



MARITIME DIGITAL SERVICES CATALOGUE 2021

MARITIME

DIGITAL SERVICES

CATALOGUE

2021

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INTRODUCTION

The EMSA Service Catalogue, external version, provides a central source of information on the Maritime Digital Services delivered by EMSA to external users as well as the back-end services supporting them or serving specific projects, their features, and present status.

Information in the Service Catalogue (SC) reflect the current details of all services that are being run, or being prepared to run, in the production environment.

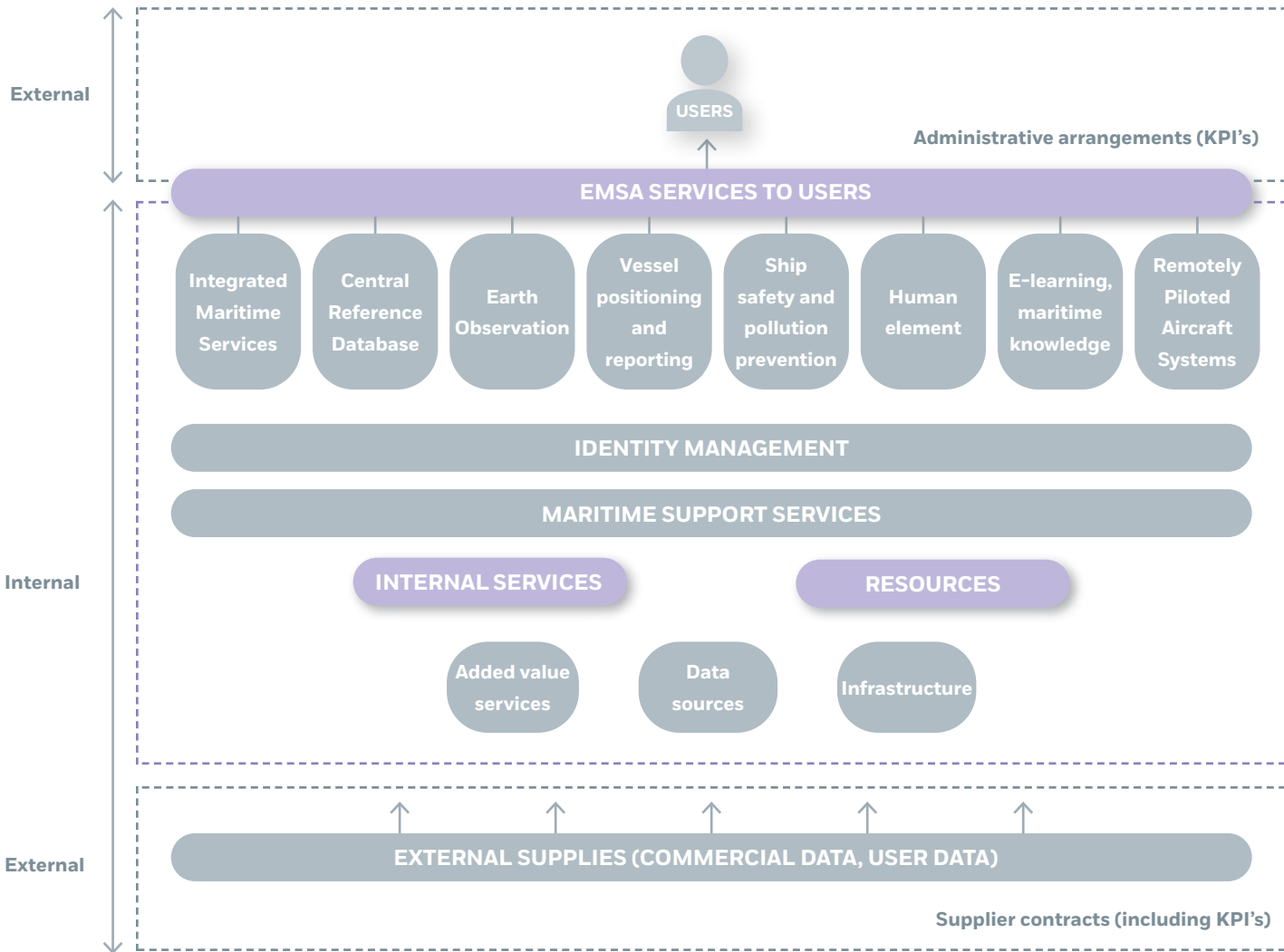
It also provides external users with a basic overview of the data processed and the interfaces available.

In terms of the data managed in the services it was, were applicable, decoded using the Maritime Data Catalogue developed by the Inter-Agency Tripartite Working Arrangement Technical Sub Committee 1 (Ref. Appendix A)

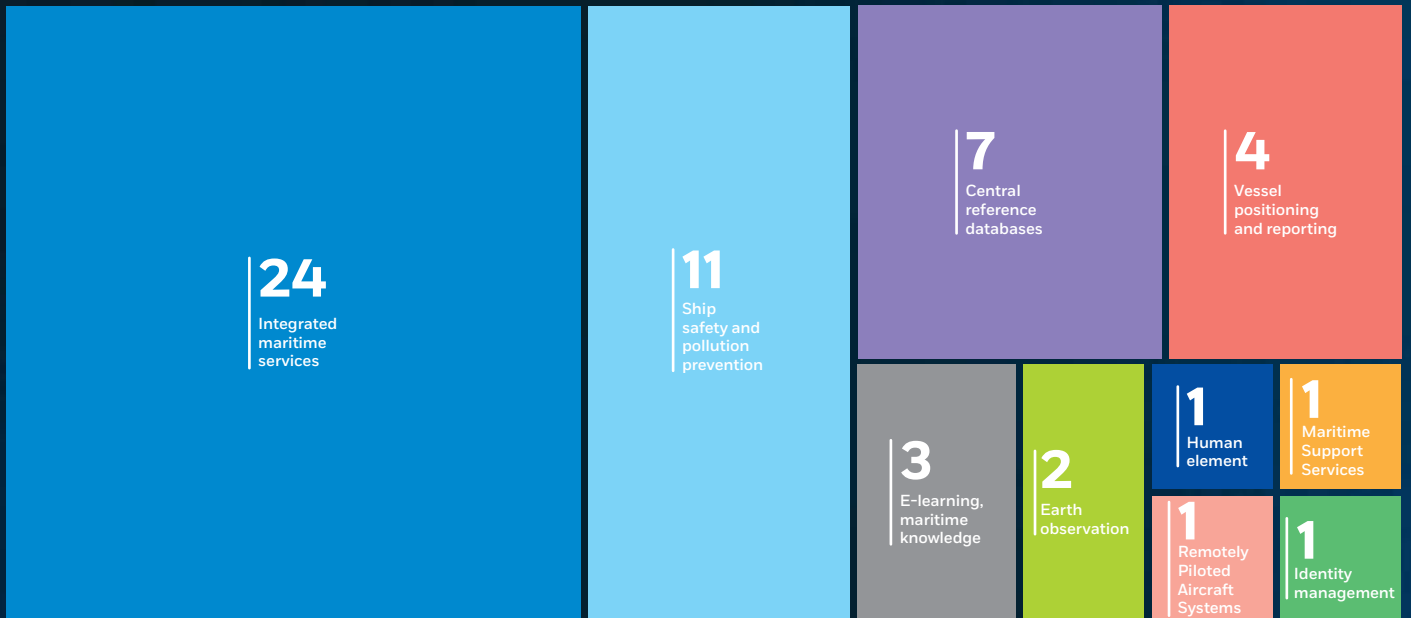
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EMSA SERVICE CHAIN

The Service Catalogue reflects one part of the service chain, as illustrated below.



MARITIME DIGITAL SERVICES CATALOGUE OVERVIEW





1. SERVICE CLASSES

An aerial photograph of three boats on a body of water. Two larger boats are positioned close together in the upper right, while a smaller boat is positioned below them and to the left. The water is a deep teal color, and the boats are white with blue accents.

1.1 INTEGRATED MARITIME SERVICES

1.1.1 EMSA IMS-EUNAVFOR

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External Service

DESCRIPTION

The Integrated Maritime Services (IMS) provide an enhanced real-time maritime domain awareness picture.

The IMS-EUNAVFOR service supports the activities performed by the European Naval Forces (EUNAVFOR) under Operation ‘Atalanta’ executing anti-piracy and law enforcement functions in the maritime domain. The service is based on a vast array of position information and satellite data, and responds to operational users’ specific needs, providing additional, complementary and supportive tools and functionalities.

In addition, EUNAVFOR provides additional data in this tailored IMS operation such as extra LRIT data, piracy risk assessment and anti-piracy measures on board vessels.

SERVICE ACCESS

EUNAVFOR-Atalanta users have access to the service through a web-based graphical user interface as well as standardised system-to-system interfaces. The service follows all relevant agreed access rights, as defined by the data owners.

SERVICE DATA (OR PRODUCTS)

2.1 MRS, 2.7 Sat-AIS, 2.2, 2.5 T-AIS, 2.6 LRIT, 6.1 – 6.3 EO imagery and products, 1.1-1.9 SSN Enrichment and additional data: extra LRIT data, piracy risk assessment and anti-piracy measures on board vessels.

BUSINESS UNIT
3.3 Simplification
RELATED AGREEMENTS AND LEGAL BASIS

Technical Cooperation Agreement signed between EMSA and EUNAVFOR-Atalanta (06/04/2011)

SERVICE KPI		
Scoreboard Activity/Service	Integrated Maritime Services Availability (same as IMS VTMISS)	
KPI indicator	Percentage per year availability of IMS platform	99 %
KPI indicator	Hours maximum continuous downtime of IMS platform	12 max
KPI indicator	Percentage per year availability to EUNAVFOR-Atalanta	99 %



1.1.2 EMSA IMS-EUNAVFOR-MED

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External Service

DESCRIPTION

The Integrated Maritime Services (IMS) provide an enhanced real-time maritime awareness picture. The IMS-EUNAVFOR-MED provides support to the EU Naval Forces (EUNAVFOR) Operation Sophia, which has the mission to undertake systematic efforts to identify, capture and dispose of vessels suspected of being used by migrant smugglers or traffickers.

The service is integrated in the IMS VTMISS and based on a vast array of position information and satellite data and responds to operational users' needs and supportive tools and functionalities.

In addition, EMSA is currently enhancing EUNAVFOR-MED Operation Sophia's maritime picture by providing satellite AIS data (system to system) in the Mediterranean region.

SERVICE ACCESS

Eunavfor-MED users have access to the service through a web-based graphical user interface as well as standardised system-to-system interfaces. The service follows all relevant agreed access rights, as defined by the data owners.

SERVICE DATA (OR PRODUCTS)

2.1 MRS, 2.7 Sat-AIS, 2.2, 2.5 T-AIS, 2.6 LRIT, 6.1 – 6.3 EO imagery and products, 1.1 -1.9 SSN Enrichment and additional data.

BUSINESS UNIT
3.3 Simplification
RELATED AGREEMENTS AND LEGAL BASIS

Data Access Agreement signed between EMSA and EUNAVFOR-MED (20/08/2015)

SERVICE KPI		
Scoreboard Activity/Service	Integrated Maritime Services Availability (same as IMS VTMIS)	
KPI indicator	Percentage per year availability of IMS platform	99 %
KPI indicator	Hours maximum continuous downtime of IMS platform	12 max
KPI indicator	Percentage per year availability to EUNAVFOR-Med	99 %

1.1.3 IMS EFCA

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External Service
DESCRIPTION	

The EMSA IMS-EFCA service is provided by EMSA to support EFCA and MS fisheries authorities monitoring and control operations.

Via the dedicated operation in SEG, authorised users have access to a worldwide maritime picture displayed via a web interface designed for quasi real-time visualization and analysis of vessel movements.

Information and functionalities available in the service are customised to support fisheries control activities. They include:

- Fisheries specific information: access to VMS position data from fisheries vessels, fishing vessel details (e.g. gear type), visual information on fisheries areas (e.g. NAFO areas), and fisheries data resulting from inspections;
- Vessel Monitoring and tracking: ability to monitor vessels by making use of last known vessel position reports from different sources such as AIS, LRIT and VMS, and to view historical track of vessels.
- Anomaly detection: In order to monitor vessel behaviour patterns for fisheries control and surveillance purposes, EFCA and its stakeholders may use EMSA's Automated Behaviour Monitoring (ABM) algorithms;
- Vessel Detection: use of satellite imagery to detect vessels in areas of interest through the Copernicus Maritime Surveillance service (CMS).

SERVICE ACCESS

Open to users at EFCA and to fisheries authorities in the Member States. Access to the service must be requested from EFCA.

SERVICE DATA (OR PRODUCTS)

Vessel positions: AIS (SAT-AIS, T-AIS and ship AIS), VMS, and LRIT
 SafeSeaNet: ship voyage information
 EMSA Central Reference Databases: Fishing Areas Repository in the Central Geographical Database, Central Location Database
 Earth Observation Products: CleanSeaNet vessel detection services, Copernicus Maritime Surveillance Service.

