and other stakeholders

EMSA engaged with the International Oil Pollution Compensation Funds (IOPCF) and the International Group of Protection and Indemnity Clubs (IGPI) to develop a MoU that covers the methodology for the calculation of EMSA's vessel and equipment hire rates and charges as well as dispersant charges. The MoU, agreed at working level beginning of 2017, was presented to EMSA Administrative Board as well as to the Assembly of the IOPC Funds who gave their agreements for its signature. Following the formal approval by the IGPI, the MoU has now been signed by all parties.

The Agency continues to support the major marine pollution conference and exhibition event in Europe, INTERSPILL, as a member of the event's organising Committee¹¹, recognising the importance of sharing spill response experience and disseminating best practice. For the 2018 INTERSPILL event, held on 13-15 March 2018 in London, EMSA contributed to the event's preparation, in the development of the Conference Programme, provided key-note speakers and had an EMSA stand at the event. The organisation of the joint workshop on risk assessment in the margin of Interspill together with DDG ECHO was also an incentive to facilitate the participation of Member States to this specialised event and exhibition.

Chapter 5: Information

5.1 Introduction

As part of its support to EU and EFTA/EEA Member States, EU Candidate Countries and the EU Commission, the Agency continued collecting and disseminating information in the field of marine pollution preparedness and response to oil and chemical spills.

5.2 Activities with regard to Hazardous and Noxious Substances (HNS)

5.2.1 MAR-ICE Network: Information Service for Chemical Emergencies

The MAR-ICE service, based on an agreement signed between the three MAR-ICE parties (Cedre, Cefic and EMSA), comprises a network of experts to support and advise remotely Member States during the response to chemical spills. In 2018, the MAR-ICE Cooperation Agreement was reviewed

11 Since 2007, EMSA has been a party to the MoU between the event's Steering Committee members to organise the conference and exhibition on a "not-for-profit" basis.

to potentially extend the MAR-ICE service by providing on-site (at command posts) consultations during maritime emergencies by available chemical companies. Details of these new arrangements will be included in the amended Cooperation Agreement in 2019. In 2018, the network was activated on four occasions. Poland and Portugal activated the service for the first time.

5.2.2 MAR-CIS datasheets (MARine Chemical Information Datasheets)

The MAR-CIS Marine Chemical Information Sheets are datasheets of chemical substances that contain relevant information for responding to marine spills of hazardous and noxious substances (HNS). These datasheets provide concise information on the substances' physical and chemical properties, handling procedures and emergency spill response procedures, as well as maritime transport requirements for safe transport at sea.

The MAR-CIS information is available through a web portal integrated in EMSA's Maritime Application Portal. These datasheets are also linked to the SafeSeaNet's Central Hazmat Database (CHD). The MAR-CIS information is also available offline (e.g. at incident site where internet connection might not be available) through an application (MAR-CIS App) for mobile devices such as tablets and smartphones. The MAR-CIS App is available at Google Play and Apple store for downloading by authorized users.

In 2018, a new version of MAR-CIS information (database) was released. In addition to software updates, 34 datasheets were fully revised and improved. Modelling tools for tracking oil and chemical spill at sea

In view of maintaining and improving the know-how on operating oil and chemical spills modelling tools in emergencies, EMSA maintained its access rights to commercial software for simulating the fate and trajectory of oil and chemical spills at sea.

The output from these tools is commonly used as a decision support tool for drills, exercises, training and contingency planning for mobilising and optimising the deployment of pollution response means. The results can be shared with Member States and Commission upon request.

In 2018, these modelling tools continued to be used at EMSA in a systematic way to maintain competence in operating the tool. Following the collision of the ferry *Ulysse* with the container ship *CSL Virginia* in the vicinity of Corsica and the subsequent release of fuel oil in October, oil fate and trajectory simulations were provided internally to assess the situation. One of these simulations included the tracking of one oil slick detected in one CleanSeaNet satellite image.

5.2.3 Dispersant Usage Evaluation Tool (DUET)

Following the completion of the enhancement of EMSA's Dispersant Usage Evaluation Tool (DUET) and the provision of hands-on training to experts from EU and EFTA coastal Member States as well as coastal EU Candidate Countries in 2016, the Agency kept the tool available throughout 2018.

5.3 List of Member States' pollution response capacities

In line with Regulation (EU) No 911/2014, the "list of the public and, where available, private pollution response mechanisms and associated response capabilities in the various regions of the Union are now captured in the CECIS MP database". EMSA regularly updates the information of its oil and HNS pollution response capacities in the CECIS MP database. EU/EFTA coastal Member States are responsible for maintaining currency of their national resources.

Annex: Total Expenditures for Pollution Preparedness and Response Activities

Total Expenditures ¹² for Pollution Preparedness and Response Activities	Commitments (in EUR)	Payments (in EUR)
Pollution Response Services (Total)	20,099,064	22,030,126
Contracts (Total)	16,018,993	15,253,408
 Vessel Contracts 2013 (Adriatic Sea, Aegean Sea, Atlantic North, Northern North Sea) 	0	1,075,422
 Vessel Contracts 2014 (Atlantic Coast, Northern Black Sea, North Sea/Channel - 2 Lots) 	0	2,188,441
 Vessel Contracts 2015 (Southern Baltic, Canary Islands and Madeira, renewal Eastern Mediterranean) 	0	2,047,574
 Vessel Contracts 2016 (Southern Black Sea, renewals Western Mediterranean Sea, Central Mediterranean Sea) 	0	1,758,984
 Vessel Contracts 2017 (Bay of Biscay, renewals Atlantic South, Western and Central Mediterranean) 	4,186	4,133,994
 Vessel Contracts 2018 (East Mediterranean Sea, renewals Aegean Sea, Atlantic North, Northern North Sea, Atlantic coast) 	9,131,866	1,204,164
 Vessel Contracts - others (externa l experts, clarification meetings, D&B reports) 	7,747	7,747
 EAS Contracts (renewals, additional services, establishment of a new arrangement including purchase of equipment) 	6,875,194	2,837,082

270,835	270,835	Exercises
4,061,085	1,329,715	Improvements (OPR equipment purchase, overhauling/upgrade, insurance and labelling costs)
2,399,520	2,399,520	Oil and Gas installations
45,278	80,000	Missions
4,162,905	4,944,617	CleanSeaNet (Total)
788,434	668,683	Earth Observation Licenses and Services
3,012,462	3,551,950	Support to CleanSeaNet Users
54,029	60,184	CleanSeaNet Service Developments (missions and meetings)
307,980	663,800	Remotely Piloted Aircraft Systems setup services
178,132	288,163	Cooperation, Communication and Information (CCI) (Total)
51,927	142,905	HNS-CCI Activities
111,279	125,258	HNS-CCI Meetings
14,927	20,000	Missions
27,235,382	25,925,000	TOTAL APM allocated
26,371,163 (96.83%)	25,331,843 (97.71%)	TOTAL APM utilised