

DECISION OF THE ADMINISTRATIVE BOARD CONSIDERING, ADOPTING AND ASSESSING THE EMSA CONSOLIDATED ANNUAL ACTIVITY REPORT 2019

THE ADMINISTRATIVE BOARD OF THE EUROPEAN MARITIME SAFETY AGENCY,

Having regard to the European Parliament and Council Regulation 1406/2002, of 27 June 2002, as amended, establishing a European Maritime Safety Agency (hereafter EMSA or the Agency);

Having regard to Regulation (EU) No 911/2014 of the European Parliament and of the Council of 23 July 2014 on multiannual funding for the action of the European Maritime Safety Agency in the field of response to marine pollution caused by ships and oil and gas installations;

Having regard to the Financial Regulation of the Agency adopted by the Administrative Board on 25 July 2019 and in particular Article 48 thereof;

- (1) Whereas the EMSA Administrative Board at its 53rd meeting in November 2018 agreed to an initiative to streamline and enhance programming and reporting processes by moving the Programming Document exercise from the March to the June Board meeting and bringing the Consolidated Annual Activity Report exercise forward, from the June to the March meeting;
- (2) Whereas the Agency's provisional accounts are due to the Commission by 1 March and the European Court of Auditors' observations thereto by 1 June;
- (3) Whereas the draft EMSA Consolidated Annual Activity Report 2019 contains the provisional accounts;
- (4) Whereas the Agency has submitted the draft EMSA Consolidated Annual Activity Report 2019 taking into account the European Court of Auditors' observations of previous years, for adoption and assessment by the Administrative Board subject to the preliminary observations of the European Court of Auditors;

HAS DECIDED AS FOLLOWS:

Article 1

The Administrative Board hereby adopts and assesses the EMSA Consolidated Annual Activity Report 2019 taking into account the European Court of Auditors' observations of previous years and subject to the preliminary observations of the European Court of Auditors.

Article 2

The Administrative Board's adoption and assessment will be subsequently confirmed by written procedure if there are no substantial changes or revisited at the June meeting if there are, once the preliminary observations are available. The EMSA Consolidated Annual Activity Report 2019 will then be transmitted to the Institutions as required.

Done at Lisbon on 6 April 2020,



Andreas Nordseth
Chairman of the Administrative Board

Annex 1: Assessment of the EMSA Administrative Board
Annex 2: EMSA CAAR 2019

EMSA Consolidated Annual Activity Report 2019

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 2019. 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 previous 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 2019 planned in the EMSA single Programming Document 2019-2021.

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 2019 its updated Action plan for their implementation, including the latest status regarding the timeframe for implementation as well as a realistic budgetary impact.

The Agency's previous 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 were 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 appointment of the new European Commission. After her appointment by the Administrative Board in September 2018, Ms Maja Markovčić Kostelac started preparing her new strategy in her first year in office, 2019. This new 5 Year strategy, covering the period 2020-2024, was adopted in November 2019.

The key strategic achievements in each work area in 2019 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. The continued focus on implementing the Methodology for Visits to Member States, as adopted by the EMSA Administrative Board, ensured that the Agency succeeded in further reducing the administrative burden for Member States, developing and sharing best-practices and lessons learnt, and strengthening the flow and exchange of information, including the participation of Member States as observers. The horizontal analyses, which now incorporate a cost-efficiency assessment, confirmed their added value both for Member States and the Commission.

In addition, the Quality Management System for visits and inspections, covering the full scope of the Agency's visits and inspections activities continued to be implemented and provides a solid framework for continuous improvement.

The technical work carried out in relation to passenger ship safety, marine equipment, autonomous ships, steering and manoeuvrability and 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 an 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 via the Integrated Maritime Services (IMS) continued in 2019. The process of data integration and incorporating new data sources and functionalities, such as enhancing ABM, combining fishing vessel positions and search and rescue data as well as providing a mobile application that is actively used by Member States (IMS Mobile App), continued to add value for a growing number of end-users showing increasing interest in tailor-made services. The Integrated Maritime Services (IMS) 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.

The EMSA Earth Observation pool continued to develop and deliver the capabilities of Satellite based maritime surveillance for pollution monitoring through the CleanSeaNet Service but also through the Copernicus Maritime Surveillance programme and by way of the service provided to Frontex for the maritime surveillance in the domain of Border Control. The Earth Observation services portfolio and the Earth Observation Data Centre (EODC) finalized an important evolution in terms of satellite processing capabilities, increasing the performance, stability and resiliency of the satellite based service delivery. These developments enabled the processing of the highest volume of Earth

observation Services since the Agency initiated activities in this field, with an overall 21% growth of services delivered to Member States administrations and EU institutions, compared to 2018.

EMSA continued to offer capabilities based on Remotely Piloted Aircrafts (RPAS) technology supporting maritime surveillance and, by doing so, became in this second year of operations a reference at EU and global level for the use of RPAS for maritime surveillance.

The integrated maritime picture provided through the IMS service, ABM, and Earth Observation 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. IMS services were also further developed in 2019 for EUNAVFOR and MAOC-N, and a new cooperation agreement was signed with EUROPOL providing a dedicated associated operational IMS service. With respect to SAT-AIS data EMSA continued to provide global satellite AIS data services to end-users. A new Framework Contract for Services was put in place with a new SAT-AIS data provider and EMSA is now providing its users with global real-time SAT-AIS data service capability using high performance satellites.

The Commission has put in place a preparatory action for the operational implementation of the Common Information Sharing Environment (CISE) and has tasked EMSA to set up and coordinate the preparatory action, known as the „transitional phase“. A Grant Agreement between DG MARE and EMSA was signed in April 2019 with a duration of 2 years and a budget of 3.5 MEUR. EMSA will provide technical and operational support to Member States to integrate the CISE interoperability building blocks into their systems on the basis of the elements developed and tested by EUCISE2020. The Agency aims to ensure coherence of CISE with the overall maritime surveillance framework and the existing EU maritime information systems thus avoiding duplication of efforts while taking into account the existing legislation.

The impact of digitalisation on shipping and the potential support to Port States and Flag States for eCertificates confirmed the role that EMSA could play as facilitator.

3. Environmental challenges and response

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

[contributing activities: 2.3, 4.1, 4.6, 5.1, 5.2, 5.3]

As the developer and provider of tools and services to directly support Member State environmental enforcement efforts and the expert support to the Commission at the IMO, EMSA is prepared 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. THETIS-MRV is the system developed and hosted at EMSA to support the monitoring and reporting of verified data on CO2 emissions. Following the end of the first reporting period, EMSA supported the European Commission in gathering the data on ships of over 5000 GT operating in EU waters. These data were made public in June 2019, for around 10800 ships, thus representing the first picture of CO2 emissions from ships in the EU. The introduction of the MRV system is expected to lead to emission reductions of up to 2% compared with a business-as-usual scenario.

Technical work in support of the European Commission and different stakeholders continued with focus on alternative fuels and sources of renewable energy, marine litter, underwater noise, the

revision of the Port Reception Facilities Directive, the AFS Convention, the Sulphur Directive and its enforcement, Green House Gases at international and European level thus confirming the commitment of the Agency towards sustainability goals and greener shipping.

In the field of response, the Vessel Network, the Equipment Assistance Service (EAS) arrangements and the dispersant stocks managed by EMSA, together with a regular training program for Member States constitute a real added value at EU level, highly appreciated, as can be testified by the increasing number of requests for vessels and/or equipment sets during national or regional exercises. EMSA also deployed and tested the capabilities of the light RPAS on board of EMSA pollution response vessels to support recovery operations. EMSA performed measurements of Sulphur Dioxide from vessels using RPAS.

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, 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 new technologies and e-learning. The growing body of tools and guidance reflects evolving policy priorities and related stakeholder needs. Work started on virtual reality with the idea of enhancing the capacity building toolbox made available to EMSA end users.

A new concept of capacity building was introduced with the final objective to develop professional development paths, based on a structured and modular approach to training and certification of specific activities or functions, thus better supporting the competent authorities in charge at national level of Flag, Port, Coastal and Environmental functions.

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, therefore confirming the potential for exporting the Agency's knowledge and by extension EU standards and solutions beyond the European geographical dimension.

B) Operational Achievements

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. The combined effort of EMSA and Member States in the programme of visits and inspections – all those planned for 2019 were carried out - has provided essential feedback for Commission initiatives to assess and fine-tune maritime safety EU legislation in order to improve the efficiency and effectiveness of the measures already in place. In addition, the horizontal analyses

performed have provided fundamental input for policy development and improvement of the relevant EU legislation in the area.

Preparatory work was carried out for the preparation of the new cycle of visits for passenger ship safety, the first cycle that will cover multiple Directives.

Special emphasis continued to be given to passenger ship safety and, in particular, the work on fire safety. The study FRESAFE II represented an essential building block for the work carried out at IMO and constituted the backbone of the relevant Interim Guidelines adopted in 2019.

In addition the preliminary results of the MASS study were presented and discussed with experts from the Member States, with the objective to contribute to the ongoing work at IMO.

A new study was commissioned on Steering and Manoeuvrability, with the objective of stimulating in the near future discussions at IMO.

Work continued on the development of a new MARED Database, and EMCIP was enhanced with new features such as the Business Intelligence tool.

In the field of Human Element further enhancements of the STCW-IS were launched, aiming at the development of a web-based tool for interactive statistical review by public users.

A table top exercise focusing on maritime cyber-security was organised with the competent authorities of the Member States in charge of maritime security and the direct involvement of industry.

Cooperation was also enhanced with ENISA, and an event aiming at raising awareness on transport cybersecurity was hosted at EMSA.

Discussions were initiated with the Commission and the Member States in relation to the monitoring of Recognised Organisations, looking at options for increased sharing of information to support better Flag State responsibilities.

2. Monitoring, surveillance and information sharing

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

Efforts to support the digitalisation/simplification of maritime transport continued with preparatory work for SafeSeaNet (SSN v.5) to support the legal requirements for registration of persons on board passenger ships and the revised Port Reception Facilities Directive.

Progress was made regarding the development of the central Ship, LOCODE, HAZMAT and Organisations databases. Preparatory work also started for the development of the EMSWe ship database (required by Article 14 of the EMSWe Regulation (EU) 2019/1239).

The Interoperability project continued with a revised plan and set of activities with a particular focus on the European Maritime Single Window environment (EMSWe). The following projects are on-going; (i) Evaluation of security and interoperability solutions for SSN (ii) EMSWe dataset (iii) Facilitation of ship-to-shore reporting (iv) Use of reference databases to support MS authorities and EU agencies (v) VDE Capability project. Additionally, further cooperation with the European Space Agency (ESA) and Norway on the VHF Data Exchange System (VDES) took place. Through such cooperation, EMSA is exploring the benefits of VDES by means of a joint project which consists of a number of activities including the exchange of Mandatory Report Systems (MRS) reports by ships using Norway's NorSat-2 LEO satellite with a VDES test-payload and VDES equipment on board a (test)vessel. The Long Range Identification and Tracking (LRIT) services hosted by EMSA welcomed Georgia and Tunisia to the EU LRIT CDC in July 2019.

In terms of support to emergencies at sea, EMSA provided satellite monitoring in reaction to 15 distinct activations by Member States, linked with oil pollution, search and rescue and anti-piracy.

New data, information and functionalities have been added to the IMS service, including inter-alia the availability of new vessel position reports and vessel enrichment information, long-term (2 years) historical vessel track queries and new system-to-system (S2S) interfaces. The development of ABM algorithms was stepped-up together with interested Member States and EU Agencies/Bodies. Progress was made with the rolling-out of new versions of the SafeSeaNet Ecosystem Graphical User Interface (SEG) which is gradually replacing old single system interfaces, offering a common and combined view of maritime information provided by several back-end systems operated by the Agency.

The cooperation project with EFCA on supporting EU regulation in the field of Illegal, Unreported and Unregulated (IUU) fishing came to a successful conclusion. The outcomes were integrated fully into the existing IMS provided by EMSA to support fisheries monitoring and control under a Service Level Agreement (SLA) in 2019.

Operational and technical training sessions on the Agency's Integrated Maritime Services, SEG new functionalities, ABM and SSN user management were provided in total for almost 300 personnel from Member States and EU Agencies, in addition to webinar and online training tools.

The Traffic Density Mapping Service (TDMS) became operational in 2019 and was made available to Member States and EU Institutions via the SEG graphical user interface and to the public via the EMODnet portal. The TDMs illustrates vessel movement patterns for defined maritime geographical areas and time periods contributing to a better understanding of the maritime traffic patterns.

The operational services under the Copernicus Maritime Surveillance Services, executed on behalf of the Commission, saw a 52% growth compared with 2018 in the number of organizations served. More than 41 Member State Administrations and EU institutions are now being supported by the service. The number of earth observation products delivered by Copernicus Maritime Surveillance also grew substantially (29% when comparing with 2018).

In terms of earth observation contracts, two new framework contracts were signed allowing to further acquire Radarsat-2 satellite licenses and TerraSAR-X/PAZ satellite licences. These new contracts provide a stable and robust basis for the delivery of services and enable EMSA to cope with the increased volume of earth observation service requests.

2019 was the second full year of Remotely Piloted Aircrafts Services (RPAS) operations offered by EMSA. The EMSA RPAS Data Centre which is the central hub for distributing live feeds was operational throughout the year and was continuously improved. It ramped-up its services to 642 operational days, reaching 1488 flight hours, during parallel deployments in the scope of coast guard functions in support of Member States and in the framework of the coast guard cooperation with the EU sister Agencies. During the year, EMSA delivered services in seven different Member States including two operations run by Frontex. EMSA also deployed a light-weight RPAS on board EFCA's chartered vessel "LUNDY SENTINEL" to support fishery monitoring activities.

EMSA has maintained an intensive dialogue with Member States regarding RPAS operations for maritime surveillance during the implementation of the operations, the RPAS Data Centre trainings and during the RPAS User Group which took place in September. With regards to RPAS, the main risk remains with the delays in obtaining the permit to fly for such a recent technology, with a safety legal framework still being developed. In order to mitigate this risk EMSA signed a Memorandum of Understanding with the European Aviation Safety Agency (EASA) to promote cooperation in this field.

With the objective of continuing to offer maritime digital services in support of the daily work of the competent authorities of the Member States EMSA continued working on the development of THETIS and its modules. Extending the possibilities of the original THETIS information system, EMSA concluded the work on the voluntary module for Member States to report security inspections under Regulation 725/2004. In addition, THETIS and THETIS-EU were further enhanced to cater for the Port

State and Flag State provisions of Directive (EU) 2017/2110 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. In 2019, the measurements of Sulphur Dioxide captured by RPAS services were transmitted live to THETIS-EU following its integration with the RPAS Data Centre. With the aim of reducing administrative burden for Port State Control officers, a pilot project with the Paris MOU was launched to verify the correctness of data submitted to THETIS through 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. This pilot project is a first step towards digitalisation and better use of eCertificates.

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 it was 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. In 2019 the development of a mobile application started.

3. Environmental challenges and response

[contributing activities: 2.3, 4.1, 4.6, 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 risks. In particular, responding to a recommendation of the Administrative Board, a stress test exercise was carried out in 2019 together with the Member States in order to further analyse the relevance and added value of EMSA resources in case of a major spill incident. The results of this exercise are currently being analysed with the Member States.

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 (EAS). As regards the latter a new depot in the northern Baltic Sea became operational. The Agency also successfully completed the procurement procedure for the re-tendering of two other EAS: in the North Sea (re-tendering due to Brexit) and the southern Baltic Area. EMSA also continued improving the operational capacities of its vessels by equipping up to 5 vessels with RPAS capacity. Furthermore, as mentioned before, in the context of coast guard cooperation, EMSA equipped the EFCA chartered vessel "LUNDY SENTINEL" with pollution response equipment and provided relevant training. EFCA participated in a pollution response exercise organised under the auspices of the Italian chairmanship of the European Coast Guard Functions Forum. Regarding support to Member States in case of a chemical incident, the MAR-ICE Network was improved with the extension of its service to provide 'level 2' support, meaning that in case of a chemical incident, upon their request and depending of the availability, Member States may benefit from the assistance of an expert from the European chemical industry at their response command centre. 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.

CleanSeaNet continued to provide near real time satellite oil spill monitoring to Member States and European Neighbourhood policy projects. Due to increased efficiency of the earth observation

contracts signed in 2018, the support provided to Member States could be expanded and the number of images delivered in 2019 grew substantially (more than 40%). In terms of support to emergencies at sea, EMSA provided satellite monitoring in response to 15 distinct requests by Member States, linked with oil pollution, search and rescue and anti-piracy. The support provided to emergency requests presented a 35% increase compared to the previous year.

Extensive support was given following the sinking of the “Grande America” in early March 2019, for which two EMSA oil spill response vessels equipped with RPAS were mobilised and satellite imagery was provided for detection of oil pollution at sea. In addition, satellite images were provided for assessing and monitoring several maritime accidents throughout the year.

Pollution preparedness and response priority issues identified by the Member States continued to be addressed, with working groups, workshops and guidance documents under the CTG MPPR work.

Support was provided to the Commission and the Member States in the ongoing discussions in relation to the short, medium and long term measures under the IMO’s Green House Gases Strategy, the Strategy Plan for the reduction on marine plastic litter pollution from international shipping, the implementation of the Sulphur Cap. Alternative Fuel and LNG were the subject of workshops and trainings, and continuous assistance was ensured to the Commission in support of the revised PRF Directive, as well as in the ongoing monitoring of the Ship-source pollution (SSP) Directive implementation and within the context of the European Sustainable Shipping Forum.

Support was ensured to the Commission in putting forward an EU proposal to ban the use of cybutryne from 3 October 2021 and to prohibit that ships should either bear or seal in such coatings from 3 October 2026.

As regards THETIS-MRV, following the end of the first reporting period, EMSA supported the European Commission in gathering the data on ships of over 5000 GT operating in EU waters. These data were made public in June 2019, for around 10800 ships, thus representing the first picture of CO2 emissions from ships in the EU. Support was ensured to the Commission in the analysis of such emissions data aiming at a report to be published towards mid-2020 to inform the public and allow for an assessment of the CO2 emissions and the energy efficiency of maritime transport.

In the field of implementation of the Sulphur Directive, EMSA performed measurements of Sulphur Dioxide from vessels using RPAS during 61 operational days in one Member State. EMSA could not meet the very high demand for such services from the Member States in 2019 due to technical issues and limitations in the number of available RPAS systems.

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, 5.1, 5.3]

The training programme for the year was delivered, with focus on the priorities identified by the Member States following a bottom-up approach, and hands-on training on the EMSA tools that are part of the daily work of the competent authorities of the Member States. Training initiatives in the Member States made it possible to reach a wider audience. Continuous Member State’ demand for training, e-learning or ad-hoc technical assistance from EMSA confirms 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 and neighbouring countries channelled through the IPA (Instrument for Pre-Accession Assistance), Mediterranean, and Black and Caspian Sea projects.

A new training was developed and delivered in close cooperation with IMO, aiming at providing support to the competent authorities of the Member States in their preparation of the IMSAS (IMO Member State Audit Scheme) audit.

The integration of virtual reality in the toolbox of capacity building was kicked off in 2019, with the objective of using state of the art technology to the competent authorities of the Member States integrated in the new modular approach to capacity building.

Within the context of the SAFEMED IV and Black and Caspian Sea Projects assistance was 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. To this end initiatives were taken both at EMSA and in the beneficiary countries. In support of the MED MOU on Port State Control, the new module THETIS-MED was developed. The Agency also acted as facilitator in support of discussions for the introduction of an Emissions Control Area (ECA) in the Mediterranean. A number of beneficiary countries signed the Condition of Use necessary as pre-requisite for the provision of CleanSeaNet images.

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.

135 out of 140 objectives planned in the corresponding SPD 2019-2021 for operational and horizontal activities were achieved (96.42%) in 2019; 5 operational objectives were not achieved as these were dependent on third party requests that did not materialise..

As regards project financed activities, all 52 objectives were achieved.

The Agency executed 99.22% of commitment appropriations and 96.44% of payment appropriations.

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.

Based on information outlined in Parts II, III and IV of the CAAR2019 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 2019, all audit recommendations issued and due by 31/12/2019 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 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 2019 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. In this respect the Administrative Board also welcomes the adoption of the new EMSA 5-year Strategy 2020-2024, adopted in November 2019.

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, 6 April 2020



Andreas Nordseth
Chairman of the Administrative Board

EMSA Consolidated Annual Activity Report 2019

Document history

06.04.2020	Adopted and assessed by the EMSA Administrative Board by written procedure 2/2020 taking into account the European Court of Auditors' observations of previous years and subject to the preliminary observations of the European Court of Auditors.
04.03.2020	Transmitted to the EMSA Administrative Board for consideration, adoption and assessment, subject to the preliminary observations of the European Court of Auditors.

Table of Contents

Administrative Board's analysis and assessment.....	4
Executive Summary / Introduction.....	14
Part I – Achievements of the Year.....	15
List of EMSA activities.....	16
Interagency cooperation with Frontex and EFCA on coast guard functions.....	18
Maritime Transport and Surveillance - information on ships, cargoes and ship movements.....	25
2.1. THE UNION MARITIME INFORMATION AND EXCHANGE SYSTEM.....	25
a. Integrated Maritime Services.....	25
b. SafeSeaNet.....	28
c..... Improving internal market and maritime transport efficiency.....	31
Project: Promotion of interoperability between industry and competent authorities in the European Maritime Single Window (EMSW) environment under the Common Information Sharing Environment for the maritime domain (CISE) Process (Interoperability project).....	33
Project: EFCA.....	35
Project: FRONTEX.....	37
2.2 EU LONG RANGE IDENTIFICATION AND TRACKING (LRIT) COOPERATIVE DATA CENTRE (CDC) AND LRIT INTERNATIONAL DATA EXCHANGE (IDE).....	39
2.3 THETIS and its modules.....	41
Project: THETIS-MRV.....	44
2.4 MARITIME SUPPORT SERVICES.....	46
Project: COPERNICUS MARITIME SURVEILLANCE SERVICE.....	48
Project: CISE Transitional Phase.....	50
Visits and Inspections to monitor the implementation of EU legislation.....	52
3.1 CLASSIFICATION SOCIETIES.....	52
3.2 STCW.....	54
3.3 VISITS TO MEMBER STATES TO MONITOR THE IMPLEMENTATION OF UNION LAW.....	56
3.4 MARITIME SECURITY.....	58
3.6 HORIZONTAL ANALYSIS AND RESEARCH.....	60
Providing Member States and the Commission with technical and scientific assistance and facilitating technical cooperation between Member States' Maritime Authorities and with the Commission.....	62
4.1 PORT STATE CONTROL & FLAG STATE ENFORCEMENT.....	62
4.2 ACCIDENT INVESTIGATION.....	64
4.3 TRAINING, COOPERATION AND CAPACITY BUILDING.....	66
4.4 MARINE EQUIPMENT AND SHIP SAFETY STANDARDS (including IMO).....	69
4.5 SHIP INSPECTION SUPPORT.....	71
4.6 PREVENTION OF POLLUTION BY SHIPS.....	74
Project: SAFEMED IV, EuroMed Maritime Safety Project.....	78
Project: Maritime Safety, Security and Environmental Protection in the Black and Caspian Sea Regions (BC Sea) ..	80
Pollution preparedness, detection and response.....	82
5.1 OPERATIONAL POLLUTION RESPONSE SERVICES.....	82
5.2 CLEANSEANET AND ILLEGAL DISCHARGES.....	86
5.3 COOPERATION AND INFORMATION RELATING TO POLLUTION PREPAREDNESS AND RESPONSE.....	89
Horizontal activities.....	92
6.5 COMMUNICATION, MISSIONS AND EVENTS SUPPORT.....	92
6.1, 6.2, 6.3 AND 6.4 OVERHEAD/HORIZONTAL TASKS.....	94
Part II – Management.....	99
2.1 Administrative Board.....	99

2.2 Major events	102
2.3 Budgetary and financial management	103
2.4 Human Resources management	104
2.5 Assessment by management	104
2.6 Budget implementation tasks entrusted to other services and entities	105
2.7 Assessment of audit results during the reporting year	105
2.7.1 IAS	106
2.7.2 ECA	106
2.7.3 QMS and other Audits	107
2.8 Follow up of audits plans, audits and recommendations	107
2.9 Follow up of observations from the Discharge authority	107
Part II (b) External Evaluations (when relevant)	108
Part III Assessment of the effectiveness of the internal control systems	108
3.1 Risk Management	108
3.2. Compliance and effectiveness of Internal Control Standards	109
Part IV Management assurance	111
4.1 Review of the elements supporting assurance	111
4.2 Reservations	112
4.3 Overall conclusion on assurance	112
Part V Declarations of assurance	113
<i>Internal Control Coordinator</i>	114
<i>Executive Director</i>	115
Annexes 116	
Annex I. Core business statistics	117
EMSA Key Performance Indicators 2019	117
Operational Agreements active in 2019	122
Annex II. Statistics on financial management	125
Evolution of budget execution	125
Annex III. Organisational chart	126
Annex IV. Establishment plan and additional information on Human Resources management –	127
Establishment plan 2019	127
Entry level for type of post	127
Results of the screening exercise	128
Annex V. Human and financial resources by activity	129
Annex VI. Specific annexes related to Part II – Management	131
Annex VII. Specific annexes related to Part III - Assessment of the effectiveness of the internal control systems	131
Annex VIII. Draft annual accounts	132
Economic outturn account	132
Balance sheet	133
Annex IX. EMSA's report on the multi-annual funding of the Agency's pollution preparedness and response as laid down in Regulation (EU) No 911/2014.	134



EMSA Consolidated Annual Activity Report 2019

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 2019. 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 previous 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 2019 planned in the EMSA single Programming Document 2019-2021.

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 2019 its updated Action plan for their implementation, including the latest status regarding the timeframe for implementation as well as a realistic budgetary impact.

The Agency's previous 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 were 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 appointment of the new European Commission. After her appointment by the Administrative Board in September 2018, Ms Maja Markovčić Kostelac started preparing her new strategy in her first year in office, 2019. This new 5 Year strategy, covering the period 2020-2024, was adopted in November 2019.

The key strategic achievements in each work area in 2019 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. The continued focus on implementing the Methodology for Visits to Member States, as adopted by the EMSA Administrative Board, ensured that the Agency succeeded in further reducing the administrative burden for Member States, developing and sharing best-practices and lessons learnt, and strengthening the flow and exchange of information, including the participation of Member States as observers. The horizontal analyses, which now incorporate a cost-efficiency assessment, confirmed their added value both for Member States and the Commission.

In addition, the Quality Management System for visits and inspections, covering the full scope of the Agency's visits and inspections activities continued to be implemented and provides a solid framework for continuous improvement.

The technical work carried out in relation to passenger ship safety, marine equipment, autonomous ships, steering and manoeuvrability and 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 an 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 via the Integrated Maritime Services (IMS) continued in 2019. The process of data integration and incorporating new data sources and functionalities, such as enhancing ABM, combining fishing vessel positions and search and rescue data as well as providing a mobile application that is actively used by Member States (IMS Mobile App), continued to add value for a growing number of end-users showing increasing interest in tailor-made services. The Integrated Maritime Services (IMS) 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.

The EMSA Earth Observation pool continued to develop and deliver the capabilities of Satellite based maritime surveillance for pollution monitoring through the CleanSeaNet Service but also through the Copernicus Maritime Surveillance programme and by way of the service provided to Frontex for the maritime surveillance in the domain of Border Control. The Earth Observation services portfolio and the Earth Observation Data Centre (EODC) finalized an important evolution in terms of satellite processing capabilities, increasing the performance, stability and resiliency of the satellite based service delivery. These developments enabled the processing of the highest volume of Earth

observation Services since the Agency initiated activities in this field, with an overall 21% growth of services delivered to Member States administrations and EU institutions, compared to 2018.

EMSA continued to offer capabilities based on Remotely Piloted Aircrafts (RPAS) technology supporting maritime surveillance and, by doing so, became in this second year of operations a reference at EU and global level for the use of RPAS for maritime surveillance.

The integrated maritime picture provided through the IMS service, ABM, and Earth Observation 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. IMS services were also further developed in 2019 for EUNAVFOR and MAOC-N, and a new cooperation agreement was signed with EUROPOL providing a dedicated associated operational IMS service. With respect to SAT-AIS data EMSA continued to provide global satellite AIS data services to end-users. A new Framework Contract for Services was put in place with a new SAT-AIS data provider and EMSA is now providing its users with global real-time SAT-AIS data service capability using high performance satellites.

The Commission has put in place a preparatory action for the operational implementation of the Common Information Sharing Environment (CISE) and has tasked EMSA to set up and coordinate the preparatory action, known as the „transitional phase“. A Grant Agreement between DG MARE and EMSA was signed in April 2019 with a duration of 2 years and a budget of 3.5 MEUR. EMSA will provide technical and operational support to Member States to integrate the CISE interoperability building blocks into their systems on the basis of the elements developed and tested by EUCISE2020. The Agency aims to ensure coherence of CISE with the overall maritime surveillance framework and the existing EU maritime information systems thus avoiding duplication of efforts while taking into account the existing legislation.

The impact of digitalisation on shipping and the potential support to Port States and Flag States for eCertificates confirmed the role that EMSA could play as facilitator.