BUSINESS UNIT

3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

Service Level Agreement signed between EFCA and EMSA for the sharing of information and capacities to support, each within their mandate, authorities carrying out coast guard functions at national and Union level and where appropriate at international level, and in particular for the activities related to the provision by EMSA of services to EFCA for fisheries control purposes.

SERVICE KPI

Scoreboard Activity/Service	EFCA	
KPI indicator	Percentage per year availability	99 %

1.1.4 FRONTEX

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External Service
DESCRIPTION	

EMSA supports FRONTEX in operations to address irregular migration and cross-border crime along European maritime borders. A service level agreement (SLA) defines the service conditions. EMSA provides services, including via a system-to-system mechanism, information products and tools tailored to FRONTEX's needs, including:

- Vessel Monitoring and Tracking: provides FRONTEX with ship positions
- Vessel Detection: provides FRONTEX with layers of detected objects at sea, derived from SAR satellite images
- Anomaly Detection: activates alerts based on specific vessel behaviour patterns
- Activity Detection: provides information about detected activity in coastal areas and the interpretation of high resolution optical imagery
- Vessel Reporting: supports FRONTEX in identifying vessels that meet specific criteria, indicating a possible involvement in illegal migration or cross-border crime.
- Central Maritime Databases: provides information on elements which are common across various EMSA systems, such as the Central Location Database.
- Incidental Sightings of Potential Maritime Pollution: To inform affected Member State(s) about any incidental sighting of potential marine pollution detected during Frontex Maritime Joint Operations (JO) Poseidon and Themis.
- Maritime Risk Analysis: Eliciting, developing and/or delivering maritime related risk analysis products

SERVICE ACCESS

Border Control community via an external interface

SERVICE DATA (OR PRODUCTS)

SSN Products: Port call data and number of persons on board
 Vessel positions: AIS/LRIT/VMS
 EMSA Central Reference Databases: Central Location Database
 Earth Observation Products: CleanSeaNet vessel detection services, Copernicus Border Surveillance Service.

BUSINESS UNIT

3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

Service Level Agreement between FRONTEX and EMSA for the provision of services in support of FRONTEX activities, including for the implementation of the EUROSUR network.

SERVICE KPI

Scoreboard Activity/Service	FRONTEX	
KPI indicator	Percentage per year availability to FRONTEX	99 %
KPI indicator	Minimum number of exercises EMSA participates in	2

1.1.5 EMSA IMS-MAOC (N)

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External Service

DESCRIPTION

Following the signature of the first Cooperation Agreement between EMSA and the Maritime Analysis and Operations Centre – Narcotics (MAOC (N)) in August 2014, a service was established for the provision of an integrated maritime awareness picture composed of vessels positions, SSN data and Earth Observation products. This service assists MAOC (N) in operations to apprehend vessels carrying narcotics on board. Automated Behaviour Monitoring is also provided to MAOC (N).

SERVICE ACCESS

Open to MAOC (N) users. Access to the service must be requested from MAOC (N).

SERVICE DATA (OR PRODUCTS)

Vessel positions: AIS (SAT-AIS and T-AIS) and LRIT.

SSN products : Port call data, Hazmat, Waste, Security, Bunkers, Incidents, Exemptions, MRS reports.

EMSA Central Reference Databases: COD, CLD, CSD.

Earth Observation Products: CleanSeaNet vessel detection services, Copernicus Maritime Surveillance service, Copernicus Border Surveillance service.

BUSINESS UNIT

3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

A second Cooperation Agreement between EMSA and MAOC (N) is currently being drafted . The subject matter of the Agreement is the provision by EMSA of services to MAOC(N) for counter narcotic operations. The new draft CA amongst number of improvements reflects:

- EMSA is already supporting various actors in the EU maritime sector in preventing illegal acts;
- The new EMSA 5-year strategy, specifically the points of Surveillance and Security;
- SSN Directive;
- Copernicus Maritime Surveillance Service;
- CISE;
- MAOC(N) to provide operational service feedback reports where EMSA services were used to support MAOC(N) operations; and
- A new Access Right matrix with updated Service Data

The duration of this Agreement shall be indefinite until one of the parties receives a formal notification for its termination

SERVICE KPI

Scoreboard Activity/Service	SEG availability	
KPI indicator	Percentage per year availability	99 %

1.1.6 EMSA IMS-EUROPOL

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External Service

DESCRIPTION

The Integrated Maritime Services (IMS) provide an enhanced real-time maritime domain awareness picture.

The IMS-Europol service supports the activities performed by Europol staff executing functions in the maritime domain. The service is based on a vast array of position information and satellite data, and responds to operational users' specific needs, providing additional, complementary and supportive tools and functionalities.

SERVICE ACCESS

Europol users have access to the service through a web-based graphical user interface as well as standardised system-to-system interfaces. The service follows all relevant agreed access rights, as defined by the data owners

SERVICE DATA (OR PRODUCTS)

2.1 MRS, 2.7 Sat-AIS, 2.2, 2.5 T-AIS, 2.6 LRIT, 6.1 – 6.3 EO imagery and products, 1.1 -1.9 SSN Enrichment

BUSINESS UNIT
3.3 Simplification
RELATED AGREEMENTS AND LEGAL BASIS

Working Arrangement signed between EMSA and EUROPOL (18/12/2018)

SERVICE KPI		
Scoreboard Activity/Service	Integrated Maritime Services Availability (Europol)	
KPI indicator	percentage per year availability of IMS platform	99 %



1.1.7 SAFEMED IV

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External Service

DESCRIPTION

The overall objectives of the SAFEMED IV project are to: improve maritime safety and maritime security of ships and port facilities; reduce pollution to the marine environment; improve the level of maritime training and qualification of seafarers; and, improve living and working conditions on board ships.

Beneficiary countries are provided with technical assistance aiming to build their capacity to implement properly the international maritime conventions and come closer to the EU standards in the field of maritime safety. Beneficiaries are also provided with operational support through the provision of EMSA tools such as RuleCheck, and MaKCs and services such as CleanSeaNet. They are incentivised to share their AIS information with some selected EU MSs through MARES.

Beneficiaries: Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine and Turkey

SERVICE ACCESS

RuleCheck, MaKCs, CSN, SEG for ENP, Thetis-Med

SERVICE DATA (OR PRODUCTS)

N/A

BUSINESS UNIT

1.3 Capacity Building

RELATED AGREEMENTS AND LEGAL BASIS

Grant Agreement with the Commission for the SAFEMED IV project (ENI/ 2016/359-725)

SERVICE KPI		
Scoreboard Activity/Service	SAFEMED IV	
KPI indicator	Number of training sessions per year	Up to 6
KPI indicator	Number of activities per year	Up to 5
KPI indicator	Number of ENP experts attending per year	90
KPI indicator	Level of customer satisfaction	More than 85%



1.1.8 PREPARATORY MEASURES FOR FUTURE PARTICIPATION OF RELEVANT IPA II COUNTRIES IN EUROPEAN MARITIME SAFETY AGENCY (EMSA)

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External Service

DESCRIPTION

The overall objective of the IPA project is to: support the participation of IPA II countries in EMSA work and provide beneficiaries with technical support to transpose into the national legislations the EU maritime acquis. Beneficiaries are also provided with operational support through the provision of EMSA tools such as RuleCheck, and MaKCs and services such as CleanSeaNet. They are incentivised to share their AIS information with some selected EU MSs through MARES.

Beneficiaries: Albania, Bosnia-Herzegovina, Montenegro, North Macedonia, Serbia, Turkey

SERVICE ACCESS

RuleCheck, MaKCs, CSN

SERVICE DATA (OR PRODUCTS)

N/A

BUSINESS UNIT

1.3 Capacity Building

RELATED AGREEMENTS AND LEGAL BASIS

Grant Agreement with the Commission for the IPA project (ENI/ 2019/410-086)

SERVICE KPI

Scoreboard Activity/Service	Training and Cooperation, Capacity Building	
KPI indicator	Number of training sessions per year	Up to 5
KPI indicator	Number of ENP experts attending per year	50
KPI indicator	Level of customer satisfaction	More than 85%



1.1.9 BCSEA PROJECT

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External Service

DESCRIPTION

The overall objectives of the BCSEA project are to: improve maritime safety and maritime security of ships and port facilities; reduce pollution to the marine environment; improve the level of maritime training and qualification of seafarers; and, improve living and working conditions on board ships.

Beneficiary countries are provided with technical assistance aiming to build their capacity to implement properly the international maritime conventions and come closer to the EU standards in the field of maritime safety. Beneficiaries are also provided with operational support through the provision of EMSA tools such as RuleCheck, and MaKCs and services such as CleanSeaNet. They are incentivised to share their AIS information with some selected EU MSs through MARES.

Beneficiaries: Azerbaijan, Georgia, Iran, Kazakhstan, Moldova, Turkey, Turkmenistan, Ukraine

SERVICE ACCESS

RuleCheck, MaKCs, CSN, SEG for ENP

SERVICE DATA (OR PRODUCTS)

N/A

BUSINESS UNIT

1.3 Capacity Building

RELATED AGREEMENTS AND LEGAL BASIS

Grant Agreement with the Commission for the BCSEA project (ENI/ 2016/374-999)

SERVICE KPI		
Scoreboard Activity/Service	BCSEA	
KPI indicator	Number of training sessions per year	Up to 6
KPI indicator	Number of activities per year	Up to 5
KPI indicator	Number of ENP experts attending per year	70
KPI indicator	Level of customer satisfaction	More than 85%



1.1.10 INTEGRATED MARITIME SERVICES FOR MEMBER STATES' AUTHORITIES

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External Service

DESCRIPTION

The Integrated Maritime Services (IMS) provide an enhanced real-time maritime domain awareness picture

The IMS services to Member States support the activities performed by EU Member State authorities executing functions in the maritime domain. The service is based on a vast array of position information and satellite data, and responds to operational users' specific needs, providing additional, complementary and supportive tools and functionalities.

SERVICE ACCESS

Users have access to the service through a web-based graphical user interface as well as standardised system-to-system interfaces. The service follows all relevant agreed access rights, as defined by the data owners.

SERVICE DATA (OR PRODUCTS)

2.1 MRS, 2.7 Sat-AIS, 2.2, 2.5 T-AIS, 2.6 LRIT, 6.1 – 6.3 EO imagery and products, 1.1 -1.9 SSN Enrichment

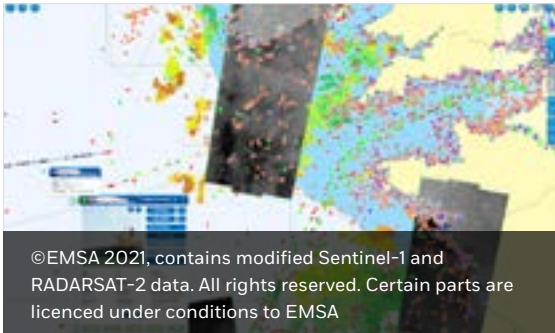
BUSINESS UNIT

3.1 Maritime Digital Services

RELATED AGREEMENTS AND LEGAL BASIS

VTMIS Directive – 2002/59/EC, as amended. Interface and Functionality Control Document (IFCD) – the latest version

SERVICE KPI		
Scoreboard Activity/Service	Integrated Maritime Services Availability	
KPI indicator	Percentage per year availability of IMDatE platform	99%
KPI indicator	Hours maximum continuous downtime of IMDatE platform	12 Max
KPI indicator	Percentage per year availability to Member States	99%





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1.1.11 SEG – SAFESEANET ECOSYSTEM GRAPHICAL USER INTERFACE

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External Service
DESCRIPTION	
<p>The SafeSeaNet Ecosystem Graphical User Interface (GUI) is the common web interface providing access to EMSA's maritime applications and data sets including SafeSeaNet, Integrated Maritime Services, Long Range Identification and Tracking and CleanSeaNet.</p>	
SERVICE ACCESS	
<p>Graphical interface</p>	
SERVICE DATA (OR PRODUCTS)	

All data sets depending on the user access rights

BUSINESS UNIT

3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

VTMIS Directive – 2002/59/EC, as amended. Interface and Functionality Control Document (IFCD) – the latest version

SERVICE KPI

Scoreboard Activity/Service	Integrated Maritime Services Availability	
KPI indicator	Percentage per year availability of IMDatE platform	99%
KPI indicator	Hours maximum continuous downtime of IMDatE platform	12 Max
KPI indicator	Percentage per year availability to Member States	99%

1.1.12 SEG – IMS MOBILE APP

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External Service

DESCRIPTION

The IMS app is a 'light' (simplified) version of the SafeSeaNet Ecosystem Graphical User Interface (SEG) for mobile devices. The IMS Mobile App currently available in the App Store (for iOS) and Google Store (for Android)

SERVICE ACCESS

Mobile App – Graphical interface for iOS and Android operating system mobile devices

SERVICE DATA (OR PRODUCTS)

2.1 MRS, 2.7 Sat-AIS, 2.2, 2.5 T-AIS, 2.6 LRIT, 6.1 – 6.3 EO products, 1.1-1.9 SSN Enrichment – basic information

BUSINESS UNIT

3.1 Digital Maritime Services & 3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

VTMIS Directive – 2002/59/EC, as amended. Interface and Functionality Control Document (IFCD) – the latest version

SERVICE KPI

Scoreboard Activity/Service	Integrated Maritime Services Availability	
KPI indicator	Percentage per year availability of IMDatE platform	99%
KPI indicator	Hours maximum continuous downtime of IMDatE platform	12 Max
KPI indicator	Percentage per year availability to Member States	99%



1.1.13 STAR ABM (AUTOMATED BEHAVIOUR MONITORING)

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External Service

DESCRIPTION

ABMs are Integrated Maritime Services (IMS) tools automatically analysing various position reports for the detection of specific ships' behaviours. Their aim is to reduce a workload of the maritime surveillance operators by providing an increased maritime situation awareness and automatic alerting. STAR ABM is a horizontal service allowing access to various ABM algorithms and the related automatic alerting. It is used by EU Member States and EU Bodies executing functions in safety of marine traffic, environmental protection fisheries control, border control and security.

