European Maritime Safety Agency

EMSA OUTLOOK 2022

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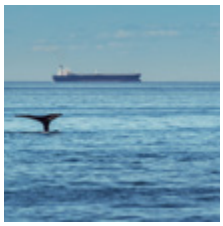
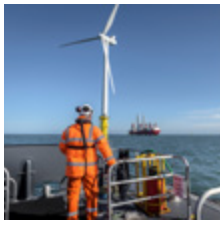
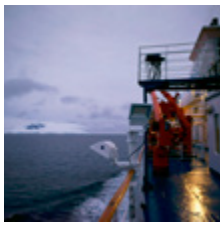






Foreword from the Chairperson of the Administrative Board

I am pleased to present the EMSA Outlook for 2022. This report showcases the many ways the Agency works to deliver on its multi-annual strategic objectives.

At the time of introducing this Outlook, the COVID-19 pandemic continues to cause challenges in the maritime sector. However, we have all learned many things from this unprecedented situation. In particular, we have become aware that collaboration and coordination of practical solutions are vital to ensure safe and efficient maritime transport; something that the services provided by EMSA aim to facilitate, which can be seen in this report.

In 2022, EMSA will expand data sharing options to citizens and to Member States in the EU. Accessible data from the various systems hosted by EMSA can help to provide new insights to ensure a safe and sustainable EU maritime sector.

The COVID-19 pandemic has also been a huge challenge for the management and staff of EMSA, who, despite the obstacles, have continued their ongoing work in the fields of digitalisation, sustainability, surveillance, simplification, safety, and security, as I witnessed in Lisbon this autumn. I would like to applaud the whole EMSA team for their efforts throughout the pandemic.

The EMSA Administrative Board and I look forward to following our joint efforts to contribute to these important tasks in the coming 20th anniversary year for EMSA.

Andreas Nordseth
Chairman of the Administrative Board

EMSA's 62th Administrative Board meeting, 17-18 November 2021

Foreword from the Executive Director

I am proud to introduce this year's edition of our annual EMSA Outlook report. Here we plot the course for our Agency in the year ahead, conscious of the impact the COVID-19 will continue to have for the foreseeable future. 2022 is a special anniversary year, marking 20 years since the adoption of the Agency's founding regulation. For this, we have in store a year-long programme of dedicated activities and events. This makes 2022 an exciting year for us, but no less busy as we continue providing efficient and reliable services across each of our five action areas – sustainability, surveillance, safety, security and simplification.

While the fruit of our efforts in 2021 can certainly be seen in the release of the COVID-19 Impact on Shipping Report on the one hand and the European Maritime Transport Environmental Report on the other, safety issues will be firmly in the spotlight in 2022 as we launch the first edition of the European Maritime Safety Report. Data from all across the various systems hosted by EMSA will come together in this one report to provide insights into the current state of maritime safety in the EU. As maritime transport arrives at a crossroads in many aspects affecting safety, it will be more important than ever to foster cooperation at European level.

The role of the Agency as a European hub for maritime data is not new. But we are now able to take it a step further by offering information that is accessible via our EU Maritime Profile. Through it we can identify industry trends, but also environmental indicators which is important as we move ahead with implementing policy initiatives such as those underpinning the European Green Deal. In 2022, we will work to ensure the high quality and continuous improvement of this dynamic product.

The value of our digital services will be enhanced further in 2022 as we offer an increasingly complete maritime picture to more than 6000 users through our integrated maritime services. Our contingency plan will deliver as needed, with an array of services – from satellite imagery and oil pollution response to vessel tracking – continuously at the disposal of requesting states. Our RPAS service has grown considerably since it began in 2017, reaching 12 operations and 1050 deployment days completed in 2021, in the year ahead we will increasingly see these services delivered on a regional basis.

We will also continue to offer the services of our EMSA Academy through training to officers in the EU and beyond, leveraging new technologies like virtual reality to ensure the experience is fully immersive.

I look forward to these exciting months ahead and take this opportunity to thank our staff for their continued dedication and the members of our Administrative Board and its Chair for their unflagging support. Together we will make this 20th anniversary year one to remember!

Maja Markovčić Kostelac
Executive Director

Executive summary

This publication presents the main steps the Agency plans to take in 2022 to deliver its annual work programme in line with its multi-annual strategic objectives and based on the information contained in the Single Programming Document (2022-2024) as adopted by EMSA's Administrative Board. Given the evolving situation with the COVID-19 pandemic and the impact this may have on the Agency's working practices in 2022, EMSA will make every effort to build on the experience gained both in 2020 and 2021 to make sure the objectives set for the year can be fully accomplished.

The pandemic has accelerated the uptake of new tools and methods to enable work to continue remotely or in hybrid mode and EMSA will build on the lessons already learned and make progress in this area, whether through basic teleworking and video conferencing tools or more advanced virtual reality and remote auditing techniques. The objective will be to capitalise on this for increased efficiency in the services we provide to both Member States and European Commission alike.

In this publication the Agency's activities are broadly divided into four thematic areas which are also reflected in the organisation of the Agency. Here below we highlight a few of the developments for each of these areas for the year ahead:

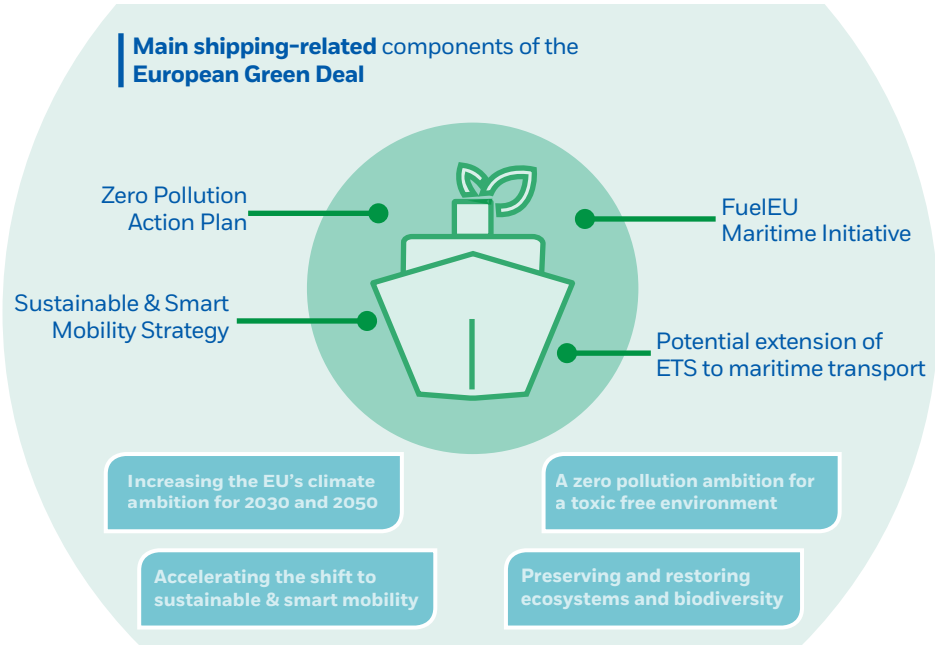
SUSTAINABILITY AND TECHNICAL ASSISTANCE

In the year ahead, the Agency will continue to contribute to the European Green Deal and its associated 'Fit for 55' package – a set of policy initiatives by the European Commission with the overarching aim of making Europe climate neutral in 2050. EMSA will reinforce its technical support in key areas, including shipping's part in achieving a decarbonised transport sector, reducing shipping's impact on biodiversity and lessening the degradation caused by waste from ships and contributing to greener maritime transport overall.

EMSA will continue to offer expertise and technical assistance in the field of environmental protection, helping the European Commission and Member States to address a wide variety of ship-sourced pollution and emission-related issues, including carbon dioxide, nitrogen and sulphur emissions, alternative sources of power, port reception facilities, ship recycling, ballast water management, underwater noise and zero-pollution ambitions.

Coastal states will continue to benefit from the wide range of marine pollution response services available from EMSA, including oil spill response vessels, seaborne dispersant spraying, equipment assistance including near-shore equipment, and Remotely Piloted Aircraft System (RPAS) surveillance. These services will continue to be part of exercises in 2022, to enhance the capacity of Member States to respond to pollution at sea.

Visits to Member States, inspections to Recognised Organisations, and STCW inspections of non-EU countries which were conducted remotely due to the COVID-19 pandemic will be completed with field work in 2022, with the objective of monitoring the implementation of the relevant EU legislation, and using the results to identify potential gaps and areas of best practice. The third cycle of visits relating to seafarer training is also expected to start in 2022, in light of the latest amendments to Directive 2008/106/EC on the minimum level of training of seafarers.



Through the support provided under the EMSA-EFCA Service Level Agreement (SLA), the Agency will contribute to reducing the adverse impacts that overfishing can have on ecosystems, especially in sensitive areas, as well as to improving the sustainability of fishery resources through enhanced monitoring, control, and surveillance.

The Agency's capacity building toolbox will continue to develop in 2022, with state-of-the-art technologies being used to enhance the overall learning experience and the development of structured curricula in support of professional development. Virtual reality and 3D simulation will help to create an ever more realistic, engaging and immersive experience. This will all be housed in the EMSA Academy. With the introduction of the EMSA Academy Quality Management System, learning services will be offered in a modern and innovative way.

The Agency will continue to develop reliable and valuable statistics, with added value for specialist audiences and the general public. The recently launched EU Maritime Profile, available to the public on EMSA website, will help to raise awareness of the importance of shipping and maritime transport in general.

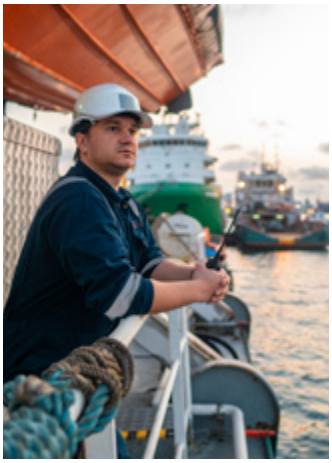
SAFETY, SECURITY AND SURVEILLANCE

EMSA is uniquely positioned to support greater safety and security throughout the maritime domain. Working with the European Commission, Member States and industry allows the Agency to shed light on issues from a variety of different perspectives and to bring forward robust solutions based on informed choices. This is complemented by a wealth of data available from a whole host of systems. In 2022 the Agency will use this data and experience to compile a report offering, for the first time, a holistic view of maritime safety in Europe in all its different dimensions.