3. Environmental challenges and response

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

[contributing activities: 2.3, 4.1, 4.6, 5.1, 5.2, 5.3]

As the developer and provider of tools and services to directly support Member State environmental enforcement efforts and the expert support to the Commission at the IMO, EMSA is prepared 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. THETIS-MRV is the system developed and hosted at EMSA to support the monitoring and reporting of verified data on CO2 emissions. Following the end of the first reporting period, EMSA supported the European Commission in gathering the data on ships of over 5000 GT operating in EU waters. These data were made public in June 2019, for around 10800 ships, thus representing the first picture of CO2 emissions from ships in the EU. The introduction of the MRV system is expected to lead to emission reductions of up to 2% compared with a business-as-usual scenario.

Technical work in support of the European Commission and different stakeholders continued with focus on alternative fuels and sources of renewable energy, marine litter, underwater noise, the

revision of the Port Reception Facilities Directive, the AFS Convention, the Sulphur Directive and its enforcement, Green House Gases at international and European level thus confirming the commitment of the Agency towards sustainability goals and greener shipping.

In the field of response, the Vessel Network, the Equipment Assistance Service (EAS) arrangements and the dispersant stocks managed by EMSA, together with a regular training program for Member States constitute a real added value at EU level, highly appreciated, as can be testified by the increasing number of requests for vessels and/or equipment sets during national or regional exercises. EMSA also deployed and tested the capabilities of the light RPAS on board of EMSA pollution response vessels to support recovery operations. EMSA performed measurements of Sulphur Dioxide from vessels using RPAS.

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, 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 new technologies and e-learning. The growing body of tools and guidance reflects evolving policy priorities and related stakeholder needs. Work started on virtual reality with the idea of enhancing the capacity building toolbox made available to EMSA end users.

A new concept of capacity building was introduced with the final objective to develop professional development paths, based on a structured and modular approach to training and certification of specific activities or functions, thus better supporting the competent authorities in charge at national level of Flag, Port, Coastal and Environmental functions.

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, therefore confirming the potential for exporting the Agency's knowledge and by extension EU standards and solutions beyond the European geographical dimension.

B) Operational Achievements

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. The combined effort of EMSA and Member States in the programme of visits and inspections – all those planned for 2019 were carried out - has provided essential feedback for Commission initiatives to assess and fine-tune maritime safety EU legislation in order to improve the efficiency and effectiveness of the measures already in place. In addition, the horizontal analyses

performed have provided fundamental input for policy development and improvement of the relevant EU legislation in the area.

Preparatory work was carried out for the preparation of the new cycle of visits for passenger ship safety, the first cycle that will cover multiple Directives.

Special emphasis continued to be given to passenger ship safety and, in particular, the work on fire safety. The study FIRESAFE II represented an essential building block for the work carried out at IMO and constituted the backbone of the relevant Interim Guidelines adopted in 2019.

In addition the preliminary results of the MASS study were presented and discussed with experts from the Member States, with the objective to contribute to the ongoing work at IMO.

A new study was commissioned on Steering and Manoeuvrability, with the objective of stimulating in the near future discussions at IMO.

Work continued on the development of a new MARED Database, and EMCIP was enhanced with new features such as the Business Intelligence tool.

In the field of Human Element further enhancements of the STCW-IS were launched, aiming at the development of a web-based tool for interactive statistical review by public users.

A table top exercise focusing on maritime cyber-security was organised with the competent authorities of the Member States in charge of maritime security and the direct involvement of industry.

Cooperation was also enhanced with ENISA, and an event aiming at raising awareness on transport cybersecurity was hosted at EMSA.

Discussions were initiated with the Commission and the Member States in relation to the monitoring of Recognised Organisations, looking at options for increased sharing of information to support better Flag State responsibilities.

2. Monitoring, surveillance and information sharing

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

Efforts to support the digitalisation/simplification of maritime transport continued with preparatory work for SafeSeaNet (SSN v.5) to support the legal requirements for registration of persons on board passenger ships and the revised Port Reception Facilities Directive.

Progress was made regarding the development of the central Ship, LOCODE, HAZMAT and Organisations databases. Preparatory work also started for the development of the EMSWe ship database (required by Article 14 of the EMSWe Regulation (EU) 2019/1239).

The Interoperability project continued with a revised plan and set of activities with a particular focus on the European Maritime Single Window environment (EMSWe). The following projects are on-going; (i) Evaluation of security and interoperability solutions for SSN (ii) EMSWe dataset (iii) Facilitation of ship-to-shore reporting (iv) Use of reference databases to support MS authorities and EU agencies (v) VDE Capability project. Additionally, further cooperation with the European Space Agency (ESA) and Norway on the VHF Data Exchange System (VDES) took place. Through such cooperation, EMSA is exploring the benefits of VDES by means of a joint project which consists of a number of activities including the exchange of Mandatory Report Systems (MRS) reports by ships using Norway's NorSat-2 LEO satellite with a VDES test-payload and VDES equipment on board a (test)vessel. The Long Range Identification and Tracking (LRIT) services hosted by EMSA welcomed Georgia and Tunisia to the EU LRIT CDC in July 2019.

In terms of support to emergencies at sea, EMSA provided satellite monitoring in reaction to 15 distinct activations by Member States, linked with oil pollution, search and rescue and anti-piracy.

New data, information and functionalities have been added to the IMS service, including inter-alia the availability of new vessel position reports and vessel enrichment information, long-term (2 years) historical vessel track queries and new system-to-system (S2S) interfaces. The development of ABM algorithms was stepped-up together with interested Member States and EU Agencies/Bodies. Progress was made with the rolling-out of new versions of the SafeSeaNet Ecosystem Graphical User Interface (SEG) which is gradually replacing old single system interfaces, offering a common and combined view of maritime information provided by several back-end systems operated by the Agency.

The cooperation project with EFCA on supporting EU regulation in the field of Illegal, Unreported and Unregulated (IUU) fishing came to a successful conclusion. The outcomes were integrated fully into the existing IMS provided by EMSA to support fisheries monitoring and control under a Service Level Agreement (SLA) in 2019.

Operational and technical training sessions on the Agency's Integrated Maritime Services, SEG new functionalities, ABM and SSN user management were provided in total for almost 300 personnel from Member States and EU Agencies, in addition to webinar and online training tools.

The Traffic Density Mapping Service (TDMS) became operational in 2019 and was made available to Member States and EU Institutions via the SEG graphical user interface and to the public via the EMODnet portal. The TDMs illustrates vessel movement patterns for defined maritime geographical areas and time periods contributing to a better understanding of the maritime traffic patterns.

The operational services under the Copernicus Maritime Surveillance Services, executed on behalf of the Commission, saw a 52% growth compared with 2018 in the number of organizations served. More than 41 Member State Administrations and EU institutions are now being supported by the service. The number of earth observation products delivered by Copernicus Maritime Surveillance also grew substantially (29% when comparing with 2018).

In terms of earth observation contracts, two new framework contracts were signed allowing to further acquire Radarsat-2 satellite licenses and TerraSAR-X/PAZ satellite licences. These new contracts provide a stable and robust basis for the delivery of services and enable EMSA to cope with the increased volume of earth observation service requests.

2019 was the second full year of Remotely Piloted Aircrafts Services (RPAS) operations offered by EMSA. The EMSA RPAS Data Centre which is the central hub for distributing live feeds was operational throughout the year and was continuously improved. It ramped-up its services to 642 operational days, reaching 1488 flight hours, during parallel deployments in the scope of coast guard functions in support of Member States and in the framework of the coast guard cooperation with the EU sister Agencies. During the year, EMSA delivered services in seven different Member States including two operations run by Frontex. EMSA also deployed a light-weight RPAS on board EFCA's chartered vessel "LUNDY SENTINEL" to support fishery monitoring activities.

EMSA has maintained an intensive dialogue with Member States regarding RPAS operations for maritime surveillance during the implementation of the operations, the RPAS Data Centre trainings and during the RPAS User Group which took place in September. With regards to RPAS, the main risk remains with the delays in obtaining the permit to fly for such a recent technology, with a safety legal framework still being developed. In order to mitigate this risk EMSA signed a Memorandum of Understanding with the European Aviation Safety Agency (EASA) to promote cooperation in this field.

With the objective of continuing to offer maritime digital services in support of the daily work of the competent authorities of the Member States EMSA continued working on the development of THETIS and its modules. Extending the possibilities of the original THETIS information system, EMSA concluded the work on the voluntary module for Member States to report security inspections under Regulation 725/2004. In addition, THETIS and THETIS-EU were further enhanced to cater for the Port

State and Flag State provisions of Directive (EU) 2017/2110 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. In 2019, the measurements of Sulphur Dioxide captured by RPAS services were transmitted live to THETIS-EU following its integration with the RPAS Data Centre. With the aim of reducing administrative burden for Port State Control officers, a pilot project with the Paris MOU was launched to verify the correctness of data submitted to THETIS through 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. This pilot project is a first step towards digitalisation and better use of eCertificates.

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 it was 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. In 2019 the development of a mobile application started.

3. Environmental challenges and response

[contributing activities: 2.3, 4.1, 4.6, 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 risks. In particular, responding to a recommendation of the Administrative Board, a stress test exercise was carried out in 2019 together with the Member States in order to further analyse the relevance and added value of EMSA resources in case of a major spill incident. The results of this exercise are currently being analysed with the Member States.

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 (EAS). As regards the latter a new depot in the northern Baltic Sea became operational. The Agency also successfully completed the procurement procedure for the re-tendering of two other EAS: in the North Sea (re-tendering due to Brexit) and the southern Baltic Area. EMSA also continued improving the operational capacities of its vessels by equipping up to 5 vessels with RPAS capacity. Furthermore, as mentioned before, in the context of coast guard cooperation, EMSA equipped the EFCA chartered vessel "LUNDY SENTINEL" with pollution response equipment and provided relevant training. EFCA participated in a pollution response exercise organised under the auspices of the Italian chairmanship of the European Coast Guard Functions Forum. Regarding support to Member States in case of a chemical incident, the MAR-ICE Network was improved with the extension of its service to provide 'level 2' support, meaning that in case of a chemical incident, upon their request and depending of the availability, Member States may benefit from the assistance of an expert from the European chemical industry at their response command centre. 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.

CleanSeaNet continued to provide near real time satellite oil spill monitoring to Member States and European Neighbourhood policy projects. Due to increased efficiency of the earth observation

contracts signed in 2018, the support provided to Member States could be expanded and the number of images delivered in 2019 grew substantially (more than 40%). In terms of support to emergencies at sea, EMSA provided satellite monitoring in response to 15 distinct requests by Member States, linked with oil pollution, search and rescue and anti-piracy. The support provided to emergency requests presented a 35% increase compared to the previous year.

Extensive support was given following the sinking of the "Grande America" in early March 2019, for which two EMSA oil spill response vessels equipped with RPAS were mobilised and satellite imagery was provided for detection of oil pollution at sea. In addition, satellite images were provided for assessing and monitoring several maritime accidents throughout the year.

Pollution preparedness and response priority issues identified by the Member States continued to be addressed, with working groups, workshops and guidance documents under the CTG MPPR work.

Support was provided to the Commission and the Member States in the ongoing discussions in relation to the short, medium and long term measures under the IMO's Green House Gases Strategy, the Strategy Plan for the reduction on marine plastic litter pollution from international shipping, the implementation of the Sulphur Cap. Alternative Fuel and LNG were the subject of workshops and trainings, and continuous assistance was ensured to the Commission in support of the revised PRF Directive, as well as in the ongoing monitoring of the Ship-source pollution (SSP) Directive implementation and within the context of the European Sustainable Shipping Forum.

Support was ensured to the Commission in putting forward an EU proposal to ban the use of cybutryne from 3 October 2021 and to prohibit that ships should either bear or seal in such coatings from 3 October 2026.

As regards THETIS-MRV, following the end of the first reporting period, EMSA supported the European Commission in gathering the data on ships of over 5000 GT operating in EU waters. These data were made public in June 2019, for around 10800 ships, thus representing the first picture of CO2 emissions from ships in the EU. Support was ensured to the Commission in the analysis of such emissions data aiming at a report to be published towards mid-2020 to inform the public and allow for an assessment of the CO2 emissions and the energy efficiency of maritime transport.

In the field of implementation of the Sulphur Directive, EMSA performed measurements of Sulphur Dioxide from vessels using RPAS during 61 operational days in one Member State. EMSA could not meet the very high demand for such services from the Member States in 2019 due to technical issues and limitations in the number of available RPAS systems.

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, 5.1, 5.3]

The training programme for the year was delivered, with focus on the priorities identified by the Member States following a bottom-up approach, and hands-on training on the EMSA tools that are part of the daily work of the competent authorities of the Member States. Training initiatives in the Member States made it possible to reach a wider audience. Continuous Member State' demand for training, e-learning or ad-hoc technical assistance from EMSA confirms 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 and neighbouring countries channelled through the IPA (Instrument for Pre-Accession Assistance), Mediterranean, and Black and Caspian Sea projects.

A new training was developed and delivered in close cooperation with IMO, aiming at providing support to the competent authorities of the Member States in their preparation of the IMSAS (IMO Member State Audit Scheme) audit.

The integration of virtual reality in the toolbox of capacity building was kicked off in 2019, with the objective of using state of the art technology to the competent authorities of the Member States integrated in the new modular approach to capacity building.

Within the context of the SAFEMED IV and Black and Caspian Sea Projects assistance was 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. To this end initiatives were taken both at EMSA and in the beneficiary countries. In support of the MED MOU on Port State Control, the new module THETIS-MED was developed. The Agency also acted as facilitator in support of discussions for the introduction of an Emissions Control Area (ECA) in the Mediterranean. A number of beneficiary countries signed the Condition of Use necessary as pre-requisite for the provision of CleanSeaNet images.

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.

135 out of 140 objectives planned in the corresponding SPD 2019-2021 for operational and horizontal activities were achieved (96.42%) in 2019; 5 operational objectives were not achieved as these were dependent on third party requests that did not materialise..

As regards project financed activities, all 52 objectives were achieved.

The Agency executed 99.22% of commitment appropriations and 96.44% of payment appropriations.

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.

Based on information outlined in Parts II, III and IV of the CAAR2019 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 2019, all audit recommendations issued and due by 31/12/2019 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 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 2019 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. In this respect the Administrative Board also welcomes the adoption of the new EMSA 5-year Strategy 2020-2024, adopted in November 2019.

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, 6 April 2020



Andreas Nordseth
Chairman of the Administrative Board

Executive Summary / 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 2019, as published in the EMSA Single Programming Document 2019-2021, was drawn up within the multi-annual framework outlined above.

The objectives set out for 2019 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.

Part I – Achievements of the Year

List of EMSA activities

Area	Activity Based Budgeting (ABB) code		Activity name	Project Financed Activities (PFA)
			<i>Interagency cooperation with Frontex and EFCA on coast guard functions¹ Annual Strategic Plan 2019</i>	
Traffic monitoring and information on ships and cargoes	2100	7901	Union maritime information and exchange system (Integrated maritime services; SafeSeaNet; Improving internal market and maritime transport efficiency)	Interoperability Project
		7210		EFCA SLA
	7200			Frontex SLA
	2200		EU LRIT Cooperative Data Centre and International LRIT Data Exchange	
	2300	7700	THETIS Information System	THETIS-EU
		7710		THETIS-MRV
	2400		Maritime Support Services	
	7500			Copernicus
	7902			CISE Transitional Phase
	Visits and inspections to monitor the implementation of EU legislation	3100		Classification Societies
3200		9010	STCW	Maritime Labour Convention
3300		Visits to Member States to monitor the implementation of Union Law		
3400		Maritime Security		
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 Based Budgeting (ABB) code		Activity name	Project Financed Activities (PFA)
Providing Member States and the Commission with technical and scientific assistance and facilitating technical cooperation between Member States' Maritime Authorities and with the Commission	4100		Port State Control & Flag State Enforcement	
	4200		Accident investigation	
	4300	7800	Training, cooperation and capacity building	EU Funds for enlargement countries
	4400		Marine equipment and ship safety standards (including IMO)	
	4500	7600	Ship Inspection Support	Equasis (R0 funds)
	4600		Prevention of pollution by ships	
	7100			SAFEMED IV, EuroMed Maritime Safety Project
	7400			BC Sea, Maritime Safety, Security and Environmental Protection in the Black and Caspian Sea Regions
Pollution preparedness detection and response	5100		Operational Pollution Response Services	
	5200		CleanSeaNet and illegal discharges	
	5300		Cooperation and information relating to pollution preparedness and response	
Horizontal activities	6500		Communication, Missions & Events support	
	6100-6400		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.

Annual Strategic Plan 2019²

Introduction

In recent years, European cooperation in the maritime domain has been in the spotlight and has substantially progressed, mainly due to the efforts of the EU Institutions and the relevant EU Agencies. Frontex, EMSA and EFCA, as core of the European interagency cooperation on coast guard functions have been working together to provide the relevant stakeholders with the added value expected when performing cross sector initiatives.

The long-term vision and objectives for this cooperation were identified by the co-legislator in 2016 when a common article for the three Agencies' founding regulation was adopted. The Annual Strategic Plan is meant to present the high level objectives for the year to come to implement the above mentioned vision. The Plan is submitted for consultation and approved by the respective governing boards of the three Agencies.

Building upon the experience and lessons learnt during the first year of implementation of the Tripartite Working Arrangement (TWA), the three Agencies have taken on board feedback from the relevant stakeholders, received throughout the year and more specifically during the Annual European coast guard events, which helped fine-tuning and define the objectives for the cooperation in 2019. The input of the relevant Member State national competent authorities is essential for the planning and the implementation of the activities decided in each of the work areas identified for cooperation of the three Agencies.

One main area for cooperation in 2019 was the drafting of a practical Handbook on European cooperation on coast guard functions. The three Agencies in cooperation with the relevant competent National Authorities will support the European Commission to draft the Handbook covering the five areas for cooperation: information sharing, surveillance and communication services, capacity building, risk analysis and capacity sharing.

Objectives 2019	Outcomes
Strategic / Horizontal	
To hold the annual joint European Coast Guard Event (AECGE) under the coordination of Frontex in line with the experience gained at the previous annual event.	In 2019, in accordance with the conclusions of the 1 st AECGE, 2 nd AECGE was organized under the coordination of Frontex in cooperation with EFCA and EMSA in Swinoujscie (15-17 April 2019) and focused on Coast Guard topics. 127 participants coming from different EU Member States (MS) and Schengen Associated Countries (SAC), from each Agency and the EU Commission attended the event.
To promote further European cooperation with national authorities on coast guard functions considering the specificities of EU sea basins.	EFCA, EMSA and Frontex organised an interagency stand at the European Maritime Day on 16-17 May 2019 in Lisbon, where they delivered a joint workshop, promoting European cooperation on Coast Guard Functions amongst European maritime community. EFCA, EMSA and Frontex participated in various regional initiatives related to the Coast Guard Functions and

² The annual strategic plan 2019 is a common text, agreed by Decision 3/2017 of the steering committee under the Tripartite Working Arrangement (TWA).

	<p>especially European Coast Guard Functions Forum strengthening the cooperation with maritime community in EU. Three joint workshops have been organized in 2019 under the Italian Chairmanship of the forum. The 1st under the coordination of EMSA in Lisbon on “A new European environmental commitment”, the 2nd under the coordination of Frontex in Rome, on “Coast Guard Functions in the framework of Maritime Security” and the 3rd practical exercise “Coastex 19” in Catania, under coordination of EFCA.</p>
<p>To carry out coordinated communication/media activities related to the implementation of the European interagency cooperation on coast guard functions.</p>	<p>In 2019, the following communication activities have been performed:</p> <p>Following the Annual European Coast Guard Event, an interagency video on cooperation on Coast Guard Functions has been prepared by Frontex. The video is presenting and promoting the cooperation between the three Agencies in maritime domain. The video had its premiere at ECGFF Plenary Conference in Venice in November 2019.</p> <p>In the framework of the AECGE an interagency booklet on EU cooperation on Coast Guard Functions prepared by Frontex in cooperation with EFCA and EMSA was published.</p>
<p>To harmonise the format and implementing modalities of the interagency Service Level Agreements.</p>	<p>Interagency cooperation was strengthened following the adoption of the Annual Strategical Plan (ASP) 2019 of the Tripartite Working Arrangement (TWA) on Coast Guard functions. The three technical subcommittees chaired by EMSA (TSC 1 for Area 1 & 2), EFCA (TSC 2 for Area 3 & 4) and Frontex (TSC 3 for Area 5) continued their regular activities.</p>
<p>Area 1 Information sharing</p>	
<p>To further enhance cooperation among the Agencies in the field of information sharing.</p>	<p>A first draft of an inventory with the data collected by all three Agencies was developed with the objective to provide an overview of what data sets are available and trigger discussions for sharing these data with the Member States Coast Guard Authorities. The Agencies continued working on the development of the “data sharing Table” and promoted the further sharing of data/services between the Agencies.</p>
<p>To provide a maritime awareness picture in customized interfaces that include/integrate all relevant data sources available across policy areas.</p>	<p>Following the feedback received by the AECGE 2019, the Agencies worked further on the inventory to describe the data sets with additional information (such as the technicalities including type of interfaces) and the access rights policies associated to each data set. The 3 Agencies provided further information related to the conditions associated with the use of the data sets (e.g. data update rate, reliability, technical issues and access conditions). The Agencies committed to continue their work to further increase the awareness of user communities about the possible use of the available data sets.</p>
<p>To continue working on analysing information needs and any gap in dialogue with relevant national authorities, continuing to ensure a sound and secure implementation of data access rights.</p>	<p>The IMS maritime picture provided by EMSA, with vessel information and positions (including SSN, S-AIS and additionally VMS received from EFCA) and Automatic Behaviours Monitoring (ABM) tools have been shared in</p>

	2019 with EFCA and Frontex. The IMS maritime picture has been further developed to integrate requirements from all CG stakeholders.
To further work on common tools for data mining and exploitation (such as automated behaviour monitoring tools and historical data analysis tools).	Growing requirements in machine learning at EMSA and how machine learning can be integrated into the processes of EMSA and the other Agencies should become a key question in the coming years. The Agencies will continue exploring machine learning options applied to the maritime surveillance.
Area 2 Surveillance and communication services	
To further enhance cooperation between the three Agencies in the area of surveillance and communication services.	The EMSA Earth Observation services have increased for all CG stakeholders (both in numbers and quality). EMSA further developed and shared with the EFCA and Frontex Near Real time and Quasi real time Earth observation services allowing for an essential and unique monitoring at sea by Maritime authorities.
To analyse the possibility to increase specific surveillance and communication services to relevant stakeholders.	EMSA provided to EFCA more than 300 Earth Observation images in 2019 under the Copernicus Maritime Surveillance (CMS) service to support operational fisheries control activity. EMSA also provided to Frontex two Earth Observation-based services: Vessel Detection Service to detect non reporting vessels (more than 1,700 Synthetic Aperture Radar images in 2019) and the Activity Detection Service (ADS) with information on border surveillance activities (more than over 630 very high-resolution optical images in 2019). Both Agencies benefit from the sharing of images with each other and have access to all the EMSA CleanSeaNet images tasked regularly for pollution monitoring (over 7,200 in 2019).
Follow up the developments of Air Traffic Control rules for RPAS.	In the framework of RPAS operations, Member States shared their experiences regarding the developments of Air Traffic Control rules for RPAS in their respective countries.
To avoid duplication and overlap of surveillance and communication cross-sectoral services, in particular in the area of RPAS services.	The procurement procedures completed in 2018 increased the available portfolio of RPAS of the three Agencies in 2019 and of needed contracting of satellite communication services. EMSA provided RPAS services to Frontex (in Portugal and Greece) and to EFCA (on Board Lundy Sentinel) in support of the CG functions. New capabilities for satellite communication were used in all cases for the transmission of the RPAS data in real time. At present, as a result of the continuous cooperation between the three Agencies, the RPAS data streams are integrated with other data layers of the IMS in the RPAS Data Centre that is shared with all users of the RPAS services.

Area 3 Capacity building	
To continue collecting and assessing cross-sector training needs of national authorities performing coast guard functions.	<p>Each Agency presented the objectives and ongoing work of the inter-agency cooperation and consulted its own community on possible future training needs (Consultative Network on Technical Assistance CNTA of EMSA, Steering Group on Training and Exchange of Experience SGTEE of EFCA, Annual Training Conference of Frontex).</p> <p>Each Agency usually invites the other two agencies to participate as observers to its annual training event, Steering Group or Conference.</p> <p>All entities were made aware of the possibility to organise joint training sessions programmes between 2/3 Agencies.</p> <p>The EFCA community referred some possible joint training subjects such as safety of boarding of (fishing) vessels, risk assessment, engine power checking, Vessel Monitoring System (VMS) and other on-board systems integrity.</p>
To coordinate the preparation of the Handbook on European Cooperation on Coastguard Functions.	<p>The Agencies requested their Governing Boards to designate experts and a total of 43 experts were nominated to take part in the drafting process. A kick off meeting was held in January 2019 with the participation of 32 experts. The Handbook would have essentially three parts: 1) Catalogues of services, training and best practices, 2) regional cooperation part and 3) Member States fact sheets. An information point was delivered during the Annual Coast Guard Event. In August 2019, a first draft of the handbook was circulated to the Member States designated experts. Feedback was received by October 2019 and a review meeting was hosted by EFCA in November 2019. The drafting process is expected to conclude early 2020.</p>
To ensure consistency between the ECGFF Sectorial Qualification Framework and the relevant EU and international standards.	<p>Representatives from the three Agencies participated in the SQF working group meetings of the project and supported the revision of the SQF tables. The Agencies also supported the stakeholder consultation through distributing a dedicated questionnaire to their communities. The three Agencies participated and contributed to the final meeting and closing seminar of the ECGFA Net project that developed the SQF for ten coast guard functions. EFCA started to host the coast guard training portal with the SQF visual tool.</p>
To provide joint cross-sectoral training by the relevant Agencies related to coast guard functions	<ul style="list-style-type: none"> - Existing cross-function training activities: - Training on 'Maritime safety and fisheries control rules applicable to fishing vessels' was delivered on 4-6 June 2019 in Vigo for the EMSA and EFCA Communities. - 'Air Crew preparation for Joint Operations' training was delivered for the Frontex Community.

	<p>Representatives of EMSA and EFCA contributed to the course delivery. A total of 4 sessions were delivered in 2019, namely in February, May, August and October.</p> <ul style="list-style-type: none"> - EFCA contributed to the development of briefings for the Frontex Joint Operations - for the Frontex Community. A total of 14 briefings were delivered in 2019.
<p>To map the ongoing relevant cross-sectoral cooperation projects with third countries.</p>	<p>Middle East & North Africa:</p> <ul style="list-style-type: none"> - Frontex through <ul style="list-style-type: none"> ▪ EU4BorderSecurity Project ▪ EU Border Assistance Missions. ▪ SAR workshop in Greece (JO Poseidon) with participation from Egypt. - EFCA through the General Fisheries Commission for the Mediterranean (GFCM). <ul style="list-style-type: none"> ▪ Pilot project Strait of Sicily ▪ Pilot project Ionian Sea ▪ Pilot project Levant Sea - EMSA through the SAFEMED Project: <ul style="list-style-type: none"> ▪ First Union for Mediterranean Ad-Hoc Senior Officer Meeting on Transport ▪ Training for Maritime Labour Convention (MLC) inspectors. ▪ MARPOL Annex VI and EU Legislation training. ▪ VTS training ▪ Training on Marine Environmental Protection ▪ Med MoU Port State Control seminar ▪ STCW training ▪ Training on Search & Rescue ▪ Training on Ballast Water Management ▪ Maritime Law and IMO Conventions ▪ Training on ISPS ▪ Preparation and follow-up on IMSAS <p>EU Enlargement Countries:</p> <ul style="list-style-type: none"> - Frontex: Workshop on European IBM Strategy in October in cooperation with the European Commission (DG Migration & Home). - EFCA: through the General Fisheries Commission for the Mediterranean (GFCM). - EMSA: Implements a DG NEAR financed Project entitled: "Preparatory measures for the participation of enlargement countries in EMSA's work": training activities to support the implementation of associating EU legislation. <p>Black Sea</p> <ul style="list-style-type: none"> - Frontex: Technical assistance projects. - EFCA through the General Fisheries Commission for the Mediterranean (GFCM). <ul style="list-style-type: none"> ▪ Pilot project Black Sea - EMSA: Held several trainings and seminars on flag state implementation, port state control, VTS, VTMISS, protection of environment and pollution response,

	<p>human element, security of ships and port facilities, communication and visibility, and provision of tools and services.</p> <p>Gulf of Guinea</p> <ul style="list-style-type: none"> - EFCA through PESCAO Project - EMSA (cf. SWAIMS Project/UNODC cooperation with EMSA/Copernicus)
To jointly support future EU capacity building cooperation programmes with third countries, where relevant.	<p>EMSA has a specific training module on fishing vessel safety for EU and non-EU partner countries. EFCA was invited to deliver a presentation on fisheries control during this training. This is a first example of cooperation in the context of non-EU countries.</p> <p>Frontex started to organise an IBM training for third countries. In 2019 it was delivered in the Western Balkans and in 2020 it will be in eastern countries. There is the possibility to explore presentations from EMSA and EFCA during these trainings. EFCA has also experience and developed courses in eastern countries.</p>
Area 4 Risk Analysis	
To further enhance cooperation between the relevant EU agencies on cross-sector risk management cooperation.	<p>The three Agencies developed their own risk analysis frameworks within their mandate, which also support national authorities performing coast guard functions (e.g. providing risk assessment tools, risk assessment analysis and products and/or Abnormal Behaviour Monitoring).</p> <p>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.</p> <p>The Agencies discussed 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.</p> <p>A glossary/terminology on risk assessment related with coast guard functions was elaborated.</p>
To enhance tailored cross-sector risk analysis services provided to relevant authorities responsible for coast guard functions where relevant and according to each Agency's mandate.	<p>The Agencies initiated an exploratory analysis of joining a risk assessment outcome for fisheries (strategic risk assessment outcome from EFCA), incident reports off illegal border crossings and smuggling of goods (data from Frontex) and likelihood of oil spills (from the EMSA CleanSeaNet). Different maps were explored for the Mediterranean Sea by plotting the different data or information from the three</p>

	<p>agencies. This was a preliminary exercise of trying to combine data or information from the three agencies.</p> <p>Additional data sets that could be considered, from EMSA, include:</p> <ul style="list-style-type: none"> - Non-correlated VDS: identification of targets from satellite remote sensing imagery; - Vessel Traffic Density Maps: annual, seasonal and monthly density maps by vessel types; - SSN Incidents: different categories.
<p>Area 5 Capacity sharing</p>	
<p>To elaborate a concept for a European multipurpose maritime activities while using existing, planned, outsourced capacity of each Agency.</p>	<p>The concept draft of the European Multipurpose Maritime Activities (EMMA), with the integration in operational modules of operations, is under development. The Interagency concept has been discussed with Member States during the 2nd Annual European Coast Guard Event. Comments have been taken in consideration and the concept focused on MMO is under discussion in the frame of TSC3 chaired by Frontex.</p>
<p>To further enhance cooperation modalities between EU Agencies on capacity sharing issues including sharing assets beyond multipurpose operations.</p>	<p>Following the extension of the scope of the SLA between EMSA and EFCA, EMSA provided some oil pollution response equipment and supplies, including relevant training to EFCA chartered OPV Lundy Sentinel. Consequently the OPV Lundy Sentinel is a vessel of opportunity and has been added to the Common Emergency Communication and Information System managed by the Commission.</p> <p>Cooperation with EFCA in the use of Frontex's RPAS pilot was established. Other cooperation examples on capacity sharing (RPAS provided by EMSA) are mentioned in Area 2.</p> <p>Frontex and EFCA have established operational contacts and exchange information on periodical basis in connection with EFCA OPV operational activity.</p>
<p>To identify the legal and operational regimes that apply to multipurpose operations led/supported by the Agencies;</p>	<p>Legal issues reflecting the "flag state" enforcement powers in the international waters have been explored and discussed. , also in relation to leasing/chartering of the agencies' equipment.</p>
<p>To further enhance cooperation between Agencies and National 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).</p>	<p>A mapping exercise of the existing authorities performing coast guard functions has been conducted. The mapping is based on the authorities participating at the agencies' level but it also relies on European and international forums related to coast guard functions (BSRBCC, ECGFF, NACGFF, MCGFF, and CGGS). The document is under finalisation.</p> <p>The mapping of Agencies Operational Centres for exchange of information in real time has been conducted. The document is under finalisation.</p>

Maritime Transport and Surveillance - information on ships, cargoes and ship movements

2.1. THE UNION MARITIME INFORMATION AND EXCHANGE SYSTEM

<i>Planned input</i>		<i>Actual Input</i>
CA	23,203,171	22,475,480
PA	27,203,271	25,969,784
Staff	37 AD ³ , 12 AST ⁴ , 3 SNE	37 AD, 11 AST, 1 SNE, 1 CA

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 2019

Provision of Integrated Maritime Services to EU Member States authorities executing functions in the maritime domain, EU bodies and/or third countries will continue. 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.