SERVICE ACCESS

STAR ABM services can be accessed via the IMS Graphical Interface (SEG) as well as the S2S interfaces

SERVICE DATA (OR PRODUCTS)

2.1 MRS, 2.7 Sat-AIS, 2.2, 2.5 T-AIS, 2.6 LRIT, 6.1 – 6.3 EO products - VDS, 1.1 -1.9 SSN Enrichment – basic information, 3.4 Central Ship Database, 3.1 Central Geographical Database (CGD)

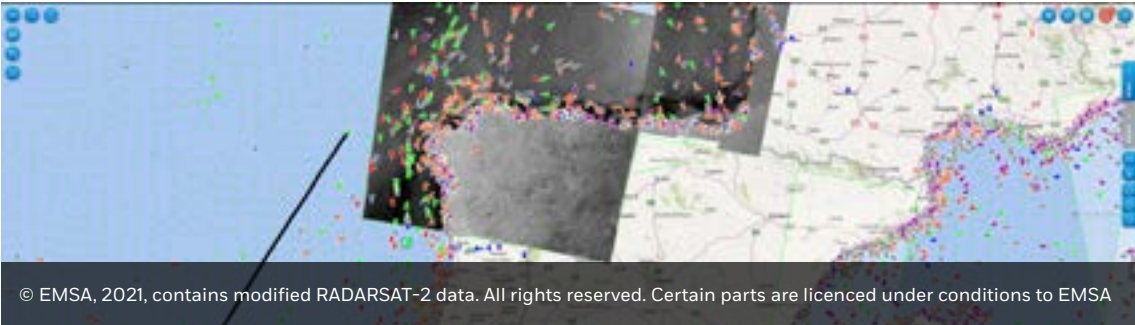
BUSINESS UNIT

3.1 Maritime Digital Services

RELATED AGREEMENTS AND LEGAL BASIS

VTMIS Directive – 2002/59/EC, as amended.
 Interface and Functionality Control Document (IFCD) – the latest version

SERVICE KPI		
Scoreboard Activity/Service	STAR ABM	
KPI indicator	Percentage per year availability of STAR ABM	99%
KPI indicator	Hours maximum continuous downtime of STAR ABM platform	12 Max
KPI indicator	Percentage per year availability to Member States	99%



1.1.14 LONG TERM STORAGE (LTS, PART OF HP-IMS)

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	Back-end for the external service

DESCRIPTION

The Long-Term Storage (LTS), part of the High Performance IMS (HP-IMS) project, is based on a Hybrid Cloud architecture. LTS purpose is to implement a solution capable of storing and making available to end users 5 years of positions data (AIS, LRIT, VMS). The data is stored on the cloud and made available via vessel track queries and area centric queries.

SERVICE ACCESS

A define group of users from Member States, EFCA and MAOC-N will have initially access to the service through a web-based graphical user interface (clone of SEG) named LTS during an initial operational phase. The next step will be to integrate LTS in the existing SEG. SEG will call LTS for long term queries and the service should then be opened to a wider number of users.

SERVICE DATA (OR PRODUCTS)

Vessel positions / Dataset 2.2 (T-AIS), 2.6 (LRIT), 2.7 (SAT-AIS) and 2.8 (VMS)

BUSINESS UNIT

3.1 Maritime Digital Services

RELATED AGREEMENTS AND LEGAL BASIS

Interface and Functionality Control Document (IFCD) – section 3.4 Access rights per role (for AIS and LRIT access rights).

VMS data is provided only when there is an agreement between national IMS and fisheries control authorities.

SERVICE KPI		
Scoreboard Activity/Service	LTS availability	
KPI indicator	Availability over a period of one year	99% (TBD)
KPI indicator	Maximum permissible period of interruption	12 hours (TBD)
KPI indicator	Percentage per year availability to Member States	99%

1.1.15 STAR TRACKING

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	Back-end for the external service
DESCRIPTION	

The STAR Tracking is the main ship tracking application at EMSA.

It processes, stores, correlates different data sets to provide end user services, that are displayed in SEG application and IMS mobile App.

STAR Tracking processes and stores up to 1700 ship positions reports per second on 24/7 basis from different ship reporting systems (MRS, T-AIS, S-AIS, LRIT and VMS).

STAR TRACKING allows to:

- merge ship positions to form ship tracks;
- correlate data sets such as Earth Observation products (VDS) with available positions in order to identify vessels whenever possible;
- maintain an Operational Vessel Registry (OVR) with dedicated mechanisms and tool to maintain this OVR up-to-date
- Distribute processed ship position information to other EMSA applications, such as STAR ABM, Frontex application and EODC

STAR TRACKING information is exposed to graphical interfaces (SEG and IMS Mobile App) used by Members States, EU bodies, Enlargement Countries, SAFEMED and BCSEA users (for non-EU countries, under certain conditions), as well as to Frontex, via a dedicated front-end application.

The STAR Tracking application can also distribute, via system-to-system interfaces, the processed and merged ship position data to external systems.

The STAR Tracking applies a series of complex access rights to ensure that only authorised users can view specific data sets.

DESCRIPTION (CONT.)

The STAR Tracking implements the Central Geographical Database (CGD) managing and service reference geographical area information to EMSA applications (e.g. EODC, SEG, COD)

SERVICE ACCESS

Users have access to the service through SEG, IMS Mobile App and standardised system-to-system interfaces.

It also provides administrator user interfaces, allowing to manage vessel information in OVR and CGD areas.

In accordance with the Interface and Functionalities Control Document (IFCD), ship data (AIS, LRIT, MRS) is available to users from EU Member States' authorities executing functions in the maritime domain, Ports, EMSA, EC and other EU bodies. VMS data is provided only when there is an agreement between national IMS and fisheries control authorities.

Non-EU countries (e.g. from SAFEMED, BCSEA) may access satellite information (S-AIS) and their T-AIS depending on specific signed agreements.

SERVICE DATA (OR PRODUCTS)

Vessel Positions: 2.1 (MRS), 2.2 (T-AIS), 2.3 (T-AIS from SAFEMED), 2.4 (T-AIS from BCSEA), 2.5 (T-AIS from external providers), 2.6(LRIT), 2.7 (SAT-AIS), 2.8 (VMS)

EMSA Central Reference Databases (CSD): STAR TRACKING OVR is time to time updated with CSD information. It will be connected to CSD via system to system (expected 2021).

EO Product; 6.1 (vessel detection service)

BUSINESS UNIT

3.1 Maritime Digital Services

RELATED AGREEMENTS AND LEGAL BASIS

Interface and Functionality Control Document (IFCD) – section 3.4 access rights per role
 Conditions of Use for Enlargement Countries, BCSEA and SAFEMED
 National agreement for VMS

SERVICE KPI

Scoreboard Activity/Service

Integrated Maritime Services Availability

KPI indicator

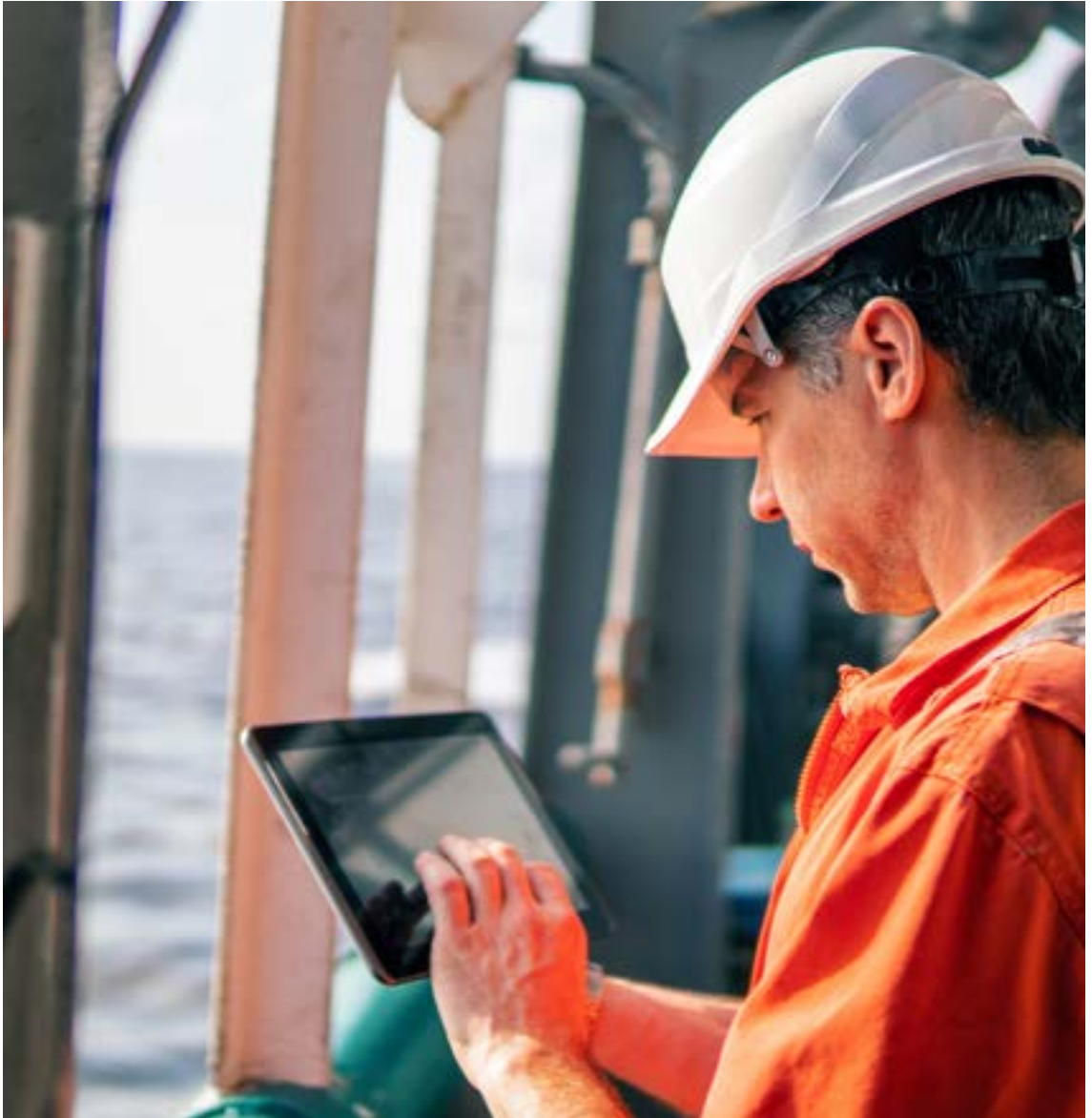
Availability over a period of one year

99%

KPI indicator

Maximum permissible period of interruption

12 hours

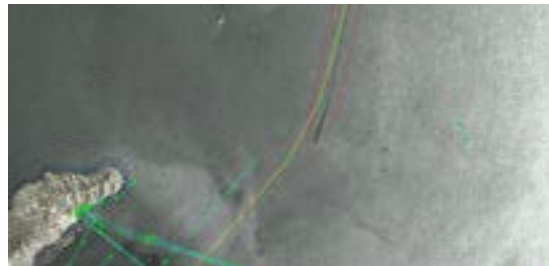


1.1.16 SATELLITE AIS (SAT-AIS) DATA SERVICES

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External service & Back-end for the external service
DESCRIPTION	

EMSA SAT-AIS data services offer a global feed of real-time SAT-AIS data from the external providers the users, participants and entities as mentioned in section “Service Access”. The SAT-AIS data services support EMSA’s critical applications, namely by:

- Exploiting the potential of the comprehensive maritime domain awareness in the remote areas of the globe
- Contributing to the tracking of the vessels and the calculation of related ship emissions
- Allowing tracking of ships in the polar areas
- Improving accuracy of the Automatic Behaviour Monitoring (ABM) algorithms
- Enhancing correlation and identification of vessels using Earth Observation (EO) based vessel detection services (VDS) and correlated positions processing
- Providing improved identification of the potential rescue resources during deep sea operations via enhanced SARSURPIC tools



SERVICE ACCESS

EMSA provides access to SAT-AIS service with different alternative mechanisms to retrieve vessels positioning information and complete their maritime picture:

- STAR Streaming Remote Hub - system-to-system interface which allows exchange of SAT-AIS data between EMSA and the national system in the same format as it was received, for the MS Authorities to ingest it in their national or regional Traffic Monitoring systems to complete the maritime picture
- SEG - Graphical user interface providing access to SAT-AIS data correlated and fused with other maritime information data and allows for near real time and historical querying of the information content
- IMS Mobile App – the application for mobile devices provides access to a simplified real time maritime picture similar to the SEG view but available on smart phones and tablets
- SAT-AIS is also used for the value-added services:
 - integrate the fused track of the vessel and might also be used in the generation of ABMs;
 - the generation of Vessel Detections by Copernicus maritime Surveillance Satellite imagery by excluding from the EO imagery those detections corresponding to vessels transmitting AIS;
 - The identification of potential polluters by identifying track of vessels corresponding with location and time of potential spills identified in the CleanSeaNet system.