In 2022, autonomous shipping, passenger ship safety, fire safety, container ship safety, EU fishing ship safety, life-saving appliances, steering and manoeuvrability standards, safety standards for the use of alternative sources of energy and the International Safety Management (ISM) code are all areas in which EMSA will be active. For autonomous shipping for example, EMSA will continue in the development of a risk-based assessment tool for the evaluation of new MASS projects and will initiate the work for developing guidance on the use of battery systems in maritime applications. EMSA will also be offering support to the European Commission in the context of its initiative in the area of fishing vessels.

EMSA will initiate new studies looking into fire safety in its broadest sense (Cargosafe), as well as into safety issues connected with COVID-19 and its impact on marine casualties and incidents. The Agency will also follow up on a series of commissioned safety studies (Firesafe, Steersafe and Safemass) providing technical input as necessary. EMSA will, among other actions, provide support for the study on Small Passenger Ship Safety and continued guidance for the carriage of Alternative Powered Vehicles on RoPax ships. In addition, EMSA will continue to support Maritime Administrations in their Flag State implementation efforts as well as in their Port State Control role, providing knowledge-based solutions and expertise.

Work related to the Marine Equipment Directive (MED) will be continued by: developing the new MED Implementing Regulation; supporting MED stakeholders; and expanding the MED DB portal.

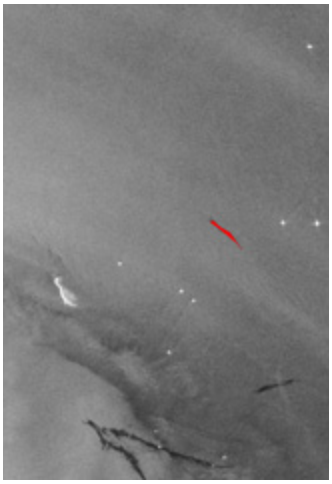


In light of the COVID-19 pandemic, EMSA developed, together with the European Centre for Disease Prevention and Control (ECDC), a document providing guidance for the resumption of cruise operations in the EU. In 2022, EMSA will continue to provide updates to the document and monitor the situation as it evolves.

In 2022, EMSA will continue analysing data from the EMCIP accident database to identify lessons to be learned at EU level according to ship type, and will work to further provide safety analysis of available data, including developing relevant safety indicators. EMSA will discuss existing operational needs with the Accident Investigation Bodies (AIBs) of the EU Member States, and will explore ways to facilitate, streamline, and expand provision of operational support to the AIBs. Depending on the identified needs, this may entail the use of tools such as remotely operated vehicles for underwater surveys for instance. The Agency will also actively put forward initiatives where safety gaps have been found, including in the area of vessels not covered under international conventions.

EMSA will continue to work on security matters, notably on a project to study conditions for remote maritime security (MARSEC) inspections carried out by Member States. In addition, EMSA will follow up on issues related to cybersecurity, including developing an action plan on the basis of the gap analysis conducted in 2020, and will endeavour to enhance cooperation with the EU Agency for Cybersecurity (ENISA), as well as the ongoing work within the EU Maritime Security Committee (MARSEC) and in the IMO.

Remotely Piloted Aircraft System (RPAS) services will continue to be offered to Member States and EU Agencies to support all kinds of authorities with a responsibility at sea, carrying out one or more coast guard functions. In 2022 the Agency will endeavour to progress further with the development of multipurpose regional services with the aim of sharing operational capabilities among neighbouring coastal States over a longer timeframe while using the same RPAS, although it remains a challenge to organise cross-border flights in the current regulatory landscape. The portfolio of RPAS services will be extended with additional capabilities, including RPAS operating along extended coastal lines.

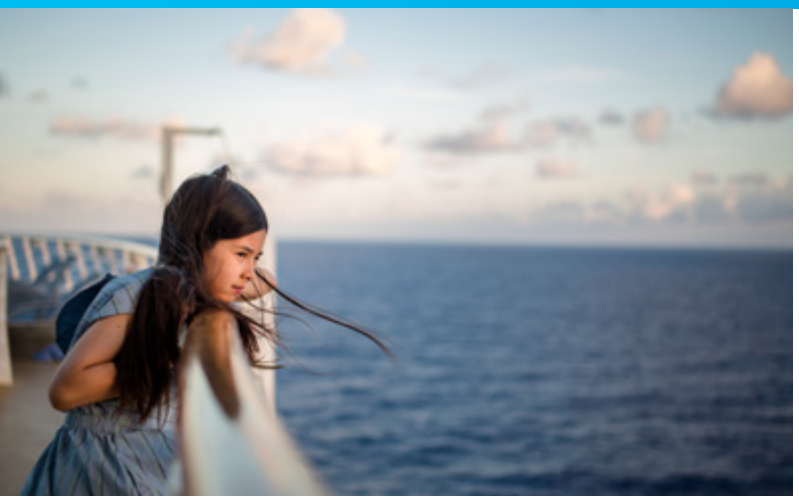


On 28 August, Togo-flagged cargo tanker Sea Bird collided with the rocky islet of Karavi, sinking immediately. To support in the emergency response, Greek authorities activated EMSA's CleanSeaNet satellite service that delivered synthetic aperture radar (SAR) images and an optical image. EMSA mobilised the Agency's Oil Spill Response Vessel Aktea, along with the vessel's on-board Remotely Piloted Aircraft System (RPAS) providing a reference point for the OSRV Aktea to manoeuvre for pollution recovery activities.

Satellite surveillance services will also be used to detect and deter marine pollution through the oil spill surveillance and vessel detection service, CleanSeaNet, as well as to support improved monitoring of human activities at sea through the Copernicus Maritime Surveillance Service for a growing number of authorities. During the COVID pandemic, these remote surveillance services have become even more critical to monitor activities at sea. In 2022 EMSA will work on the basis of the new Contribution Agreement signed with the European Commission (DG DEFIS) which extended the Copernicus Maritime Surveillance Service until 2027 and focuses on long term service continuity that benefits a wide range of crucial operations of multiple user communities in the maritime domain.

EMSA will continue cooperating closely with the European Space Agency to further develop new surveillance solutions through space-based services that can make shipping safer and cleaner.

In 2022, EMSA will continue to play a central role in the preparations for an operational network for the Common Information Sharing Environment (CISE), which should be achieved by December 2023. Through CISE, all EU Member State authorities and EU bodies with an interest in maritime surveillance will have the possibility to share additional information, topping up their legacy systems.



DIGITAL SERVICES AND SIMPLIFICATION

EMSA provides digital services to different national authorities across the EU and EFTA Member States, as well as to the European Commission and related European bodies. By integrating and correlating data from EMSA's applications and external sources, services are delivered responding directly to a user's specific needs. In 2022, these digital services will be further enhanced with the various interfaces of EMSA's Integrated Maritime Services (system-to-system, mobile app and SEG) honed to match the operational requirements of the growing user communities they serve. Automated behaviour monitoring tools will also continue to be developed, with new algorithms offering even more tailored alerts.

In 2022 EMSA will continue to further its knowledge in the area of maritime data analytics identifying opportunities where artificial intelligence and machine-based learning can support specific operational scenarios within EMSA's Integrated Maritime Services. Based on the automated analysis of data and trends, the identified solutions will be expected to reduce the workload of maritime administrations by alerting their operators to events which may negatively impact maritime safety or security. In the medium term, EMSA is aiming to transition from a near real time maritime traffic picture to a real time maritime traffic picture as cloud-based solutions are rolled out over the next few years.

As the leading European hub for maritime related information, including satellite imagery, EMSA will continue to provide high quality data and analysis tools in this domain to EFCA, the EU Naval Force, Europol, Frontex and MAOC(N). In 2022 steps will be taken towards a new Earth Observation Data Centre to gradually replace the existing data processing system, with increased performance and access to new satellite data sources. Also, in the coming year, a new web application, SurvSeaNet will take over from the RPAS Data Centre, providing an integrated picture for RPAS operations as well as future opportunities for integration with EMSA's Integrated Maritime Services.

The THETIS information system will continue to expand with additional modules and functionalities. Plans in 2022 include incorporating a new module into THETIS-EU that will support the inspection of livestock-carrying vessels. Eyes will also be on improving THETIS-EU, THETIS-MED and THETIS-MRV in areas where these tools can better support the enforcement of the relevant EU legislation and where they can be used to cater to the outcome of discussions on the FuelEU Maritime Initiative and the proposed extension of the Emissions Trading Scheme to maritime transport.

The European Maritime Single Window is another area in which EMSA will be looking to facilitate maritime transport operators by lessening their administrative burden as regards reporting requirements. The Agency will continue its work with the European Commission, Member States and industry associations to elaborate EU-harmonised specifications for the future European Maritime Single Window environment envisaged by Regulation (EU) 2019/1239. The aim is to offer harmonised reporting interfaces for ship operators to fulfil their reporting obligations and to ensure the 'reporting once principle' at EU level.