Member States will be provided with new IMS functionalities, ABMs and system-to-system interfaces.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The number of users of the Integrated Maritime Services (IMS) increased in 2019 to more than 3,500 for the Member State service, corresponding to over 250 organisations, and another 1,400 for the EU Bodies/Agencies. Users represent numerous communities, including maritime safety, pollution control, fisheries monitoring, law enforcement, customs, border

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

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

anti-piracy activities among others. Through IMS, maritime authorities get access to an integrated maritime picture, based on their access rights, including information from SafeSeaNet, public information from Port State Control systems -THETIS-, earth observation imagery, including vessel and oil spills detection services from Copernicus Maritime Surveillance (CMS) and CleanSeaNet as well as from the Automated Behaviour Monitoring (ABM) tool.

The number of trainings and ad-hoc operational support provided to IMS users expanded in 2019, covering a total of approximately 300 users.

IMS services were provided throughout the year through different platforms: an online web application (SafeSeaNet Ecosystem Graphical User Interface – SEG), a dedicated application available on mobile devices (IMS Mobile App) and system-to-system interfaces allowing for integrating the data into national systems.

All these platforms were further developed during 2019 based on new requirements from users in order to better support their maritime surveillance activities. In particular, stability and performance of the application was reinforced, new Automated Behaviour monitoring functionalities were developed, the access to historical data track queries was expanded allowing users to investigate behaviour of a vessel beyond the last 2 years and an operation was set-up for Europol to include maritime information in their investigations.

In 2019, the IMS governance group (IMS Group) extended the scope of the ABM expert Working Group to include Data Analytics and the use of new technologies (e.g. machine learning).

2019 was the second full year of Remotely Piloted Aircrafts Services (RPAS) operations offered by EMSA. The Agency increased its RPAS services to 642 operational days (1,488 flight hours) in the scope of coast guard functions and supporting the Member States. During the year, EMSA delivered RPAS services in seven different Member States including two operations under command by Frontex. EMSA also deployed a light weight RPAS on board EFCA's chartered vessel Lundy Sentinel to support fishery monitoring activities. The RPAS services were supported by Satellite Communication Services specially procured by EMSA for this purpose.

With a view to further improving EMSA's SAT-AIS data service, a new Framework Service Contract was signed with a new SAT-AIS data provider. The process for integrating the new SAT-AIS data feed into the IMS production environment started as planned. This new SAT-AIS data feed is set to increase significantly the quality of the SAT-AIS data services EMSA offers to its users particularly because of the high-performance satellites used and the unique real-time capabilities the new SAT-AIS data service offers.

The EMSA RPAS Data Centre which is the central hub for distributing live feeds was continuously improved throughout the year. EMSA maintained the dialogue with the Member States regarding RPAS operations. The main risk remains with the delays in obtaining the permit to fly for such a recent technology, with a safety legal framework still being developed. To mitigate this risk, EMSA's services provided were carefully scrutinized in terms of technical and operational implementation and EMSA signed a MoU with EASA to promote cooperation in view of the upcoming EASA regulation on unmanned flights in force from July 2020 onwards.

Objectives 2019	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.	✓
Explore and analyse new technologies and information products to enhance and complement the Integrated Maritime Services portfolio, in terms of capacity by using cloud based solutions and in terms of data sources by expanding and exploring others 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 2019	Achievement / Actual output 2019
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, including enhancement of the long-term storage of data and data analysis capabilities. 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. Procure a second SAT-AIS global data set for redundancy purposes and for having the possibility to more precisely track vessels outside of Europe.	✓
Provide RPAS Services for Member States executing coast guard functions, including improved satellite communications capacities.	✓
Provision and integration of met-ocean data within the Integrated Maritime Services, including the provision of additional in-situ, sea and weather forecast (model), and remote sensing earth observation data.	✓
Maintain and develop as appropriate the RPAS DC capabilities to support the needs of integrated maritime services.	✓
Host and manage 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/MASS. Explore the use of VDES in support of port reporting formalities.	✓
Provide support and input to the <i>ad hoc</i> expert sub-group on MASS created under the HLSG of the Commission.	✓

Output Indicators		Target 2019	Result 2019
Integrated Maritime Services Availability	percentage per year availability of platform	99	99.87
	hours maximum continuous downtime of IMS platform	max 12	1h 20
Integrated Maritime Services Availability	percentage per year availability to Member States	99	99.78
	percentage per year availability to EUNAVFOR Atalanta	99	99.78
	percentage per year availability to IMS mobile application users	99	99.87
SAT-AIS	global data stream availability	99	99.97
RPAS operations	number of RPAS available for deployment for multipurpose operations	5	5
	number of deployment days per year	210 days	642 days
	RPAS DC availability	95	97

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 2019
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 supported by new e-Learning and webinar training tools. 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.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The central SafeSeaNet service continued to function well throughout 2019. The Agency continued to provide support to Member States regarding testing of SSN v4 and data quality issues. The focus on data quality improvements remained and EMSA continued to work closely through bilateral meetings with Member States.

The preparatory work for SSN v5 started in 2019 with dedicated expert working groups set-up under the High Level Steering Group (HLSG) to define the business rules for the revised exchange of waste information (Directive EU 2019/883 repealing Directive 2000/59/EC) and persons sailing on board passenger ships (Directive (EU) 2017/2109 amending Directive 98/41/EC). The new Traffic Density Maps (TDM) service was made available in September 2019 to Member States and EU Institutions via the SEG application and to the public via the EMODnet portal displaying ship movement patterns, thereby contributing to a better understanding of maritime traffic.

Following a cooperation agreement between EMSA and DG ENV for the development of inventories of shipping emissions based on shipping activity data, EMSA started the plans to develop a new Emissions Density Mapping Service (EDMS) to provide additional inventories of shipping emissions covering the waters of Member States. The concept and methodology were presented to the experts at the Workshop on the Sulphur Directive.

Developments continued on the central databases (Central Ship Database (CSD), Central Organisation Database (COD), Central Hazmat Database (CHD), Central LOCODES Database (CLD)). The 4th HLSG discussed how to make certain information in SSN (Terrestrial-AIS) available to the public but no decision was reached on how to proceed. In 2019, EMSA and Eurostat discussed how to expand the portfolio of EMSA maritime information databases to support users' statistical needs and the discussion will continue in 2020.

In relation to places of refuge, the fourth biennial table top exercise was held in Madrid, Spain, 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.

Objectives 2019	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 VTMS Directive.	Directive revision process differed
Refine and improve the SafeSeaNet Ecosystem common Graphical User Interface as launched in 2017.	✓
Refine and improve the Central Ship Database.	✓
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).	Pending Commission decision
Refine and improve the CHD.	✓
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).	Pending
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.	✓
Provide support to the MS cooperation group on Places of Refuge.	✓

Planned output 2019	Achievement / Actual output 2019
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.	Pending Commission decision
Delivery of an aggregated Traffic Density Map Service.	✓
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.	Directive revision process differed

Output Indicators		Target 2019	Result 2019
SafeSeaNet system including requirements under the Reporting Formalities Directive (2010/65/EU): Service Operation	percentage per year availability of central SafeSeaNet system	99	99.66
	hours maximum continuous downtime of central SafeSeaNet system	max 12	07h:34min

SafeSeaNet system including requirements under the Reporting Formalities Directive 2010/65/EU: Reporting Performance	percentage of notifications processed in time in accordance with SafeSeaNet IFCD requirements	99	100
	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 2019
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. Based on new technological developments, EMSA will test the benefits of VDES in cooperation with ESA and Norway and other means available to improve service quality.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

Following the publication of Regulation (EU) 2019/1239 on the European Maritime Single Window environment (EMSWe), EMSA provided support to the Commission by contributing to the elaboration of the implementation plan, the EMSWe dataset, the Message Implementation Guide, harmonised spreadsheets, common functionalities of graphical user interfaces and specifications of an EMSWe ship database and common location and hazmat databases.

EMSA launched a study on the EMSWe dataset aiming at delivering preliminary EMSWe dataset specifications, a description of corresponding business processes and an assessment of data to be exchanged through SafeSeaNet. EMSA also commissioned a study to define the security and interoperability measures which need to be implemented in SafeSeaNet to secure the exchange of EMSWe data including personal and commercially sensitive information. Both studies were executed under the Interoperability project (refer to section below).

Meanwhile, EMSA continued to assist the Commission in monitoring the implementation of the former Directive 2010/65/EU by elaborating a revision of the guidelines to Member States (data mapping report) to reflect the reporting requirements from Directive (EU) 2017/2109 on the registration of persons on board passenger ships. The revised guidelines provide the grounds for a harmonised implementation of the Directive.

The IMO FAL Committee, at its 40th meeting in April 2019, agreed to address the harmonization and standardization issues of Maritime Single Windows by revising the IMO Compendium on Facilitation and Electronic Business (FAL Compendium). At the request of the Commission, EMSA actively contributed to this revision aiming at reflecting the experience gained from the implementation of Directives 2010/65/EU and 2002/59/EC and therefore guaranteeing a certain level of harmonisation between the FAL Compendium and the EU NSW and SafeSeaNet datasets.

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-shore reporting and other digital data via a VDES capability platform to be developed using Norway's VDES microsatellite. The project was kicked-off in October 2019 with EMSA and Space Norway and an initial set of requirements were prepared, giving effective grounds for the project execution.

Objectives 2019	Achievement
Assist the Commission where possible with the implementation of the proposed Regulation for Reporting Formalities.	✓
Provide technical assistance in the implementation of Directive (EU) 2017/2109 amending 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.	✓

Participate in a project with Norway to test the exchange of ship reporting (reporting formalities) using their VDES satellite.	✓
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Planned output 2019	Achievement / Actual output 2019
Assist the Commission in the evaluation of and preparatory work for the implementation of the Reporting Formalities Regulation.	■
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 Directive (EU) 2017/2109 amending 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 in support of the Reporting Formalities Directive (2010/65/EU)	<i>The information exchange requirements of the Reporting Formalities Directive are integrated in the PortPlus message, and therefore covered by the SafeSeaNet indicators.</i>

Project: Promotion of interoperability between industry and competent authorities in the European Maritime Single Window (EMSW) environment under the Common Information Sharing Environment for the maritime domain (CISE) Process (Interoperability project)

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 - 2021
Envelope	3,000,000
Expenditure 2019	Committed 520,067 Paid 55,529
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 2019
A Steering Committee will be established composed of the relevant Commission DG's and EMSA. The outcome of the project has to be achieved by 2021.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The overall goal of the project is to 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 and Eurostat) can be handled.

Following the signature of the grant agreement with DG MARE on 18 September 2018, EMSA launched several pilot projects and studies as foreseen in the grant. Examples of such pilot projects include the development of services to facilitate MRS and VTS reporting, the development of enhanced ship database services, the development of a VDE capability project in collaboration with Norway and ESA and the EMSWe dataset and SSN interoperability and security study mentioned in the section above. As output from the studies, an interim report describing the security and interoperability solutions for SSN and a draft EMSW dataset were delivered in December 2019.

The project's activities were overseen by a project Steering Group composed of DG MOVE, DG MARE, DIGIT, and TAXUD and EMSA. In June 2019, the Steering Group agreed on a revision of the project's activities and plan which included a new set of activities related to the EMSWe. The grant was amended accordingly on 7 October.

Objectives 2019	Achievement
The project will demonstrate over a three-year period how to achieve:	✓
- a more efficient data exchange between different authorities of Member States using SafeSeaNet, including exchange of cargo information,	✓
- better connectivity among all relevant authorities and end-users in the different Member States,	✓

- harmonised national single window interfaces, and	✓
- an improved information exchange between ship to shore, a so-called reporting gateway, a.i. using VHF Data Exchange-satellite (VDE-SAT) communications. Where possible EMSA will cooperate with Norway using their satellite with a VDE-SAT payload for testing and validation.	✓

Planned output 2019 ⁵	Achievement / Actual output 2019
Assess a new approach aiming at better tracing the data exchanges related to each reporting obligation in SSN (Grant's activity A.2)	■
Complete the mapping of data elements and an EMSW data set and establish a fully harmonised data model for reporting in all ports of the EU (Grant's activity C.1)	■

Output Indicators ⁶	Target 2019	Result 2019
Number of pilot projects and studies reports	not applicable	2

⁵ The planned outputs for this Project were agreed in October 2019 through the 2nd amendment of the Grant Agreement with DG MARE.

⁶ The Output Indicators have been defined in September 2019 and reflect the decisions of the Steering Committee.

Project: EFCA

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 2b

Project	EFCA SLA
Funding source	EFCA
Time frame	Automatic renewal since 2015
Expenditure 2019	Committed 53,748 Paid 13,757
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 2019
EMSA Integrated Maritime Services are offered to EFCA in accordance with their user requirements and their end users in the Member States and the Commission and EFCA VMS data transmitted by EFCA is integrated in the Integrated Maritime Services.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

Fisheries authorities under the coordination of EFCA are the main beneficiaries of the Integrated Maritime Services (IMS) provided by EMSA to support fisheries monitoring and control activities. The number of EFCA IMS users at DG MARE, EFCA and in the Member States increased by 28% in 2019. During 2019, a number of aspects of the service were further improved. These included the availability of historical vessel position data being extended from 18 to 30 months. By the end of 2019, 95% of EU fishing vessels above 15 meters could be tracked in IMS using both VMS and AIS.

Following the significant success of the IMS service to date, both Agencies have agreed to further strengthen the service through a dedicated project funded partially by EFCA. A first set of enhancements were contracted in 2019, in particular the development of a high-performance real time maritime picture service that will benefit all EMSA IMS services.

In the framework of the Copernicus Maritime Surveillance service, 172 (130 radar and 42 optical) satellite images were delivered via IMS. Due to agreed data sharing policies between the Agencies, EFCA has access to images tasked for Frontex (2,364) under the associated SLA as well as the vessel detection information derived from CleanSeaNet images (6,916).

The fourth amendment to the SLA, signed on 28 March 2019, added the possibility to equip vessels chartered by EFCA with EMSA pollution response equipment to support pollution response actions of the Member States. The pollution response capabilities of the EFCA chartered vessel (Lundy Sentinel) were successfully tested during COASTEX 19.

Light VTOL (Vertical Take-Off and Landing) RPAS on-board the Lundy Sentinel provided an aerial surveillance capacity in the vicinity of the vessel starting in August 2019. Given the added value of the service, EFCA requested its extension until December 2019 and the continuation of the service in 2020.

Objectives 2019	Achievement
Implement the Service Level Agreement signed between EMSA and EFCA.	✓
Service delivery based on the SLA and associated specific agreement signed with EFCA.	✓
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).	✓

Planned output 2019	Achievement / Actual output 2019
Provision of integrated maritime services under the existing EFCA-EMSA SLA framework.	■

Output Indicators		Target 2019	Result 2019
Integrated Maritime Services	percentage per year availability to EFCA	99	99.72

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	45,000,000
Expenditure 2019	Committed 14,592,879 Paid 8,428,500
Staff	9 CA

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 2019
Integrated maritime services are offered to Frontex in accordance with their user requirements and their end users in Member States.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

During 2019, the five established services were delivered successfully to Frontex. Vessel Monitoring and Tracking was operational 24/7 providing 4.7 billion vessel positions during the year, meaning an average of 13 million positions and 86,396 distinct vessels identified every day. Regarding the acquisition and delivery of Earth Observation (EO) products, EMSA has maintained at high level both the delivery of services based on Synthetic Aperture Radar (SAR) and optical imagery (96% and 88% respectively), delivering a total of 2,364 satellite images directly to Frontex user interfaces. Due to agreed data sharing policies, Frontex also has access to Copernicus Maritime Surveillance images tasked for EFCA (172 images), and to the vessel detection information derived from CleanSeaNet images (6,916).

For detecting specific kinds of vessel behaviour or anomalies, a training session on Automated Behavioural Algorithms was provided at Frontex premises which was attended by participants from five different Frontex sectors. The number of ABM configurations (440) together with the number of alerts triggered (141,469) during the year indicate a better set-up of this service, and associated performance, by the Frontex users. In parallel, with the latest release of the Frontex application, EMSA is ready to deliver a System-to-System configuration tool of Automated Behavioural Algorithms for Frontex. The percentage of Weekly Reports delivered for the Vessel Reporting Service was fully compliant.

In addition, EMSA provided services to Frontex in the area of aerial monitoring based on EMSA Remotely Piloted Aircraft Systems (RPAS).

Procedures for the communication of pollution sightings from Frontex order Control assets where established to report to Member States using CleanSeaNet.

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

Planned output 2019	Achievement / Actual output 2019
1. Provision of integrated maritime services and training under the existing Frontex-EMSA SLA framework, which includes support regarding the implementation of the EUROSUR regulation.	■

Output Indicators		Target 2019	Result 2019
Frontex Service platform	percentage per year availability to Frontex	99	99.67
Frontex operational Exercises	minimum number of exercises EMSA participates in	2	3

2.2 EU LONG RANGE IDENTIFICATION AND TRACKING (LRIT) COOPERATIVE DATA CENTRE (CDC) AND LRIT INTERNATIONAL 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	3,843,297	3,897,711
PA	3,924,194	3,815,498
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 2019

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.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The Long Range Identification and Tracking (LRIT) services hosted by EMSA, consisting of EU LRIT CDC, LRIT IDE, EU LRIT Ship Database, and LRIT Consumption Tool, were fully operational throughout the year, except an LRIT IDE on the 31 of December 2019 due to a certificate issue. The LRIT IDE provided services and testing support to 64 LRIT DCs worldwide.

As requested by IMO, 2 new releases for the EU LRIT CDC and the LRIT IDE have been developed according to the third modification of the LRIT system requirements.

Following the set-up of a United Kingdom LRIT NDC in 2018, the UK left the EU LRIT CDC in January 2019. In March 2019 the British Virgin Islands, Falkland Islands and Gibraltar also left and joined the UK LRIT NDC. Around 760 ships were transferred with the technical support of EMSA.

On the other hand, after agreement by the EC and completion of IMO testing, Georgia and Tunisia joined the EU LRIT CDC in July 2019, bringing in a total of 12 ships.

Finally, after a call for tender initiated in September 2019, the new contract for the delivery of ASP/CSP services for the LRIT services has been awarded.

Objectives 2019	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 2019	Achievement / Actual output 2019
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.	■
Quality of the services maintained.	■
Continued operations and ongoing maintenance of the LRIT CDC.	■

Output Indicators		Target 2019	Result 2019
EU LRIT DATA CENTRE			
System operational	percentage per month availability	99	99.9
	hours maximum continuous downtime	max 4	33 min
EU CDC reporting performance	percentage position reports delivered in accordance with IMO requirements (periodic reports: 15 min; polls: 30 min)	99	99.75
Web user interface	percentage per year availability to users	99	99.86
LRIT – IDE			
LRIT-IDE System operational	percentage per year availability of LRIT IDE in accordance with IMO requirements	99	99.7 ⁷
	hours maximum continuous downtime of LRIT IDE	4h	13h30 min ⁸

⁷ LRIT IDE certificates needed to be installed and renewed before the expiration date: 31/12/2019. This task was done in October 2019. Nevertheless, one certificate was not properly installed, generating a 13h30 hours downtime on the 31/12/2019 (KPI 19). As a consequence, the percentage per year availability of LRIT IDE dropped to 99.7%.

⁸ See above.

2.3 THETIS and its modules

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	2,063,081	1,991,222
PA	2,428,771	2,069,740
Staff	5 AD, 1 AST, 1 CA	4 AD, 1 AST

Project	THETIS-EU
Funding source	EC, DG ENV as concerns the Sulphur Directive
Time frame	2018-2021
Envelope	200,000
Expenditure 2019	Committed 62,415 Paid 4,415
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 2019

The Agency operates the Port State Control information system (THETIS) 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 ((EU) 2017/2110), 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 (EU) 2016/802 and the calculation of frequency of inspections and samples and the future targeting system.

THETIS-EU supports as a voluntary module Member States in reporting security inspections in accordance with Regulation 725/2004; accommodates the Port Reception Facilities Directive (2000/59/EC) as long as the Directive is still in force; caters for the Flag State elements 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 on Port State Control.

THETIS-MRV caters for 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.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

In December 2019, Directive (EU) 2017/2110 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 entered into force. The Agency, in line with its mandate to provide technical assistance to Member States and support the building of national capacity, made available an enhanced version of THETIS to cater for the PSC provisions of this Directive. At the same time a stand-alone module in THETIS-EU, a platform to report inspections not falling within the scope of the PSC Directive, was developed and made available by EMSA to cater for the Flag State provisions of this new Directive. These developments will contribute to

avoiding overlap and duplication of inspections, which are now streamlined and simplified. In addition, the administrative burden on shipowners is reduced, the effort required from Member States' maritime administrations is rationalised and a level playing field is ensured without jeopardising the level of control on passenger ships.

The 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 launched successfully in January 2019. Volunteer Member States are using it at operational level with the support of the Agency. In this regard, a specific training course for Duly Authorised Officers including the use of the THETIS-EU Maritime Security Module was organised at the request of the German administration.

In the field of implementation of the Sulphur Directive, EMSA performed in 2019 measurements of Sulphur Dioxide from vessels using RPAS during 61 operational days in Denmark. The measurements of Sulphur Dioxide captured by RPAS services were transmitted live to THETIS-EU, following its integration with the RPAS Data Centre.

Objectives 2019	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, including the development of best practises and guidance.	✓
Ensure regular meetings with relevant end users.	✓

Planned output 2019	Achievement / Actual output 2019
Information System THETIS: operational, maintained and under continuous enhancement to meet new requirements. Enhanced to support the PSC provisions of Directive (EU) 2017/2110 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 (EU) 2017/2110 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, Regulation 1257/2013 on Ship Recycling, Regulation 725/2004 on maritime security and Directive 2016/802/EU and Directive 2000/59/EC on Port Reception Facilities for as long as it will be valid.	■
Subject to the final outcome of the legislative process, a development of a new dedicated module to which all Member States shall be connected, and which shall contain all the information required for the implementation of the inspection system provided for by the revised Directive to repeal Directive 2000/59/EC on Port Reception Facilities. This module should also foresee a Union risk based targeting mechanism for the selection of ships to be inspected.	■
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, including the development of a standard for eCertificates.	■
Cooperation with a number of Member States (PSC and Flag States) to verify efficiency gains by controlling eCertificates through THETIS.	■
Cooperation with the Med MoU for the development of a THETIS-MeD to support the MeD MoU with an inspection database.	■
Cooperation with the Commission, COSS, the Sulphur Committee, the Ship Recycling Committee and MARSEC Committee to supervise, verify and validate the operation and further enhancement of THETIS-EU as relevant.	■

Output Indicators		Target 2019	Result 2019
System operational	availability in percentage	96	99.74
	hours maximum continuous downtime	max 6	45 min
Helpdesk Service	percentage of requests closed in less than 5 days	75	98.4

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 2019	Committed 21,290 Paid 21,290
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)
➔	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 2019
THETIS-MRV operational.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

THETIS-MRV facilitates the structured workflow process involved in the reporting of emissions, from the drafting of the monitoring plan to the final issuing of the document of compliance, thereby simplifying the administrative burden for all concerned (owners, managers, verifiers and Flag States). Through the THETIS-MRV system, launched in August 2017, data has been gathered, as from 1 January 2018, on ships of over 5 000 GT operating in EU waters. The information covers the CO₂ emissions encoded for around 10,800 ships and is reported to represent more than 130 million tonnes for 2018.

The data from the first reporting period was made public in June 2019 as part of an overall plan to encourage the uptake of energy efficiency measures to reduce greenhouse gas emissions from maritime transport. The introduction of THETIS-MRV, by providing comparable and reliable information on fuel consumption and energy efficiency to the relevant markets and in particular raising awareness through data made available to the general public, could contribute to the removal of market barriers, in particular those related to the lack of information about ship efficiency.

Objectives 2019	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 2019	Achievement / Actual output 2019
THETIS-MRV operational.	■
Organisation of awareness and technical workshops for stakeholders (industry, MRV shipping verifiers) and competent authorities of Member States.	■

Output Indicators		Target 2019	Result 2019
THETIS-MRV	timely delivery of tasks foreseen by the cooperation Agreement	<p>THETIS-MRV operational.</p> <p>Companies able to register activity data in the system as from 1st January 2018.</p> <p>System to provide the necessary data to support the publication of information foreseen by the MRV Regulation</p>	yes

2.4 MARITIME SUPPORT SERVICES

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

Planned input		Actual Input
CA	1,470,865	1,518,131
PA	1,470,865	1,485,953
Staff	3 AD, 1 AST, 4 SNE, 4 CA	3 AD, 1 AST, 4 SNE, 4 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 2019	
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.	

The Maritime Support Services (MSS) provided uninterrupted 24/7 operational and technical helpdesk services to users using vessel traffic monitoring and surveillance systems hosted by the Agency. The MSS provided continuous monitoring of all EMSA hosted maritime applications, thus ensuring the availability of such applications with high performance standards (see indicators per application/service).

Related to operational services, the EMSA emergency services within the Contingency Plan were activated on 15 occasions by Member State authorities, e.g. following the sinking of the Ro-Ro vessel Grande America in the Biscay Bay. Two oil pollution response vessels participated, including drones to support operations, and more than 50 satellite images were delivered.

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

Finally, the MSS conducted the regular survey on the MSS user satisfaction with very good results, as previous years.

Objectives 2019	Achievement
Ensure timely and appropriate helpdesk and monitoring services.	✓

Planned output 2019	Achievement / Actual output 2019
Maritime Monitoring Services to be provided on a 24/7 basis including: <ul style="list-style-type: none"> → Monitoring availability and performance of EMSA maritime systems; → 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: <ul style="list-style-type: none"> → 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 2019	Result 2019
Maritime Support Services available 24/7	average time in hours for feedback or resolution of issues relating to emergencies, incidents in maritime applications or urgent helpdesk requests	<2	9.3 min
	average time in hours for feedback or resolution of issues relating to non-urgent helpdesk requests or scheduled interventions	<8	18.3 min
MSS Data Quality Reports	reporting on the SafeSeaNet implementation and data quality (overall and per Member State)	20 reports	26 reports

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) N° 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 2019	Committed 15,069,724 Paid 8,730,004
Staff	3 CA⁹

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 2019
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.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

In 2019 the Copernicus Maritime Surveillance (CMS) service, executed on behalf of the Commission, entered the fourth year of operations. In addition to providing satellite based surveillance services in the function areas of fisheries control, maritime safety and security, law enforcement, customs and support to international organisations, services were also provided for 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.