The services follow access rights based on documents enumerated in the section “Related Agreements and Legal basis” to the following users:

- EU and EFTA Member States’ authorities with civilian responsibilities in the maritime surveillance domain
- EU institutions such as:
 - EMSA
 - EFCA
 - Frontex
 - COM (DG MOVE, DG MARE, DG ECHO, DG HOME)

SERVICE ACCESS (CONT.)

- Governmental and international operational entities collaborating with EMSA:
 - EUNAVFOR
 - MAOC-N
- EU candidate countries' authorities
- European Neighbourhood Policy Countries' authorities:
 - SAFEMED
 - BCSEA
 - IPA

SERVICE DATA (OR PRODUCTS)

2.7 SAT-AIS

BUSINESS UNIT

[2.2 Surveillance](#)

RELATED AGREEMENTS AND LEGAL BASIS

LEGAL BASIS

- IMO SOLAS Regulation V/19.2.4;
- Art 6 of EU Directive 2002/59/EC establishing a Community Vessel Traffic Monitoring and Information System; SafeSeaNet Interface and Functionalities Control Document and Regulation (EC) No 1406/2002;
- EMSA Work Programme and 5 Y Strategy.

AGREEMENTS:

- Service Level Agreement between the European Fisheries Control Agency and the European Maritime Safety Agency;
- Service Level Agreement between Frontex and EMSA for the provision of services;
- The Conditions of Use (CoU) signed between EMSA and each participant beneficiary for the provision of the CleanSeaNet service integrated with Satellite AIS data (i.a.:SAFEMED, BCSEA, IPA projects);
- Cooperation Agreement between the European Maritime Safety Agency and Maritime Analysis and Operations Centre-Narcotics;
- Data Access Agreement defining the condition for the use of SAT-AIS data provided by EMSA for the purpose of the EUNAVFOR MED operation Sophia;
- Technical cooperation between EUNAVFOR (Atlanta) and EMSA for the delivery of an integrated maritime monitoring service (as amended);
- The Conditions of Use (CoU) signed between EMSA and members of the Satellite AIS Collaborative Forum Satellite.

SERVICE KPI		
Scoreboard Activity/Service	Maritime Support Services monitoring tools / daily reports	
KPI indicator	Global SAT-AIS data stream availability (annually)	99%
KPI indicator	Global SAT-AIS data stream availability (daily)	95%



1.1.17 STAR STREAMING (SAT- AIS DATA DISTRIBUTION)

SERVICE CLASS	Vessel Positioning
TYPE OF SERVICE	External service

DESCRIPTION

Technical protocol for the provision of the Sat- AIS data.

SERVICE ACCESS

System-To-System interface.

SERVICE DATA (OR PRODUCTS)

Sat-AIS data

BUSINESS UNIT
3.3 Simplification
RELATED AGREEMENTS AND LEGAL BASIS

VTMIS Directive – 2002/59/EC, as amended.
 Interface and Functionality Control Document (IFCD) – Chapters 1.6.2 and 2.4.2

SERVICE KPI		
Scoreboard Activity/Service	The service requirements are defined individually by the service level agreements or other legal basis of the respective services.	
KPI indicator	Time to respond	As per SLAs or legal basis
KPI indicator	Time to solve	As per SLAs or legal basis

1.1.18 DYNAMIC SEARCH AGGREGATOR (DSA)

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External service & Back-end for the external service

DESCRIPTION

The Dynamic Search Aggregator will provide users with a tool for building complex searches, combining data from various EMSA-hosted sources including STAR TRACKING, SSN and EFCA specific vessel databases. Additional sources will be added in the future, as requested by the different user communities.

The first release of the Dynamic Search Aggregator is expected in Q4 2020

SERVICE ACCESS

Users will have access to the service through a web-based graphical user interface (SEG), as well as standardised system-to-system interfaces for other communities including FRONTEx.

SERVICE DATA (OR PRODUCTS)

SSN Products: Port call data, hazmat, waste, security, bunkers, number of persons on board, Incidents/accidents, exemptions

EMSA Central Reference Databases: Operational Vessel Registry (OVR), EFCA-specific OVR.

BUSINESS UNIT
3.3 Simplification
RELATED AGREEMENTS AND LEGAL BASIS

SSN Interface and Functionality Control Document (IFCD)

SERVICE KPI		
Scoreboard Activity/Service	Dynamic Search Aggregator	
KPI indicator	Availability over a period of one year	99%
KPI indicator	Maximum permissible period of interruption	12 hours



1.1.19 INTEGRATED REPORTS DISTRIBUTION (IRD)

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External service

DESCRIPTION

The IRD system monitors ships sailing in areas of interest and sends Integrated Ship Report (ISR) messages to users (via e.g. system interface, email, user interface) when specific events occur, such as: entry of a ship in the area, exit of a ship from the area, call of a ship in a port in the area, departure from a port in the area. This is done by configuring a “distribution service” for a specific area of interest and a specific Member State system.

The ISR is composed of information related to the ship from EMSA maritime applications (e.g. STAR-TRACKING, SSN-EIS, OVR) and from the Voyage Information Service (VIS) of the STM (Sea Traffic Management) project.

SERVICE ACCESS

The IRD system initially will be available to Member States participating in the Facilitation of ship to shore reporting pilot project.

Users will have access to the service through a web-based graphical user interface, e-mail as well as standardised system-to-system interfaces. The service follows all relevant agreed access rights, as defined by the data owners.

SERVICE DATA (OR PRODUCTS)

SSN Products (Port call data, Hazmat, Waste, Security, Bunkers, Number of persons on board, Incidents/accidents, Exemptions)

Vessel Positions (MRS, T-AIS and SAT-AIS)

BUSINESS UNIT

3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

The IRD system is being developed in support to the pilot project “facilitation of ship-shore reporting” which was launched under the grant agreement with DG MARE . It will also address the request from France for receiving integrated ship reports to support search and rescue activities (“IMS S2S France” project).

SERVICE KPI

Scoreboard Activity/Service

System under the development, not yet defined



1.1.20 SHIP TRACKING, AWARENESS AND REPORTING DATA – REAL – TIME MARITIME PICTURE SERVICE (STAR RTMPS)

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External service & Back-end for the external service

DESCRIPTION

STAR RTMPS provides vessel traffic layers and filtering, based on the Open Spatial Consortium (OGC) Web Map Service (WMS) and Web Feature Service (WFS) standards.

v1.0 of RTMPS is designed based on the FRONTEX service and is expected to be deployed in June 2020.

v1.1 of RTMPS is designed based on various IMS communities and is expected to be deployed in Q1 2021.

SERVICE ACCESS

Users will have access to the service through a web-based graphical user interface (SEG), as well as standardised system-to-system interfaces for other communities including FRONTEX.

SERVICE DATA (OR PRODUCTS)

Vessel positions / Dataset 2.2 (T-AIS), 2.6 (LRIT), 2.7 (SAT-AIS) and 2.8 (VMS)

BUSINESS UNIT

3.1 Maritime Digital Services

RELATED AGREEMENTS AND LEGAL BASIS

Interface and Functionality Control Document (IFCD) – section 3.4 Access rights per role (for AIS and LRIT access rights).

VMS data is provided only when there is an agreement between national IMS and fisheries control authorities.

SERVICE KPI

Scoreboard Activity/Service	LTS availability	
KPI indicator	Availability over a period of one year	99% (TBD)
KPI indicator	Maximum permissible period of interruption	12 hours (TBD)
KPI indicator	Percentage per year availability to Member States	99%

1.1.21 TDMS (TRAFFIC DENSITY MAPS)

SERVICE CLASS	Vessel Positioning
TYPE OF SERVICE	External service Internal service & Back-end for the external service
DESCRIPTION	

Service to calculate and provide to the SEG users and external systems the vessels traffic density mapping data (maps).

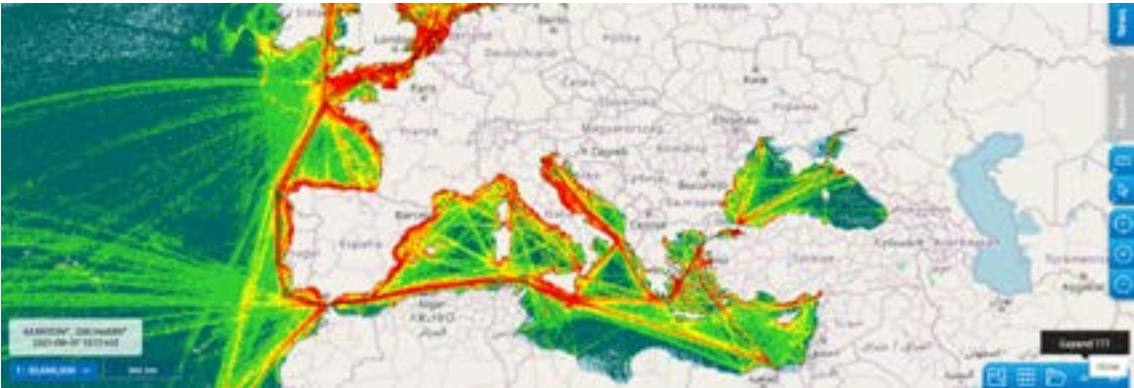
SERVICE ACCESS

The SEG users have access rights defined by the SSN NCAs. Reference: IFCD chapter 3.4.

SERVICE DATA (OR PRODUCTS)

Traffic density maps (TDMs) are composed of the image files, raster data files and metadata files.

BUSINESS UNIT	
3.3 Simplification	
RELATED AGREEMENTS AND LEGAL BASIS	
1) HLSG DM 3 and 4. 2) SLA between EMSA and DG MARE. 3) EMSA Work Programm.	
SERVICE KPI	
Scoreboard Activity/Service	N/A
KPI indicator	N/A
KPI indicator	N/A



1.1.22 SHIP TRACKING, AWARENESS AND REPORTING DATA – VDS CORRELATION SERVICE (STAR VDSCS)

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External service & Back-end for the external service

DESCRIPTION

The STAR VDSCS is a VDS correlation service that allows users to perform and request correlation results for vessels detected in Earth Observation (EO) images and positions available in STAR TRACKING.

For all correlated Vessel Detection Service (VDS) positions, it is possible to identify the correlation candidates and, for each candidate, to view the correlation confidence level and the distance between the candidate's estimated position and the VDS detected position.

SERVICE ACCESS

STAR VDSCS will be available for users with access to the service through a web-based graphical user interface (SEG), as well as standardised system-to-system interfaces for other communities including FRONTEx.

SERVICE DATA (OR PRODUCTS)

Earth Observation Value Added Products (VAPs): Vessel Detection Service (VDS) and Enriched Vessel Service (EVS);

Vessel Positions: AIS/LRIT/VMS

BUSINESS UNIT

3.1 Digital Maritime Services & 3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

SSN Interface and Functionality Control Document (IFCD)
 Service Level Agreement between FRONTEX and EMSA for the provision of services in support of FRONTEX activities, including for the implementation of the EUROSUR network.

SERVICE KPI		
Scoreboard Activity/Service	STAR VDSCS	
KPI indicator	Availability over a period of one year	99%
KPI indicator	Maximum permissible period of interruption	12 hours



1.1.23 BUSINESS INTELLIGENCE – IMS, SSN, AND ANALYTICS USE CASES

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External & internal service

DESCRIPTION

Qlik BI is a business intelligence tool allowing tracking of the users' activity in the Integrated Maritime Services (IMS) interfaces. It supports decision making on the future developments' priorities, monitoring of the anonymized users' activities in specific areas as well as the quality of the provisioned or processed data/information sets.