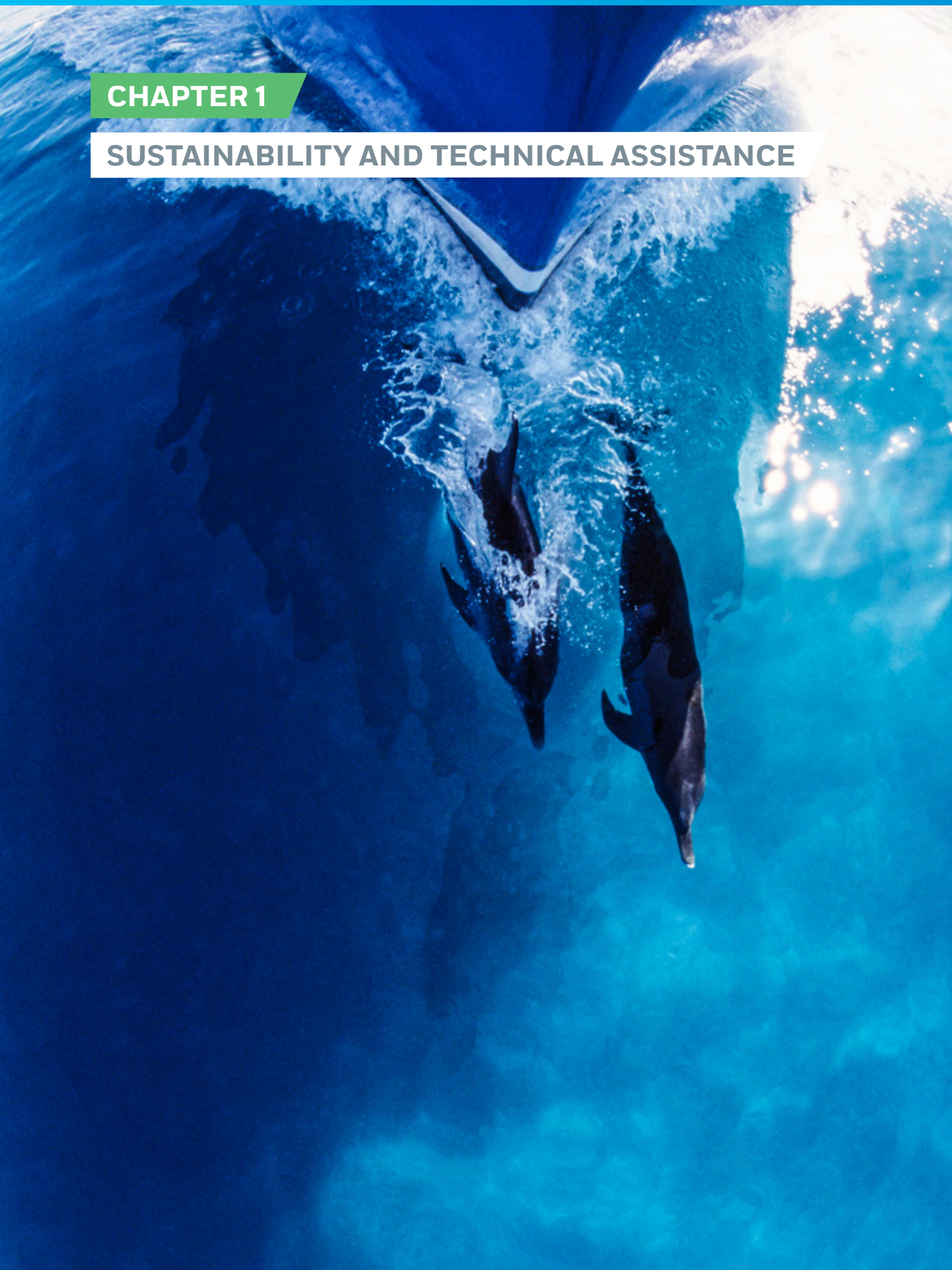
In 2022 EMSA will roll out the first phase of the Dynamic Overview of National Authorities (DONA) with two of its three distinguishing functionalities (the public profile and the reporting gate) going live to support Member States in their different functions, while at the same time reducing their administrative burden. The third functionality, the statistics section, will also be developed during the course of the year.

HORIZONTAL ACTIVITIES

In 2022, EMSA will continue the work on European cooperation on coast guard functions, jointly with EFCA, Frontex and the national authorities from across the EU. EMSA's tasks under the annual strategic plan will include: information sharing; surveillance and communication services; capacity building; risk analysis; and capacity sharing.

Where corporate and executive services are concerned, EMSA's management team will continue to take forward the strategic objectives of the Agency's five-year strategy, translating these into concrete activities and achievements. Efforts will be made to consolidate EMSA's place within the maritime cluster, as not just a reliable partner but also an innovative one, particularly in view of developments in the field. Good cooperate governance will be upheld and will include strengthened quality management and environmental practices, all while bringing increased visibility to the Agency.

The 20th anniversary of EMSA will be celebrated throughout 2022, with a headline conference as the centrepiece of the year, and events held in EMSA's own premises in Lisbon and around the EU in collaboration with Member States.



CHAPTER 1

SUSTAINABILITY AND TECHNICAL ASSISTANCE

1.1 SUSTAINABILITY

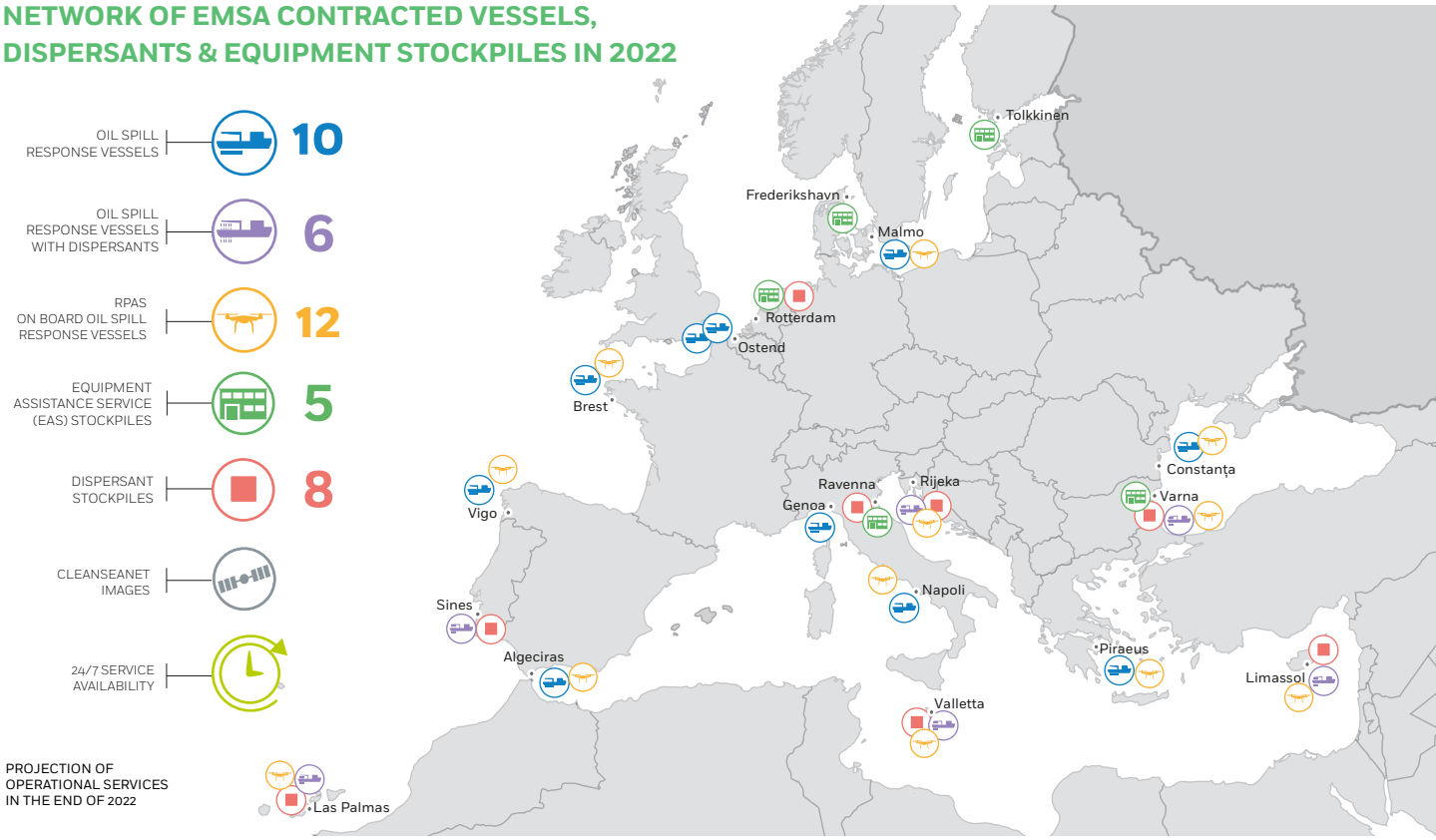
Prevention of pollution by ships

EMSA acts to lessen the environmental impact exerted by the maritime sector in the EU. In its role as facilitator and technical hub, the Agency supports the EU's priorities of decarbonisation, smart mobility, sustainable alternative fuels, ship energy efficiency, accelerated use of on-shore power supplies, protection of biodiversity and zero pollution ambitions.

EMSA offers expertise in the field of environmental protection, helping the European Commission and EU Member States to address a wide variety of ship-sourced water and air pollution. In the year ahead, the Agency will be contributing to the European Green Deal – a set of policy initiatives by the European Commission with the overarching aim of making Europe climate neutral in 2050 – in particular the Agency will support the Zero Pollution Action Plan and the fit for 55 package adopted in 2021 which encompasses the Zero Pollution Action Plan, the FuelEU Maritime Initiative and the potential extension of ETS to maritime transport.

In the legislative arena, in addition to the initiatives listed above, assistance in 2022 will be directed towards the development and implementation of rules in the areas of port reception facilities, ship recycling, air pollution (SOx, NOx, PM), alternative emission abatement methods, sustainable alternative fuels and cleaner power technologies, ship energy efficiency, greenhouse gas emissions and the implementation and amendment of the EU MRV Regulation, ballast water management, anti-fouling, sanctions for ship source pollution and rules on liability and compensation. Implementation support tools

NETWORK OF EMSA CONTRACTED VESSELS, DISPERSANTS & EQUIPMENT STOCKPILES IN 2022



PROJECTION OF OPERATIONAL SERVICES IN THE END OF 2022

will continue to be developed through THETIS and its associated modules which address compliance with rules in the areas of sulphur, port reception facilities, ship recycling and the monitoring, reporting and verification of CO_2 emissions.

Through the FuelEU Maritime initiative, the European Commission – with EMSA's assistance – is aiming to increase the use of sustainable alternative fuels in European shipping and ports by addressing market barriers and uncertainty over which technical options are market-ready. Studies will be delivered by EMSA on biofuels, ammonia and another one will be commissioned on hydrogen. In other environmental areas, EMSA will also follow up on the study on underwater noise published in 2021.

The Agency will continue to act as technical secretariat of the European Sustainable Shipping Forum which has been providing a platform since 2013 for structured dialogue among maritime industry stakeholders and the European Commission in order to address the environmental sustainability challenges confronting the EU maritime transport sector.

On the international front, EMSA will continue to contribute to the wide-ranging developments at IMO including among others measures for decarbonisation of shipping, carbon intensity, energy efficiency, marine litter and underwater noise.