The operational services under the Copernicus Maritime Surveillance service were delivered to more than 41 Member State administrations, EU institutions and international organizations, representing a 52% growth when compared with 2018 in terms of organisations served. The number of earth observation products delivered by the Copernicus Maritime Surveillance service in 2019 was 3,953 which represents a 29% increase compared to the previous year.

A Copernicus Maritime Security workshop and the second annual Copernicus Maritime Surveillance User Group event took place at EMSA and provided a forum for exchange and feedback on the service that supported the continuous evolution of the service matching user requirements. Two training sessions were organised in October, with 34 participants.

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

Objectives 2019	Achievement
Implement the activities defined in the Copernicus Maritime Surveillance Services Annual Implementation Plan for 2019.	✓
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 surveillance is addressed under a separate project with Frontex).	✓
Assess new user requirements.	✓
Explore new technologies that can enhance the Copernicus service portfolio and support the CMS delivery process.	✓
Organise promotion, training and user up-take of Copernicus services.	✓

Planned output 2019	Achievement / Actual output 2019
Provision of CMS, usually delivered through the existing Integrated Maritime Services platform.	✓

Output Indicators		Target 2019	Result 2019
Copernicus Maritime Surveillance service earth observation (EO) image delivery	percentage per year EO image delivery ratio	90	91

Project: CISE Transitional Phase

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.3, 2.2(d)

Project	CISE Transitional phase
Funding source	EC, DG MARE
Time frame	2019-2021
Envelope	3,500,000
Expenditure 2019	Committed 703,877 Paid 158,980
Staff	4 CA¹⁰

Multi-annual strategic objectives
<ul style="list-style-type: none">➔ 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 2019
To be defined, depending on signature of the grant agreement and discussions at the new User Group for CISE.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

Based on the activities defined by the CISE Grant Agreement, the following milestones were achieved in 2019:

- **Coordination of the CISE Stakeholder Group (CSG):** The CSG meets regularly, every 3-4 months. The transitional phase started in April 2019 and two CSG meetings were held at EMSA;
- **Project management:** The roadmap for the transitional phase was defined during the CSG meetings and was regularly updated;
- **Technical and Operational support:** The service support to the Member States was set up and EMSA/JRC provided assistance to the Member States as expected. The procurement for the evolutive maintenance of the CISE node software was launched in 2019 and it is envisaged that it will be awarded in the first quarter of 2020;
- **Training and Best practices:** EMSA held a first Best Practices Workshop in December 2019;
- **Establishing the administrative framework:** The first version of the Cooperation Agreement, which includes the necessary administrative agreements supporting the operational exchange of information through CISE, was drafted and will be further elaborated in the cooperation agreement working group;
- **Collaborative platform:** The collaborative platform to share documents among CISE stakeholders and to conduct video conferences was configured and presented to the stakeholders. It was regularly updated by the CISE team;

¹⁰ Initially 5 CA were foreseen for this project. Nevertheless, recruitment of all required technical staff was not successful and only 4 CA were recruited. Lack of technical staff has been compensated by using consultants, for this purpose the grant agreement has been amended.

- **Communication:** A CISE section in the EMSA website was created.

Objectives 2019 – 2021 (24 months period starting after signature of the grant agreement)	Achievement
Set up and test a technical, operational and administrative framework for CISE in close cooperation with the (to be established) CISE User Group.	✓
Define the baseline of CISE for 2020 operations based on the outcome of the EUCISE2020 project (project assessment);	✓
Further define and organise the data to be exchanged based on data analysis/data mapping in the context of the 3 layers (project assessment);	✓
Establishment of a number of relevant CISE information services (distinct data sets and complementary to the ones of layers 1 and 2) that could be exchanged between the participants;	✓
Explore the possibility to enrich CISE with information from layer 2 and under what circumstances (user needs).	✓
Set-up technical support to Member States for horizontal ICT requirements, budget permitting (technical support management);	✓
Refinement and consolidation (operationalisation) of the common and national CISE components as far as possible by providing technical and administrative support to MS authorities working on consolidating the pre-operational validated solutions and connecting their national systems.	✓
Working on the completion and extension of the CISE operational nodes (up to a network of 10 nodes, to pre-operationally validate the current solutions as targeted under EUCISE2020).	✓
Set up a repository/library with all relevant technical documentation and source codes, including the transfer of Intellectual Property Rights (Document Management);	✓
Prepare an outline of the work to be undertaken for the post 2020 CISE operations: e.g. standard operating procedures and user support/training/manuals.	✓

Planned output 2019	Achievement / Actual output 2019
Progress with the implementation of the objectives as mentioned above.	✓

Output Indicators ¹¹	Target 2019	Result 2019	
CISE Transitional phase	Organize and coordinate the CSG and the working groups	Quarterly 1 CSG meeting	Yes
	Establish the platform to enable the collaboration (file sharing and VTC) between the CISE stakeholder members	CISE in EMSA web site and collaborative platform	Yes
	Analysis of the deliverables of EUCISE2020 (source code and documentation)	Report	No (Commission - DG MARE is still working to get transferred the IPR from EUCISE2020)
	Provide technical and operational support to MS	Answer for reported issues in one working day	Yes
	draft the 1 st version of the cooperation agreement	Agreement	Yes

¹¹ Output indicators for this activity were developed after the adoption of the SPD 2019-2021.

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	2,108,955		2,164,067
PA	2,084,415		2,083,169
Staff	10 AD, 1 AST, 1 SNE		10 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 risk-based 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 2019

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.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

In shaping its programme of inspections of Recognised Organisations (ROs) and determining the scope and location, the Agency implemented a risk-based approach, 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 costs and burden.

Findings were established in all inspections, triggering voluntary corrective actions in all cases. The implementation of these corrective actions will be verified in the next round of inspections, aiming at enhancing the monitoring of performance of ROs relevant for the EU.

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). The inspections also verified survey activities of ROs in newbuilding projects of Ultra Large Container Ships, LNG carriers and cruise ships. For the latter, Safe Return to Port issues were included. In addition, ships in dual class and the related ROs' control over their survey and certification processes in those cases were verified. The inspections also focussed on the consultancy activities of ROs in relation to their survey and certification activities.

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

In 2019 EMSA organised a workshop on RO monitoring with the participation of the Commission and the Member States. This workshop marked the kick-off process for adopting new proposed working arrangements in this field and increased information sharing to support Flag State responsibilities.

Objectives 2019	Achievement
Maintain the same inspection effort per RO as in 2018.	✓
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.	✓
Support 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).	✓
Provide draft assessment reports to support the Commission's assessments of Recognised Organisations.	✓

Planned output 2019	Achievement / Actual output 2019
16-20 inspections of Recognised Organisations' offices.	✓
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.	No requests received.
Provide 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, 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 ¹²		Target 2019	Result 2019
Inspections	number of RO inspections per year	16-20	17
Reports	number of reports per year	16-20	17
End-of-cycle inspection and draft assessment reports	number of reports per year	5-7	5

¹² Indicators exclude inspections and reports of candidate ROs and ad-hoc ship visits.

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	1,571,606	1,834,253
PA	1,572,006	1,537,664
Staff	6 AD, 2 AST, 1 SNE	6 AD, 2 AST, 1 SNE

Project	International Workshop on Maritime Labour Convention, 2006
Funding source	IMO
Time frame	2019-2020
Envelope	85,000 USD (77,237.62)
Expenditure 2019	Committed 63,004
Staff	No extra staff

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 2019
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, as well as to the incorporation in the EU legislation of the most recent amendments to the STCW Convention.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The Agency continued to carry out inspections of the maritime education, training and certification systems in third countries. Inspections were carried out in India, Panama and Singapore. In addition, the Agency continued the second cycle of visits to Member States. Support to the Commission was provided with technical opinions on corrective action plans and for follow-up activities stemming from the Agency's visits and inspections.

A fourth 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 2017 and recorded in the STCW Information System. The Agency started a project to enhance the STCW-IS by developing a web-based tool for interactive statistical review by public users.

EMSA continued to assist the European Commission with 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. On 20 June 2019, Directive 2019/1159/EU was adopted amending Directive 2008/106/EC and repealing Directive 2005/45/EC. EMSA also participated in the correspondence group on the review of the STCW-F Convention and prepared documents to be discussed and agreed in the process of review of the STCW Convention and Code.

As a joint initiative by the Agency, the Commission, the International Labour Organization and the International Maritime Organization, the Agency also organized the "International Workshop on the Maritime Labour Convention", due to take place in 2020 in Lisbon.

The workshop aims to ensure further implementation of the Maritime Labour Convention and create a worldwide level playing field by means of harmonization and uniformity on compliance and enforcement.

Objectives 2019	Achievement
Similar effort of visits and inspections as in 2018.	✓
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 2019	Achievement / Actual output 2019
4-5 inspections to third countries.	An inspection of a third country was replaced by a visit to a Member State.
3-4 visits to Member States.	✓
Maintain the STCW Information System; minimising down-time, ensuring a high level of availability and providing system support to users.	✓

Output Indicators		Target 2019	Result 2019
Inspections and visits	number of inspections and visits per year	7-9	7
	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	100
STCW Information System	percentage per year availability	96	97.15

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), 2.3(d) and 3

Planned input		Actual Input
CA	1,272,988	1,551,763
PA	1,262,788	1,571,399
Staff	5 AD, 2 AST, 1 SNE	5 AD, 3 AST, 1 SNE, 1 CA

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 2019	
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.	

2019 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 to 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 and reduce administrative burden.

In 2019, 19 visits were carried out in respect of four EU Directives dealing with: the sulphur content of marine fuels ((EU) 2016/802), port State control (2009/16/EC), marine equipment (2014/90/EU) and harmonised requirements for the safe loading and unloading of bulk carriers (2001/96/EC). 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.

Preparatory work for commencing a new cycle of visits on passenger ship safety in 2020 concerning the following Directives was carried out:

- Directive 98/41/EC on the registration of persons sailing on board passenger ships operating to or from ports of the Member States of the Community, as amended;
- Directive 2003/25/EC on specific stability requirements for ro-ro passenger ships, as amended; and
- Directive 2009/45/EC on safety rules and standards for passenger ships, as amended.

In addition, the visit methodology for the current cycle of visits of port State control was updated to include the requirements of Directive (EU) 2017/2110 on a system of inspections for the safe operation of ro-ro passenger ships and high-speed passenger craft in regular service. From the beginning of 2020, all PSC visits will include these elements.

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.

In addition, the Quality Management System for Visits and Inspections, covering the full scope of the Agency's visits and inspections activities continued to be implemented and provides a solid framework for continuous improvement.

Objectives 2019	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.	✓
Prepare a new cycle of visits on passenger ship safety legislation.	✓

Planned output 2019	Achievement / Actual output 2019
4-5 visits to Member States in respect of Directive 2009/16/EC on port State control and related activities.	✓ 4 in total.
4-5 visits on the implementation of the Sulphur Directive and related Commission Implementing Decisions.	✓ 5 in total.
5-6 visits in respect of Directive 2014/90/EU on marine equipment.	✓ 4 in total.
4-5 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 States to monitor the implementation of relevant legislation.	✓ 2 in total.

Output Indicators		Target 2019	Result 2019
Visits	number of visits per year	17-21	19
	percentage of visit notifications sent to Member States with at least three months' notice	95	100
Reports	number of reports per year	17-21	19
	percentage of draft reports submitted to the visited Member State within 90 days from end of visit	95	100

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	786,341	725,408
PA	767,341	715,050
Staff	3 AD, 1 SNE, 1 CA	3 AD, 1 SNE

Multi-annual strategic objectives
➔ Adding value from visits and inspections (Strategic Action Area13).
Expected result 2019
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.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

EMSA assisted 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. The current Working Arrangement further enhances EMSA's participation in the maritime security inspection process. As regards the EFTA Surveillance Authority, technical assistance 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. In 2019, EMSA supported EFTA Surveillance Authority for one inspection of a Recognised Security Organisation.

The number of inspection missions remains at a higher level following a decision by the Commission to increase its inspection effort. The number of individual inspections covered under the 16 different missions was also higher, at 54¹⁴, 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.

In line with the general effort by all stakeholders in the maritime industry, the Agency has also increased its endeavours in the field of maritime cybersecurity, hosting in co-operation with ENISA a conference on transport cybersecurity and a workshop on port cybersecurity and also organising a table top exercise with Member States and industry representatives to test responses to maritime cybersecurity events.

Objectives 2019	Achievement
Similar effort of missions as in 2018.	✓
Provide the Commission and the EFTA Surveillance Authority with timely advice on the level of security implementation by the Member States.	✓

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”.

¹⁴ EMSA covered 54 individual inspections resulting in 47 reports (some individual reports concerned more than one inspection).

Planned output 2019	Achievement / Actual output 2019
10-12 missions to EU Member States, upon request of the Commission.	✓
2-3 missions to Norway and Iceland, upon request of the EFTA Surveillance Authority.	Assistance for only one mission was requested.
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.	No requests received.

Output Indicators		Target 2019	Result 2019
Inspections	number of missions per year	12-15	16
Reports	number of reports per year ¹⁵	30	47
	percentage of inspection reports concluded within the deadline agreed with the European Commission	95	100

¹⁵ More than one report may be prepared following an inspection mission, e.g. if more than one Member State is inspected.

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

<i>Planned input</i>		<i>Actual Input</i>
CA	586,654	601,104
PA	574,654	574,067
Staff	3 AD ¹⁶	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 2019

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.

2019 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 2019, two horizontal analyses (HA) were completed: a mid-cycle analysis of the findings of the cycle of visits to Member States on Directive (EU) 2016/802 relating to a reduction in the sulphur content of certain liquid fuels, and a mid-cycle analysis of the findings from the third cycle of visits to Member States related to Directive 2009/16/EC on port State control. Both of these analyses included the results of the cost-effectiveness analyses carried out based on the data gathered through dedicated questionnaires to Member States.

The methodology and the findings of the horizontal analysis on the Sulphur Directive was presented to Member States during a workshop organised by EMSA in November 2019.

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 preliminary cost-effectiveness model was started to be developed for the new visit cycle that will begin in 2020, in relation to Directives 98/41/EC, 2003/25/EC and 2009/45/EC, all as amended, concerning requirements for passenger ship safety.

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

Objectives 2019	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 2019	Achievement / Actual output 2019
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 2019	Result 2019
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.

<i>Planned input</i>		<i>Actual Input</i>
CA	560,154	382,657
PA	550,654	369,119
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 2019

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.

The Agency will support the implementation of the Flag State provisions of the Directive (EU) 2017/2110 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. The support include inter alia the enhancement of the information system (THETIS-EU), the training of officials from competent authorities, the development of relevant eLearning modules in MaKCs and technical assistance to the Member States and the Commission on relevant issues.

The Agency will work towards harmonising Inspections by competent authorities foreseen by the Directive establishing a more unified level of maritime safety.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The Agency developed guidance on Directive (EU) 2017/2110 on a system of inspections for the safe operation of ro-ro passenger ships and high-speed passenger craft in regular service aiming to assist the MS in their efforts to fulfil the requirements of Directives (EU) 2017/2110 and 2009/16/EC, in relation to the inspection of ro-ro passenger ships and high-speed passenger crafts in regular service, thus ensuring a robust and uniform control system throughout the Union and a level playing field.

Within the context of Paris MoU, the Agency continued to have an active role in relation to the ongoing discussions on eCertificates. The Agency chaired the relevant task force to ensure harmonisation of procedures and standards while further enhancing the 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 to all classed ships. In addition, a pilot project was launched in cooperation with Paris MoU, through which the correctness of data submitted to THETIS through the enhanced webservice was to be verified.

The new web-service as well as future enhancements in relation to eCertificates will reduce the administrative burden for Port State Control Officers (PSCOs) and Maritime Administrations in general while fostering harmonised issuance and control of certificates by Member States both in their capacity as Flag and Port States.

Objectives 2019	Achievement
Assist in the publication of information relating to ships (PSC Directive 2009/16/EC as amended and Directive (EU) 2017/2110 on a system of inspections for the safe operation of ro-ro passenger ships and high-speed passenger craft in regular service).	✓
Provide technical assistance as concerns the Paris MoU on Port State Control.	✓
Provide technical assistance in the implementation of the PSC provisions of the Directive (EU) 2017/2110 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.	✓
Provide technical assistance in the implementation of the Flag State provisions of the Directive (EU) 2017/2110 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 2019	Achievement / Actual output 2019
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.	✓
Providing assistance to Member States and the Commission on the implementation of the PSC provisions of the Directive (EU) 2017/2110 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 assistance to Member States and the Commission on the implementation of the FS provisions of the Directive (EU) 2017/2110 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.	✓
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 1,297,108	858,371
PA 1,262,108	799,264
Staff 4 AD, 1 AST, 1 SNE	3 AD

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 2019

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 an EU level.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The Agency developed the new European Marine Casualty Information Platform (EMCIP), enhanced and improved its functionalities and coordinated a User Group of Member States' experts to monitor the activities and to provide and acquire feedback. Users acknowledged that the new application is more user-friendly 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.

EMSA continued to provide the Secretariat to the Permanent Cooperation Framework (PCF) and support its working groups and organised the 4th PCF Inter-sessional seminar with focus on evidence collection relevant to Human Element.

The 6th 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 and a new safety analysis aimed at detecting potential safety issues relevant for container ships was initiated.

EMSA began to participate in the advisory board of SAFEMODE, an EU funded project related to Human Factor in relation to safety.

Objectives 2019	Achievement
Ensure the proper running of the new EMCIP.	✓
Enhance the new EMCIP.	✓
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 2019	Achievement / Actual output 2019
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 new European Marine Casualty Information Platform (EMCIP) released in 2018.	✓
Enhancing EMCIP by developing new functionalities.	✓
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 casualty data and reports from safety investigations and proposing any appropriate Safety Recommendations to the Commission.	✓
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.	No request received.

Output Indicators		Target 2019	Result 2019
EMCIP meetings	number of meetings per year	2	3
PCF meetings	number of meetings per year	1	2
New EMCIP	percentage per year availability	98	99.67

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

<i>Planned input</i>		<i>Actual Input</i>
CA	2,099,708	2,488,265
PA	1,989,108	2,257,822
Staff	4 AD ¹⁷ , 1 AST, 1 SNE	6 AD, 1 AST, 1 CA

Project	EU Funds for Candidate and Potential Candidate Countries
<i>Funding source</i>	EC, DG NEAR
<i>Time frame</i>	on-going
<i>Envelope</i>	n/a
<i>Expenditure 2019</i>	Committed 140,373 Paid 64,060
<i>Staff</i>	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 2019

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 each all 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.

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

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The 2019 agreed training programme was delivered, with a focus on the priorities identified by the Member States following a bottom-up approach, along with hands-on training on the EMSA tools that are part of the daily work of the competent authorities of the Member States. In addition, national trainings were organised, thus reaching a wider audience.

The Agency developed, in close cooperation with IMO, a new training on the preparation for IMSAS Audits, considered of added value by the competent authorities of the Member States.

The positive feedback received from participants in the different training actions organised at EMSA or in the Member States confirmed the added value of these initiatives.

A new concept of capacity building was introduced. The objective is to develop professional development paths based on a structured and modular approach to training and certification of specific activities or functions, thus better supporting the competent authorities in charge at national level of Flag, Port, Coastal and Environmental functions.

This approach should assist the Member States in their effort to ensure professional development of their staff. Through the implementation of this new concept harmonisation could be achieved at EU level through the use of common core curricula for the training needs. Moreover, discrepancies in the implementation of maritime legislation could be reduced. This modern approach to lifelong training and professional development will include, but will not be limited to, the development and continuous update of relevant curricula and syllabi, the development and delivery of eLearning and online courses, the development of simulated safety inspections using Virtual Reality, and the assessment and certification of individuals.

Objectives 2019	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 2019	Achievement / Actual output 2019
Up to 16 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 2019	Result 2019
Training for Member States	number of MS training sessions per year	Up to 16	19
	number of MS experts attending per year	320	480

Training for enlargement countries	number of AC training sessions per year	Up to 6	16
	number of AC experts attending per year	50	154
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	2,053,782	2,713,423
PA	2,060,412	2,385,611
Staff	7 AD ¹⁸ , 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 2019

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.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

EMSA continued to support the Commission's Fitness Check of EU Passenger Ship Safety (PSS) legislation and associated follow-up actions while preparing for the new visit cycle on PSS legislation.

The Agency continued to work on fires on the vehicle decks of ro-ro passenger ships by ensuring the follow-up of the studies that were initiated since 2016. The EMSA study FIRESAFE II represented the essential building block for the work carried out at IMO and the relevant Interim Guidelines adopted in 2019. Work continued in the Shipping Working Party with the adoption of a proposal submitted to IMO as part of the discussion on updating the respective regulatory requirements.

A new study was commissioned on Steering and Manoeuvrability, again with the objective of stimulating, in the near future, discussions at IMO.

EMSA increased its activity on Maritime Autonomous Surface Ships (MASS), playing the role of facilitator for the discussions between relevant stakeholders. In this context, EMSA contributed to the work of the IMO Maritime Safety Committee (MSC) for the regulatory scoping exercise assessing the impact of MASS upon the existing international maritime safety regulatory framework. A new study was commissioned aiming at improving the technical knowledge on this issue and a workshop was held to bring together relevant stakeholders from the Member States, the Commission and industry.

EMSA provided technical advice to the Commission for preparing a sailing passenger ship and ship carried tenders study and on the development of the Small Passenger Ship Guidelines.

At the request of the Commission, EMSA began to participate in the advisory board of five EU funded projects related to ship safety namely AUTOSHIP (MASS), SAFEPASS, PALAEMON (evacuation of large passenger ships), FLARE (damage stability of passenger ships) and LASHFIRE (fire safety on RoPax).

EMSA also ensured technical support for the implementation and update of the Marine Equipment Directive (MED - 2014/90/EU), notably updating the list of standards for marine equipment that is subject to flag State approval and initiating the development of a new MED Database hosted and operated by the Agency as a cloud application.

Work on the 4th Implementing Regulation of the MED was also initiated and continued according to schedule.

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

Objectives 2019	Achievement
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 person sailing on board passenger ships.	✓
Continue to coordinate the technical discussions on Ro-Ro vehicle deck fire safety, promoting the results of the work already carried out.	✓
Continue the work and assist the Commission in the follow-up actions arising from the REFIT on passenger ship safety legislation.	✓
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 meetings, with regard to matters of Union competence.	✓
Support the Commission and the Member States in relation to the development of Maritime Autonomous Surface Ships (MASS).	✓
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.	✓
Development of a new MARED database able to support electronic tagging for marine equipment.	✓
Follow-up of the EU-USA Mutual Recognition Agreement and management of the alert system.	✓
Analysis of research projects relevant to ship safety.	✓
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 2019	Achievement / Actual output 2019
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 Maritime Autonomous Surface Ships (MASS), fire safety, the ISM code and Goal Based Standards.	✓
Providing technical support to the Commission in delivering 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).	✓
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 2019	Result 2019	
MarED Database	percentage per year availability of MarED DB	95	99.99

4.5 SHIP INSPECTION SUPPORT

Legal basis: Regulation (EC) N° 1406/2002 as amended, Art. 1.2 and 2.4(d); 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; 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 input		Actual Input
CA	1,828,709	1,613,961
PA	1,788,180	1,709,375
Staff	6 AD ¹⁹ , 2 SNE, 1 CA	5 AD, 2 SNE

Project	EQUASIS
Funding source	Equasis Member States
Time frame	Ongoing
Envelope	n/a
Expenditure 2019	Committed 690,645 Paid 444,170
Staff	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 2019

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.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

Member States were closely associated in the shaping of a new project, the Dynamic Overview of National Authorities portal (DONA), due to kick off in 2020, through which the administrative burden of the Member States in relation to reporting on the implementation of legal acts to the EC will be significantly reduced.

The procurement for provision of data for the internal database Marinfo was concluded, fostering a new approach that would allow the Agency to develop analytics and targeted statistics in a more structured way.

The new approach to capacity building implied the need to re-configure the Agency's eLearning platform. Options were analysed in 2019 and will be implemented in 2020 to build up a state-of-the-art toolbox for relevant users.

The development of a mobile application for RuleCheck started in 2019 and is expected to be fully operation early 2020.

Finally, EQUASIS continued to be a reference platform for fostering quality shipping worldwide.

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

Objectives 2019	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, EU Flag Administrations, and PSC MoUs with access granted through specific agreements.	✓
Update existing eLearning modules available for end-users beyond the PSC community, thus supporting national authorities in their different coast guard functions; develop new functionalities in MaKCs, such as the offline version and the App.	✓
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).	✓
Develop "DONA" (Dynamic Overview of National Authorities) with added value for the national authorities performing coast guard functions falling within the remit of the Agency.	✓

Planned output 2019	Achievement / Actual output 2019
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 (EU) 2016/802 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 DONA with added value for the national authorities performing coast guard functions falling under the remit of the Agency.	✓

Output Indicators		Target 2019	Result 2019
EQUASIS - Availability of the system	percentage per year availability	99.5	99.78
EQUASIS - Users	number of users per month	32,000	35,298
EQUASIS - Contributors	number of contributing members	9-10	10
RuleCheck system operational	percentage per year availability	85	99.49
	days maximum continuous downtime	9 days	0 days
RuleCheck Helpdesk Service	percentage of requests closed in less than 9 days	75	98.97
MaKCs system operational	percentage per year availability	85	99.80
	days maximum continuous downtime	9 days	2h20 min
MaKCs Helpdesk Service	percentage of requests closed in less than 9 days	75	95.67

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 input		Actual Input
CA	1,233,664	934,565
PA	1,201,864	927,990
Staff	5 AD, 1 SNE	4 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 2019

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.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

Technical work in support of the Commission and other stakeholders continued with focus on alternative fuels and sources of renewable energy, marine litter, underwater noise, the revision of the Port Reception Facilities Directive, the AFS Convention, the Sulphur Directive and its enforcement, and Green House Gases at international and European level thus confirming the commitment of the Agency towards sustainability goals and greener shipping.

Following the conclusion of the first reporting period in THETIS-MRV, EMSA supported the Commission in the analysis of the emissions data aiming at a report to be published in mid-2020 to inform the public and allow for an assessment of the CO2 emissions and the energy efficiency measures in place in maritime transport in the EU.

Support was provided to the Commission and the Member States in the ongoing discussions in relation to the short, medium and long term measures under the IMO's Green House Gases Strategy, the Strategy Plan for the reduction of marine plastic litter pollution from international shipping, and the implementation of the Sulphur Cap. Alternative Fuel and LNG were the subject of workshops and trainings, and continuous assistance was ensured to the Commission in support of the revised PRF Directive, as well as in the ongoing monitoring of the implementation of the Ship-source pollution (SSP) Directive and within the context of the European Sustainable Shipping Forum.

Support was ensured to the Commission in putting forward an EU proposal to ban the use of cybutryne from October 2021 and to prohibit that ships bear or seal in such coatings from October 2026.

Within the context of the SAFEMED IV project and in close cooperation with the Commission, the Agency organised two workshops, one in Lisbon and one at the IMO in London, on Sulphur Regulations. The workshops aimed at raising awareness for the upcoming 0.50% Sulphur requirement as of 2020 and consistent implementation in the IMO framework both by EU and non-EU riparian States as well as supporting ongoing discussions between countries sharing the Mediterranean basin and with regional organisations such as REMPEC, assessing the feasibility of a potential Emissions Control Area (ECA) in the Mediterranean.

All the above contribute to the EU green agenda and to the leading role of the EU at international level to mitigate the impact of maritime transport on the environment.

Work continued also on alternative fuels and new technologies that could support the ambitious objectives set by the EU.

Objectives 2019	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.	✓
Provide assistance to Member States mainly by appropriate training of Sulphur inspectors.	✓
Provide technical assistance to the ESSF and the relevant subgroups.	✓
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 2019	Achievement / Actual output 2019
1. Port reception facilities:	
Organising workshops for Member State experts to improve the implementation of the amended Directive (guidelines, exchange of information), the reporting and enforcement (guidance on reporting in THETIS-EU), or support to the Commission in the deliberations at the Council and the European parliament if the co-decision process will last still in 2019.	✓
Providing assistance to Member States for the uniform implementation of the existing Directive on the basis of the interpretative guidelines if the amended directive is not yet entered into force.	✓
2. 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 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 potential alignment of THETIS-MRV to the Global Data Collection System if the latter is adopted by IMO	✓
3. Air emissions:	
Providing technical assistance to the Commission in the implementation of Directive (EU) 2016/802 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.	✓
Integration of the measurements of Sulphur dioxide as captured by the RPAS services to THETIS-EU and their subsequent sharing with other Member States.	✓
Providing technical assistance to the Member States in the implementation of Directive (EU) 2016/802 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 (EU) 2016/802 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 (EU) 2016/802.	✓
Providing technical assistance to the Commission and the Member States to support effective and consistent implementation of the 0.50% global limit on the sulphur content of fuel oil which will apply from 1 January 2020.	✓
4. Ship recycling:	
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.	✓
Providing technical assistance to the Commission on the discussion on the recycling capacity needs of the EU shipping industry.	✓
5. Ballast water and anti-fouling systems:	
Supporting Member States in the implementation of the IMO Convention by organising training and/or workshops as relevant.	✓
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.	✓
6. Other:	

Provision, upon request, of technical assistance and support to the Commission and Member States in the implementation related to other environmental issues such as Maritime Spatial Planning and the Marine Strategy Framework Directive.	✓
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.	✓

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

Project	EuroMed Maritime Safety Project (SAFEMED IV)
Funding source	EC, DG NEAR
Time frame	2017-2021
Envelope	4,000,000
Expenditure 2019	Committed 2,185,416 Paid 1,056,116
Staff	2 CA + ½ SNE²⁰

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 2019
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.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

Within the context of the SAFEMED IV Project the assistance offered to beneficiaries to align their national standards and practices with those of the EU was continued in accordance with the overall action plan and taking into account the bilateral requests made by the beneficiaries.