It consists of the text/tabular (sense) analytics and geo analytics modules.

It is also intended to provide a 'prototype' services to the external users for supporting risk assessment based on the combination of position data and 'enrichment' information from other maritime applications

SERVICE ACCESS

Dedicated Graphical Interface – Sense and Geo-analytics.

SERVICE DATA (OR PRODUCTS)

2.1 MRS, 2.7 Sat-AIS, 2.2, 2.5 T-AIS, 2.6 LRIT, 6.1 – 6.3 EO products, 1.1-1.9 SSN Enrichment

BUSINESS UNIT

3.1 Digital Maritime Services & 3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

VTMIS Directive – 2002/59/EC, as amended.

SERVICE KPI	
Scoreboard Activity/Service	N/A
KPI indicator	N/A
KPI indicator	N/A



1.1.24 MARITIME ANALYTICS TOOL - PROTOTYPE

SERVICE CLASS	Integrated Maritime Services
TYPE OF SERVICE	External & internal service

DESCRIPTION

Qlik BI is a business intelligence tool allowing tracking of the users' activity in the Integrated Maritime Services (IMS) interfaces. It is used to provide a 'prototype' services to the external users for supporting risk assessment based on the combination of position data and 'enrichment' information from other maritime applications.

SERVICE ACCESS

Dedicated Graphical interface – Sense and Geo-analytics.

SERVICE DATA (OR PRODUCTS)

2.1 MRS, 2.7 Sat-AIS, 2.2, 2.5 T-AIS, 2.6 LRIT, 6.1 – 6.3 EO products, 1.1 -1.9 SSN Enrichment

BUSINESS UNIT	
3.1 Digital Maritime Services & 3.3 Simplification	
RELATED AGREEMENTS AND LEGAL BASIS	
VTMIS Directive – 2002/59/EC, as amended.	
SERVICE KPI	
Scoreboard Activity/Service	N/A
KPI indicator	N/A
KPI indicator	N/A





1.2 CENTRAL REFERENCE DATABASES

1.2.1 CENTRAL SHIP DATABASE (CSD)

SERVICE CLASS	Central Reference Databases
TYPE OF SERVICE	External Service & Back-end for the external service

DESCRIPTION

The objective of CSD is to develop a reliable and flexible source of ship data which will support Member States authorities and EU agencies in the execution of their tasks (e.g. PSC inspections, vessel traffic monitoring, fisheries control, border control, law enforcement, navy, customs).

The CSD is meant to be used as a reference for ship identification information and ship particulars by all maritime applications of the SSN ecosystem as well as national systems of the Member States.

To build a complete and up-to-date database, the information should stem from several sources including EMSA maritime application, MS systems and commercial data providers.

SERVICE ACCESS

Users have access to the service through a web-based graphical user interface as well as standardised system-to-system interfaces.

In accordance with the Interface and Functionalities Control Document (IFCD), ship data is available to users from EU Member States' authorities executing functions in the maritime domain, Ports, EMSA, EC and other EU bodies.

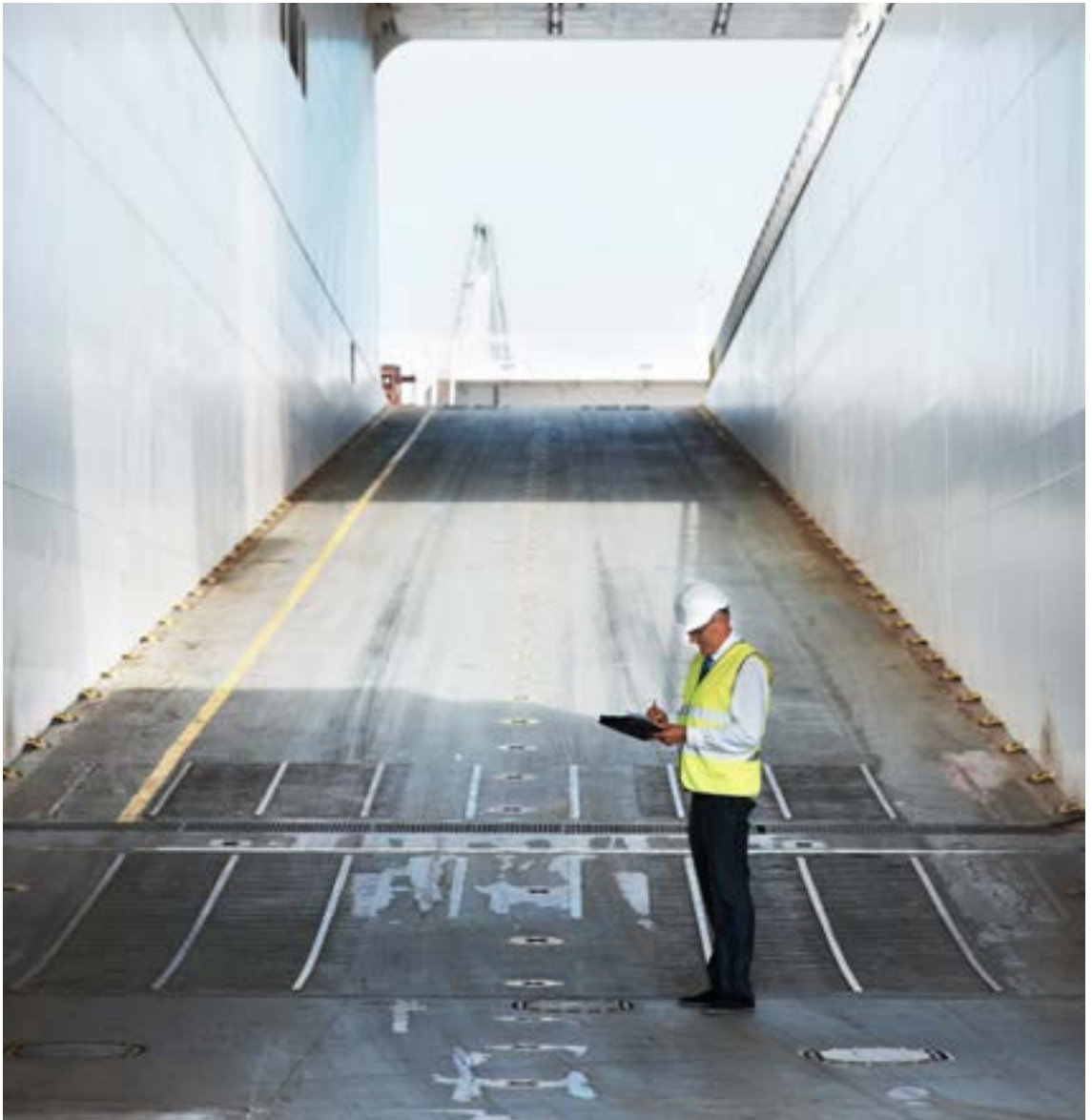
SERVICE DATA (OR PRODUCTS)

EMSA Central Reference Databases / Dataset 3.4 Central Ship Database

BUSINESS UNIT
3.3 Simplification
RELATED AGREEMENTS AND LEGAL BASIS

Interface and Functionality Control Document (IFCD) – section 5.2.3 Reference Database Management

SERVICE KPI		
Scoreboard Activity/Service	Central Ship Database (CSD) availability	
KPI indicator	Availability over a period of one year	99 %
KPI indicator	Maximum permissible period of interruption	12 hours



1.2.2 CENTRAL GEOGRAPHICAL DATABASE (CGD)

SERVICE CLASS	Central Reference Databases
TYPE OF SERVICE	Internal service

DESCRIPTION

The Central Geographical Database (CGD) is the consolidated repository of reference areas available for all EMSA applications and operations. Central Geographical Database (CGD) makes part of the IMDatE (IMS) technical platform. The CGD contains, among others:

- The areas of responsibility for the organizations/authorities registered in the Central Organizations Database (COD).
- Areas for Earth Observation – CleanSeaNet service-related alerting.
- Fishing and other specific areas provided by European Fisheries Control Agency (EFCA).
- Specific areas requested by IMS Member States, for instance, Ballast water exchange areas (OSPAR¹⁾, own operational areas, EEZ, SRR, etc.

The data scope as well as the access rights for specific areas are defined by the data owners and reflected in the graphical interface(s). CGD areas are provided various EMSA user communities based on their business scope and uploaded by the EMSA CGD admin.

SERVICE ACCESS

The CGD areas can be displayed via the IMS Graphical Interface (SEG). The CGD implements the OGC Web Feature Service (WFS) that can be used by any external application to retrieve and update reference geographical area information in a standard format.

¹) OSPAR is the mechanism by which 15 Governments & the EU cooperate to protect the marine environment of the North-East Atlantic. It combines and up-dates the 1972 Oslo Convention on dumping waste at sea and the 1974 Paris Convention on land-based sources of marine pollution. More information is available here: <https://www.ospar.org/>

SERVICE DATA (OR PRODUCTS)

3.1 Central Geographical Database (CGD)

BUSINESS UNIT

3.1 Digital Maritime Services & 3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

VTMIS Directive 2002/59/EC, as amended by the Directive 2014/100/EU (Annex III – 2.3); SSN Interface and Functionalities Control Document – sections: 2.4 Additional system functionalities; 2.4.2 Integrated Maritime Services (IMS) Functionalities.

SERVICE KPI

Scoreboard Activity/Service	CGD	
KPI indicator	percentage per year availability of CGD	99%
KPI indicator	hours maximum continuous downtime of CGD platform	12 max
KPI indicator	percentage per year availability to Member States	99%

1.2.3 CENTRAL ORGANISATION DATABASE (COD)

SERVICE CLASS	Central Reference Databases
TYPE OF SERVICE	External & Internal service
DESCRIPTION	

The Central Organisation Database (COD) keeps information related to public organisations, such as local and national authorities, and private companies and contractors, involved with the SafeSeaNet Ecosystem.

The initial purpose of the Central Organisation Database (COD) was to serve as the Shore-based Traffic Monitoring Infrastructure Database (STMID) which is meant to simplify and facilitate sharing of information regarding the authorities and coastal stations which have been designated by Member States in accordance with Article 22 of Directive 2002/59/EC.

Currently the COD serves also as a reference repository of organisations for configuring user accounts of EMSA applications (each user belongs to an organisation from COD).

SERVICE ACCESS

Users have access to the service through a web-based graphical user interface as well as standardised system-to-system interfaces.

In accordance with the Interface and Functionalities Control Document (IFCD), organisation data is available to EU Member States' authorities executing functions in the maritime domain, Ports, EMSA, EC and other EU bodies users.

SERVICE DATA (OR PRODUCTS)

EMSA Central Reference Databases / Data set 3.3 Central Organisation Database

BUSINESS UNIT

3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

Article 22 of the Directive 2002/59/EC as amended
 Interface and Functionality Control Document (IFCD) – section 5.2.3 Reference Database Management

SERVICE KPI

Scoreboard Activity/Service	Central Organisation Database (COD) availability	
KPI indicator	Availability over a period of one year	99%
KPI indicator	Maximum permissible period of interruption	12 hours

1.2.4 CENTRAL LOCATION DATABASE (CLD)

SERVICE CLASS	Central Reference Databases
TYPE OF SERVICE	External & Internal service

DESCRIPTION

The Central Location Database (CLD) is used as a reference for locations by all maritime applications of the SSN ecosystem as well as national systems of the Member States.

The CLD includes all LOCODEs listed in UN/LOCODE list, SSN specific locations as well as port facilities information stemming from the IMO Maritime Security module of the Global Integrated Shipping Information System (GISIS).

SERVICE ACCESS

Users have access to the service through a web-based graphical user interface as well as standardised system-to-system interfaces.

In accordance with the Interface and Functionalities Control Document (IFCD), location data is available to EU Member States' authorities executing functions in the maritime domain, Ports, EMSA, EC and other EU bodies users.

SERVICE DATA (OR PRODUCTS)

EMSA Central Reference Databases / Data set 3.2 Central Location Database

BUSINESS UNIT

3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

Interface and Functionality Control Document (IFCD) – section 5.2.3 Reference Database Management

SERVICE KPI		
Scoreboard Activity/Service	Central Location Database (CLD) availability	
KPI indicator	Availability over a period of one year	99%
KPI indicator	Maximum permissible period of interruption	12 hours

1.2.5 OPEN GEOSPATIAL CONSORTIUM CENTRAL LOCATION DATABASE (OGC-CLD)

SERVICE CLASS	Central Reference Databases
TYPE OF SERVICE	External & Internal service

DESCRIPTION

The Central Location Database (CLD) is used as a reference for locations by all maritime applications of the SSN ecosystem as well as national systems of the Member States. The CLD includes all LOCODEs listed in UN/LOCODE list, SSN specific locations as well as port facilities information stemming from the IMO Maritime Security module of the Global Integrated Shipping Information System (GISIS).