Work will also begin on the next edition of the European Maritime Transport Environmental Report which was developed in close cooperation with the European Environmental Agency (EEA). The next edition is expected to be finalised in 2024 and will continue to offer a comprehensive overview of the current status of maritime transport and its impact on the environment.

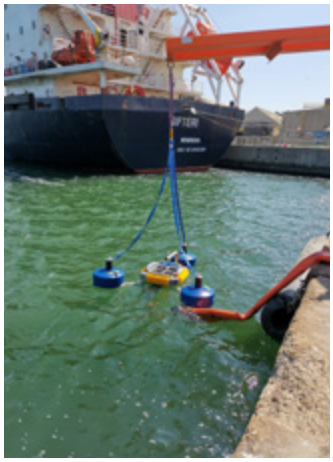
Operational pollution response services

EMSA offers a range of pollution response services to protect the areas in and around the European coastline. Various options are available to Member States on request via the European Commission's Emergency Response Coordination Centre, which is run by the Directorate General for European Civil Protection and Humanitarian Aid Operations (DG ECHO). These can be selected based on the particular circumstances of the spill and the type of pollutant involved.

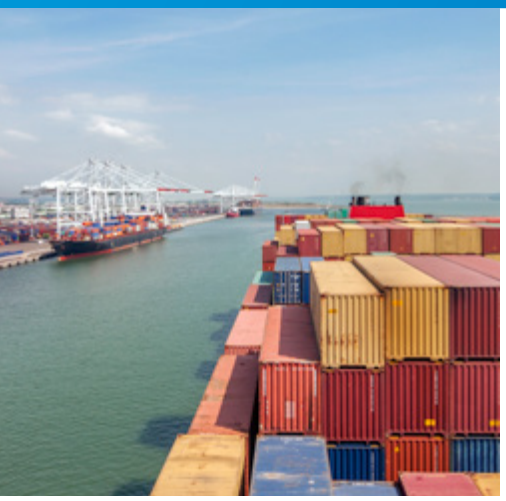
EMSA's services target marine pollution from both ships and oil and gas installations, and are intended to top up the capacity of coastal states in the event of a major spill at sea. The services are also available to countries sharing a regional sea basin with the EU.

EMSA pollution response services are based on a network of chartered commercial vessels which have been adapted and equipped to offer pollution response services. These vessels are on standby all year long and are positioned around the European coastline. The various services take into account the existing response capacities of the Member States, in order to offer a quick response . While mechanical recovery of oil remains the main response strategy, some vessels are also equipped to use dispersants and these are available from stockpiles located in several spots along the EU coastline. Following the conclusion of a standby oil spill response vessel contract in 2021, a response vessel is expected to become operational in 2022 for the Aegean Sea.

To diversify the response means, several Equipment Assistance Services (EAS) have been established, providing Member States with specialised response equipment – now including near-shore equipment – which can be used by non-dedicated response vessels.



Starting in the second quarter of 2021, EMSA further enhanced its range of oil pollution prevention services by adding medium-sized equipment systems, such as the oil recovery skimmer in the picture above.



The EAS arrangement for the Black Sea is expected to become operational in 2022 and procurement relaunched for the Northern Baltic Sea area to replace a non-renewable contract expiring in 2023.

In order to enhance pollution detection and monitor clean-up operations, ten of EMSA's response vessels are already equipped with lightweight Remotely Piloted Aircraft Systems (RPAS). These offer a live video stream to help identify areas of pollution and provide indications of the thickness of the oil slicks detected.

In the year ahead, EMSA will continue to manage these pollution response services, offering training as necessary to ensure a high level of readiness at all times. Also, as part of ongoing cooperation on coast guard functions, EMSA will take an active part in supporting international multi-partner, multi-purpose exercises at sea with Member State authorities.

Both of EMSA's MAR-ICE and MAR-CIS services will continue to offer access to expertise in the event of a chemical spill whether through specialised chemical experts and/or chemical substance datasheets.

1.2 VISITS AND INSPECTIONS

Classification Societies

Classification societies develop and apply technical standards to the design, construction and survey of ships. Of more than 50 classifications societies worldwide, 12 are recognised at EU level and are inspected regularly by EMSA. Based on the reports submitted by the Agency, the European Commission assesses each of these recognised societies at least every two years, requests corrective measures and takes policy decisions. The aim is to improve the quality of the certification work undertaken by these recognised organisations and in doing so to increase the overall level of safety in the EU. In 2022 EMSA will conduct up to 20 inspections based on a programme decided jointly with the European Commission and taking into account the evolution of the pandemic.

The Agency will also support the European Commission and the Member States in the discussions at international level on remote surveys and inspections, building on the conclusions of the concentrated remote inspection campaign. This campaign was conducted remotely by EMSA in 2020 and 2021, and focussed on requirements for remote surveys and audits, as well as on other provisions for 'special measures' developed by recognised organisations due to the pandemic.

Seafarers' training and certification

Many EU registered ships are manned by seafarers who are not nationals of EU Member States. To ensure that these crew members are appropriately educated and trained, EMSA carries out inspections in the supplying countries. EMSA staff have been conducting such inspections for over 15 years, assessing their level of compliance with the requirements of the IMO's Convention on Standards of Training, Certification and Watchkeeping (the STCW Convention). Subject to the evolution of the pandemic, in 2022 EMSA will conduct up to four inspections to non-EU countries and up to four visits to EU countries, thereby contributing to a level playing field for the standards of seafarers in the EU and improved ship safety on board EU registered vessels and in EU waters. In addition to these inspections, EMSA also runs the STCW information system. This system contains objective and comparable information on seafarers holding EU certificates/endorsements and therefore able to work on board EU registered ships.

Visits to Member States

EMSA has been monitoring the implementation of EU law in the Member States since its very beginning. Visits to Member States offer a valuable link between legal objectives and operational application. In this way, the European Commission can assess the extent to which EU law is being properly implemented in a given field. The visits provide a feedback chain on the effectiveness of the legislation and identify gaps where legal objectives are not being met. Visits in 2022 will cover a broad range of implementation areas and include field work that was unable to be conducted in the past two years due to COVID-19 restrictions: the cycle of port state control visits will continue (one full visit and four residual fieldwork missions) and the cycle on the sulphur content of marine fuels (five residual fieldwork missions) will be completed; the cycle of visits related to the marine equipment directive will continue (one full visit and five residual fieldwork missions); the cycle of visits related to the safe loading and unloading of bulk carriers launched in 2018 will continue (two full visits and two residual fieldwork missions); the cycle of visits related to passenger ship safety will continue, including the system for inspections for the safe operation of ro-ro passenger ferries and high-speed passenger craft, will continue (three full visits and one residual fieldwork mission); and compliance with the lower sulphur content of marine fuels requirement will be monitored (five field work trips).

1.3 CAPACITY BUILDING

Capacity building and EMSA Academy

The EMSA Academy has been set up to provide learning services outside of formal education to all beneficiary organisations and their members. These include the EU Member States and EEA countries, European neighbouring countries, EU candidate and potential candidate countries, and members of the Paris MoU and Med MoU.

The EMSA Academy is also working together with Frontex and EFCA within the context of interagency cooperation and contributing to learning services which are open to these agencies' user communities. In 2022, in line with the structured and modular approach implemented by the EMSA Academy, work will focus on a common core curricula for Sulphur Inspectors and Flag State Inspectors, as well as on delivering a wide portfolio of training courses, on maritime legislation and EMSA's operational applications, identified through a bottom-up approach that involves the competent authorities of the Member States. The EMSA Academy has adopted a blended training approach, therefore in addition to traditional training activities, support will be offered through e-learning courses, available in EMSA's Maritime Knowledge Centre, whilst through the virtual reality platform learners can perform ship inspections in a safe, realistic and controlled environment. This, together with an increasing portfolio of distance learning modules , will enable the Agency to reach a wider audience while maintaining the quality and depth of the training offered. Finally, RuleCheck, the repository of relevant maritime legislation, will be further enhanced to support EU Member States in their capacity as Flag and Port States and eight out of nine regional Port state control regimes in the world, thus enhancing access to the up-to-date regulations, fostering further global harmonisation of the implementation of the international conventions and ensuring level playing field.

The Agency will continue to provide data and statistics to the European Commission to support the revision of legislation, as well as to the general public through the EU Maritime Profile and to specialist audiences through the production of targeted reports.

European neighbourhood countries

EMSA works to build up the national capacity of European neighbourhood countries, thereby helping to reinforce safety, security and environmental standards in a much broader geographical context than simply at EU level. Through the new projects for the Mediterranean Sea and the Black and Caspian Sea, EMSA will offer training courses and workshops, as well as access to tools (e.g. RuleCheck, MaKCs, THETIS-MED) and services (e.g. IMS, CleanSeaNet). Preparation for IMO audits will also be provided, as well as support for corrective follow-up. In 2022, feasibility studies may be launched for both projects, looking at two areas in particular: sea traffic management; and, the digitalisation of national registries.

CHAPTER 2

SAFETY, SECURITY AND SURVEILLANCE

2.1 MARITIME SAFETY

EMSA aims to contribute to the improvement of the safety of commercial shipping and quality standards of marine equipment. It does this by working with the European Commission to ensure a high level of harmonised safety standards is in place, adequate for purpose and properly followed. The Agency is uniquely positioned to do this, as it brings together technical expertise from the Member States as well as that from industry. This allows each safety issue to be considered from a variety of different perspectives, thereby enriching the outcome and making it more robust.

This is particularly valuable on the international front at IMO where EMSA provides technical expertise to underpin the EU's contribution. Topics addressed can arise from lessons learned from accidents, such as fire safety on board ro-ro passenger ships, or from needs to harmonise standards such as those related to steering and manoeuvrability, or those related to autonomous shipping. By taking an international approach, safety levels can be raised across the board and distortions in competition reduced.

In 2022, EMSA will proactively support the European Commission and the Member States in the work carried out at EU and IMO level in the field of maritime safety standards, putting forward initiatives where safety problems have been identified. Autonomous shipping, passenger ship safety, fire safety, container ship safety, life-saving appliances, steering and manoeuvrability standards, safety standards for the use of alternative sources of energy, and the International Safety Management (ISM) code are all areas in which EMSA will be active. For autonomous shipping, for example, EMSA is also in the process of developing a risk-based assessment tool for the evaluation of new MASS projects and will share the results with relevant stakeholders.