Following the signature by Libya, late 2018, of the CleanSeaNet Conditions of Use for the provision of CleanSeaNet images to facilitate the identification of possible pollution (e.g. mineral oil) and possible polluters, service delivery for this new beneficiary country started in October 2019. In addition, the project offered a platform for discussions on the possibility to designate the Mediterranean Sea as an Emissions Control Area.

The project brought together national, European and international stakeholders with the aim of raising standards related to maritime safety and security, and to the protection of the marine environment.

Objectives 2019	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.	✓

²⁰ Project financed activities 7100 and 7400 (SAFEMED IV and BC Sea) will share 1 SNE.

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

Planned output 2019	Achievement / Actual output 2019
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.	✓
Development of an inspection database (THTEIS-MeD) to support the PSC MeD MoU.	✓
Provision of pilot service on cooperation on AIS matters and CleanSeaNet.	✓

Output Indicators		Target 2019	Result 2019
Implementation of SAFEMED IV, EuroMed Maritime Safety Project	number of training sessions per year	Up to 5	15
	number of activities per year	Up to 6	26
	number of ENP experts attending per year	90	323
	level of customer satisfaction	>85	88.75

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 2019	Committed 1,871,812 Paid 1,113,484
Staff	2 CA + ½ SNE ²¹

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 2019
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.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

Within the context of the BC SEA Project the assistance offered to beneficiaries to align their national standards and practices with those of the EU was continued in accordance with the overall action plan and taking into account the bilateral requests made by the beneficiaries.

Following the signature by Iran, late 2018, of the CleanSeaNet Conditions of Use for the provision of CleanSeaNet images to facilitate the identification of possible pollution (e.g. mineral oil) and possible polluters, service delivery for this new beneficiary country started in November 2019. The project brought together national, European and international stakeholders with the aim of raising standards related to maritime safety and security and to the protection of the marine environment.

Objectives 2019	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.	✓

²¹ Project financed activities 7100 and 7400 (SAFEMED IV and BC Sea) will share 1 SNE.

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.	✓

Planned output 2019	Achievement / Actual output 2019
Up to 5 technical meetings per year (seminars, workshops, training sessions).	✓
Up to 6 activities per year (studies, technical support, practical exercises etc.).	✓
Provision of RuleCheck and MaKCs for PSCOs as relevant.	✓
Provision of CleanSeaNet services.	✓

Output Indicators		Target 2019	Result 2019
Implementation of Maritime Safety, Security and Environmental Protection in the Black and Caspian Sea Regions	number of training sessions per year	Up to 5	22
	number of activities per year	Up to 6	15
	number of ENP experts attending per year	70	340
	level of customer satisfaction	>85	>85

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	24,172,361	25,342,104
PA	17,510,471	19,587,949
Staff	10 AD, 2 AST, 1 SNE, 3 CA	9 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 2019

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 2019 the Agency will continue implementing a programme aiming at the enhanced operational cooperation with the Member States through seminars, e-learning modules and the provision of "hands-on" training on the operation of complex EAS equipment systems.

The Agency will participate in international at sea response exercises and multipurpose operations with Member States, as requested.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

The Pollution Response Services managed by EMSA were maintained and fully operational throughout the year permanently ready to assist.

Due to Brexit, one vessel and one Equipment Assistance Service (EAS) contract based in the UK were terminated with the associated equipment being temporarily relocated to other EMSA arrangements.

One vessel was re-accepted to continue the service (East Mediterranean) in May 2019. The renewal of existing vessel contracts and the procurement to replace response capacity for the Adriatic Sea and the Western and Central Mediterranean were successfully concluded. The three newly contracted vessels will become operational in mid-2020.

The EAS for the Northern Baltic became operational in March 2019. The renewal of existing EAS contracts and the procurement to replace the EAS for the North Sea and the Southern Baltic were successfully completed. The two new stockpiles will be operational by mid-2020.

At the end of 2019, the operational services comprised 16 fully equipped oil spill response vessels, three EAS arrangements and six dispersant stockpiles.

Regarding technical developments, in 2019 five vessels were equipped with lightweight RPAS to improve the on-board capabilities for oil slick detection as well as to support any other surveillance activities, if needed. In order to increase the available response options, floating storage barges were delivered to the EAS arrangements and dispersant spraying capability was added to the vessel arrangement in the Southern Black Sea.

EMSA also deployed and tested the capabilities of the light RPAS on board four EMSA pollution response vessels to support recovery operations.

Following the sinking of the *Grande America* in March 2019 in the Bay of Biscay, upon request from France, two Oil Spill Response Vessels (*Ria de Vigo* and *Partisan*) equipped with RPAS were deployed on-site. The efficiency of the pollution

response equipment on board the EMSA vessels was tested during the response operations, resulting in an oil content ratio of the recovered product well beyond average standards.

The operational integration of the services with Member States was achieved through participation in 13 exercises, which included the deployment of nine vessels, four EAS systems, and five light RPAS. Moreover, training activities organised with Member States as well as with EFCA, within the framework of cooperation on coast guard functions, on the specific equipment were increased to six training sessions.

Objectives 2019	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;	✓
- stock of dispersants products;	✓
- 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 2019	Achievement / Actual output 2019
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 East Mediterranean Sea in 2018, the vessel will become operational in 2019.	✓
Retender the three stand-by oil spill response service contracts for the Adriatic, Central and West Mediterranean Seas to replace the non-renewable contracts ending in 2020.	✓
Renewal of four vessel availability contracts covering the North Sea, Atlantic coast and the Northern Black Sea for an additional 4-year period.	✓
Manage the existing Equipment Assistance Service (EAS) contracts for the North Sea, the Baltic Sea and the Adriatic Sea.	✓
Following the expected signature of the EAS contract for the Northern Baltic Sea in 2018, the arrangement will become operational in 2019.	✓
Retender the two EAS contracts in the North Sea and Baltic Sea to replace the non-renewable contracts ending in 2019 and 2020 respectively.	✓
Renewal of three EAS contracts for the Baltic Sea, the North Sea and the Adriatic Sea for an additional 1-year period.	✓
Management of existing dispersant stockpiles and setting up a new one in the Black Sea, as requested.	✓
Enhance the response capacity of existing Vessel Network and EAS arrangements through equipment improvements and/or setting-up of additional dispersant capability.	✓
Overhauling of ageing equipment and replacement of obsolete 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 2019	Result 2019
Stand-by Oil Spill Response Vessel Network	number of fully equipped vessels for mechanical recovery	17	16 ²²
	number of fully equipped vessels for dispersant application	5	5
New vessels pre-fitting	number of newly contracted vessels pre-fitted	1	1
Equipment Assistance Service (EAS)	number of stockpiles	4	3 ²³
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	73
	number of operational exercises per year	10	11
	number of Equipment Assistance Service (EAS) drills	16	22
	number of notification exercises per year	14	19

²² Due to Brexit, one vessel less than initially planned. The stand-by service of the vessel based in the UK was terminated end of March 2019.

²³ Due to Brexit, one EAS less than initially planned. The service of the EAS arrangement based in the UK was terminated end-March 2019, procurement for replacement of the EAS North Sea finished.

Output Indicators		Target 2019	Result 2019
Training on the use of the Pollution response services	number of seminars and “hands-on” training sessions	4	6
Response to requests for vessel/equipment services	mobilisation time in hours	24	24
Dispersant stockpiles	number of stockpiles	7	6 ²⁴
	minimum quantity of dispersants available at any time	1600 tonnes	1600 tonnes

²⁴ Due to Brexit, one dispersant stockpile less than initially planned. The dispersant stock associated with the EAS arrangement based in the UK was temporarily relocated to another EMSA arrangement end of March 2019, procurement for replacement in the North Sea area finished.

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
CA	7,717,096	6,024,383
PA	8,928,487	6,077,234
Staff	6 AD ²⁵	6 AD

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 2019

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), activity detection and change detection. 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.

2019 HIGHLIGHTS, MILESTONES AND ADDED VALUE FOR STAKEHOLDERS:

CleanSeaNet is based on permanent monitoring of coastal waters through near real time analysis of Earth Observation (EO) Synthetic Aperture Radar (SAR) images. It is available to EU, EFTA and EU candidate countries, as well as to SAFEMED IV and Black and Caspian Sea project beneficiary countries. In 2019, 7,237 images were delivered and a total of 7,755 possible oil spills were detected, 4,668 of which with the highest level of confidence (Class A) regarding the probable detection of hydrocarbons.

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

Eight requests for additional support from EMSA's CleanSeaNet service were received from coastal states addressing accidental spills and emergencies and an additional 46 images were provided. Extensive support was given following the sinking of the *Grande America* in early March 2019.

In terms of earth observation contracts, two new framework contracts were signed allowing the acquisition of Radarsat-2 and TerraSAR-X/PAZ satellite licences. These new contracts provide a stable and robust basis for the delivery of services and will enable EMSA to cope with the increased volume of earth observation service requests for the coming years. The Agency complemented satellite imagery by offering RPAS monitoring services to Croatia, Italy, Iceland, Portugal, Spain, and where the pollution verification and monitoring was part of the multipurpose surveillance service. Additionally, RPAS services were deployed in Denmark for the detection of vessels using heavy fuel for propulsion exceeding the EU sulphur limits.

Objectives 2019	Achievement
Provide the CleanSeaNet service to Member States, Commission and interested enlargement and ENP countries.	✓
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.	✓
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.	✓
Provide RPAS based monitoring activities in support of the protection of the marine environment.	✓
Explore how Earth Observation based services can further address other forms of marine pollution.	✓

Planned output 2019	Achievement / Actual output 2019
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 2019	Result 2019
CleanSeaNet service earth observation (EO) image delivery	percentage per year EO image delivery ratio	90	95
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	99
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)	90 days	347 days

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 input		Actual Input
CA	1,434,787	1,268,745
PA	1,478,287	1,045,690
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 2019

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.

2019 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 was extended in late 2019 to enable Member States to request the assistance of an expert from the European chemical industry at their response command centre. The MAR-CIS (Marine Chemical Information Sheets) database was updated and several datasheets were revised with a focus on the emergency response advice on board of vessels.

The dissemination of information on EMSA's pollution response services continued through the Inter-Secretariat meeting with the Commission and the secretariats of the Regional Agreements, and through the Pollution Response Service (PRS) User Group and the CTG MPPR (Consultative Technical Group for Marine Pollution Preparedness and Response) meetings with Member States. Work under the CTG MPPR umbrella included the 7th surveillance training, held in the Netherlands, and the continuation of the work on the development of guidelines for oil spill sampling, of guidelines for health and safety of oil spill responders and of a training curriculum regarding the response to chemical spills at sea.

The Agency participated in relevant technical meetings with the Commission on topics such as ship sourced pollution and marine litter and drafted a report on the issue of marine litter (plastics) in the EU, reviewing current and past activities and exploring what can be done about it in the European context.

In implementing an Administrative Board recommendation, the Agency conducted six regional "stress tests" workshops to evaluate the efficiency of the EMSA's oil pollution response services at EU level. A tool was developed and used to evaluate the effectiveness and cost efficiency of the oil pollution response resources used to mitigate the impacts of a large offshore oil spill in EU waters. The outcomes were presented and discussed at a final workshop in Lisbon. The Agency also supported DG ECHO in the organisation and delivery of the Technical Expert Course for Maritime Incidents.

Objectives 2019	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.	✓
Implement the Administrative Board recommendation regarding further analysing the efficiency of oil pollution response services.	✓
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 2019	Achievement / Actual output 2019
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).	✓
- Maintain oil and chemical spills fate and trajectory modelling capabilities.	✓
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.	✓
Support activities of the Commission, Regional Agreements, the IMO and other relevant bodies/organisations (including participation in the Arctic Council) where appropriate.	✓
Develop a methodology and conduct an evaluation of the efficiency of the EMSA's oil pollution response services ("stress test") at EU level together with the Member States and Regional Agreements.	✓
Conduct a study exploring the issue of marine litter (plastics) and what can be done about it in the European context.	✓

Output Indicators		Target 2019	Result 2019
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	48
Cooperation, coordination and information			
Coordination of the CTG MPPR	number of CTG MPPR/InterSec meetings and workshops	3	7
Coordination of the PRS User Group Meeting	number of meetings	1	1
Development of decision support tools	number of decision support tools	1	1
Evaluation of EMSA's oil pollution response services ("stress test")	number of workshops	2	7

Horizontal activities

6.5 COMMUNICATION, MISSIONS AND EVENTS SUPPORT

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

Planned input		Actual Input
CA	1,597,515	1,784,312
PA	1,597,515	1,740,749
Staff	3 AD, 3 AST, 6 CA	3 AD, 3 AST, 7 CA

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

Expected result 2019
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).

2019 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 2019, EMSA published several key publications (e.g. EMSA Outlook 2019, EMSA Facts & Figures 2018, Annual Overview of Marine Casualties & Incidents), released videos (e.g. EMSA Women in Shipping, EMSA Annual Highlights 2018, EMSA Training for Sulphur Inspectors, First European Conference on Transport Cybersecurity), prepared branded material and created data visualisations (e.g. RPAS maritime surveillance by country, activity and flight hours, maritime casualties).

Missions and events support

During 2019, support was ensured for all meetings hosted at EMSA premises, including the 1st Transport Cybersecurity Conference with 160 participants.

Procedures to optimise the welcome registration desk and to streamline and secure the participants' registration process were explored. The Registration tool was enhanced to implement paperless reimbursement procedures.

In the missions area, during 2019, several improvements to optimise the organisation of missions were introduced including procedures for the electronic reimbursement of missions.

Objectives 2019	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 2019	Achievement / Actual output 2019
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 2019	Results 2019
Publications	number of publications/leaflets/brochures produced per year	16	21
Events	number of meetings/workshops organised by EMSA per year	40	153
	number of participants at EMSA meetings/workshops per year	2000	3129

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 ²⁶		Actual HR input
Management/bureau/horizontal tasks ²⁷	11 AD, 8 AST	9 AD, 8 AST
Human Resources, Protocol and Document Management	4 AD, 5 AST, 7 CA	3 AD, 4 AST, 7 CA
Legal and Financial Affairs, facilities and logistics	5 AD, 6 AST ²⁸ , 4 CA	6 AD, 5 AST, 4 CA
Operations support (ICT)	1 AD, 7 AST, 3 CA	1 AD, 7 AST, 2 CA

Multi-annual strategic objectives

- 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.
- Ensure good corporate governance and transparency.

Expected result 2019

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 both the Financial and the Staff Regulations.

2019 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 2019 the Executive Director, who took up function at the beginning of the year, was directly supported by three Heads of Department and the Head of the Executive Office.

Support was provided to the Executive Director for the introduction of a new organisational structure adapted to facilitate the implementation of the Agency's 5-year Strategy as adopted by the EMSA Administrative Board in November 2019.

²⁶ Financial resources not applicable here as already distributed across the activities.

²⁷ This number includes the Executive Director and her staff, Heads of Department and their staff, Heads of Horizontal Units as well as the ICC and accountancy functions.

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

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 Protocol²⁹

A policy on the identification and management of conflict of interests for members of recruitment selection committees was introduced aiming to further improve transparency of the recruitment process.

The introduction of Implementing Rules was another main task during 2019 to ensure the relevant legal framework for the staff employed by the Agency continues to be in line with Commission rules. The model decision on the conditions of employment and engagement of contract staff was adopted in 2019. This decision is of particular importance to EMSA as the Agency employs 33 contract agents directly financed by its budget and 17 contract agents for project financed activities.

In the light of the adoption of the 2018 Data Protection Regulation applicable to EMSA, during 2019, several notifications related policies and procedures within the Human Resources and internal support unit were updated and re-submitted to the Data Protection Officer of EMSA.

Several important actions of the EMSA gender plan were accomplished during 2019, in particular awareness campaigns for EMSA staff, for EMSA management and for the EMSA Administrative Board and for the public in general to be able to attract more women in those positions where they are underrepresented in the Agency.

In the area of career management, a guide was developed in view of achieving greater harmonisation when it comes to the appraisal of staff.

Internal communication on HR matters was enhanced and a quarterly newsletter was published.

Efforts towards digitalisation continued, moving workflows from paper files to ARES. Work was also carried out in relation to "Legacy Files", with official closure of files for the period 2005-2016.

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. In 2019 approximately 13,000 files were handled for verification. During the same period 80 procurement procedures were initiated.

EMSA implemented electronic workflows for financial operations and contracts management. Internal Rules, guidelines and templates were kept up-to-date, especially following the entry into force of the new EMSA Financial Regulation. In addition, helpdesk assistance and in-house trainings were provided.

The main focus in the area of 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.

The "Greening EMSA" project that aims to introduce environmental management and the EMAS registration was officially launched.

EMSA made major efforts to address all issues in the area of handling classified information (EUCI) on the level of RESTREINT UE/EU RESTRICTED. The Agency has undergone an audit by the European Commission, the Council and EEAS as pre-requisite to enable EMSA to electronically share EUCI with the institutions.

²⁹ Implementation of the Protocol on Privileges and Immunities signed with the Portuguese Authorities.

Operations support (ICT)

Reliable ICT service operations for EMSA's maritime and corporate applications and end-users were provided. Besides ICT service operations, the sector also provided service design, development and continuous improvement to ensure long term service sustainability.

2019 was an important milestone in the implementation of the disaster recovery measures. Operations support successfully ran a disaster recovery drill which involved the shut down and switch-over of all virtual machines in the Lisbon Data Centre to the recovery Data Centre in Madrid. During this exercise all critical maritime applications continued to function as foreseen with a maximum downtime for switching applications of less than 2 hours.

Objectives 2019	Achievement
Monitor the implementation of the annual programme 2019 (Section III of the Single Programming Document 2019-2021).	✓
Further implementation of requirements and principles emanating from the applicable Framework 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 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.	✓
Implementation of the "Action Plan for Gender Balance at EMSA".	✓
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 streamline the use of 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 2019	Achievement / Actual output 2019
Management team	
Work programme, including staff and budget planning (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 Framework.	✓
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.	✓
Implementation of the "Action Plan for Gender Balance at EMSA".	✓
Improvement and updating of e-HR tools.	✓
Implementation and improvement of existing HR policies.	✓
Implementation of the Staff 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.	✓
Maintain the Business Continuity Facility.	✓
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 2019	Result 2019
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%	Assessed through the CAAR
Establishment plan execution rate	execution rate establishment plan	as close as possible to 100%	96.20%
Budget execution rate	execution rate commitment appropriations	as close as possible to 100%, and in any case above 95%	99.22%
	execution rate payment appropriations	as close as possible to 100%, and in any case above 95%	96.44%

Part II – Management

2.1 Administrative Board

Meetings

EMSA's Administrative Board held three ordinary meetings in 2019 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.

The EMSA Administrative Board also held a workshop in March 2019 entirely dedicated to the new EMSA 5-year Strategy. This workshop was organised by the new EMSA Executive Director, Ms Maja Markovčić Kostelac, who took up duties in January 2019.

Furthermore, at the invitation of the Italian Coast Guard the June EMSA Administrative Board meeting was held in Genoa, Italy, during the Genoa Shipping Week. This important bi-annual shipping event brought together port, maritime and logistics operators, with a week of technical meetings for professionals and dissemination events to promote port culture in Genoa: workshops and seminars, open days of historic harbour sites, institutional moments, galas and sporting events to foster relationships and networking.

The new EMSA 5-year Strategy

The process for developing the draft EMSA 5-year Strategy 2020-2024 began with the abovementioned workshop in March 2019 with the EMSA Administrative Board, facilitated by EMSA staff. The event was aimed at identifying upcoming opportunities and challenges in the maritime sector and beginning to outline areas where the Agency may need to intensify activities or explore new avenues of action in order to be at the forefront of developments in the sector and at policy level, to stay relevant and to better serve its stakeholders.

The material generated from the workshop was processed through various exercises within the Agency, resulting in a first draft of the 5-year Strategy debated at the June 2019 Administrative Board meeting in Genoa. Members were invited to also provide written comments after the debate which were received from several Member States and the Commission. The preparation of the strategy was seen by all as an inclusive process in which everyone on the Administrative Board was actively involved as well as the Agency staff and management.

The Agency examined all the views expressed and developed a new draft which was submitted by the Executive Director to the Commission for formal consultation in early September 2019, as required by the Agency's Founding Regulation. Finally, the new Strategy was adopted at the 56th Administrative Board meeting in November.

The new Strategy comes at a time where the maritime sector – both in the EU and globally – is facing historical challenges and opportunities. Zero pollution, decarbonization, sustainability, digitalization, data exchange, safety and security, compliance and effective enforcement are all topics that the maritime sector will be tested by and will need to address in the coming years. As EMSA's work contributes to the headline ambitions of the new Commission, EMSA's new 5 year Strategy also takes into account the new European Commission priorities for 2019-24. as presented by the President, Ms Ursula von der Leyen.

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 initiative to streamline and enhance the programming and reporting processes that was piloted in 2019 by bringing the reporting exercise forward from June to March and moving the planning exercise from March to June was considered as positive.

Moreover, the Decision establishing the Administrative and Finance Committee's was amended at the November 2019 Administrative Board meeting, essentially to allow automatic renewal of the existing mandate if no amendments are requested.

Revision of the Methodology for Visits to Member States

Visits to Member States to monitor the implementation of the EU Acquis have always been a core task of the Agency with the main objective being "to assist the Commission in fulfilling its duties under the TFEU, and in particular the assessment of the effective implementation of relevant Union law". In line with the requirements of the Founding Regulation, a Methodology for Visits to Member States was adopted by the EMSA Administrative Board at its 43rd meeting on 18 November 2015.

One of the new elements in this Methodology is the possibility for Member States to attend EMSA visits as observers and at its last meeting in June 2019, the Board agreed to simplify and formalise the participation of observers through an amendment to the Methodology for Visits to Member States. To that effect, a minor amendment was proposed to the final paragraph of the relevant section of the Methodology and adopted by the Administrative Board in November 2019.

In practice, EMSA would maintain an up-to-date list of upcoming visits as a distinct item on the e-delivery platform that may be accessed by designated points of contact in every Member State with new visits added once EMSA has formally notified the Member State to be visited. This would allow other Member States at least three months' notice to express an interest in attending as observer.

When a Member State identifies a visit on the list that it is interested in attending as an observer, it should send an email to a dedicated email address with the name of the observer, his/her designation and contact details. EMSA would then forward the request to the contact point for the visit in the Member State concerned, so that said Member State can decide whether observers can be accommodated and if so, agree the practical arrangements directly with the proposed observer.

Administrative Agreements

In 2019, 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 Agency's Founding Regulation:

- draft grant agreement with DG MARE for Setting up and enabling the transition phase to CISE operations;
- draft cooperation agreement with EASA;
- draft agreement for the temporary transfer of equipment to Croatia;
- draft MoU between the European Maritime Safety Agency (EMSA) and the Baltic Marine Environment Protection Commission (HELCOM) about the European Marine Casualty Information Platform data provision draft Cooperation Agreement between the European Maritime Safety Agency and the World Maritime University (WMU) on matters of capacity building and research;
- draft Amendment No 4 to the Cooperation Agreement establishing the MAR-ICE Network;
- draft Agreement between IMO and EMSA for the provision of financial support for the participation from developing countries to the International Workshop on Maritime Labour Convention, 2006;
- draft Contribution Agreement on Preparatory measures IPA II beneficiaries.

Written procedures

In 2019, the Administrative Board continued to use written procedures as an efficient means of consultation and decision making in relation to Administrative Arrangements, budget amendments and Implementing Rules, given possible operational or administrative time constraints that are not synchronised with the actual convening of Administrative Board meetings. The Agency also continued to assess - on a case by case basis – the possibility to reduce the number of these procedures, as suggested by the Board.

New EMSA Financial Regulation

Following the adoption by the Commission of the new Delegated Regulation on the Framework Financial Regulation for decentralised agencies on 18 December 2018, the financial rules of the Agency had to be adapted.

The Framework Financial Regulation sets the essential rules for the implementation of the budget by the European Union bodies and follows the budgetary principles of unity, accuracy, universality, specification, annuality, equilibrium, unit of account, sound financial management and performance, and transparency.

The objectives of the revision, as explained by the Commission in the explanatory memorandum and the preambles of the delegated act, was to further simplify and clarify the rules, taking into account the experience gained in their application and to further improve the Union bodies' governance, setting up and their accountability, aiming at:

- Simplification: the new text is mostly limited to specificities of Union bodies;
- Clarification: e.g. on the use of the EURO;
- Additional flexibility: e.g. budget structure to accommodate assigned revenue now says that the total amount of commitment appropriations from a contribution agreement may be made available upon entry into force of such agreement; Article 43 (Method of implementation of the budget) now foresees the generalised use of Service-level Agreements;
- Strengthened EU bodies governance: e.g. report to the Commission without delay in cases of fraud/financial irregularities/investigations; inclusion in the programming document strategies to avoid conflicts and for preventing recurrence of problems that have led to critical (internal or external) audit recommendations; extension of rules on conflicts of interest to board members; introduction of possibility of partnership agreements with the Commission covering all funding given in addition to the basic subsidy, to increase transparency.

The revised EMSA Financial Regulation was adopted by the Administrative Board by written procedure on 25 July 2019, with entry into force on 1 July.

Consequently, several actions needed to be taken in order to implement the new provisions:

Conflict of interest

Under the new provisions of Article 42.4, Declarations of Commitment and Confidentiality are to be published **annually**. For the implementation of this provision, a revision of the Rules of Procedure of the Board was necessary, the Conflict of Interest Policy being part of the Rules of Procedure. The Administrative Board adopted this amendment at its 56th meeting in November 2019.

Planning and Reporting

The new Financial Regulation amends provisions regarding the content of the Single Programming Document (SPD), with the inclusion of several strategies a.o. related to the cooperation with third countries and/or international organisations, strategies for achieving efficiency gains and synergies, organisational management and internal control systems including the anti-fraud strategy, measures related to prevent cases of conflict of interest and irregularities and fraud.

In the case of the Consolidated Annual Activity Report (CAAR), the new Financial Regulation includes new elements such as the contribution of the Union body to the achievement of the Union political priorities, agreements, service-level agreements, etc.

In line with the Financial Regulation, guidelines by the Commission are expected for both planning and reporting. A transitional period is foreseen for the provisions on planning with entry into force in January 2020, applicable for programming from 2021. In the case of reporting, a transitional period is also foreseen with entry into force in January 2020, applicable from the CAAR 2019.

Fine-tuning of provisions in relation to the Accountant

The new Financial Regulation has strengthened provisions in relation to the Accountancy function. These had already been addressed by the Agency in the course of 2018.

2.2 Major events

New Executive Director

Ms Maja Markovčić Kostelac took up duties in January 2019. From the start, forces were mobilised to work on the new EMSA strategy through various exercises in-house and with the Agency's key stakeholders, represented by the Administrative Board: brainstorming sessions, meetings and a workshop in the margins on the March Board meeting.

Closely related to the new Strategy, the new organisational structure was announced by the end of 2019 taking into consideration the interests of the service and the best possible use of the existing resources but also staff mobility.

These organisational changes will be effective as from 2020.

Amendment of the EMSA SPD 2019-2021 and the associated budget and establishment plan

In order to address an imbalance in the available commitment and payment appropriations as the result of some RPAS operations planned for 2018 being postponed to 2019, the Agency proposed to the Administrative Board an adjustment to the planning of activities and resources. In particular, the Agency proposed to absorb the 4.69 M€ of commitment appropriations in 2019 which had no corresponding 2019 payment appropriations from the budget chapter 39 - Cooperation on coast guard functions - by anticipating projects for which payment appropriations could be secured, thereby allowing for deferring payments to subsequent years.

Evaluating several scenarios and in view of developments in the area of anti-pollution measures which had generated additional needs in 2019, EMSA reprogrammed operational activities and reallocated resources between Title 3 and Title 4, which required a budget amendment and corresponding amendment of the Single Programming Document 2019-2021 absorbing 4,19 M€ in commitment appropriations which was adopted by the EMSA Administrative Board on 14 June 2019 by written procedure n° 7/2019.

Furthermore, the Agency reprogrammed some operational activities and reallocated resources within Title 3 absorbing the remaining 0,5 M€ in commitment appropriations.

Greening EMSA

In 2019 EMSA initiated the implementation of the EU Eco-Management and Audit Scheme (EMAS) which should lead to EMAS registration. This process will support the Agency's commitment to creating and sustaining an environment-friendly working place and to improving its environmental performance in general.

2.3 Budgetary and financial management

The Agency executed 80,169,925 € in Commitment Appropriations (CA)³⁰, representing 99.22% of the total budget of the year, and 76,723,127 € in Payment Appropriations (PA)³¹, amounting to 96.44% of the total budget when only counting C1 Funds (appropriations voted in the current budget).