The OGC-CLD provides access to the CLD in specific formats used in system-to-system exchanges, namely Web Map Service (WMS) and Web Feature Service (WFS).

SERVICE ACCESS

Users have access to the service through a web-based graphical user interface as well as standardised system-to-system interfaces. In accordance with the Interface and Functionalities Control Document (IFCD), location data is available to EU Member States' authorities executing functions in the maritime domain, Ports, EMSA, EC and other EU bodies users.

SERVICE DATA (OR PRODUCTS)

EMSA Central Reference Databases / Data set 3.2 Central Organisation Database

BUSINESS UNIT

3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

SSN Interface and Functionality Control Document (IFCD) – section 5.2.3 Reference Database Management

SERVICE KPI		
Scoreboard Activity/Service	Central Location Database (CLD) availability	
KPI indicator	Availability over a period of one year	99%
KPI indicator	Maximum permissible period of interruption	12 hours

1.2.6 CENTRAL HAZMAT DATABASE - CHD

SERVICE CLASS	Central Reference Databases
TYPE OF SERVICE	External & Internal service

DESCRIPTION

The Central Hazmat Database (CHD) includes a list of dangerous and polluting goods that must be notified in accordance with Directive 2002/59/EC, as amended, and IMO FAL Form 7, taking into consideration the relevant data elements from the IMO Conventions and Codes.

The CHD may be used as a reference and a verification tool during the reporting of HAZMAT for SSN at central or at national level.

It provides also access to the marine chemical information sheets (MAR-CIS) database of associated hazards and risks of dangerous and polluting products.

SERVICE ACCESS

Access is freely available to any interested party through a web-based graphical user interface.

A system-to-system interface is also available to EU Member States' authorities executing functions in the maritime domain, Ports, EMSA, EC and other EU bodies users.

SERVICE DATA (OR PRODUCTS)

EMSA Central Reference Databases / Data set 3.5 Central Hazmat Database

BUSINESS UNIT

3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

Article 13 of Directive 2002/59/EC as amended

Article 16 of Regulation 2019/1239

Interface and Functionality Control Document (IFCD) – section 5.2.3 Reference Database Management

SERVICE KPI

Scoreboard Activity/Service	Central Organisation Database (CHD) availability	
KPI indicator	Availability over a period of one year	99%
KPI indicator	Maximum permissible period of interruption	12 hours

1.2.7 MAR-CIS

SERVICE CLASS	Central Reference Databases
TYPE OF SERVICE	External service

DESCRIPTION

The MAR-CIS Marine Chemical Information Sheets are datasheets of chemical substances developed by EMSA that gather relevant information from different sources 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.

SERVICE ACCESS

Users have access to the service through a web-based graphical user interface. The service follows all relevant agreed access rights, as defined by the data owners. The users have also access to same information through an application for mobile devices (available at Google Play Store and App Store).

SERVICE DATA (OR PRODUCTS)

Dataset 3.6 MAR-CIS

BUSINESS UNIT

1.1 Sustainability

RELATED AGREEMENTS AND LEGAL BASIS

The MAR-CIS Datasheets have been developed in accordance with Regulation No 724/2004 setting a legal obligation EMSA in the field of response to ship sourced pollution within EU waters.

SERVICE KPI	
Scoreboard Activity/Service	ABB 5300; KPI No.98
KPI indicator	Number of datasheets to be produced/ revised per year - 25 %





1.3 EARTH OBSERVATION

1.3.1 CLEANSEANET (CSN)

SERVICE CLASS	Earth Observation
TYPE OF SERVICE	External Service
DESCRIPTION	

The CleanSeaNet is a European satellite-based oil spill and vessel detection service which offers assistance to participating States for the following activities:

- Identifying and tracing oil pollution on the sea surface;
- Monitoring accidental pollution during emergencies and
- Contributing to the identification of polluters.

The CleanSeaNet service is based on the regular ordering of Synthetic Aperture Radar (SAR) satellite images, providing night and day worldwide coverage of maritime areas independent of fog and cloud cover. Data from these satellites is processed into images and analysed for oil spill, vessel detection and meteorological variables. The information retrieved includes among others: spill location, spill area and length, confidence level of the detection and supporting information on the potential source of the spill (i.e. detection of vessels and oil and gas installations). Optical satellite images can also be acquired upon request, depending on the situation and user’s needs. When a possible oil spill is detected in European waters, an alert message is sent to coastal States. Analysed images are available to national contact points in near-real time and are sent to the national authorities who then follow up on the alert report. CleanSeaNet’s near-real time service capabilities are crucial to a rapid response by coastal states as well as to increase the likelihood of catching the polluter red-handed. In case of oil spill related accidents or emergencies the affected coastal State can request additional satellite images to monitor the spill area over an extended period of time, capturing the evolution of the spill and supporting response and recovery operations



SERVICE ACCESS

The service is made available through the following channels:

- SafeSeaNet Ecosystem Graphical User Interface (SEG)
- System to system interfaces to EMSA's Earth Observation Data Centre
- Alert reports and notifications sent to users

SERVICE PRODUCTS

6.1 CleanSeaNet products

BUSINESS UNIT

2.2 Surveillance

RELATED AGREEMENTS AND LEGAL BASIS

Directive 2005/35/EC (since amended by Directive 2009/123/EC) on ship-source pollution and on the introduction of penalties, including criminal penalties, for pollution offences. The Directive tasks EMSA to “work with the member states in developing technical solutions and providing technical assistance in actions such as tracing discharges by satellite monitoring and surveillance”.



SERVICE KPI		
KPI indicator	CleanSeaNet service earth observation (EO) image delivery	90%
KPI indicator	Assistance for accidental spills	100%
KPI indicator	Participation in oil spill response exercises	80%
KPI indicator	Earth Observation Data Centre operational availability	97.5%

1.3.2 COPERNICUS MARITIME SURVEILLANCE (CMS)

SERVICE CLASS	Earth Observation
TYPE OF SERVICE	Extrenal service

DESCRIPTION

Copernicus is a European Union Programme aimed at developing European information services based on satellite Earth Observation (EO) and in-situ (non-space) data. The CMS service supports monitoring of human activity at sea for a range of functions, including amongst others fisheries control, maritime safety and security, marine environment pollution monitoring, customs, law enforcement and support to international organisations. The CMS service can be accessed by European Union (EU) and European Free Trade Association (EFTA) national administrations with responsibilities at sea, as well as relevant EU bodies and institutions.

SERVICE ACCESS

The service is made available through the following channels:

- SafeSeaNet Ecosystem Graphical User Interface (SEG)
- System to system interfaces to EMSA's Earth Observation Data Centre
- Alert reports and notifications sent to User

SERVICE PRODUCTS

6.3 Copernicus Maritime Surveillance products

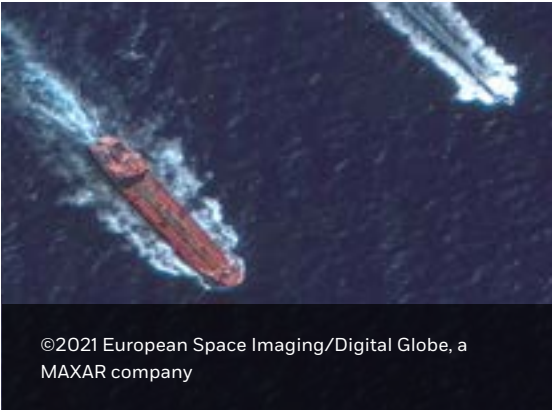
BUSINESS UNIT

2.2 Surveillance

RELATED AGREEMENTS AND LEGAL BASIS

Copernicus is a European Union Programme aimed at developing European information services based on satellite Earth Observation and in-situ (non-space) data. The program was established by Regulation (EU) No 377/2014 and is coordinated and managed by the European Commission. EMSA is the entrusted entity that implements CMS on behalf of the European Commission (DG-DEFIS) as defined in the Delegation Agreement signed between both institutions

SERVICE KPI		
KPI indicator	Number of Member States National Administrations, EU institutions and international organisations using the service (2020)	50
KPI indicator	Percentage per year EO image delivery ratio	90%





1.4 VESSEL POSITIONING AND REPORTING

1.4.1 SAFESEANET EUROPEAN INDEX SERVER (SSN EIS)

SERVICE CLASS	Vessel Positioning
TYPE OF SERVICE	External Service

DESCRIPTION

SafeSeaNet is a specialised system established to facilitate the exchange of information in an electronic format between Member States and to provide the Commission with the relevant information in accordance with Community legislation (information on e.g. ships, voyages and port calls, dangerous and polluting goods, waste and residues, bunkers, ship security, incident reports, ship exemptions, mandatory ship reports). It is composed of a network of national SafeSeaNet systems in Member States and a SafeSeaNet central system acting as a nodal point.

SERVICE ACCESS

Information is made available to users from EU Member States' authorities executing functions in the maritime domain (Coastal Station, Port State Control, Waste Authority, Security Authority, Port Authority), EC and EU bodies. Access is done through a dedicated user interface or SEG as well as through system-to-system interfaces.

SERVICE PRODUCTS

Information on ships, voyages and port calls, dangerous and polluting goods ("hazmat"), waste and residues, bunkers, ship security, incident reports, ship exemptions, mandatory ship reports.

BUSINESS UNIT

3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

Directive 2002/59/EC on Vessel Traffic Monitoring,
 Directive 2010/65/EU on Reporting Formalities,
 Directive (EU) 2019/883 on Port Reception Facilities,
 Directive 2009/16/EC on Port State Control,
 Regulation (EU) 725/2004 on ship and port security,
 Directive (EU) 98/41/EC on the registration of persons sailing on board passenger ships

SERVICE KPI

SafeSeaNet system: Service Operation	Percentage per year availability of central SafeSeaNet system	99%
SafeSeaNet system: Service Operation	Hours maximum continuous downtime of central SafeSeaNet system	Max 12
SafeSeaNet system: Reporting Performance	Percentage of notifications processed in time in accordance with SafeSeaNet IFCD requirements	99%
SafeSeaNet system: Reporting Performance	Percentage of responses to Member States' requests delivered in accordance with SafeSeaNet IFCD (time) requirements	99%



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1.4.2 STAR STREAMING (T-AIS DATA)

SERVICE CLASS	Vessel Positioning
TYPE OF SERVICE	External & internal service

DESCRIPTION

T-AIS data streaming to SSN by the regional AIS servers (NSATL, HELCOM and MARES) and/or MSs exploiting the direct connection.

The T-AIS data are collected by national AIS systems of the participating MSs and provided to SSN through the regional AIS servers (or directly).

SERVICE ACCESS

The users access rights to T-AIS data are defined by the SSN IFCD document.

SERVICE PRODUCTS

T-AIS data

BUSINESS UNIT

3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

IFCD Chapter 2.5.2

SERVICE KPI		
Scoreboard Activity/Service	The service requirements for the regional AIS servers are defined by the service level agreements.	
KPI indicator	Time to respond	As per SLAs
KPI indicator	Time to solve	As per SLAs



1.4.3 EUROPEAN UNION LONG-RANGE IDENTIFICATION AND TRACKING SYSTEM COOPERATIVE DATA CENTRE (EU LRIT CDC)

SERVICE CLASS	Vessel Positioning
TYPE OF SERVICE	External service

DESCRIPTION

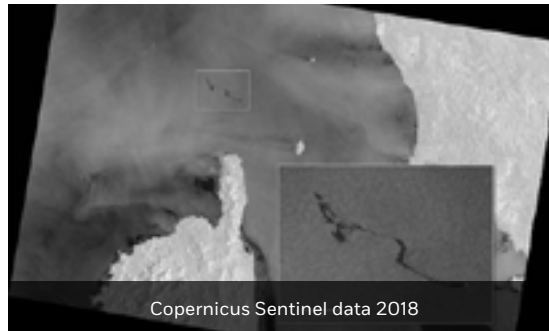
Vessel position information automatically transmitted by as shipborne equipment via satellite communication networks.

SERVICE ACCESS

Web service, system to system, and web interface.

SERVICE DATA

'2.6': LRIT



BUSINESS UNIT

3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

Resolution MSC.202(81), adopted on 19 May 2006, amends the International Convention for the Safety of Life at Sea, 1974, as amended, by including Regulation 19-1 Long-range identification and tracking of ships.

SERVICE KPI

Scoreboard Activity/Service	Long-range identification and tracking system - Technical documentation (Part I), MSC.1/Circ.1259 rev8	
KPI indicator	Percentage per month availability EU LRIT Data Centre	99%
KPI indicator	Maximum continuous downtime	4 hours
KPI indicator	Percentage position reports delivered in accordance with IMO requirements (periodic reports: 15 min; polls: 30 min)	99%
KPI indicator	Percentage per year availability to users	99%

1.4.4 INTERNATIONAL LONG-RANGE IDENTIFICATION AND TRACKING SYSTEM DATA EXCHANGE (LRIT IDE)

SERVICE CLASS	Vessel Positioning
TYPE OF SERVICE	External service

DESCRIPTION

The International LRIT Data Exchange (LRIT IDE) is a message handling service that facilitates the exchange of LRIT information amongst LRIT Data Centres to enable LRIT Data Users to obtain that LRIT information that they are entitled to receive. The IDE routes messages between LRIT DCs

SERVICE ACCESS

Web service and web interface.