EMSA will follow up on a series of commissioned safety studies (Firesafe, Steersafe and Safemass) providing technical input as necessary. Safety issues related to containerships, fishing vessels, SAR and pleasure craft will also be addressed. In the field of passenger ship safety EMSA will, among other actions, provide support for a Commission study on Small Passenger Ship Safety, and will work on providing guidance for the carriage of Alternative Powered Vehicles on RoPax ships. Work related to the Maritime Equipment Directive (MED) will be continued by EMSA developing the new MED implementing Regulation, supporting MED stakeholders, and expanding the MED DB portal.

Recognising the current uptake of ships using alternative energy and power systems, EMSA will work on safety aspects related to the adoption of alternative fuel technologies, including low flashpoint fuels, energy storage and conversion systems or Onshore Power Supply. The Agency will continue to develop guidance for the safe deployment of such alternative technologies, including best practice safety guidance, studies and supporting IMO development of the IGF Code (International Code of Safety for Ship Using Gases or Other Low-flashpoint Fuels) and guidelines for ships using alternative technologies.

EMSA provides the management unit of Equasis, which is an online worldwide database giving details on port State control inspections, ship-related information from classification societies and P&I (insurance) ship specific data. The information is supplied by port State control regions (Paris MoU, Caribbean MoU, Indian Ocean MoU, US coast guard, etc.) as well as by industry. EMSA will continue to support the day-to-day operation of the database, and will publish the regular annual statistical report on the world shipping fleet in the autumn, based on data extracted from the Equasis database. The objective is to encourage quality shipping and eradicate substandard practices.

In 2022, EMSA will also actively assist the European Commission in the preparations process of the revision of the Flag State, the Port State Control and the Accident Investigation Directives initiated at the end of 2020. A new initiative will be launched in 2022, when EMSA will release the first edition of the European Maritime Safety Report which will shine a light on the safety-related challenges and opportunities facing the maritime sector in the EU at the moment and in the upcoming years.

In 2022, the Agency will also monitor the COVID-19 guidance for the restart of operations of cruise ships in the European Union, which was updated with the ECDC in 2021.

Human element

The human element is an important factor in maritime safety and encompasses the entire spectrum of human activities performed by ship crews, shore-based management, regulatory bodies and others. In 2022, EMSA will continue to work with the European Commission, IMO and ILO to foster the application of maritime labour standards in the EU. The Agency will also commission a study to pave the way for the development of standards for shore-based personnel whose role it is to operate autonomous ships (MASS). In this way, the Agency will help to ensure a full consideration of the new challenges faced by those working in shipping. At international level, EMSA will offer its expertise in the preparation of submissions for comprehensive reviews of both the STCW-F and STCW Conventions which govern standards for the training and certification of about two million merchant seafarers globally.

Accident investigation

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

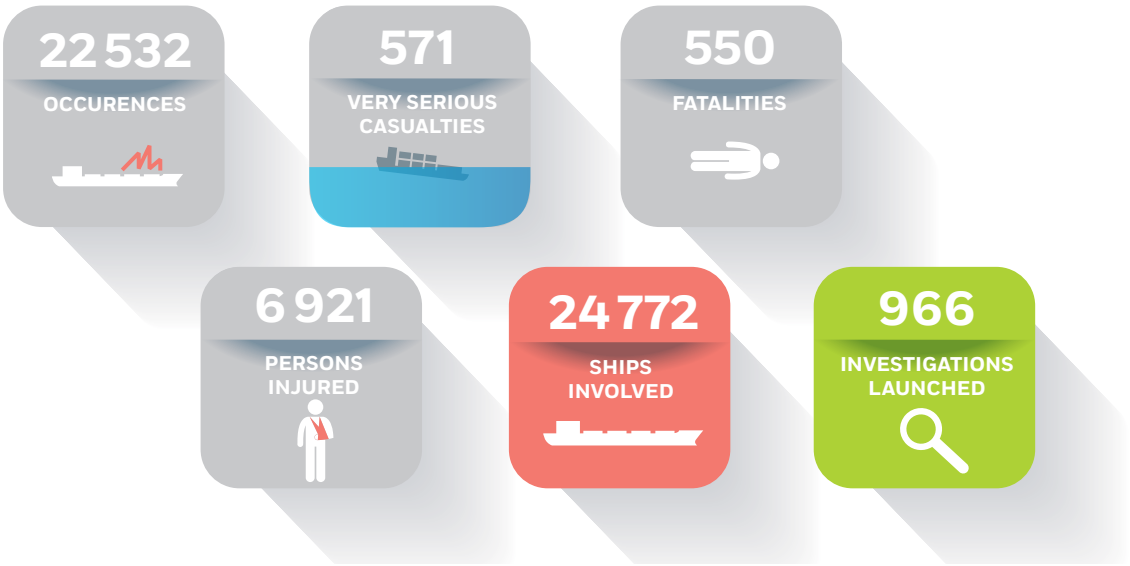
EMSA runs the EMCIP database of accidents, to which accident investigation bodies submit data. The information contained in this database is a valuable basis for sound decision-making in all safety areas, as has been demonstrated in the past for matters relating to passenger ships, ro-ro ferries and fishing vessels. More than 3 000 casualties and incidents are recorded on average each year in the database.

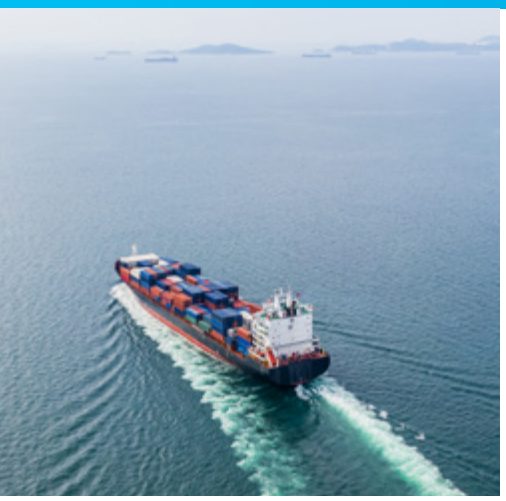
In 2022, EMSA will continue analysing EMCIP data to identify lessons to be learned at EU level according to ship type; and will work to further provide safety analysis of available data developing relevant safety indicators. This will build on the studies released on lessons learned from casualties, such as the study conducted in 2020 on containerships.

Through EMCIP, EMSA will assist accident investigation bodies and maritime safety authorities with the dissemination of investigation data at regional and global level, such as to the IMO's Global Integrated Shipping Information System (GISIS) and the HELCOM Agreement, without any extra effort required from Member States.

EMSA will discuss existing operational needs with the accident investigation bodies of the Member States, and will explore ways to facilitate, streamline and expand provision of operational support to these bodies. This may include the setting up of a new underwater surveying service, based on ROV or remotely operated vehicles, to collect evidence in the event of a sunken vessel, for instance.

An overview of marine casualties and incidents continues to be published on the EMSA website each year, covering data extracted from EMCIP since 2014.





2.2 MARITIME SECURITY

Within the EU's legislative framework, maritime security refers generally to preventive measures taken for protection against unlawful acts such as piracy, armed robbery, terrorism and maritime violence. EMSA assists the European Commission and the EFTA Surveillance Authority by helping them to assess the implementation of EU maritime security legislation in the Member States and to identify any changes that may be needed to improve the overall level of maritime security.

In 2022 EMSA will assist the European Commission and the EFTA Surveillance Authority with maritime security inspections, conducting up to 35 individual inspections. EMSA will continue to maintain the recently added reporting module to THETIS-EU, which assists Member State authorities when conducting maritime security inspections on board ships. The Agency will also assist the European Commission in the accreditation process for national security inspectors in line with EU legislation and will continue to work on security matters providing practical guidance to Member State authorities.

EMSA will continue to provide support for the implementation of EU and international maritime security legislation both through the MARSEC Committee as well as through the Stakeholder Advisory Group on Maritime Security chaired by the European Commission.

Due to the increased risk of cyberattacks aimed at disrupting the maritime domain, EMSA will be working to raise awareness and facilitate information exchange. The Agency is participating in the transport working group set up by the EU Agency for Cybersecurity (ENISA) as well as in other ongoing initiatives in the context of the EU's MARSEC Committee and the European Coast Guard Function Forum. In addition to this, EMSA has set up a dedicated task force which has conducted a mapping and gap analysis of the measures already proposed for the maritime sector by IMO, maritime administrations, classification societies and other relevant entities such as ICS, BIMCO, and IACS. On the basis of this gap analysis, EMSA will be developing an action plan for offering support on how to deal with maritime cybersecurity issues.

2.3 SURVEILLANCE

Remotely piloted aircraft and satellite communication services

Unmanned aircraft coupled with powerful satellite communication have taken maritime awareness to the next level. EMSA offers a service based on Remotely Piloted Aircraft Systems (RPAS) which come free of charge to Member States and EU agencies on request, for use in a whole range of maritime scenarios. While the scope of these services was initially targeted to individual Member States, 2022 will increasingly see the development of a multipurpose regional services whereby several neighbouring coastal States can extend their operational capabilities, over a longer timeframe, using the same RPAS.

For incidents involving oil spills at sea, Member State authorities also have the option of adding a lightweight RPAS to their own vessels or to use a quadcopter available on one of EMSA's standby oil spill response vessels. These quadcopters are operated from onboard a vessel and allow for increased flexibility when responding to an incident at sea.

Following the introduction of rules limiting the sulphur content in ship fuel, EMSA made sniffer RPAS available, which can fly in the plume of a passing vessel to measure the amount of sulphur being released into the air, thus giving a good indication of the level of sulphur content burnt by the vessel observed. This helps in the detection of non-compliant vessels as local coastal authorities are alerted and can request an inspection at the next port of call. The results are uploaded to EMSA's THETIS-EU system to keep a record of all the measurements taken. In 2022, in addition to sulphur, the RPAS will also be used to measure nitrogen oxide for which international restrictions have now been in force since the beginning of 2021 under the IMO's MARPOL Convention for the Prevention of Pollution from Ships.