After considering automatic carry-overs of PA (C8 funds: appropriations carried over automatically), 2.87% of payment appropriation were cancelled, whereby the target of less than 5% cancellation set by the Commission (DG BUDG) was 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 marine pollution caused by oil and gas installations represented one quarter of total commitment and one third of total payment appropriations, respectively; 100% of commitment appropriations³² were committed and 95% of payment appropriations were paid. Cooperation on Coast Guard Functions represented one seventh of total commitment appropriations and one fifth of payment appropriations, respectively; 99% of commitment appropriations were committed and 98% 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 continuous and 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 controls 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 nine budget transfers in total, which were managed in line with the relevant rules (Article 26 & 27 of the EMSA Financial Regulation). All 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, and therefore below the threshold above which Administrative Board approval is required.

47,009,235 € of budgetary commitments associated with the EU subsidy were carried forward. They were mostly related to the multi-annual operations of the Agency. In 2019, 66% were paid (consumed), 32% remained as "open amount" (amount due, not yet paid) and 4% 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 or refunds during the course of the financial year. There was extra income for CISE, BC Sea - Maritime Safety, Security and Environmental Protection in the Black and Caspian Sea Regions, FRONTEx SLA, EFCA SLA, COPERNICUS, EQUASIS, the Maritime Labour Convention, LRIT and Miscellaneous Revenue; these funds could only be loaded once cash payment was received by the Agency in the bank account. Refunds affected the EU Funds for

³⁰ 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.

³¹ Payment appropriations cover expenditure arising from commitments of the current year and/or earlier years, which are due for payment in the current year.

³² A budgetary commitment is money reserved for payments to be executed at a future date.

candidate and potential candidate countries, THETIS EU, the Emissions Inventories Project and the Coast Guard Pilot Project.

2.4 Human Resources management

One of the key functions of the Human Resources Unit is to ensure that the Staff Regulations and Conditions of Employment of other Servants are applied thoroughly. In this context the adoption of Implementing rules to give effect to the Staff Regulations is an ongoing work which brings along policy changes and updates in the working procedures.

Three implementing rules entered into force during 2019:

- Outside activities and assignments and occupational activities after leaving the service;
- Post Titles and Type of Posts; and,
- Procedure governing the engagement and use of contract staff at EMSA.

In the area of Ethics and Integrity awareness has been created to colleagues by organising a lunchtime presentation to present the new rules regarding outside activities and to reminding staff of the already known principles. A policy for the identification and management of conflict of interests for selection board members was adopted by the Executive Director.

It is important to redeploy staff and to address internal mobility. In this context, an internal mobility exercise was launched in October. Interests for mobility expressed by staff were considered in the reorganisation that was decided later during the year.

With regard to performance management, the Agency has developed a guide for management to set standards for each of the EMSA competencies. Management have been trained in order to further harmonise and streamline the appraisal exercise across the Agency.

During 2019 several actions of the EMSA gender plan were implemented across the Agency. Examples of such actions include the organisation of a lunchtime presentation about gender equality in the maritime shipping sector, the organisation of specific trainings for management and staff members participating in selection boards on gender balance topics (e.g. unconscious bias training and the promotion of awareness for Administrative Board members and maritime administrations to encourage more women to apply for SNE positions at the Agency. The Agency also continued its efforts to promote a better work-life balance for staff by offering flexible work arrangements.

With regard to the e-HR tools that support the HR processes, 2019 was a year “consolidation” and stability as only minor updates were done to these systems.

In order to comply with the new EU Data Protection Regulation, all relevant working practises were updated where relevant.

The unit continued to develop procedures towards a paperless administration. In this context, mission reimbursements and reimbursements for experts are now handled in a paperless way.

2.5 Assessment by management

The Agency's operational and administrative activities in 2019 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.

Following the taking up of duties of the Agency's new Executive Director, the Agency immediately focussed on the development of the new EMSA 5-year strategy. To this end the Executive Director organised various exercises involving Agency's staff as well as the Administrative Board, including brainstorming sessions, meetings and a workshop in the margins on the March Administrative Board.

Consequent to the adoption by the Administrative Board of this new 5-year strategy, by the end of 2019 a new organisational structure, taking effect on 1 January 2020, was announced in order to ensure the best possible use of the existing resources for the successful implementation of this new strategy.

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 framework 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

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 three 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.

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 2019 were addressed and there were no pending actions that could have a negative influence on the risks linked to the Agency's activities in 2019. In particular, all action plans stemming from past audits were implemented within the agreed time frame: by 31 December 2019 all action plans, due by year-end, were implemented and all information regarding the completion of 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 or 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.

The Administrative Board was also informed about the updated IAS Strategic Audit Plan for the period covering 2020-2022 and consequently was invited to consider this plan.

2.7.1 IAS

Early 2019, IAS issued the final audit report related to the audit on Visits and Inspections (focusing on the Quality Management System) in EMSA.

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 at the time of the audit³³.

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.

In its audit report 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, during the course of 2019³⁴, took all the necessary actions to address the suggested improvements.

All action plans related to the audit were implemented within the agreed time frame and by 31 December 2019 all action plans, due by year-end were implemented and information regarding the completion was forwarded to IAS for review and formal closing³⁵.

In line with the relevant international professional auditing standards, during the course of 2019 the IAS has established a new audit plan (Strategic Internal Audit Plan 2020-2022). This audit plan is based on the results of an in-depth risk assessment carried out by the IAS in April 2019 and covering EMSA's auditable entities.

The IAS risk assessment consisted of a review of the principal documentation regarding EMSA's activities and processes as well as a series of interviews with EMSA key staff. IAS also conducted a short interview with the Chairman of the Administrative Board. The plan provides a short-list of audit topics that aims at supporting the planning of the IAS audits during the next three years (2020-2022). The strategic internal audit plan has been coordinated with the work plan of the European Court of Auditors to avoid potential overlapping.

2.7.2 ECA

Following its audit for the financial accounts for 2018 the European Court of Auditors issued the opinion that "the accounts of the Agency for the year ended 31 December 2018 present fairly, in all material respects, the financial position of the Agency at 31 December 2018, the results of its operations, its cash flows, and the changes in net assets for the year then ended, in accordance with its Financial Regulation and with accounting rules adopted by the Commission's accounting officer." Moreover, the Court concluded that the transactions underlying the annual accounts were legal and regular in all material aspects.

As a result of this audit, the ECA issued one observation which was fully addressed by the Agency. There are no outstanding actions to be taken in relation to the comments from the Court.

³³ The audit field work was performed during the first week of June 2018.

³⁴ One of the recommendations has an implementation date of 31/01/2020.

³⁵ The last recommendation, due by 31/01/2020 was also closed. Relevant information regarding the completion was forwarded to IAS for review and with a request for formal closing.

In accordance with Article 104 of the Agency's Financial Regulation, the audit on the Agency's financial accounts 2018 was partially performed by an external audit firm, Mazars. To this end, the Agency launched, early 2019, a tender procedure. The costs for the audit performed by the external audit firm (36,840 € covering the audit on the Accounts 2018 and 2019) were borne by the Agency.

2.7.3 QMS and other Audits

Following an audit performed by TUV Rheinland Portugal (December 2019), the Visits & Inspections Quality Management System (V&I QMS) was successfully re-certified for a new 3-year cycle (2019-2022).

During May 2019 the external audit firm, Baker Tilly Belgium conducted two audits related to the reported costs with regards to the

Earth observation services provided in 2018 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 2018 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.

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 2019, all audit recommendations issued by 31/12/2019 with an action implementation date of 31/12/2019 and earlier had been implemented³⁶.

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 2017, the Agency provided further information actions taken to address previously identified areas for improvement.

As regards some control weaknesses related to a specific Framework Contract (FWC), the Agency informed the Parliament that the entire tendering procedure for the FWC in question - which is no longer in force - was managed by the European Commission (DG DIGIT) and that the Agency was not involved in the tendering procedure (e.g. choice of procedure, contract type and implementation mechanism). The implementation mechanism for this FWC did not include a fixed price list but instead DG DIGIT decided to opt for a system of applying price uplifts. The Agency suggested to the contracting

³⁶ As regards recommendations stemming from IAS audits the Agency provided IAS with all relevant information on the closure of 3 out of 4 actions (IAS audit on V&I (QMS)) for review and formal closing. IAS has consequently formally closed these 3 actions. The remaining action was due by 31/01/2020 and has been implemented in time.

authority to avoid similar contracts in the future. The Agency reported that it has introduced appropriate control mechanisms in its own contracts to improve checks on prices and uplifts.

As regards a previous audit related to the Agency's Human Resources management and control systems, which resulted in a positive conclusion that the internal control mechanisms in this area are adequate and able to support the Agency in achieving its strategic objectives, the Agency informed the discharge authority that all actions to address the recommendations of the IAS were implemented on time and were "closed" by the IAS. More in particular, the Agency has further enhanced internal HR-communication, improved the mapping and allocation of human resources per activity and developed a Model decision on Learning and Development which was adopted by the Administrative Board in February 2018. Consequently, EMSA implemented a learning and development policy aligned with the objectives of the Agency. Also, on the basis of an updated Job Families / Competencies Framework, EMSA's job descriptions have been updated to better reflect the skills and competencies needed to perform a given job.

Finally, the Staff Committee (SC) was invited to develop an annual work programme and to inform all staff (at least once a year) on its planned activities and activity report. The SC annual work programme was communicated to all staff.

In reply to a concern of the European Parliament, the Agency reiterated its awareness of the importance to create and sustain an environment-friendly working place and -in general- to improve the Agency's environmental performance. To this end, the Agency had initiated the implementation of the EU Eco-Management and Audit Scheme (EMAS) which should lead to EMAS registration.

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 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. During the course of 2019 updates on their implementation continued to be provided by the Agency. The results of the evaluation were also taken into account when developing the new EMSA 5 year Strategy.

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 Framework 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 (December 2019), and no non-conformities were found.

In accordance with the new Risk Management Framework the risk register was fully updated and fine-tuned in 2019. 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 2019 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 and making sure they are continuously adapted to the changing environment; development and updates of several staff policies and operational procedures; setting of clear objectives and monitoring them through well-developed management reporting and monitoring tools including Key Performance Indicators, risk management and business continuity planning. Taken together, these measures constitute the internal control framework (ICF) of the Agency.

The Agency's ICF, updated in November 2018 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 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 Commission's 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).

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

A total of 12 of such exceptions were registered in 2019 (vs. 19 in 2018), of which nine ex-ante (approval for a future foreseeable deviation) and three ex-post (approval after the deviation had occurred) exceptions.

The areas in which exceptions were reported mainly concerned contract management and payments. Three a-posteriori commitments (vs. 6 last year) varying between 30,000.00 € and 2,728.34 € 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 2019 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 2019. The exercise was conducted twice, in April and in November. The Agency remained on track towards a high level of implementation of the Work Programme 2019.

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".

-end accounts by the Accounting Officer

The Accounting Officer's certification of the provisional accounts have been provided by 1 March 2020 (Art. 101 and 102, 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 Framework (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 2019 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 ISO³⁷ 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 first certified by TUV Rheinland Portugal in 2016. Following the annual audit of 2019, the V&I QMS was successfully re-certified for a new 3-year cycle (2019-2022).

Based on the positive experience of using ISO QMS Standard (9001:2015), it has been decided to extend the QMS to all activities of the Agency. This project was initiated in the second quarter of the year, targeting to complete the documentary description of the EMSA QMS by Q1/2020.

4.2 Reservations

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.

³⁷ ISO – International Organization for Standardization - <https://www.iso.org/home.html>

Part V 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".



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 17.02.2020

Signed:


Tom K.A. Van Hees



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 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 26 FEB 2020

Signed:

A handwritten signature in blue ink, appearing to read 'Maja Kostelac', is written over a horizontal line.

Annexes

Annex I. Core business statistics

EMSA Key Performance Indicators 2019

Key performance indicator		Target	Result
2100 UNION MARITIME INFORMATION AND EXCHANGE SYSTEM			
1	percentage per year availability of IMS platform	99%	99.87%
2	hours maximum continuous downtime of IMS Platform	max 12h	1h20min
3	percentage per year availability of IMS to Member States	99%	99.78%
4	percentage per year availability to EUNAVFOR Atalanta	99%	99.78%
5	percentage per year availability to IMS mobile application users	99%	99.87%
6	global data stream availability	99%	99.97%
7	number of RPAS available for deployment for multipurpose operations	5	5
8	number of Deployment Days per year	210	642
9	RPAS DC availability	95%	97%
10	percentage per year availability of central SafeSeaNet system	99%	99.66%
11	hours maximum continuous downtime of central SafeSeaNet system	max 12h	7h34min
12	percentage of notifications processed in time in accordance with SafeSeaNet IFCD requirements	99%	100%
13	percentage of responses to Member States' requests delivered in accordance with SafeSeaNet IFCD (time) requirements	99%	100%
2200 EU LONG RANGE IDENTIFICATION AND TRACKING (LRIT) COOPERATIVE DATA CENTRE (CDC) AND LRIT INTERNATIONAL DATA EXCHANGE (IDE)			
14	percentage per month availability EU LRIT Data Centre	99%	99.90%
15	hours maximum continuous downtime	max 4h	33min
16	percentage position reports delivered in accordance with IMO requirements (periodic reports: 15 min; polls: 30 min)	99%	99.75%
17	percentage per year availability to users	99%	99.86%
18	percentage per year availability of LRIT IDE in accordance with IMO requirements ³⁸	n/a (99.90%)	99.70% ³⁹
19	hours maximum continuous downtime of LRIT IDE	n/a (4h)	13h30min ⁴⁰
2300 THETIS			
20	availability in percentage THETIS	96%	99.74%

³⁸ 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.

³⁹ LRIT IDE certificates needed to be installed and renewed before the expiration date: 31/12/2019. This task was done in October 2019. Nevertheless, one certificate was not properly installed, generating a 13h30 hours downtime on the 31/12/2019 (KPI 19). As a consequence, the percentage per year availability of LRIT IDE dropped to 99.7% (KPI 18).

⁴⁰ See above.

Key performance indicator		Target	Result
21	hours maximum continuous downtime THETIS	max 6h	45min
22	percentage of requests closed in less than 5 days THETIS Helpdesk	75%	98.40%
7710 THETIS MRV			
23		THETIS-MRV operational.	yes
24	timely delivery of tasks foreseen by the cooperation Agreement	Companies able to register activity data in the system as from 1st January 2018.	yes
25		System to provide the necessary data to support the publication of information foreseen by the MRV Regulation.	yes
2400 MARITIME SUPPORT SERVICES			
26	average time in hours for feedback or resolution of issues relating to emergencies, incidents in maritime applications or urgent helpdesk requests	<2	9.3min
27	average time in hours for feedback or resolution of issues relating to non-urgent helpdesk requests or scheduled interventions	<8	18.3min
28	reporting on the SafeSeaNet implementation and data quality (overall and per Member State)	20 Reports	26 reports
7500 COPERNICUS			
29	percentage per year EO image delivery ratio	90%	91%
7200 FRONTEX SLA			
30	percentage per year availability to Frontex	99%	99.67%
31	minimum number of exercises EMSA participates in	2	3
7210 EFCA			
32	percentage per year availability to EFCA	99%	99.72%
7901 INTEROPERABILITY PROJECT			
<i>currently no indicators</i>			
3100 CLASSIFICATION SOCIETIES			
33	number of RO inspections per year	16 - 20	17
34	number of reports per year	16 - 20	17
35	number of draft assessment reports per year	5 - 7	5
3200 STCW			
36	number of inspections and visits per year	7 - 9	7
37	percentage of visit notifications sent to Member States with at least three months' notice	95%	100%
38	number of reports per year	7 - 9	8
39	percentage of draft reports submitted to the visited Member State or third country within 90 days from the end of the visit/inspection	95%	100%
40	percentage per year availability STCW	96%	97.15%
3300 VISITS TO MEMBER STATES TO MONITOR THE IMPLEMENTATION OF UNION LAW			
41	number of visits per year	17 - 21	19
42	percentage of visit notifications sent to Member States with at least three months' notice	95%	100%

Key performance indicator		Target	Result
43	number of reports per year	17 - 21	19
44	percentage of draft reports submitted to the visited Member State within 90 days from end of visit	95%	100%
3400 MARITIME SECURITY			
45	number of missions per year	12 - 15	16
46	number of reports per year	30	47
47	percentage of inspection reports concluded within the deadline agreed with the EC	95%	100%
3600 HORIZONTAL ANALYSIS			
48	number of horizontal analyses per year	1 - 2	2
4200 ACCIDENT INVESTIGATION			
49	number of EMCIP meetings per year	2	3
50	number of PCF meetings per year	1	2
51	percentage per year availability of the new EMCIP	98%	99.67%
4300 TRAINING, COOPERATION AND CAPACITY BUILDING			
52	number of MS training sessions per year	up to 16	19
53	number of MS experts attending per year	320	480
54	number of AC training sessions per year	up to 6	16
55	number of AC experts attending per year	50	154
56	level of customer satisfaction	>85%	>85%
4400 MARINE EQUIPMENT AND SHIP SAFETY STANDARDS (including IMO)			
57	percentage per year availability of MarED DB	99%	99.99%
4500 SHIP INS PECTION SUPPORT			
58	percentage per year availability (EQUASIS)	99.50%	99.78%
59	number of users per month (EQUASIS)	32 000	35 298
60	number of contributing members (EQUASIS)	9 - 10	10
61	percentage per year availability (RuleCheck)	85%	99.49%
62	days maximum continuous downtime (RuleCheck)	9 days	0 days
63	percentage of requests closed in less than 9 days (RuleCheck)	75%	98.97%
64	percentage per year availability (MaKCs)	85%	99.80%
65	days maximum continuous downtime (MaKCs)	9 days	2h20min
66	percentage of requests closed in less than 9 days (MaKCs)	75%	95.67%
4600 PREVENTION OF POLLUTION FROM SHIPS			
<i>no output indicators for this activity</i>			
7100 SAFEMED IV, EuroMed Maritime Safety Project			
67	number of training sessions per year	Up to 5	15
68	number of activities per year	up to 6	26
69	number of ENP experts attending per year	90	323
70	level of customer satisfaction	>85%	88.75%
7400 Maritime Safety, Security and Environmental Protection in the Black and Caspian Sea Regions (BC Sea)			
71	number of training sessions per year	Up to 5	22
72	number of activities per year	up to 6	15

Key performance indicator		Target	Result
73	number of ENP experts attending per year	70	340
74	level of customer satisfaction	>85%	>85%
5100 OPERATIONAL POLLUTION RESPONSE SERVICES			
75	number of fully equipped vessels for mechanical recovery	17	16 ⁴¹
76	number of fully equipped vessels for dispersant application	5	5
77	number of newly contracted vessels pre-fitted	1	1
78	number of EAS stockpiles	4	3 ⁴²
79	number of projects completed per year (vessel/equip replace/adapt/upgrade)	5	8
80	number of Vessel drills (acceptance drills and quarterly drills) per year	70	73
81	number of operational exercises per year	10	11
82	number of Equipment Assistance Service (EAS) drills	16	22
83	number of notification exercises per year	14	19
84	number of seminars and "hands-on" training sessions	4	6
85	mobilisation time in hours (Response to requests for vessel/equipment services)	24	24
86	number of dispersant stockpiles	7	6 ⁴³
87	minimum quantity of dispersants available at any time	1600 tonnes	1600 tonnes
5200 CLEANSEANET AND ILLEGAL DISCHARGES			
88	percentage per year EO image delivery ratio	90%	95%
89	percentage response rate to assistance requests	100%	100%
90	percentage response rate to requests for participation in oil spill response exercises.	80%	100%
91	EODC availability (interface or alert reports distribution) for scheduled acquisitions of the CleanSeaNet Service	97.5%	99%
92	number of RPAS systems available for environmental protection (pollution and emissions)	3	6
93	number of deployment days per year (pollution monitoring and emission monitoring)	90	347

⁴¹ Due to Brexit, one vessel less than initially planned. The stand-by service of the vessel based in the UK was terminated end-March 2019.

⁴² Due to Brexit, one EAS less than initially planned. The service of the EAS arrangement based in the UK was terminated end-March 2019, procurement for replacement of the EAS North Sea finished.

⁴³ Due to Brexit, one dispersant stockpile less than initially planned. The dispersant stock associated with the EAS arrangement based in the UK was temporarily relocated to another EMSA arrangement end-March 2019, procurement for replacement in the North Sea area finished.

Key performance indicator		Target	Result
5300 COOPERATION AND INFORMATION RELATING TO POLLUTION PREPAREDNESS AND RESPONSE			
94	percentage of responses to requests to assistance to MAR-ICE within 2 hrs.	>75%	100%
95	percentage of responses to requests to assistance to MAR-ICE within 4 hrs.	<25%	0
96	number of datasheets produced/revised	25	48
97	number of CTG MPPR/InterSec meetings and workshops	3	7
98	number of meetings	1	1
99	number of decision support tools	1	1
100	number of workshops (Evaluation of EMSA's oil pollution response services - "stress test")	2	7
6500 COMMUNICATION, MISSIONS AND EVENTS SUPPORT			
101	number of publications/leaflets/brochures produced per year	16	21
102	number of meetings/workshops organised by EMSA per year	80	153
103	number of participants at EMSA meetings/workshops per year	2000	3129
6100, 6200, 6300 AND 6400 OVERHEAD/HORIZONTAL TASKS			
104	ECA recommendations implemented in time	as close as possible to 100%	100%
105	IAS recommendations implemented in time	as close as possible to 100%	100%
106	implementation of the Work Programme	as close as possible to full implementation	<i>assessed through the CAAR 2019</i>
107	execution rate establishment plan (against the target for the current year)	as close as possible to 100%	96.2%
108	execution rate commitment appropriations	as close as possible to 100% and in any case above 95%	99.22%
109	execution rate payment appropriations	as close as possible to 100% and in any case above 95%	96.44%

Operational Agreements active in 2019

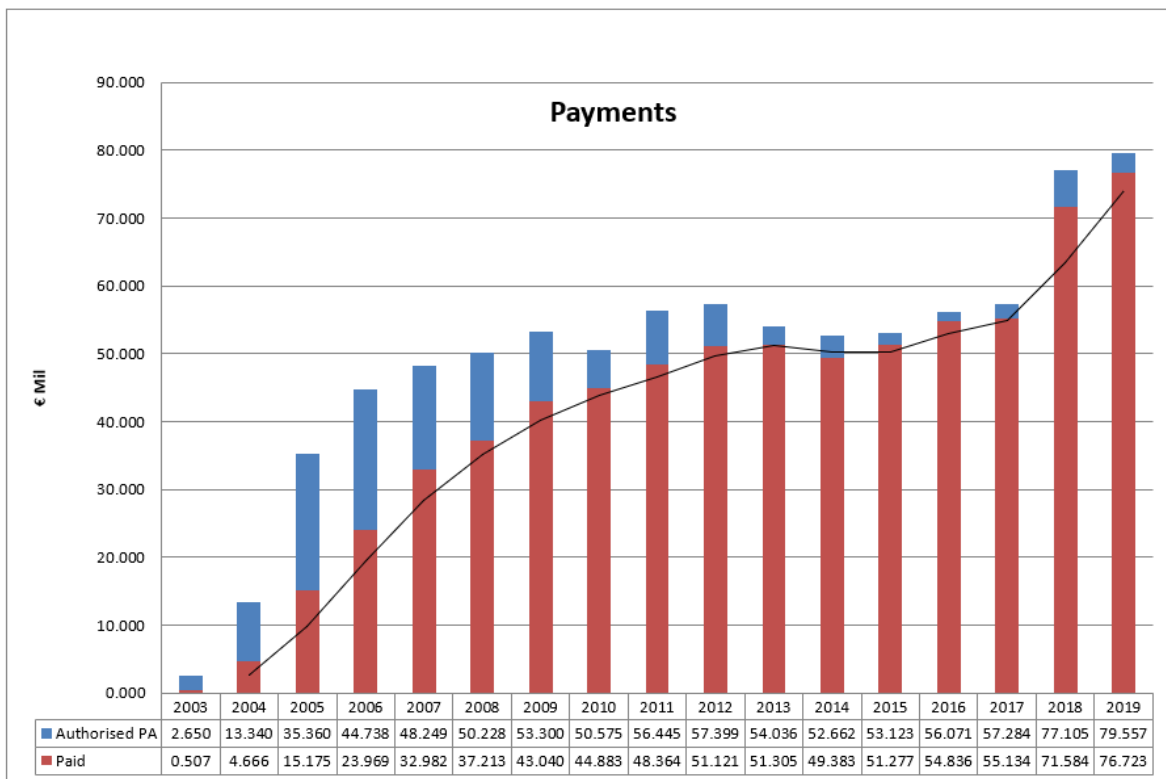
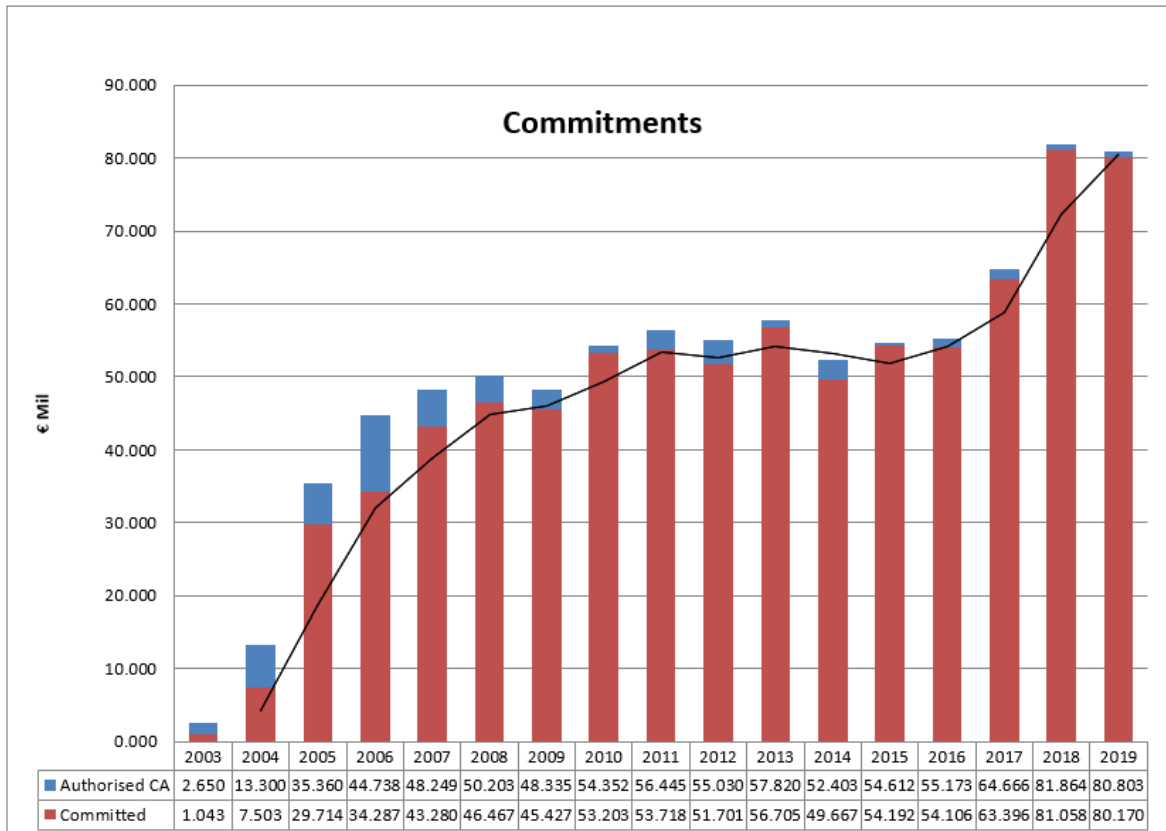
Contractor	Subject	Start Date	End Date
CEDRE - CEFIC	MAR-ICE Network	17/10/2014	16/10/2022
DG CLIMA	Support for the implementation of Regulation on the monitoring, reporting and verification of emissions of carbon dioxide, from maritime transport and amending Directive 2009/16/EC on Port State Control 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 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 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	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
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	SLA between EFCA and EMSA for the provision of Integrated Maritime Services to EFCA.	17/12/2012	no end date
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

Contractor	Subject	Start Date	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	no 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	27/05/2009	no end date
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 for maintenance and operation of AIS Regional Servers 2019	22/10/2015	29/02/2020
Italian Coast Guard - Comando Gen.del Corpo delle Capitanerie di Porto	Mediterranean Regional SSN Server	22/10/2015	no end date