SERVICE DATA

'2.6' - The IDE stores and archives LRIT message header information in a Journal(s) for audit, billing, and statistical analysis purposes.

BUSINESS UNIT

3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

Resolution MSC.202(81), adopted on 19 May 2006, amends the International Convention for the Safety of Life at Sea, 1974, as amended, by including Regulation 19-1 Long-range identification and tracking of ships.

SERVICE KPI

Scoreboard Activity/Service	Long-range identification and tracking system - Technical documentation (Part I), MSC.1/Circ.1259 rev.8 Continuity of service plan for the LRIT system, MSC.1/Circ.1376 rev.3	
KPI indicator	Availability measured over a year and better than	99.9%
KPI indicator	Maximum continuous downtime less than	4 hours
KPI indicator	Availability measured in any one day over and better	99%



Grounding of M/V Rinella M near Barbarinac Island (Croatia) on 06/02/2020

1.5 SHIP SAFETY AND POLLUTION PREVENTION

1.5.1 EUROPEAN MARINE CASUALTY INFORMATION PLATFORM (EMCIP)

SERVICE CLASS	Ship safety and pollution prevention
TYPE OF SERVICE	External & internal service

DESCRIPTION

EMCIP provides the means to store data and information related to marine casualties and incidents involving all types of ships including occupational accidents related to ship operations. It also enables the production of statistics and analysis of the technical, human, environmental and organisational factors involved in accidents at sea. EMCIP is provided with a query engine, export tools and a graphical interface supporting data analysis. EMCIP is also connected to the Global Integrated Shipping Information System (GISIS) managed by the International Maritime Organisation, thus supporting the dissemination of investigation data reported by the EU/EEA MS at a global level.

SERVICE ACCESS

Access to the EMCIP is granted to staff authorised by Investigative Bodies or by other entitled Authorities of the EU Member States. Authorized users have access to the service through the EMSA MAP. Information about marine casualties and incidents, such as the investigation reports and “anonymized” data about the notified occurrences, is also made accessible to the public via the EMSA website. The service follows all relevant agreed access rights, as defined by the data owners.

SERVICE DATA

For all the notified occurrences, the dataset includes,

- ship and voyage particulars
- environment conditions
- casualty data, including date and time and type of the event
- consequences to people, ship and environment

Moreover, for investigated occurrences, additional information includes data relating to the sequence of accidental events, the identification of contributing factors, including human factors and others relating to shipboard operations, shore management and regulatory influence, and any resulting safety recommendations and safety actions taken.

BUSINESS UNIT

2.1 Safety & Security

RELATED AGREEMENTS AND LEGAL BASIS

Directive 2009/18/EC, art.17, establishing EMCIP

SERVICE KPI		
Scoreboard Activity/Service	EMCIP	
KPI indicator	Percentage per year availability of EMCIP	90%
KPI indicator	Continuous downtime for maintenance (on a monthly basis), including updates, security patches, exercises	4 hours



The cargo ship BSLE Sunrise stranded at the El Saler Beach after a big storm on September 30, 2012 in Valencia, Spain.



On the night of January 1, 2019, MSC Zoe lost approximately 290 containers in heavy weather on the journey from Portugal to Bremerhaven.



1.5.2 MED DATABASE - 'MARINE EQUIPMENT DIRECTIVE DATABASE

SERVICE CLASS	Ship safety and pollution prevention
TYPE OF SERVICE	External service

DESCRIPTION

The MED Database contains information on products which have been certified by Notified Bodies under the European Marine Equipment Directive (MED). This includes products which can be currently found in the market, but also products which have been in the market in the past and still can be found on board EU flagged ships in operation. This system, with currently registered 190.000 items is used as a unique reference list of the MED approved equipment for the Maritime Administration and the maritime industry. The newly upgraded tool supports also the implementation of the e-Tag and facilitates access to the Declaration of Conformity (DoC).

SERVICE ACCESS

Web-portal; mobile app - already available (planned: system2system)

SERVICE DATA

Data on the equipment certified under the MED 2014/90/EU

BUSINESS UNIT

2.1 Safety & Security

RELATED AGREEMENTS AND LEGAL BASIS

2014/90/EU; 96/98/EC

SERVICE KPI

Scoreboard Activity/Service	N/A	
KPI indicator	Percentage per year availability of MED Database	95%
KPI indicator	N/A	
KPI indicator	N/A	



1.5.3 THETIS PSC

SERVICE CLASS	Ship safety and pollution prevention
TYPE OF SERVICE	External Service & Back-end for the external service
DESCRIPTION	

THETIS provides a comprehensive overview of ships for inspection authorities in the Paris Memorandum of Understanding (PMoU) area, to guide and support the inspection process.

THETIS is an information system, hosted, maintained and operated by EMSA, developed to support the PMoU's New Inspection Regime for Port State Control. This service provides users with functionalities for reporting, consulting, correction and publication of inspection reports.

THETIS stores and processes ship call information; calculates the Ship Risk Profile and Priority for each ship in the database on a daily basis; organises the workflow from call to inspection, report and follow up action; and provides and publishes information. The system receives ship arrival and departure information from SafeSeaNet, and from the Canadian and Russian equivalents, which allows THETIS to work as the central system of the PMoU rather than just the EU. The system is accessible to all parties of the PMoU.

SERVICE ACCESS

EMSA portal for restricted area – free for public website, mobile client

SERVICE DATA

THETIS database – ship/inspection

BUSINESS UNIT

3.1 Maritime Digital Services

RELATED AGREEMENTS AND LEGAL BASIS

The port State control Directive 2009/16/EC as amended and its 3 implementing regulations form a significant part thereof.

In addition, Directive (EU) 2017/2110 provides for a system of mandatory inspections for the ro-ro ferries and high-speed passenger crafts to be carried out by EU flag States and further amends Directive 2009/16/EC introducing mandatory inspections for said ships under port State control.

An arrangement with the Paris MoU establishing the role of EMSA, detailing basic features of the system and hosting arrangements exists. This arrangement dates from May 2011, the first year of THETIS.

2014/90/EU; 96/98/EC

SERVICE KPI		
Scoreboard Activity/Service	System operational	
KPI indicator	Percentage per year availability of THETIS	96%
KPI indicator	Hours maximum continuous downtime	6 hours
Scoreboard Activity/Service	Helpdesk service	
KPI indicator	Average time in working hours for feedback on requests for user support	4 hours max
KPI indicator	Average time in working hours for feedback on requests from the public and other un-registered users	4 hours max
Scoreboard Activity/Service	Links with 3 rd party systems	
KPI indicator	Port calls provided by a webservice by member state without SSN. Inspection report by a webservice by non-EU-member states (CA and RU) Recognized Organization (RO) webservice to upload certificates information hours maximum continuous downtime	6 hours



1.5.4 THETIS EU – MARSEC

SERVICE CLASS	Ship safety and pollution prevention
TYPE OF SERVICE	External Service & Back-end for the external service
DESCRIPTION	
<p>THETIS EU - MARSEC provides a comprehensive overview of ships for EU inspection authorities to guide and support the inspection process for Maritime Security purposes (MARSEC).</p> <p>The ISPS Code is mandatory for EU and EEA Member States. Moreover, the Regulation makes Part B of the ISPS code mandatory above the voluntary status of the part in the ISPS.</p>	
SERVICE DATA	
THETIS-EU database ship/inspection	
SERVICE ACCESS	
EMSA portal for restricted area	
BUSINESS UNIT	
3.1 Maritime Digital Services	

RELATED AGREEMENTS AND LEGAL BASIS

Regulation 725/2004 is supported by THETIS EU since January 2019;

SERVICE KPI		
Scoreboard Activity/Service	System operational	
KPI indicator	Percentage per year availability of THETIS	96%
KPI indicator	Hours maximum continuous downtime	6 hours
Scoreboard Activity/Service	Helpdesk service	
KPI indicator	Average time in working hours for feedback on requests for user support	4 hours max
KPI indicator	Average time in working hours for feedback on requests from the public and other un-registered users	4 hours max

1.5.5 THETIS EU – PRF

SERVICE CLASS	Ship safety and pollution prevention
TYPE OF SERVICE	External Service & Back-end for the external service
DESCRIPTION	
<p>THETIS EU-PRF provides a comprehensive overview of ships for EU inspection authorities, to guide and support the inspection process regarding waste delivery at Port Reception Facilities (PRF) .</p> <p>All ships operating in the EU area are to comply with the provisions on delivery of ship generated waste and cargo residues. The operational part of the Directive requires per-arrival notifications specifying the type and volume of waste collected on board. After delivery in port and upon departure, similar notifications have to be provided. The information shall be routed through SSN and be relayed to THETIS EU with an aim to serve the competent authorities on the Member States when selecting ships for inspections, perform and follow-up of inspections.</p>	
SERVICE ACCESS	
EMSA portal for restricted area	
SERVICE DATA	
THETIS database – ship/inspection	
BUSINESS UNIT	
3.1 Maritime Digital Services	

RELATED AGREEMENTS AND LEGAL BASIS

Directive 2002/59 is supported by THETIS EU since April 2016; the support for the subsequent Directive 2019/883 will be available as from 28 June 2021.

SERVICE KPI		
Scoreboard Activity/Service	System operational	
KPI indicator	Percentage per year availability of THETIS	96%
KPI indicator	Hours maximum continuous downtime	6 hours
Scoreboard Activity/Service	Helpdesk service	
KPI indicator	Average time in working hours for feedback on requests for user support	4 hours max
KPI indicator	Average time in working hours for feedback on requests from the public and other un-registered users	4 hours max

1.5.6 THETIS EU – SRR

SERVICE CLASS	Ship safety and pollution prevention
TYPE OF SERVICE	External Service & Back-end for the external service
DESCRIPTION	
<p>THETIS EU – SRR provides a comprehensive overview of ships for EU inspection authorities to guide and support the inspection process to Ship Recycling Report (SRR).</p> <p>Data emanates from ship inspections (only). No data on facilities or on Inventories of Hazardous materials is inspected, other than as part of the ship inspection. The ship inspection is also only an enforcement inspection and not an authorisation. Details of the inspection, findings and actions taken as result thereof are recorded in THETIS EU</p>	
SERVICE ACCESS	
EMSA portal for restricted area	
SERVICE DATA	
THETIS database – ship/inspection	
BUSINESS UNIT	
3.1 Maritime Digital Services	

RELATED AGREEMENTS AND LEGAL BASIS

Regulation 1257/2013 is supported by THETIS since August 2019 and will be further supported by THETIS EU from June 2020 which includes the relevant amendments of Directive 2009/16 on PSC

SERVICE KPI		
Scoreboard Activity/Service	System operational	
KPI indicator	Percentage per year availability of THETIS	96%
KPI indicator	Hours maximum continuous downtime	6 hours
Scoreboard Activity/Service	Helpdesk service	
KPI indicator	Average time in working hours for feedback on requests for user support	4 hours max
KPI indicator	Average time in working hours for feedback on requests from the public and other un-registered users	4 hours max

1.5.7 THETIS EU - ROPAX

SERVICE CLASS	Ship safety and pollution prevention
TYPE OF SERVICE	External Service & Back-end for the external service
DESCRIPTION	

THETIS EU - RoPAX provides a comprehensive overview of ships for EU inspection authorities, to guide and support the inspection process regarding to ro-ro passenger ships and high-speed passenger craft in regular service.

The enforcement inspections for foreign flagged ships fully under PSC and therefore the inspections fully assimilated and recorded in THETIS as PSC information system. Inspections performed on national flagged ships because the ship either operates domestically, or between a homeport and a non-EU port do not come under PSC and therefore have to be recorded separately. The application to be used is THETIS EU -RoPAX.

These inspections relate to enforcement inspections and are not Flag State surveys related to the validity of statutory certificates.