EMSA will launch the SurvSeaNet web application in 2022 which has been designed to provide a high powered, integrated operational picture to replace the existing RPAS Data Centre. SurvSeaNet will combine data from the RPAS operations with data from EMSA's Integrated Maritime Services thereby offering a more complete and informed picture during RPAS deployments. The Agency will also continue evaluating the operational added value of the very latest RPAS platforms (incl. High Altitude Pseudo Satellites - HAPS) which would optimise existing services and provide new capabilities.

The Agency will also continue to offer the availability of RPAS services to its sister agencies, EFCA and Frontex, as well as to offer participation in Multipurpose Maritime Operations in cooperation with these sister agencies and Member State authorities.

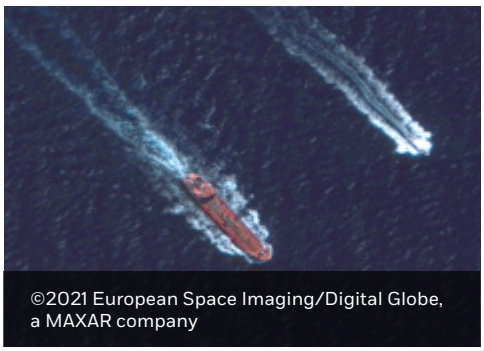
Satellite based surveillance services and innovation

CleanSeaNet is the near real time European satellite-based oil spill monitoring and vessel detection service, set up and operated by EMSA since 2007. It analyses satellite images, mainly from Synthetic Aperture Radar (SAR) but also from optical missions, to detect possible oil on the sea surface, identify potential polluters and monitor the spread of oil during maritime emergencies. The existence of this service serves as a powerful deterrent to would-be polluters and is available to all participating States. These include EU Member States and their overseas territories, candidate countries and EFTA/EEA States, as well as beneficiary countries participating in programmes of the European Commission, such as IPA (Pre-Accession Assistance), SAFEMED IV and the ENP-programme for the Black and Caspian Sea which have signed the conditions of use for the system. Each State has access to the service through a dedicated user web interface. In 2022, EMSA will sign new service contracts for both radar and optical earth observation to ensure the continuity of the CleanSeaNet service as well as to integrate new satellite constellations.

In 2021 a new Contribution Agreement with the Commission (DG-DEFIS) was signed, extending the Copernicus Maritime Surveillance activities until 2027. EMSA, as the entrusted entity for this service, will continue to provide satellite images to support a better understanding and improved monitoring of human activities at sea. EMSA is responsible for implementing all related technical and operational work on behalf of the European Commission. Services cover the fields of fisheries control, law enforcement, maritime safety and security, law enforcement, customs, and marine environment, including pollution monitoring. The new agreement includes additional resources to establish links with research and development (R&D) projects, with the aim of facilitating the transition of research deliverables into operations.

In terms of new satellite-based technologies EMSA will assess how optical satellite data from medium resolution sensors (e.g., Sentinel-2) can be systematically used to detect, characterise, and quantify the volume of any spilled oil. EMSA will also keep track of developments in the field of satellite-based marine litter monitoring, with specific emphasis on plastics.

With the aim of increasing its existing portfolio of satellite-based capabilities, EMSA will implement proofs of concept for new Earth Observation sensors (e.g., ICEYE, Capella, etc.) and, if deemed appropriate, organise the transition of these new capabilities to operations. EMSA will also assess the maturity, relevance and reliability of new radiofrequency detection satellites in the context of maritime surveillance activities, particularly in support of maritime safety, maritime security, law enforcement



On 28 April 2021, representatives of more than 28 maritime authorities from the Baltic Sea region met to discuss the opportunities the Common Information Sharing Environment (CISE) could bring for regional cooperation in the maritime surveillance area.

and fisheries control. In addition, EMSA will assess new radar and optical satellite constellations, particularly those concerning rapid tasking and very high-resolution optical capabilities with the perspective to phase these into operational service.

Finally, EMSA will continue to implement machine learning algorithms for Earth Observation products in order to provide value-added products, developed in-house, to Member States. This activity encompasses vessel detection, oil spill detection and feature detection, both from SAR and optical products.

Monitoring the emergence of promising technologies and making these available on an operational level to Member States and the European Commission is one of EMSA's strategic objectives for the upcoming years. In 2022, EMSA will offer opportunities for Member State authorities to become more familiar with the new aerial and satellite-based technologies available, specifically on how these technologies can support national surveillance and detection needs.

EMSA will continue to procure global SAT-AIS data feeds to support the monitoring of vessels worldwide in almost real time. The Agency will further cooperate with the European Space Agency (ESA) in the field of integrated space-based solutions by further leveraging the use of space-based assets and technologies for enhancing maritime safety and surveillance services.

Following the agreement between EMSA and the Govsatcom ENTRUSTED Consortium led by the GSA, the Agency will actively participate by offering its user needs and requirements, as EMSA would like to use these enhanced types of communications for its services in the near future. This is expected to be particularly useful where RPAS operations are concerned as there is considerable reliance needed on a stable and secure communication infrastructure.

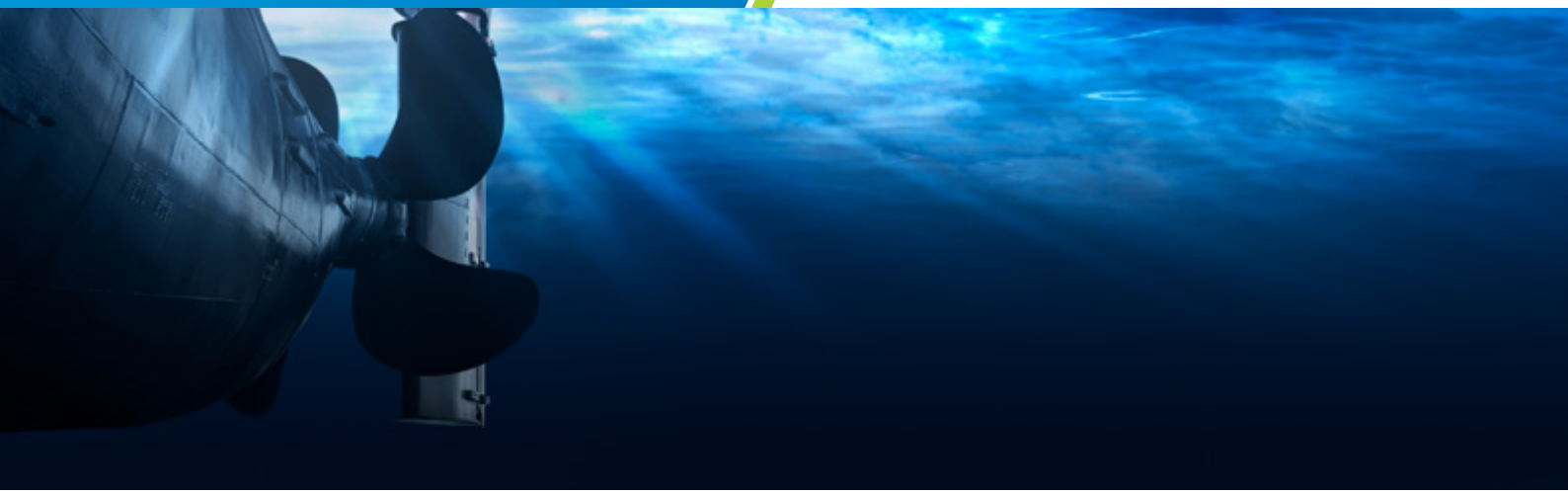
In collaboration with ESA, EMSA will continue participating in the joint VDES demonstration project, which uses Norway's new NorSat-2 LEO satellite with a VDES test payload and VDES equipment on board a test vessel. The VDES demonstration project aims at demonstrating how VDES can be an important component of digitalisation by offering high-speed data exchange from ship to ship, between ships and shore, and between ships and satellites.

CISE transitional phase

The Common Information Sharing Environment (CISE) is an EU initiative which aims to make European and EU/EEA Member State maritime surveillance systems interoperable, by giving all relevant authorities from different sectors the possibility of exchanging classified and unclassified information when they need to conduct missions at sea. From April 2019, EMSA has been involved in the setting up and enabling of the transitional phase which will take this project forward by turning it into a fully operational system by the end of 2023. In 2022, EMSA's focus will be on supporting the Member States already connected, as well as on extending participation to other Member States and EU agencies.

CHAPTER 3

DIGITALISATION AND SIMPLIFICATION



3.1 MARITIME DIGITAL SERVICES

Getting a comprehensive overview of activity at sea is a challenge for most countries. To implement maritime policies effectively, governments and authorities need detailed, reliable knowledge about what happens at sea, in real time. EMSA offers a whole host of digital services designed to provide optimum maritime awareness to well over 150 different national authorities across the EU and EFTA Member States, as well as to the European Commission and related European bodies.

Chief among these is EMSA's Integrated Maritime Services (IMS), which support national authorities with maritime-related tasks, as well as the European Commission and five European bodies encompassing Frontex (border control), EFCA (fisheries monitoring), Europol (law enforcement), EU Naval Forces: Operations Atalanta and Irini, and MAOC(N) (law enforcement – narcotics). IMS is also available as part of EMSA's capacity building activities to non-EU countries, for which EMSA provides operational support, training and helpdesk assistance.

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

Behaviour algorithms are used to detect unusual or suspicious ship behaviour as part of the Automated Behaviour Monitoring feature of IMS. This form of maritime surveillance can be used for a wide range of purposes, including safety, security, traffic monitoring, fisheries, border control, and accident/incident prevention. The algorithms also offer the possibility of detecting interlinked situations, exploiting historical data and can be expanded to include new behaviours based on specific needs. One example of this under development is the possibility of monitoring autonomous ship operations.

In 2022, the Agency will continue to further its knowledge in the area of maritime data analytics identifying potential opportunities where artificial intelligence and machine-based learning can support specific operational scenarios within EMSA's Integrated Maritime Services. Based on the automated analysis of data and trends, the identified solutions will be expected to reduce the workload of maritime administrations by alerting their operators to events which may negatively impact maritime safety or security.