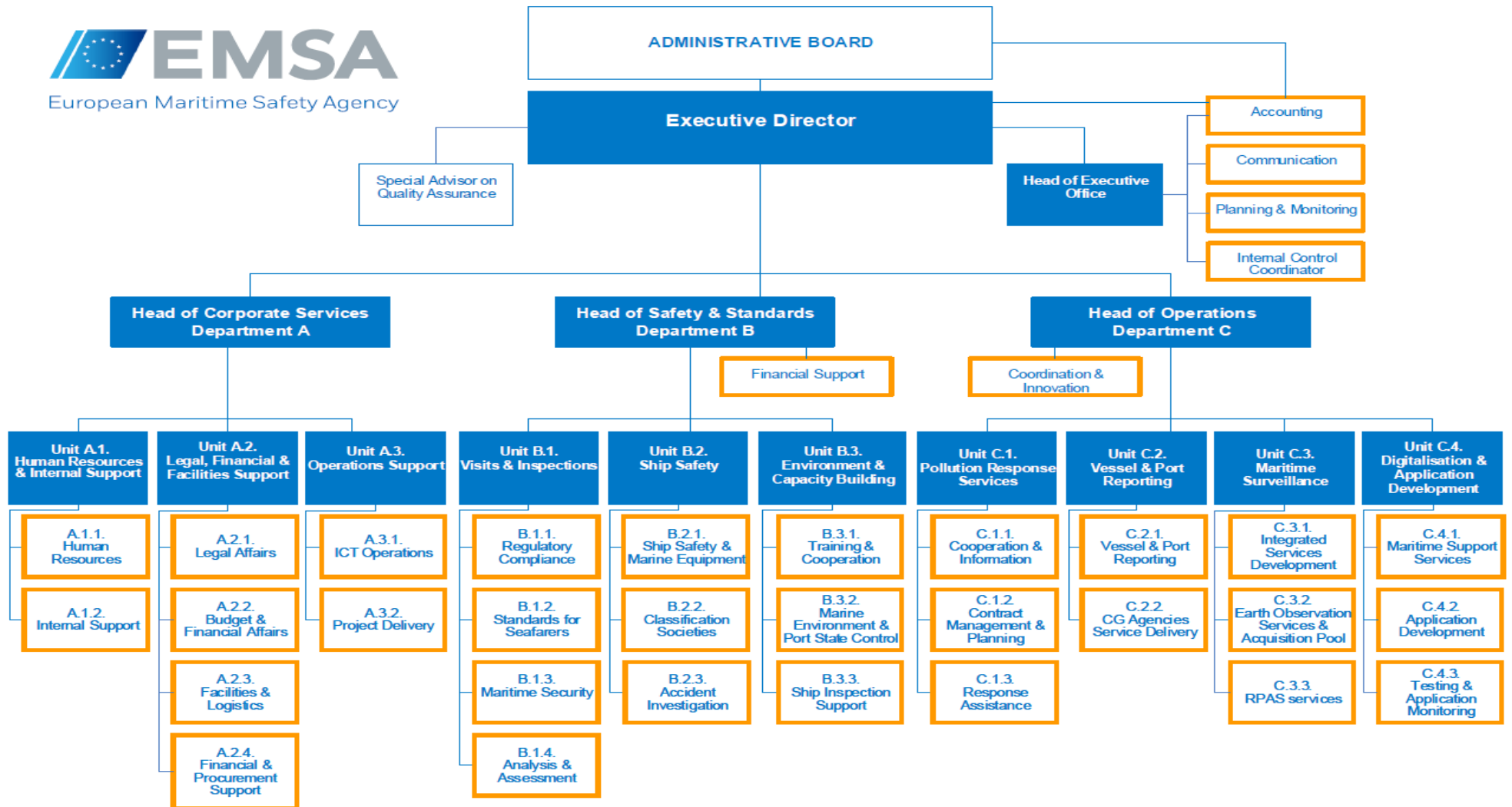
Contractor	Subject	Start Date	End Date
MAOC - Maritime Analysis and Operations Centre	Operational assistance and training	12/08/2014	11/08/2019
MARine Environmental and TEchnology Centre - Instituto Superior Tecnico	Cooperation agreement MARETEC-IST - EMSA Oil Spill Modelling	15/06/2014	14/06/2019
Norwegian 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	no end date
Norwegian Coastal Administration	SLA for maintenance and operation of AIS Regional Servers	01/03/2019	29/02/2020
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
EUROPOL	Cooperation between the European Maritime Safety Agency and the European Union Agency for Law Enforcement Cooperation	18/12/2018	no end date
EASA	Cooperation agreement with EASA regarding the establishment of unmanned/remotely piloted aircraft services by EMSA	14/06/2019	13/06/2020
DG MARE	CISE Operations – Setting up and enabling the transition phase to CISE operations	17/04/2019	16/10/2021
Ministry of the Sea, Transport and Infrastructure of Croatia	Administrative agreement for the temporary transfer of equipment to Croatia	03/07/2019	no end date
IMO	Agreement between IMO and EMSA for the provision of financial support for the participation from developing countries to the International Workshop on Maritime Labour Convention, 2006	15/11/2019	30/04/2020

Annex II. Statistics on financial management

Evolution of budget execution



Annex III. Organisational chart



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

Establishment plan 2019

Function Group and Grade	2018 Authorised		2019 Authorised	
	Permanent	Temporary	Permanent	Temporary
AD15		1		1
AD14		1		2
AD13	1	4	1	4
AD12	1	10	1	10
AD11		14		17
AD10	1	19	1	16
AD9		28		33
AD8		31		27
AD7		26		24
AD6		8		10
AD5		7		5
Total AD	3	149	3	149
AST11				
AST10		1		1
AST9				
AST8		1		1
AST7		4		6
AST6		19		17
AST5		20		20
AST4		12		12
AST3		3		3
AST2				
AST1				
Total AST		60		60
Total	3	209	3	209
Grand Total		212		212

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)	TA	AD12	Operational
Head of Unit (level 3)	TA	AD9, AD10, AD11 or AD12, related to the mandate and dimension of the Unit	Operational
Head of Sector (level 4)	TA	AD8	Operational/Support/Mixed

Senior Officer	TA	AD8	Operational
Officer	TA	AD6 or AD7 depends on the functions that will be allocated	Operational
Junior Officer	TA	AD5	Operational
Senior Assistant	TA	AST10	Operational
Technical Assistant	TA	AST1 or AST4 depends on the functions that will be allocated	Operational/Mixed
SUPPORT FUNCTIONS			
Head of Administration (Level 2)	TA	AD12	Support
Head of Human Resources (Level 3)	TA	AD9	Support
Head of Finance (Level 3)	TA	AD9	Support
Head of Communication	TA	AD8	Mixed
Head of IT (Level 3)	TA	AD10	Mixed
Senior Officer	TA	AD8	Support
Officer	TA	AD6	Support
Junior Officer	TA	AD5	Support
Webmaster- Editor	TA	AST3	Mixed
Secretary	CA	FGII	Support
Mail Clerk	CA	FGI	Support
SPECIAL FUNCTIONS			
Data Protection Officer	TA	AD8	Mixed
Accounting Officer	TA	AD8	Mixed
Internal Auditor	TA	AD8	Mixed
Assistant to the Executive Director	TA	AST2	Mixed

Results of the screening exercise

Job type (sub) category	Year N (%)	Year N-1 (%)
Administrative support and Coordination		
<i>Administrative support</i>	15.23%	15.54%
<i>Coordination</i>	4.27%	4.66%
Operational		
<i>Top Level Operational Coordination</i>	2.13%	2.03%
<i>Programme Management & Implementation</i>	54.10%	54.53%
<i>Evaluation & Impact assessment</i>	11.24%	11.23%
<i>General Operational</i>	4.13%	3.86%
Neutral		
<i>Finance/Control</i>	8.90%	8.15%
<i>Linguistics</i>	0%	0%

Annex V. Human and financial resources by activity ⁴⁴

Planned and Actual Resources 2019*	Planned Human Resources					Actual Human Resources					Planned Financial Resources		Actual Financial Resources		variance planned/actual	
	MANPOWER					MANPOWER					Total allocated costs Commitments	Total allocated costs Payments	Total allocated costs Commitments	Total allocated costs Payments	CA	PA
	TEMPORARY AGENTS		END	CA	TOTAL	TEMPORARY AGENTS		END	CA	TOTAL						
	AD	AST				AD	AST									
2100 Union maritime information and exchange system (integrated maritime services; SafeSeaNet; improving internal market and maritime transport efficiency) ¹	37	12	3		52	37	11	1	1	50	27,393,171	27,203,271	22,475,480	25,969,784	-17.95%	-4.53%
2200 EU LRIT Cooperative Data Centre and LRIT International Data Exchange	7	7			14	7	7			14	3,843,297	3,924,194	3,897,711	3,815,498	1.42%	-2.77%
2300 THETIS Information System	5	1		1	7	4	1			5	2,063,081	2,428,771	1,991,222	2,069,740	-3.48%	-14.78%
2400 Maritime Support Services	3	1	4	4	12	3	1	4	4	12	1,470,865	1,470,865	1,518,131	1,485,953	3.21%	1.03%
3100 Classification Societies	10	1	1		12	10	1	1		12	2,108,955	2,084,415	2,164,067	2,083,169	2.61%	-0.06%
3200 STCW	6	2	1		9	6	2	1		9	1,571,606	1,572,006	1,834,253	1,537,664	16.71%	-2.18%
3300 Visits to Member States to monitor implementation of Union Law	5	2	1		8	5	3	1	1	10	1,272,988	1,262,788	1,551,763	1,571,399	21.90%	24.44%
3400 Maritime Security	3		1	1	5	3		1		4	786,341	767,341	725,408	715,050	-7.75%	-6.81%
3600 Horizontal analysis and research ²	3				3	3				3	586,654	574,654	601,104	574,067	2.46%	-0.10%
4100 Port State Control & Flag State Enforcement	3				3	2				2	560,154	550,654	382,657	369,119	-31.69%	-32.97%
4200 Accident investigation	4	1	1		6	3				3	1,297,108	1,262,108	858,371	799,264	-33.82%	-36.67%
4300 Training, cooperation and capacity building ³	4	1	1		6	6	1		1	8	2,099,708	1,989,108	2,488,265	2,257,822	18.51%	13.51%
4400 Marine equipment and ship safety standards (including IMO) ⁴	7	1	1		9	8	1	1		10	2,053,782	2,060,412	2,713,423	2,385,611	32.12%	15.78%
4500 Ship Inspection Support ⁵	6		2	1	9	5		2		7	1,828,709	1,788,180	1,613,961	1,709,375	-11.74%	-4.41%
4600 Prevention of pollution by ships	5		1		6	4		1		5	1,233,664	1,201,864	934,565	927,990	-24.24%	-22.79%
6500 Communication, Missions & Events support	3	3		6	12	3	3		7	13	1,597,515	1,597,515	1,784,312	1,740,749	11.69%	8.97%
5100 Operational Pollution Response Services	10	2	1	3	16	9	2	1	2	14	19,982,361	17,510,471	25,342,104	19,587,949	26.82%	11.86%
5200 CleanSeaNet and illegal discharges ⁶	6				6	6				6	7,717,096	8,928,487	6,024,383	6,077,234	-21.93%	-31.93%
5300 Cooperation and information relating to pollution preparedness and response	4				4	4				4	1,434,787	1,478,287	1,268,745	1,045,690	-11.57%	-29.26%
6100 Management/bureau/horizontal tasks	11	8			19	9	8			17						
6200 Human Resources	4	5		7	16	3	4		8	15						
6300 Legal and Financial Affairs, facilities and logistics ⁷	5	6		4	15	6	5		4	15						
6400 Operations support (ICT)	1	7		3	11	1	7		2	10						
6100, 6200, 6300, and 6400 Total Overhead/horizontal tasks	21	26		14	61	19	24		14	57						
Subtotals	152	60	18	30	260	147	57	14	30	248						
Copernicus staff financed by EMSA budget*				3	3				3	3						
TOTAL																
Total EMSA subsidy	212		18	33	263	204		14	33	251	80,901,842	79,655,391	80,169,925	76,723,127	-0.90%	-3.68%

⁴⁴ Actual human resources at 31/12/2019 are expressed here as a head count. For Contract Agents and Seconded National Experts, actually filled as of 31/12/2019 is reported in the Financial Statement 2021 in Full Time Equivalents (FTEs), in line with Article 32.4 of the EMSA Financial Regulation, corresponding respectively to 31.3 (CAs) and 15.3 (SNEs).

Planned and Actual Resources 2018 LIST OF EMSA PROJECT FINANCED ACITIVITIES	Planned Human Resources		Actual Human Resources		Planned Financial Resources		Actual Financial Resources	
	END	CA	END	CA	Commitments	Payments	Committed	Paid
7100 SAFEMED IV Euromed Maritime Safety Project	0.5	2	0.5	2	p.m.	p.m.	2,185,416	1,056,116
7200 FRONTX SLA		8		9	p.m.	p.m.	14,592,879	8,428,500
7210 EFCA SLA					p.m.	p.m.	53,748	13,757
7300 CSN GREENLAND					p.m.	p.m.	0	0
7310 CSN Dutch Islands					p.m.	p.m.	0	0
7400 Black & Caspian Sea Maritime Safety, Security and Environmental Protection in the Black and Caspian Sea Regions	0.5	2	0.5	2	p.m.	p.m.	1,871,812	1,113,484
7500 COPERNICUS	(3 CA covered by EMSA subsidy)		(3 CA covered by EMSA subsidy)		p.m.	p.m.	15,069,724	8,730,004
7600 EQUASIS (R0 FUNDS)					p.m.	p.m.	690,645	444,170
7700 THETIS EU					p.m.	p.m.	62,415	4,415
7710 THETIS MRV					p.m.	p.m.	21,290	21,290
7800 EC Funds for candidate and potential candidate					p.m.	p.m.	140,373	64,060
7901 Interoperability project					p.m.	p.m.	520,067	55,529
7902 CISE Transitional Phase		5		4 ⁽⁸⁾			703,877	158,980
9010 Maritime Labour Convention							63,004	0
Total Project Financed Activities	1	17	1	13			35,975,251	20,090,306
Grand total Contract Agents/SNEs (Operational + PFA)	19	50	15	46				
Grand Total Financial Resources							116,145,176	96,813,433

* 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 activity according to the prevailing function of the staff. Indirect staff and overhead and administrative costs are ventilated across 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 Copernicus but financed by the EMSA Budget are treated as indirect staff.

Footnotes:

1. 8 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).
7. 1 AST for the European cooperation on coast guard functions (in planned and actual input).
8. Initially 5 CAs were foreseen for this project. Nevertheless, recruitment of all required technical staff was not successful and only 4 CAs were recruited. Lack of technical staff has been compensated by using consultants, for this purpose the grant agreement has been amended.

Annex VI. Specific annexes related to Part II – Management

Not relevant for CAAR 2019.

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

Not relevant for CAAR 2019.

Annex VIII. Draft annual accounts

Economic outturn account

	2019	2018
Revenues from administrative operations	20,602,350	18,585,776
Other operating revenue	77,909,792	73,234,241
TOTAL OPERATING REVENUE	98,512,142	91,820,017
Administrative expenses	-39,221,844	-38,650,507
All Staff expenses	-22,902,814	-22,279,062
Fixed asset related expenses	-8,616,831	-8,368,077
Other administrative expenses	-7,702,199	-8,003,368
Operational expenses	-57,307,647	-48,133,339
TOTAL OPERATING EXPENSES	-96,529,491	-86,783,845
SURPLUS/(DEFICIT) FROM OPERATING ACTIVITIES	1,982,651	5,036,172
Financial revenues	0	2,801
Financial expenses	-2,011	-7,732
SURPLUS/ (DEFICIT) FROM NON OPERATING ACTIVITIES	-2,011	-4,931
ECONOMIC RESULT OF THE YEAR		1,980,640

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

(in EURO)

	2019	2018
NON CURRENT ASSETS	36,416,625	34,466,756
Intangible fixed assets	11,609,624	9,877,463
Tangible fixed assets	24,516,865	24,299,157
Long-term pre-financing	290,136	290,136
Long-term receivables		
CURRENT ASSETS		
Inventories	4,485,916	4,485,916
Short-term pre-financing	1,241,107	2,059,737
Short-term receivables	3,504,089	4,552,817
Cash and cash equivalents	23,916,818	30,760,838
TOTAL ASSETS	69,564,555	76,326,064
NET ASSET	43,026,818	41,046,178
NON-CURRENT LIABILITIES	105,510	105,510
Provisions for risks and charges	0	0
Other long-term liabilities	105,510	105,510
CURRENT LIABILITIES	26,432,226	35,174,376
Provisions for risks and charges	0	0
Accounts payable	26,432,226	35,174,376
TOTAL LIABILITIES	69,564,555	76,326,064

Annex IX. EMSA's report on the multi-annual funding of the Agency's pollution preparedness and response as laid down in Regulation (EU) No 911/2014.

Annex IX -

-Annual Funding of

activities as laid down in Regulation (EU) No 911/2014.

Table of contents

Chapter 1: Report Objective and Executive Summary.....	2
Chapter 2: Introduction.....	5
Chapter 3: Operational Assistance.....	6
3.1 Vessel network, equipment and dispersants.....	6
3.2 CleanSeaNet Satellite Service for Oil Spill Monitoring.....	12
3.3 Support to Coastal States and the Commission for Accidental Spills and Emergencies.....	15
3.4 RPAS - Utilising State of the Art Remote Sensing Technology for Oil Spill Detection, Monitoring and Response and other substances.....	15
Chapter 4: Cooperation and Coordination.....	17
4.1 Introduction.....	17
4.2 Activities with regard to Cooperation.....	17
Chapter 5: Information.....	20
5.1 Introduction.....	20
5.2 Activities with regard to Hazardous and Noxious Substances (HNS).....	20
5.3 Dispersant Usage Evaluation Tool (DUET).....	20
5.4 List of Member States' pollution response capacities.....	20
5.5 Marine litter.....	21
Annex: Total Expenditures for Pollution Preparedness and Response Activities.....	22

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 multi-annual 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 multi-annual 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, the Equipment Assistance Service (EAS) and the associated dispersant stockpiles, 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;
- The Remotely Piloted Aircraft Systems (RPAS) capacity for detection, identification and monitoring of pollution at sea and from vessel's air emission;
- 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 2019, sixteen fully equipped vessels for mechanical recovery were available for mobilisation with five of these vessel arrangements also equipped for seaborne dispersant application including dispersant stock and five equipped with light RPAS.

The vessel contracted at the end of 2018, to replace the non-renewable contract for the East Mediterranean Sea, successfully completed the preparation phase and entered into operational service mid-2019. Due to Brexit, the stand-by service of the vessel based in the UK was terminated end-March 2019.

Following a public procurement, three vessel contracts to replace the response capacity for the Adriatic Sea, Western and Central Mediterranean were awarded. The contracts covering the Channel and North Sea, Atlantic coast and Northern Black Sea were renewed for an additional 4-year period. The vessel contract for the Atlantic North was renewed for a 3-year period.

Following the sinking of the *Grande America* in the Bay of Biscay and the subsequent release of fuel oil, EMSA's oil pollution response vessels *Partisan* and *Ria de Vigo* were activated by France and conducted oil recovery operations.

In addition, within the context of cooperation between EU Agencies on Coast Guard functions, EMSA equipped and provided training to the European Fisheries Control Agency (EFCA) chartered vessel *Lundy Sentinel* for oil pollution response duties. Furthermore, EMSA also topped up temporarily Croatian response capacities at the request of Croatian authorities by providing some response equipment.

In order to ensure a high level of preparedness 73 quarterly and acceptance drills were conducted on board EMSA contracted vessels.

The Equipment Assistance Service (EAS) arrangement contracted for the Northern Baltic Sea became operational. This new arrangement complements the existing EAS stockpiles in the Adriatic and Baltic Sea and provides specialised stand-alone equipment for Vessels of Opportunity (VOO).

Due to Brexit, the service of the EAS North Sea arrangement based in the UK was terminated end-March 2019. The procurement for replacement of the EAS North Sea and for the EAS Baltic South, expiring beginning of 2020, was successfully concluded.

A total of 22 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 Northern Baltic and

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

Lightweight RPAS quadcopters were installed on board of five EMSA's contracted pollution response vessels, in order to support the recovery operations by enhancing the oil detection capabilities on board of these vessels.

Moreover, in order to increase the available response options, floating storage barges were delivered to all the EAS arrangements and dispersant spraying capability was added to the vessel arrangement in the Southern Black Sea.

To further strengthen the operational integration of EMSA's pollution response services within Member States, Regional Agreements¹, third country response chains and offshore operators, EMSA participated in 13 Exercises covering all European seas, involving the operational deployment of nine vessels, four EAS systems and six light RPAS. The exercises included the activation of 19 Vessel and EAS contractors, testing the mobilisation procedures and communication channels during associated notification exercises.

In addition, within the context of cooperation between EU Agencies on Coast Guard functions, EMSA equipped and provided training to the European Fisheries Control Agency (EFCA) chartered vessel *Lundy Sentinel* for oil pollution response duties. Furthermore, EMSA also topped up temporarily Croatian response capacities at the request of Croatian authorities by providing some response equipment.

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 resulted in faster delivery and a wider range of products from 2019 onwards.

The Consultative Technical Group for Marine Pollution Preparedness and Response (CTG MPPR), established in 2007, continued its work in 2019 on the Rolling Work Programme. The 13th meeting of the CTG MPPR was held in October 2019. Under the umbrella of the CTG MPPR, the seventh Surveillance Training took place in the Netherlands and included a visit of all participants to the air base of the Netherlands Coastguard to view their surveillance aircraft and equipment. Furthermore, the various working groups under the CTG MPPR comprised of Member States experts met in 2019 and worked on drafting guidance documents on health and safety of responders and on oil spill sampling, based on existing guidance and real incident experience.

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 two occasions for drills. The MAR-ICE Cooperation Agreement was amended in 2017 and the service will continue through 2022. The 4th MAR-ICE Evaluation meeting was held among the three Parties in February, reviewing the service and discussing service improvements, including the Parties' agreement to extend the MAR-ICE service to also provide on-site expertise and advice by available chemical companies (at the requesting country's command post).

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 48 substances have been revised and improved with information on emergency response actions on board a ship. 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.

¹ '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'.

Funding of Actions

The Budgetary Authorities provided EMSA with EUR 29,240,000 (EUR 25,050,000 originally budgeted under MAF and EUR 4,190,000 injected from other EMSA operational appropriations) in commitment appropriations and EUR 23,833,000 in payment appropriations for its pollution preparedness and response task for 2019. In terms of budget execution 97.99% was achieved for commitments and 95.82% for payments.

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

	Commitments	Payments
TOTAL allocation	29,240,000	23,833,000
TOTAL utilisation	28,653,369 (97.99%)	22,837,608 (95.82%)

Table 1 Overall summary of commitment and payment appropriations in 2019 (Source ABAC Workflow)

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 caused by oil and gas installations. The framework for this new task was described in the Action Plan 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 Multi-annual 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.

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

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

Chapter 3: Operational Assistance

EMSA provides six 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 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 2019, 16 fully equipped oil spill response vessels and three EAS arrangements were available for mobilisation. In addition, five vessel and one EAS arrangements were complemented with dispersant stockpiles and five vessels were equipped with light RPAS. 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);

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

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).

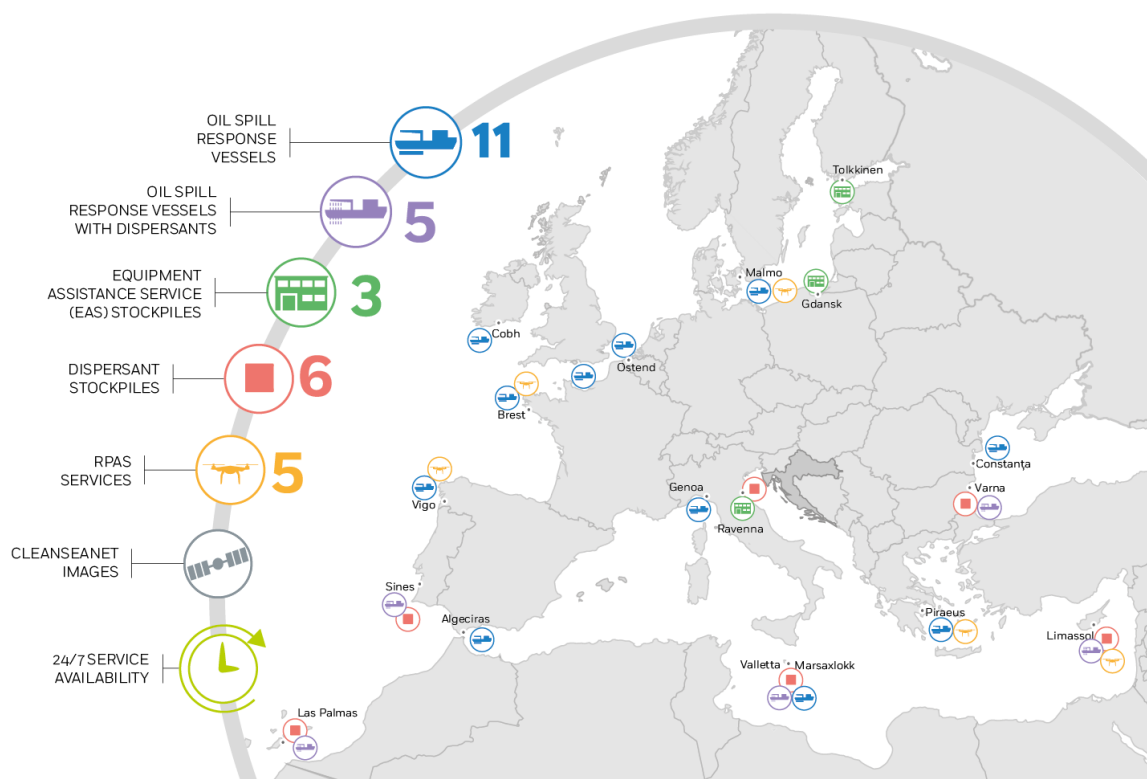
¹⁰ Private Entity means the ship owner or oil and gas installation operator controlling the activity causing the marine pollution or the imminent threat of it. The Private Entity is responsible for the oil spill cleaning operations.

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 2019, EMSA maintained contracts for 16 operational fully equipped stand-by oil spill response vessels available, upon request, to assist coastal States in oil spill recovery operations. Five of these vessel arrangements are also equipped for seaborne dispersant application with associated dispersant stockpiles of 200 tonnes each, in Malta, Cyprus, Varna (Bulgaria), Sines (Portugal) and the Canary Islands (Spain). Five vessels were equipped with light RPAS to support recovery operations.

Moreover, of the 16 operational contracted vessels nine 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

9

Due to Brexit, the stand-by service contracted from James Fisher Everard Ltd, pool of vessels Thames Fisher and Mersey Fisher, based in the UK was terminated end-March 2019. The equipment arrangement was temporarily relocated to the EAS Adriatic Sea.

There were three main activities in relation to the vessel network in 2019, namely:

Two vessel contracts covering the Central and Western Mediterranean Sea will expire without the possibility of further renewal in mid-2020. In addition, one vessel contract for the Adriatic Sea was terminated end-2017 due to technical issues with the contractor. Accordingly, a procedure following publication of a Contract Notice in the Official Journal of the European Union to re-establish the contract for the Adriatic and replace the response capacity in the Central and Western Mediterranean was launched. As a result, new contracts for those three areas were awarded.

The new arrangement contracted end-2018 to replace the response capacity for the Eastern Mediterranean was brought into operation. The tanker *Alexandria* based in Limassol (Cyprus) successfully completed the Preparatory Phase and re-enter into service in May 2019.

Contract renewal of the two response arrangements for the Chanel and North Sea, based in Ostend (Belgium), of the arrangement covering the Atlantic coast, based in Vigo (Spain) and of the arrangement for the Northern Black Sea were renewed for an additional 4-year period. The arrangement covering the Atlantic North, based in Cobh (Ireland), was renewed for a 3-year period.

- Equipment Assistance Service (EAS)

Due to Brexit, the service of the EAS North Sea, contracted from NRC, based in the UK was terminated end-March 2019. The equipment arrangement was relocated to a temporary storage in the Netherlands. In addition, the dispersant stock associated with this EAS arrangement was temporarily relocated to the EAS Adriatic Sea.

The main activities implemented in relation with the EAS were:

Bringing into operational service the EAS arrangement contracted at the end of 2018 for the Northern Baltic Sea, based in Tolkinen (Finland);

Following the successful conclusion of a procurement procedure, award of two new contracts to replace the EAS stockpiles in the North Sea (terminated in March 2019 due to Brexit) and in the Baltic Sea (current contract will terminate beginning of 2020). The two new equipment depots will be based in Rotterdam, The Netherlands (North Sea area) and in Frederikshavn, Denmark (Baltic South area); and will become fully operational in the first half of 2020;

Renewal of the EAS operational contract in the Adriatic and Baltic Sea to extend the service for one additional year.