THETIS Information System

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

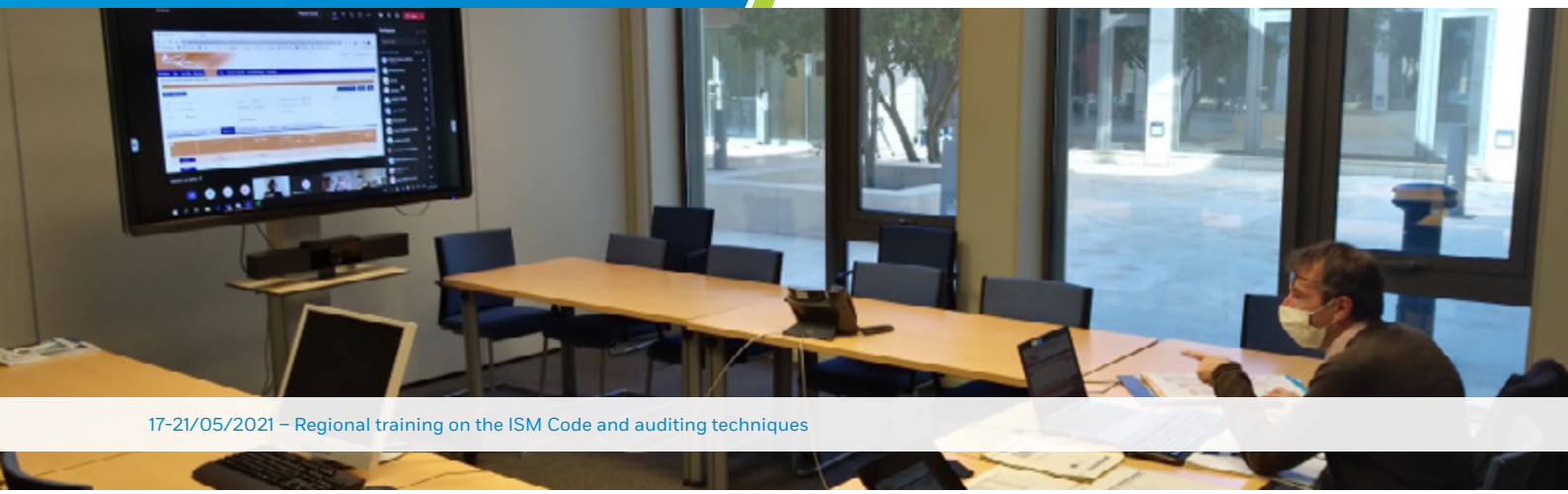
Additional functionalities have been added to the system, thereby supporting a wider range of Member State authorities and facilitating the enforcement of a broader set of European laws. The provisions of the Sulphur Directive, the Port Reception Facilities Directive, the Ship and Port Facility Security Regulation and the CO_2 Monitoring, Reporting and Verification Regulation and the Directive related to the safe operation of ro-ro passenger ships and high-speed passenger craft are all being catered for in dedicated modules of this flexible system (THETIS-EU and THETIS-MRV).

The THETIS-EU sulphur module will continue to help sulphur inspectors in ports to check a ship's sulphur compliance in the open sea. With the latest amendments to the international, pollution prevention MARPOL Convention in force since January 2021, THETIS-EU will be extended further also making it possible to record nitrogen oxide emissions into the system.

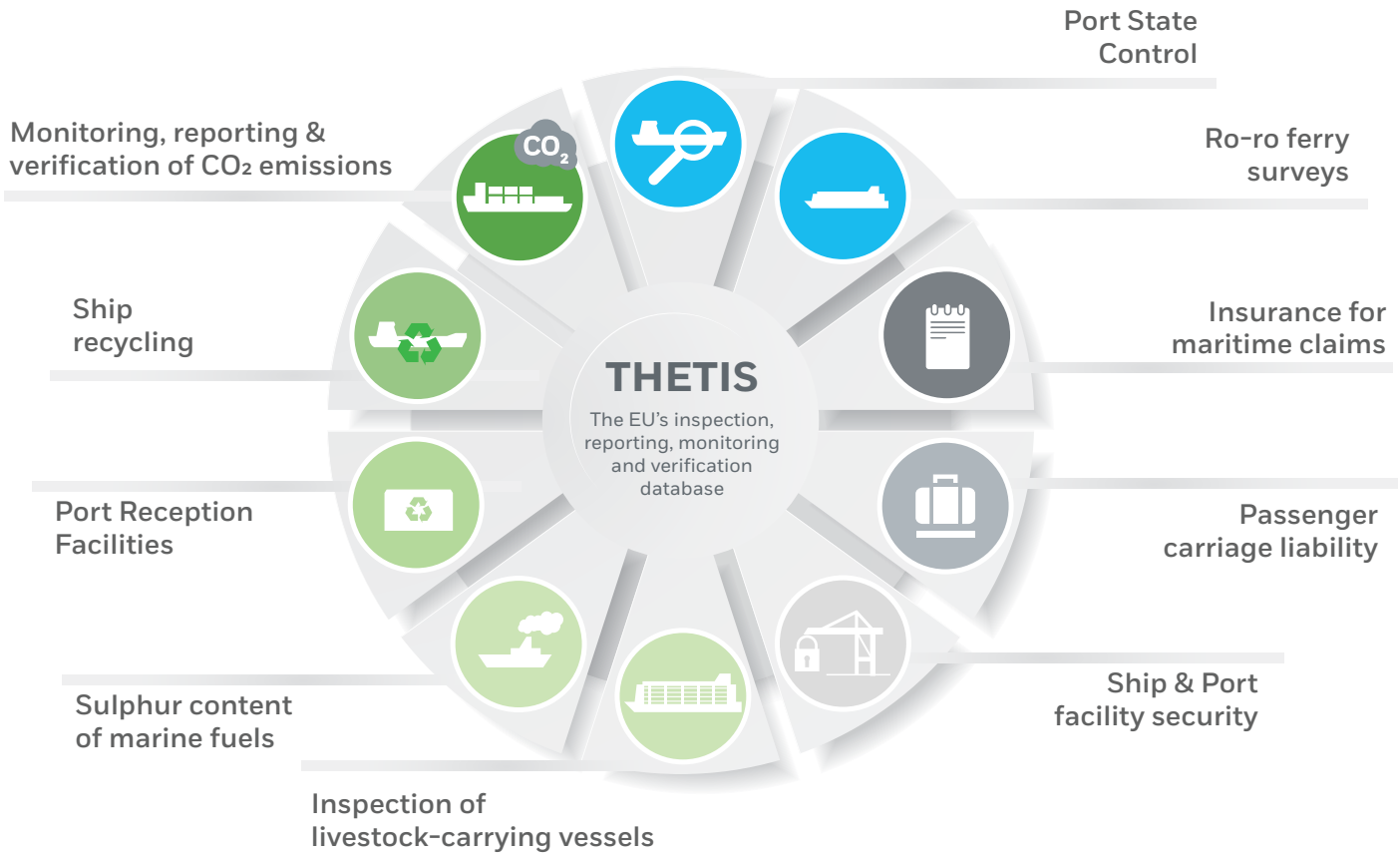
The versatility of THETIS-EU system and its ability to cater for multiple inspection types will also be demonstrated as it grows in 2022 to include the reporting of livestock vessel inspections within the context of European legislation targeting the protection of animal welfare during transportation.

The THETIS-MRV CO_2 monitoring, reporting and verification system which companies have been using since 1 January 2018 to monitor and report on ship data covering CO_2 emissions and fuel consumption is expected to enable greater alignment between international obligations and EU legislation thereby raising the level of awareness across the board and helping to remove market barriers. The information gathered in the system on CO_2 emissions may be considered particularly relevant for upcoming policy measures related to the FuelEU Maritime initiative as well as to the EU Emissions Trading Scheme's extension to maritime transport.

The THETIS-MED information system, which entered into service in 2020, will continue to support the members of the Mediterranean Memorandum of Understanding (Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Tunisia and Turkey) by helping them to target ships for inspection, as well as to record and share the results of these inspections. In this way, EMSA contributes to the harmonisation of standards and procedures globally.



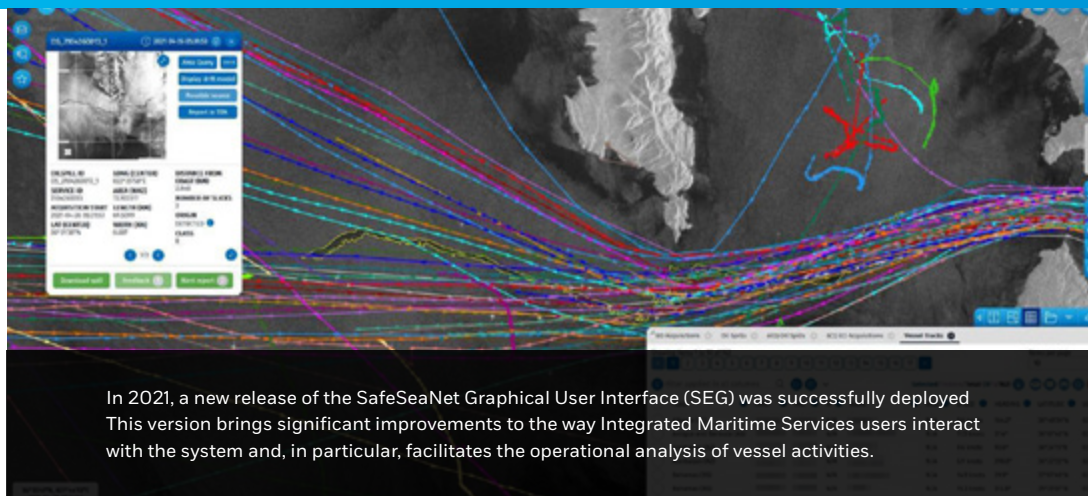
17-21/05/2021 – Regional training on the ISM Code and auditing techniques



3.2 DIGITAL INFRASTRUCTURE

Maritime Support Services

The Maritime Support Services (MSS) centre is a 24/7 service helpdesk for users of the vessel traffic monitoring and surveillance systems hosted by EMSA. It provides continual monitoring of these systems, facilitating early incident management and high availability and performance standards. The MSS centre is the first point of contact for Member States whenever assistance is required in case of maritime accidents. In 2022 the centre will continue to provide users with timely helpdesk, monitoring and assistance services.



In 2021, a new release of the SafeSeaNet Graphical User Interface (SEG) was successfully deployed This version brings significant improvements to the way Integrated Maritime Services users interact with the system and, in particular, facilitates the operational analysis of vessel activities.

3.3 SIMPLIFICATION

SafeSeaNet

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

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

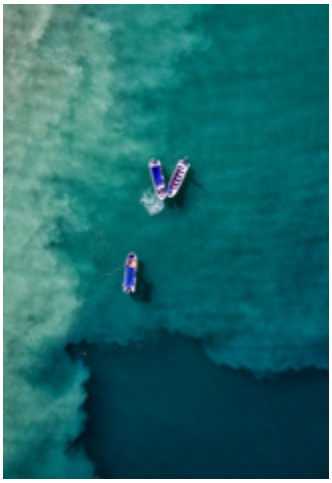
Four existing databases will continue to be enhanced in 2022: the Central Ship Database which receives and stores up-to-date information on ship identifiers and which serves as a reference for national systems such as the national single window; the Central Hazmat Database for information on dangerous and polluting goods which is particularly useful for decision-making on places of refuge for ships in need of assistance; the Central Location Database for information on locations and port facilities codes; and, the Central Organisations Database for information on authorities and organisations.

Gaining a better understanding of marine traffic – identifying where the main shipping lanes are and which ship types are navigating on which lanes, for example – is another way in which users can benefit from the SafeSeaNet service, through Traffic Density Maps, which can be generated according to specific criteria such as timeframe and ship type.

Following the latest upgrade in 2021, the SafeSeaNet system now accommodates the legal requirements laid down by two sets of EU rules: one on the registration of persons on board passenger ships; and the other on port reception facilities for waste from ships. Crew and passenger data must be registered digitally, using standardised administrative

procedures (the national single window). This data can then be shared for the purpose of search and rescue operations in case of an emergency. As regards port reception facilities, the rules make sure that waste from ships is not discharged at sea but rather disposed of properly in ports with adequate waste reception facilities. Related waste information is transferred to the THETIS-EU inspection database. The exchange of information on incidents in EU waters between Member States' national authorities will be further improved.

European Maritime Single Window environment



Maritime transport operators face a wide range of legal reporting requirements each time a ship arrives at or leaves a port. To reduce this administrative burden, EMSA worked closely with the European Commission to replace the Reporting Formalities Directive with a new Regulation which was finally adopted in July 2019. The new Regulation, which is to be fully implemented by 2025, will bring together all reporting associated with a port call in a coordinated and harmonised way through the new European Maritime Single Window environment. EMSA will also participate at the IMO Expert Group on Data Harmonisation to encourage the harmonisation of systems beyond the maritime single window.

Long range identification and tracking

EMSA operates the European Union LRIT Cooperative Data Centre (EU LRIT CDC), through which Member States, Iceland, Norway, Georgia, Montenegro and Tunisia users can access the LRIT information of their ships worldwide as well as of any non-EU LRIT CDC Participating Country vessel bound to EU ports or sailing within 1000 nautical miles of EU waters.

The central module, known as the International LRIT Data Exchange, is also hosted and operated by EMSA and interconnects 67 LRIT Data Centres worldwide which provide services to 131 SOLAS Contracting Governments and Territories.

eCertification

The pandemic brought urgency to the shift towards digitalisation, driving shipping closer to paperless documentation. In 2022, EMSA will be helping to create a favourable environment in which the existing framework for the use of eCertification can be strengthened. The Agency will host operational systems to support the Member States in their capacity as flag state, port state and coastal state by enabling the sharing and central availability of statutory eCertificates. EMSA will also continue working on a Seafarers' eCertification Platform to offer economies of scale as efforts are centralised in the process of developing, hosting and operating a state-of-the-art system.

CHAPTER 4

HORIZONTAL ACTIVITIES

4.1 EUROPEAN COOPERATION ON COAST GUARD FUNCTIONS

European cooperation on coast guard functions refers to the joint work of three EU agencies (EMSA, EFCA and Frontex) and national authorities from across the EU. These functions comprise tasks related to safety and security at sea, such as search and rescue, border control, fisheries control, customs activities and environmental protection. The objective is to bring added value to the national coast guard authorities as well as to promote cooperation among them at EU level.

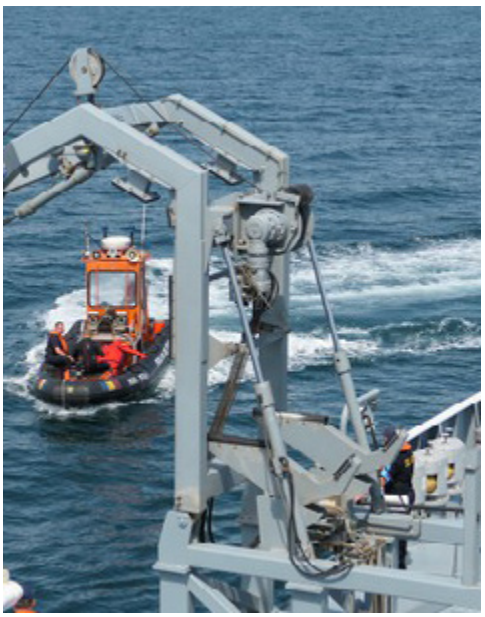
EMSA's tasks, under its annual strategic plan for 2022, include: information sharing through the Maritime Data Catalogue to raise awareness of the different datasets available via the three agencies; surveillance and communication services which include the provision of Earth Observation data to support coast guard activities; capacity building through, for example, the Handbook on European Cooperation on Coast Guard Functions; risk analysis to assess and address Member State needs; and, capacity sharing by way of Multipurpose Maritime Operations undertaken at the request of the Member States.

EFCA Service level agreement

EMSA supports the European Fisheries Control Agency in working to tackle illegal, unreported and unregulated fishing through the coordination of joint deployment plans. A service level agreement has been in place with EMSA since 2015 and is renewed yearly. On the one side, this agreement sets out the conditions for EFCA to provide EMSA with access to the VMS data and vessel identifiers of fishing vessels. On the other, it sets out the conditions for EMSA to provide EFCA with surveillance tools such as Integrated Maritime Services and Copernicus satellite imagery. Remotely Piloted Aircraft System (RPAS) drones are also part of this agreement and are being made available to EFCA for operational services. EMSA will follow up on the major overhaul of the tailored Integrated Maritime Services provided for fisheries monitoring which was completed in 2021. In particular, the automatic exchange of information between EMSA and EFCA ship databases is expected to bring significant added value as it offers consolidated ship details to fisheries control authorities and completes the data related to fishing vessels for the benefit of all maritime authorities.

FRONTEX Service level agreement

EMSA supports Frontex in conducting operations to address irregular migration and cross-border crime along European maritime borders. The service level agreement between Frontex and EMSA was extended indefinitely and includes support for the implementation of the European Border Surveillance System (EUROSUR). Activities in 2022 are based on an annual programme and service description agreed between the agencies. Among the many services provided to Frontex is Earth Observation which allows for the delivery of very high-resolution optical imagery for the monitoring of areas of interest, whether at sea, on the coastline or in port. In 2022 this support will continue and will include the sharing of incidental sightings of potential marine pollution to Member State coastal authorities through the CleanSeaNet system.



4.2 CORPORATE AND EXECUTIVE SERVICES

EMSA's management team has the aim of building up the Agency as a recognised centre of excellence for a safe, secure and sustainable maritime sector which serves the needs of Member States and the European Commission alike. The management team is responsible for implementing this work programme and delivering on the objectives set, while reinforcing the Agency's role as an innovative and reliable partner for the maritime cluster in both Europe and beyond.

Good corporate governance, transparency, efficiency and flexibility are all essential qualities which EMSA's management team uphold and promote among staff in their respective functions. Strong human resources management including job mobility and career development opportunities is also a priority for the Agency to ensure staff reach their potential and remain fully motivated.

The Agency's quality management system ensures that stakeholder needs and expectations are met, and that the quality of EMSA's services remain at a consistently high level.

EMSA's registration in the EU Eco-Management and Audit Scheme (EMAS) ensures that the Agency endorses sound environmental management and follows through on making continuous improvements.

As the Agency looks to implement the five-year strategy, it will also make a point of increasing the visibility of its actions, ensuring that the work of the Agency is known among relevant target audiences and information multipliers. Effective, cost-efficient communication practices will be prioritised for this purpose.

Throughout 2022, EMSA will launch a series of activities to celebrate the 20 years since its foundation. The anniversary will encompass events in Lisbon, where the Agency is based, and across the EU in collaboration with Member States. A headline conference held half-way through the year will look back at EMSA's evolution and look forward to future challenges, while the Agency will seek to engage new audiences, both in its host country of Portugal and throughout the EU, via digital, multilingual communication products.

EMSA has forty photovoltaic panels installed on the top of EMSA's west wing, covering an area of about 160m^2 of flat roof space. This development is part of the 'Greening EMSA Project' and is aimed at making good use of our host country's sunny climate. The energy produced will be fed directly into the internal electrical installation of the building, generating an estimated 17 MWh. In context, that should lead to an annual reduction of four tons of CO_2 per year, equal to planting 185 trees in a year, or offsetting 23 000 kilometres driven by a car.

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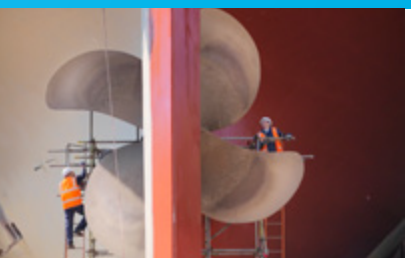
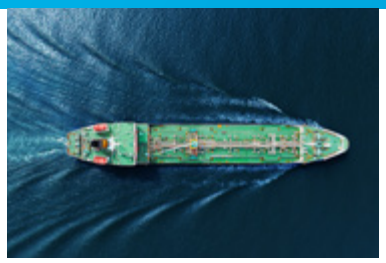

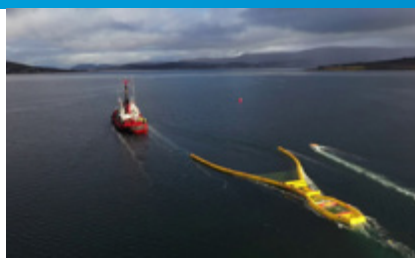

ABOUT THE EUROPEAN MARITIME SAFETY AGENCY

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

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