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 Northern Baltic, Baltic 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 2019 can be found in the table below:

Area covered	Contractor / Contract	Vessel(s) / Assets	Vessel type / storage capacity(m ³) / dispersant stock	Service 2019
1. Contracted vessels				
Southern Baltic	Stena Oil EMSA/NEG/1/2015 Lot 2	<i>Norden</i>	Oil Tanker / 2880	Whole year service
Northern North Sea	James Fisher Everard Ltd EMSA/NEG/1/2013 Lot 1	<i>Mersey Fisher,</i> <i>Thames Fisher</i>	Product Tankers / 5028 / 5028	In service until 31 March
Channel and Southern North Sea	DC Industrial S.A. 2014/EMSA/NEG/1/2014 Lot 3.1	<i>Interballast 3</i>	Hopper Dredger / 1886	Whole year service
	DC Industrial S.A.	<i>DC Vlaanderen 3000</i>	Hopper Dredger	Whole year service

	2014/EMSA/NEG/1/2014 Lot 3.2		/ 2744	
Atlantic North	James Fisher Everard Ltd. EMSA/NEG/1/2013 Lot 2	Galway Fisher, Corrib Fisher	Product Tankers / 4754 / 6248	Whole year service
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	Whole year service
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.	Whole year service
Western Mediterranean	Naviera Altube EMSA NEG/1/2011 Lot 4	Monte Anaga	Oil Tanker / 4096	Whole year service
	Ciane EMSA/NEG/34/2012	Brezzamarè	Oil Tanker / 3288	Whole year service
Central Mediterranean	Tankship EMSA NEG/1/2011 Lot 2	Balluta Bay	Oil Tanker / 2800 / Dispersant 177 t.	Whole year service
	SL Ship Management Ltd EMSA/NEG/1/2012 Lot 2	Santa Maria	Oil Tanker / 2421	Whole year service
Aegean Sea	Environmental Protection Engineering S.A. EMSA/NEG/1/2013 Lot 3	Aktea OSRV (Aegis I as a back-up vessel)	Oil Tanker / 3000 Offshore Supply / 950	Whole year service
Eastern Mediterranean	Petronav EMSA/NEG/1/2010 Lot 1 2018/EMSA/CPNEG/1/2018	Alexandria	Oil Tanker / 7458 / Dispersant 200 t.	Whole year service Re-enter into service new contract on 16 May
Northern Black Sea	Petronav EMSA/NEG/1/2014 Lot 2	Amalthia	Oil Tanker / 5154	Whole year service
Southern Black Sea	COSMOS	Galaxy Eco	Oil Tanker / 2969	Whole year service

	2016/EMSA/CPNEG/6/2016 Lot1			
2. EAS arrangements				
Northern Baltic	Lamor Corporation AB EMSA/CPNEG/2/2018	17 stand-alone equipment sets	Contracted storage area: 800m ² (Tolkkinen, Finland)	Operational as of 15 April
Baltic Sea	Labelpoland.com EMSA/NEG/8/2015 Lot 2	16 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)	In service until 31 March *Equipment sets and dispersant stock temporarily relocated
Southern Europe	Ottavio Novella 2017/EMSA/CPNEG/38/2016	17 stand-alone equipment sets Dispersant 600 tonnes	Contracted storage area: 800m ² (Ravenna, Italy)	Whole year service

Table 2 Summary of OPR services and contractual information at the end of 2019

Within the context of cooperation between EU Agencies on Coast Guard functions, EMSA equipped the European Fisheries Control Agency (EFCA) chartered vessel “Lundy Sentinel” with oil spill response equipment and some dispersants and provided the relevant crew training for oil recovery duties.

Furthermore, EMSA also topped up temporarily Croatian response capacities at the request of Croatian authorities by providing two equipment sets, Current Buster 6 and Trawl Net, from the EAS arrangement in the Adriatic Sea until a new response vessel arrangement is ready for the Adriatic Sea.

3.1.2 Operational Assistance to Member States and EU Agencies

Following the sinking of the Grande America in the Bay of Biscay and the subsequent release of fuel oil, the French authorities requested the services of the EMSA contracted vessels *VN Partisan* and *Ria de Vigo*.

The vessels were on site, providing at-sea oil recovery services from 14 March to 2 April 2019.

The *Ria de Vigo* recovered about 650 m³ of oil-water mixture of which 300 m³ were discharged overboard as “clean” decanted water. The vessel delivered to port reception facility 350 m³ with a content of oil about 25-30%, which makes about 100 tons of IFO 380 discharged. The cleaning of the vessel and equipment was completed on 8 May.

The *VN Partisan* recovered about 240 m³ of oil-water mixture, with an estimated content of 5% of oil. In this regard, it is worth noting that during the response operations:

The *VN Partisan* did not perform decanting and discharge of “clean” water overboard as the policy of the French authorities is to allow “clean” water discharges once the onboard capacity is significantly filled;

The area of operations assigned to the *VN Partisan* by the French authorities, near the “wreck chimney”, was found with an oil encounter rate well below the one in the area assigned to the *Ria de Vigo*, this being due to the wreck lying at several thousand meters depth allowing for the pollutant to be diverted to other places by the undercurrents during its transit up to surface.

3.1.3 Maintaining the Service: Drills and Exercises

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 2019, a total of 66 quarterly drills and seven 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). In 2019, 22 ECTs were conducted by the contractors in order to verify readiness and performance of the equipment.

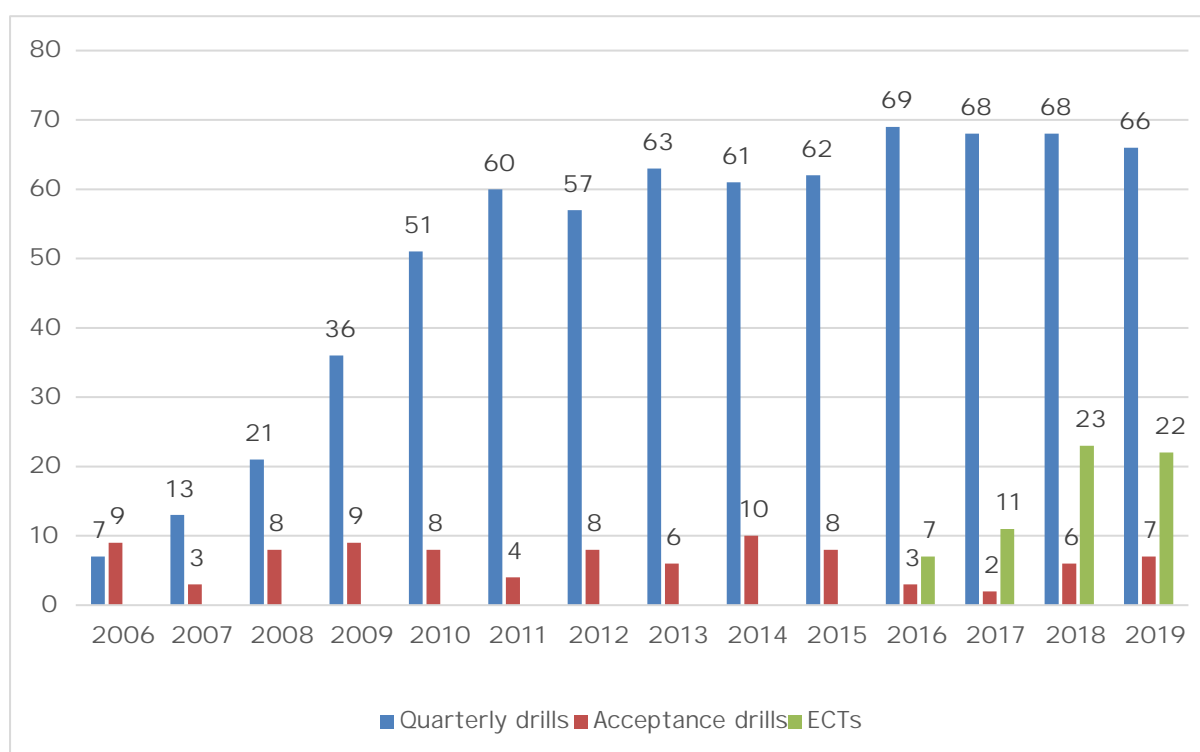


Figure 2 Number of vessel drills and ECTs 2006 - 2019

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 2019, nine EMSA stand-by oil spill response vessels, four EAS systems and six light RPAS were deployed in nine 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 2019 the Agency participated in 10 notification exercises, involving 16 activations of EMSA vessels contractors and three activations of EAS contractors.

Detailed information regarding preparedness activities conducted by EMSA contracted vessels and EAS arrangements in 2019 can be found in the “EMSA Pollution Response Services - Drills and Exercises Annual Report 2019”, available online at emsa.europa.eu/opr-documents/opr-reports.html.

3.1.4 Improvements to the Service

The following vessel improvements were implemented with the relevant vessel contractors:

Setting-up RPAS on the EMSA contracted vessels Partisan, Ria de Vigo, Norden, Aktea OSRV and Alexandria, in order to enhance the oil detection capabilities on board of these vessels;

Setting-up dispersant application capability on Galaxy Eco, Varna (Bulgaria), and associated dispersant stock of 200 tonnes.

Besides, in 2019 the Equipment Management Policy was implemented through the overhauling of the high capacity skimmer on board Norden, stationed in Gothenburg, Sweden. Moreover, the response capacity of the EAS arrangements was strengthened through:

The delivery of oil storage crafts for all the EAS arrangements. Through these systems, EMSA intends to complement the existing stand-alone equipment sets with storage capacity for the recovered oil, for use by Vessels of Opportunity without own or with limited storage capacity;

The delivery of one high capacity skimmer for the Northern Baltic region;

The delivery of portable spraying equipment to the EAS Southern Europe, for the application of dispersants on board of vessels of opportunity (VOO).

Furthermore, following the successful conclusion of a procurement for the purchase of specialised equipment for the recovery of “oil in ice”, two equipment sets were ordered to complement the EAS arrangement in Northern Baltic. Delivery of the two arctic skimmers is planned for the first half of 2020.

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 20 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 2019

In 2019, of the 7,237 images delivered by the CleanSeaNet service to coastal States, SAFEMED IV and BCSEA beneficiary countries. A total of 7,755 possible oil spills were detected, 4,668 of which with the highest level of confidence regarding the probable detection of hydrocarbons (Class A).

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.

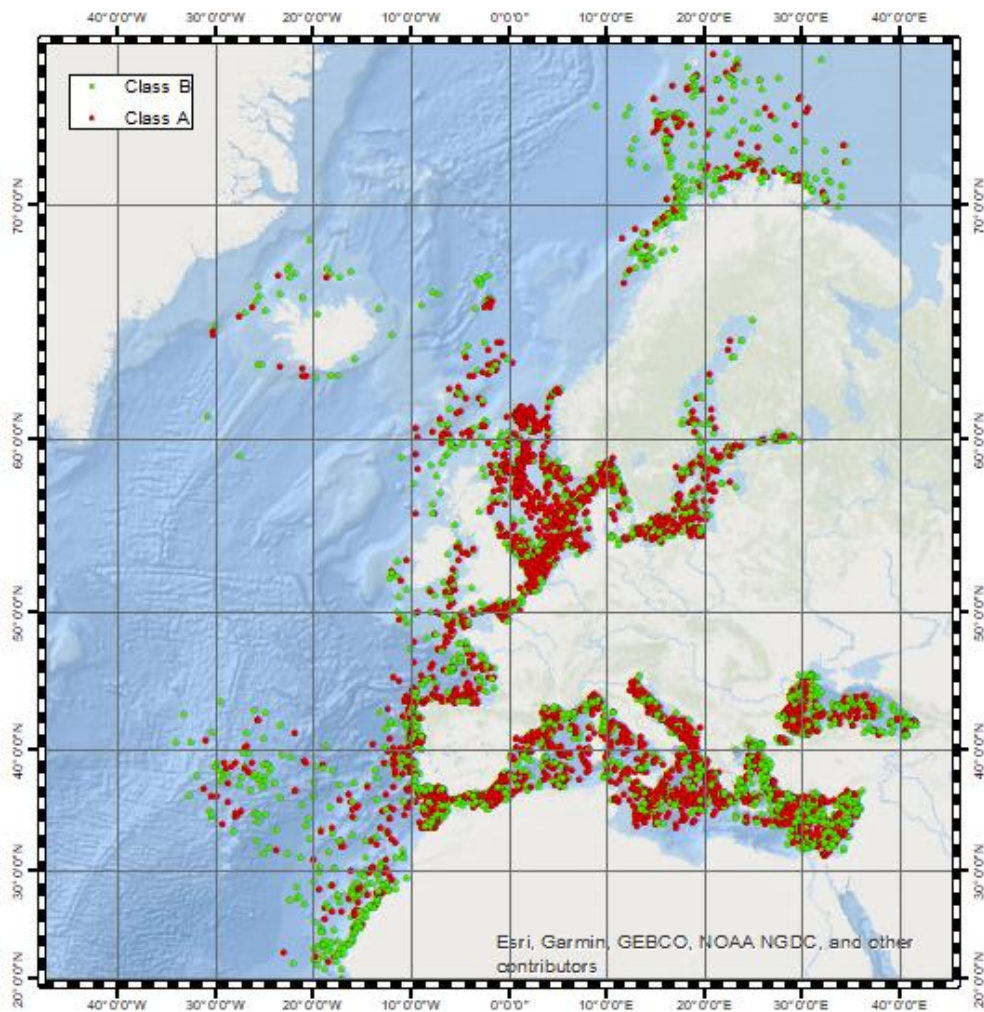


Figure 3: CleanSeaNet Service 2019: map of spills detected with higher and lower confidence level, except French Outermost Regions (Red: Class A; Green: Class B)



Figure 4: CleanSeaNet Service 2019: 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 2019

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 2019, EMSA supported three “Tour d’Horizon” operations. In addition to the services already foreseen through regular CleanSeaNet planning, 9 further EO services were delivered to the aircraft crews or national centres supporting the operations.

Eight additional operational pollution response exercises were supported by CleanSeaNet in 2019:

- Ireland (March 2019)
- Iceland (May 2019)
- Portugal (May 2019)
- United Kingdom (June 2019)
- HELCOM (Balex Bravo) (August 2019)
- Cyprus (November 2019)
- Spain (November 2019)
- France (December 2019)

3.2.4 CleanSeaNet service improvements in 2019

Two new tenders for the provision of satellite licenses were launched and awarded:

- TerraSAR-X / PAZ satellite licenses (awarded to Airbus GmbH): EUR 20,000,000 with a duration of 4 years;
- Radarsat-2 satellite licenses (awarded to Maxar): EUR 40,000,000 with a duration of 4 years.

These contracts provide a stable and robust basis for the delivery of all Earth Observation services, including CleanSeaNet, for the coming years.

In 2019, the Earth Observation Data Centre (EODC) processing system was further improved to cope with the significant increase in volume of satellite images received (for CleanSeaNet the growth in number of images received was 48%, when comparing with 2018). The upgraded EODC is more reliable and performant, and is already prepared to handle the next generation of earth observation products, which include feature detection, wake detection, change detection and enhanced vessel detection.

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

In 2019, eight requests for additional support from EMSA’s CleanSeaNet service were received from coastal States addressing accidental spills and emergencies. An additional 46 images were ordered to support these requests. The following table summarizes the emergencies supported.

Table 3: Overview of emergency support provided by the CleanSeaNet service

Date	Requesting country	Description	Images delivered
2019/01/08 and 2019/01/15	Netherlands	While en route from Sines to Bremerhaven in the early morning on the 2 nd of January, MSC Zoe lost 281 containers overboard when it encountered a storm in the southern North Sea north. CleanSeaNet was activated to detect these containers, which pose a risk to safety of navigation and ultimately of pollution.	1
2019/03/12	France	While en route from Hamburg to Casablanca (Morocco) in the evening of the 10 th of March, Grande America caught fire and sank on the 12 March 14:26 in Bay of Biscay. The vessel was carrying 15,000 tons of cargo including 859,92 tons of dangerous goods (IMO Hazard class 2.1, 2.2, 3, 4.1, 8, 9), and 2,478 Tons of bunkers. CleanSeaNet was activated in support to this emergency, and to provide additional monitoring of the large oil spill that originated from the accident. As this was a significant spill the additional monitoring was maintained for almost 4 weeks, until the 7 th of April.	30
2019/05/10	Spain	Significant oil spill detected by CleanSeaNet image 100 nm west of La Palma. Additional imagery requested to monitor the evolution of the spill.	2
2019/06/04	France	Accidental discharge of HFO (150L) linked with bad weather conditions met by MAERSK TEESPORT close to La Reunion. Images were requested to monitor the evolution of the spill.	2
2019/11/02	France	Request for support in the EEZ of French Guyana for potential large accidental spill (major oil spill in Brazilian waters that could potentially drift). No spill was detected.	3
2019/11/06	Finland	Large spill detected in Finnish waters by CleanSeaNet routine monitoring. Additional images requested to track the evolution of the spill.	3
2019/11/06	Iceland	Fishing vessel BLIDA sank on the 5 th of November near Bridgford, Iceland. Images ordered to monitor for potential pollution.	5

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

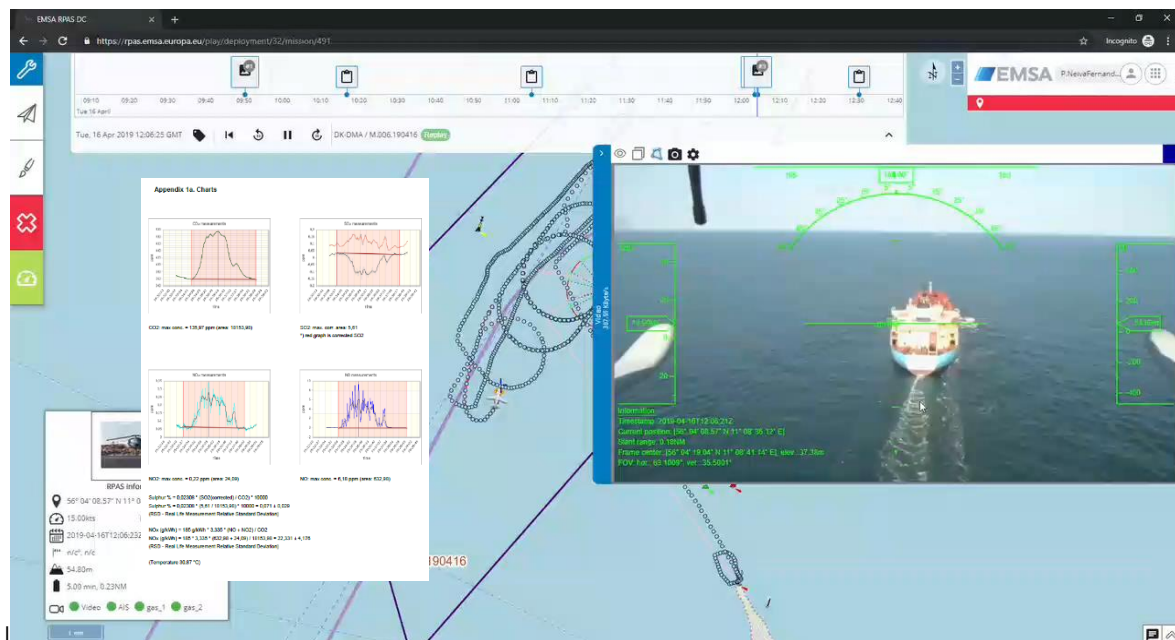
The CleanSeaNet satellite service provides a large coverage and high-resolution imageries and are the core source of information for large area and routine coverage. Such imageries are ideal to detect maritime pollution. But these satellites cannot stay on-site and are not providing data during night. 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.

Regarding technical developments, in 2019 five vessels were equipped with lightweight RPAS to improve the on-board capabilities for oil slick detection as well as to support any other surveillance activities, if needed. In order to increase the available response options, floating storage barges were delivered to the EAS arrangements and dispersant spraying capability was added to the vessel arrangement in the Southern Black Sea.

Following the sinking of the Grande America in March 2019 in the Bay of Biscay, upon request from France, two Oil Spill Response Vessels (Ria de Vigo and Partisan) equipped with RPAS were deployed on-site. These RPAS provided extensive support following the sinking of the “Grande America” in early March 2019.



In the field of the implementation of the Sulphur Directive, EMSA performed in 2019 measurements of Sulphur Dioxide from vessels using RPAS during 61 operational days in Denmark. The measurements of Sulphur Dioxide captured by RPAS services were transmitted live to THETIS-EU following its integration with the RPAS Data Centre. Due to technical issues and limitations in the number of available RPAS systems EMSA could not meet the high demand for such services from the Member States in 2019.



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 2019. 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

4.1.1 Pollution Response Services User Group (PRS UG)

The 9th Pollution Response Services User Group meeting took place on 16 October 2019 at EMSA's premises in Lisbon, Portugal. Recent developments on 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 13 October 2020, back to back with the CTG MPPR meeting.

4.1.2 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 15th Inter-Secretariat meeting was held on 26 February 2019 in Lisbon.

4.1.3 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 13th CTG MPPR meeting held on 17 October 2019. 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 (14th) CTG MPPR meeting will be held on 14 October 2020 in Lisbon.

With regard to the ongoing CTG MPPR projects, the following actions were undertaken in 2019:

- Health and Safety of Oil Spill Responders:

The working group (WG) on health and safety of responders (HSE WG), comprised of Member States experts is tasked under the lead of Norway to prepare practical guidelines on HSE of oil spill responders, based on existing guidance and real incident experience. Considering the subject matter, an expert from the EU-OSHA Agency is also supporting the work of this working group. Following the first meeting of the WG held on 6 and 7 May 2019 in Cuxhaven, Germany, a very first draft of the guidelines document was drafted by the group and was presented at the CTG MPPR meeting in October. The WG will continue working on the guidelines in 2020.

- Technical Correspondence Group on hazardous and noxious substances (TCG HNS):

The TCG HNS comprised of Member States experts, is tasked under the lead of France to develop a training programme for Member States addressing the response to chemical or HNS spills, based on existing national training programmes and experience in the field. The training will be based on sharing expertise 'from Member States for Member States' and will also include a table-top HNS exercise. The TCG HNS had its first meeting on 23 and 24 September 2019 in Lisbon and prepared the draft outline of a '3-days HNS training package', which was also presented at the CTG MPPR meeting in October. The training aims to raise awareness on the challenges and key issues associated with chemical incident response and to facilitate the exchange of 'good practice' among EU countries, strengthen networking and practice the methodological approach presented

through the HNS table-top exercise. The TCG HNS will continue working on the training curriculum in 2020, with the first training expected to be held in 2021.

- Oil Spill Sampling:

The working group (WG) on oil spill sampling, comprised of Member States experts, is tasked under the lead of Germany to prepare a training curriculum on oil sampling and to develop interdisciplinary, practical guidelines on oil spill sampling, based on the OSINet expertise. As the first training on oil spill sampling for EU/EFTA coastal Member States was held in 2018, the WG focused its work in 2019 on drafting the practical guidelines on oil spill sampling. A first draft of the guidelines document was discussed at the first meeting of the WG held on 17 and 18 September in Lisbon and was presented at the CTG MPPR meeting in October. The practical guidelines on oil spill sampling will be a non-binding, interdisciplinary, hands-on manual for forensic oil spill sampling, intended to provide updated, current best practice guidance as an addition to existing documents. The WG will continue working on the guidelines in 2020.

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

EMSA jointly with the Netherlands (Rijkswaterstaat) organised the 7th Training course on “The Use of Surveillance Systems for Marine Pollution Detection and Assessment” on 19-21 November 2019 in Schiphol, the Netherlands. The training had an operational focus on marine pollution surveillance, monitoring and reporting, including presentations on relevant legal elements regarding the use of surveillance as evidence for prosecution of illegal discharges. It was provided by experts from EU/EFTA national administrations, aiming to share national experiences among aerial surveillance operators and was well attended by 50 participants. The course also included a visit to the Netherlands Coast Guard Air Base to view the Netherlands’ aircraft used for maritime surveillance.

- Working Group on Incident Reports (IRWG):

Following the re-establishment in 2018 of the Working Group on “Incident Reports” (IRWG) with participation of experts from the marine pollution community (CTG MPPR) and the SafeSeaNet (SSN) user community, the IRWG had its first meeting on 19 June 2019 in Lisbon. The IRWG aims to further improve the reporting and exchange of Incident Reports through SafeSeaNet and CECIS MP (and the POLREP in particular), considering recent user experience from large scale pollution response exercises (i.e. SCOPE 2017). The first meeting discussed and defined business requirements for improvements to the SSN Incident Report structure and the SSN web interface, as well as for the revision of the business processes in SSN. During the second meeting (held on 12 November under a different budget than the APM) the working group concluded the work on the Business Requirements and proposed improvements to the Incident report Guidelines. The IRWG will continue its work per correspondence in 2020. The final proposals will be submitted to both the SSN Group (planned for May 2020) and the CTG MPPR (written procedure) for comments/validation, before being submitted to the next High-Level Steering Group for final approval.

- 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. One exchange of a Latvian expert to the Hellenic Coast Guard in Greece took place under the EMPOLLEX Programme in 2019.

4.1.4 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.

From 12 to 14 June 2019 an oil spill pollution response seminar and two days at sea exercises were organised under the EU funded BCSEA Project in the city of Varna, Bulgaria. The activity was carried out with two EMSA contracted oil spill pollution response stand-by vessels – the oil tankers Galaxy Eco (based in Varna, Bulgaria) and Amalthia (based in Constanta, Romania).

4.1.5 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 with a contractor and developed in 2019 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.

4.1.6 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 meetings and is also a member of the HELCOM Informal Working Group on Aerial Surveillance (IWGAS), which meets once a year. 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.

4.1.7 Cooperation with industry and other stakeholders

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. In 2019, EMSA contributed to and hosted one of the Committee's preparatory meetings for the 2021 INTERSPILL event, to be held in March 2021 in Amsterdam.

4.1.8 Implementation of the Administrative Board recommendation regarding further analysing the efficiency of oil pollution response services

Following the Administrative Board's recommendation to further analyse the efficiency of EMSA's oil pollution response services, the Agency contracted in 2019 the development of a methodology and software tool (i.e. the "Response Calculator") to assess the effectiveness and cost efficiency of the oil pollution response resources used to mitigate the impacts of the oil spill. This tool was populated with data from Member States and EMSA on existing oil pollution response resources. The regional workshops were hosted by Bulgaria, Cyprus, the Netherlands, Sweden, Spain and France. The "stress tests" simulated a major oil spill where the pollution response assets from Member States and EMSA are pooled together and put to action to minimise the impacts of oil pollution. The methodology and the results of the regional "stress tests" workshops were presented and discussed with the Member States at a final workshop held on 5 December in Lisbon. The outcome of this assessment will be presented to the Administrative Board in 2020.

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.

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 a Cooperation 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 2019, the network was activated on two occasions for drills and exercises. The 4th MAR-ICE Evaluation meeting was held among the three Parties in February, reviewing the service and discussing service improvements. Following discussions in 2018 and 2019 among the three parties, and consultation with the Administrative Board in November 2019, it was agreed to extend the MAR-ICE service to also provide on-site expertise and advice by available chemical companies (at the requesting country's command post). Details of the new arrangement were included in the amended Cooperation Agreement which is expected to be signed by all three parties in early 2020, following which the new service will enter into force.

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 2019, in addition to software updates, 48 datasheets were fully revised and improved, focusing on improving the information on emergency response actions on board a ship. The MAR-CIS Expert Advisory Group met for the second time in November, to discuss technical issues to improve the information and to bring in operational aspects relevant for responding to chemical emergencies at sea.

5.2.3 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 2019, these modelling tools continued to be used at EMSA in a systematic way to maintain competence in operating the tools. In March the modelling tool specific for oil spills was used to estimate the drift and dispersion of the oil from the *Grande America* vessel that sank in the Bay of Biscay.

5.3 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 2019, with a second hands-on training planned for 2020.

5.4 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.

5.5 Marine litter

The Agency attended several meetings addressing the topic of marine litter and drafted an internal report reviewing current and past activities regarding marine litter (plastics) in Europe and exploring potential future activities of the Agency.

Annex: Total Expenditures for Pollution Preparedness and Response Activities

Total Expenditures ¹² for Pollution Preparedness and Response Activities (APM)	Commitments (in EUR)	Payments (in EUR)
1. Pollution Response Services (Total)	23,168,676.84	17,451,656.09
1.1 Contracts (Total)	22,512,487.67	16,636,637.36
Vessel Contracts 2014 (Atlantic Coast, Northern Black Sea, North Sea/Channel - 2 Lots)	0	738,404.29
Vessel Contracts 2015 (Southern Baltic, Canary Islands and Madeira, renewal Eastern Mediterranean)	0	1,624,343.83
Vessel Contracts 2016 (Southern Black Sea, renewals Western Mediterranean Sea, Central Mediterranean Sea)	0	1,758,984.20
Vessel Contracts 2017 (Bay of Biscay, renewals Atlantic South, Western and Central Mediterranean)	0	2,601,965.19
Vessel Contracts 2018 (East Mediterranean Sea, renewals Aegean Sea, Atlantic North, Northern North Sea, Atlantic coast)	0	6,578,677.22
Vessel Contracts 2019 (Adriatic Sea, Central Mediterranean Sea, West Mediterranean Sea, renewals of Black Sea North, Channel and North Sea (2 contracts) and Southern Baltic Sea)	19,988,319.55	2,543,597.10
Vessel Contracts - others (external experts, clarification meetings, D&B reports, trainings)	7,609.73	6,609.73
EAS Contracts (renewals, additional services, establishment of a new arrangement including purchase of equipment)	2,751,315.56	812,024.74
C5 Credits	-234,757.17	-27,968.94

¹² The figures in this report are based on preliminary figures available for 2019. They are subject to verification and confirmation as part of the final accounts of the Agency, which will be checked by the Court of Auditors. Therefore, the final figures may deviate from the figures presented in this report.

Total Expenditures for Pollution Preparedness and Response Activities (APM)	Commitments (in EUR)	Payments (in EUR)
1.2 Exercises	371,712.15	341,757.47
1.3 Improvements (OPR equipment purchase, overhauling/upgrade, insurance and labelling costs)	217,477.02	410,619.52
1.4 Missions	67,000.00	62,641.74
2. CleanSeaNet (Total)	4,921,260.90	5,035,050.43
2.1 Earth Observation Licenses and Services	3,726,154.48	3,493,742.77
2.2 Support to CleanSeaNet Users	62,521.17	57,380.75
2.3 CleanSeaNet Service Developments	427,086.04	772,429.51
2.4 Remotely Piloted Aircraft Systems setup services	705,499.21	711,497.40
3. Cooperation, Communication and Information (CCI) (Total)	563,431.62	350,901.38
3.1 HNS-CCI Activities	371,312.00	272,481.44
3.2 HNS-CCI Meetings	157,119.62	47,367.22
3.3 Missions	35,000	31,052.72
TOTAL APM allocated	29,240,000	23,833,000
TOTAL APM utilised	28,653,369 (97.99%)	22,837,608 (95.82%)