SERVICE ACCESS

EMSA portal for restricted area

SERVICE DATA

THETIS database – ship/inspection

BUSINESS UNIT

3.1 Maritime Digital Services

RELATED AGREEMENTS AND LEGAL BASIS

Regulation 1257/2013 is supported by THETIS since August 2019 and will be further supported by THETIS EU from June 2020 which includes the relevant amendments of Directive 2009/16 on PSC

SERVICE KPI

Scoreboard Activity/Service	System operational	
KPI indicator	Percentage per year availability of THETIS	96%
KPI indicator	Hours maximum continuous downtime	6 hours
Scoreboard Activity/Service	Helpdesk service	
KPI indicator	Average time in working hours for feedback on requests for user support	4 hours max
KPI indicator	Average time in working hours for feedback on requests from the public and other un-registered users	4 hours max

1.5.8 THETIS EU - SULPHUR

SERVICE CLASS	Ship safety and pollution prevention
TYPE OF SERVICE	External Service & Back-end for the external service
DESCRIPTION	
<p>THETIS EU – Sulphur provides a comprehensive overview of ships for EU inspection authorities, to guide and support the inspection process harmonised approach for the inspection of ships, ascertaining their compliance, identifying non-compliances and applying control procedures for the enforcement, as regards the sulphur content of marine fuels (hereafter referred to as ‘the Directive’).</p> <p>THETIS-EU is an information system, hosted, maintained and operated by EMSA, developed to support the competent authorities. This service provides users with functionalities for reporting, consulting and correction of inspection reports.</p>	
SERVICE ACCESS	
EMSA portal for restricted area, mobile client	
SERVICE DATA	
THETIS database – ship/inspection	
BUSINESS UNIT	
3.1 Maritime Digital Services	

RELATED AGREEMENTS AND LEGAL BASIS

Directive (EU) 2016/802 (codified Council Directive 1999/32/EC as amended)

SERVICE KPI		
Scoreboard Activity/Service	System operational	
KPI indicator	Percentage per year availability of THETIS	96%
KPI indicator	Hours maximum continuous downtime	6 hours
Scoreboard Activity/Service	Helpdesk service	
KPI indicator	Average time in working hours for feedback on requests for user support	4 hours max
KPI indicator	Average time in working hours for feedback on requests from the public and other un-registered users	4 hours max
Scoreboard Activity/Service	Links with 3 rd party systems	
KPI indicator	Air emission report provided by a webservice by member state - hours maximum continuous downtime	6 hours

1.5.9 THETIS ECERTIFICATES

SERVICE CLASS	Ship safety and pollution prevention
TYPE OF SERVICE	External Service & Back-end for the external service
DESCRIPTION	
<p>THETIS eCertificates provides users of THETIS a complete overview of statutory certificates, class certificates and class conditions as issued by one or more of the EU Recognized Organisations.</p> <p>Data received is collected by the RO's while acting on behalf of the Flag State of the ship. No filtering is performed, guaranteeing the data remains as provided. The current dataset covers metadata of the issued certificates, while since Jan 2020 the service is capable of handling all data recorded in the certificates and their annexes.</p>	
SERVICE ACCESS	
EMSA portal for restricted area	
SERVICE DATA	
THETIS database – ship/inspection	
BUSINESS UNIT	
3.1 Maritime Digital Services	

RELATED AGREEMENTS AND LEGAL BASIS

Regulation 391/2009 is supported by THETIS since January 2011

SERVICE KPI		
Scoreboard Activity/Service	System operational	
KPI indicator	Percentage per year availability of THETIS	96%
KPI indicator	Hours maximum continuous downtime	6 hours
Scoreboard Activity/Service	Helpdesk service	
KPI indicator	Average time in working hours for feedback on requests for user support	4 hours max
KPI indicator	Average time in working hours for feedback on requests from the public and other un-registered users	4 hours max

1.5.10 THETIS MED

SERVICE CLASS	Ship safety and pollution prevention
TYPE OF SERVICE	External Service & Back-end for the external service
DESCRIPTION	

THETIS Med provides a comprehensive overview of ships for inspection authorities in the Mediterranean Memorandum of Understanding (MED MoU) area, to guide and support the inspection process.

THETIS is an information system, hosted, maintained and operated by EMSA, developed to support the Med MoU's for Port State Control. This service provides users with functionalities for reporting, consulting and correction of inspection reports.

THETIS stores and processes ship call information; calculates the target factor and Priority for each ship in the database on a daily basis; organises the workflow from call to inspection, report and follow up action; and provides and publishes information. The system receives ship arrival and departure information from SafeSeaNet for Cyprus and Malta and equivalent for MS subscribing to webservice. The system is accessible to all parties of the Med MoU- 10 countries + secretariat and including statistic reporting.

The public site where recorded information can be consulted using user defined search criteria

SERVICE ACCESS

EMSA portal for restricted area

SERVICE DATA

THETIS database – ship/inspection

BUSINESS UNIT

3.1 Maritime Digital Services

RELATED AGREEMENTS AND LEGAL BASIS

Safe Med IV

SERVICE KPI

Scoreboard Activity/Service	System operational	
KPI indicator	Percentage per year availability of THETIS	96%
KPI indicator	Hours maximum continuous downtime	6 hours
Scoreboard Activity/Service	Helpdesk service	
KPI indicator	Average time in working hours for feedback on requests for user support	4 hours max
KPI indicator	Average time in working hours for feedback on requests from the public and other un-registered users	4 hours max
Scoreboard Activity/Service	Links with 3 rd party systems	
KPI indicator	Air emission report provided by a webservice by member state - hours maximum continuous downtime	6 hours

1.5.11 THETIS MRV

SERVICE CLASS	Ship safety and pollution prevention
TYPE OF SERVICE	External service, internal service & back-end for the external service

DESCRIPTION

THETIS MRV provides a comprehensive overview of ships for reporting fuel consumed on voyages from outside to ports in the Union, from ports in the Union to places outside the Union and voyages between two or more ports in the Union by the ship owner to guide and support the reporting process. THETIS MRV is an information system, hosted, maintained and operated by EMSA, developed to support the shipowner, certifier and EC. This service provides users with functionalities for reporting, consulting and correction of emission reports.

In THETIS -PSC inspections since 01 July 2019 shall include the MRV DoC in the document checks

SERVICE ACCESS

EMSA portal for restricted area

SERVICE DATA

THETIS database – ship/inspection

BUSINESS UNIT

1.1 Sustainability

RELATED AGREEMENTS AND LEGAL BASIS

Regulation 757/2015 is supported by THETIS-MRV since August 2017.

SERVICE KPI		
Scoreboard Activity/Service	System operational	
KPI indicator	Percentage per year availability of THETIS	96%
KPI indicator	Hours maximum continuous downtime	6 hours
Scoreboard Activity/Service	Helpdesk service	
KPI indicator	Average time in working hours for feedback on requests for user support	4 hours max
KPI indicator	Average time in working hours for feedback on requests from the public and other un-registered users	4 hours max
Scoreboard Activity/Service	Links with 3 rd party systems	
KPI indicator	Air emission report provided by a webservice by member state - hours maximum continuous downtime	6 hours



1.6 HUMAN ELEMENT

1.6.1 STCW-IS: STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING INFORMATION SYSTEM

SERVICE CLASS	Human Element
TYPE OF SERVICE	External service & internal service

DESCRIPTION

The STCW-IS is an information system that provides public information on the EU systems of maritime education, training and certification of seafarers.

In addition, it stores the findings of EMSA's visit and inspection reports to facilitate the identification of the level of implementation of Directive 2008/106/EC, on the minimum level of training of seafarers.

Furthermore, the system gathers data on certificates and endorsements issued to seafarers at EU level for statistical purposes, which is publicly made available through an annual review report in EMSA's website and portal.

SERVICE ACCESS

Web interface and system to system

SERVICE DATA

Data is provided and/or updated by the EU Member States + Norway and Iceland

[Refer to the list of datasets, starting on page 5 - Link]

BUSINESS UNIT

1.2. Visits & Inspections, Human Element

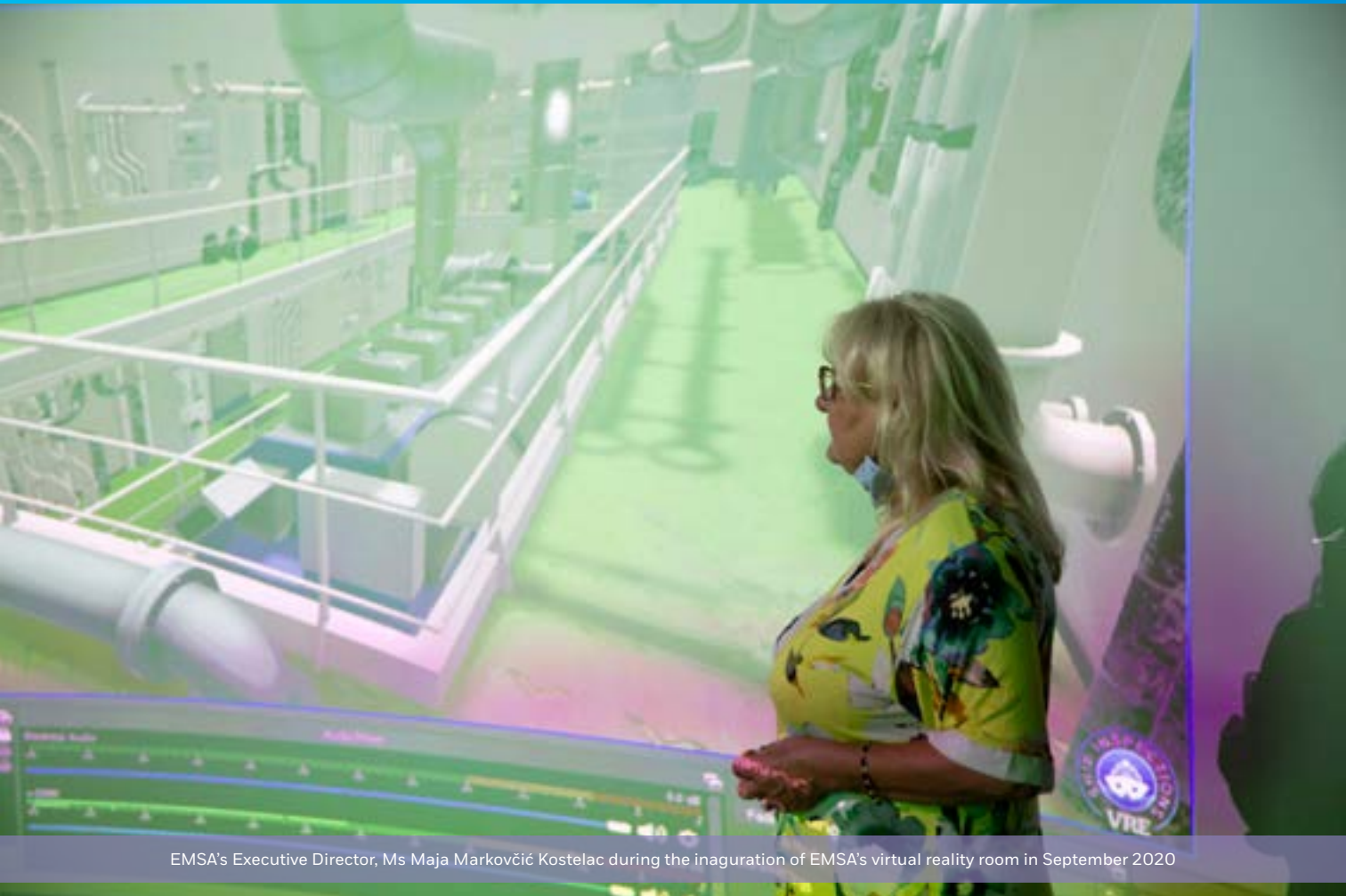
RELATED AGREEMENTS AND LEGAL BASIS

Directive 2008/106/EC of the European Parliament and of the Council of 19 November 2008 on the minimum level of training of seafarers, as amended

SERVICE KPI

Scoreboard Activity/Service	STCW Information System	
KPI indicator	Percentage per year availability	95%





EMSA's Executive Director, Ms Maja Markovčić Kostelac during the inauguration of EMSA's virtual reality room in September 2020

1.7 E-LEARNING MARITIME KNOWLEDGE

1.7.1 MARITIME KNOWLEDGE CENTRE SERVICES - MAKCS

SERVICE CLASS	E-learning, maritime knowledge
TYPE OF SERVICE	External service

DESCRIPTION

MaKCs (Maritime Knowledge Centre Services) is a cost-effective and efficient platform based on Moodle which allows the publication of up-to-date training material and courses to a large number of users worldwide. It enables tracking and tracing courses' completion and progression and it interfaces with VRESI with the aim of tracking students' completion of training activities performed in the VR environment.

MaKCs is available to users from over 80 countries, including regional agreements (e.g. the Paris MoU on Port State Control, Caribbean MoU, Mediterranean MoU, Indian Ocean MoU), other EU agencies (e.g. EFCA, FRONTEX), and the Commission (e.g. DG MOVE, DG MARE).

More than 60 distance learning programs have been already published since 2011, with almost 5500 users registered on the platform and more than 30000 individual opened learning instances.

SERVICE ACCESS

Users have access to the service through the EMSA Portal.

SERVICE DATA

None of the existing data sets. MaKCs interfaces with VRESI using a data protocol called SCORM (Shareable Content Object Reference Model)

BUSINESS UNIT

1.3 Capacity Building

RELATED AGREEMENTS AND LEGAL BASIS

N/A

SERVICE KPI

Scoreboard Activity/Service

N/A

KPI indicator

percentage per year availability (MaKCs)

85%

KPI indicator

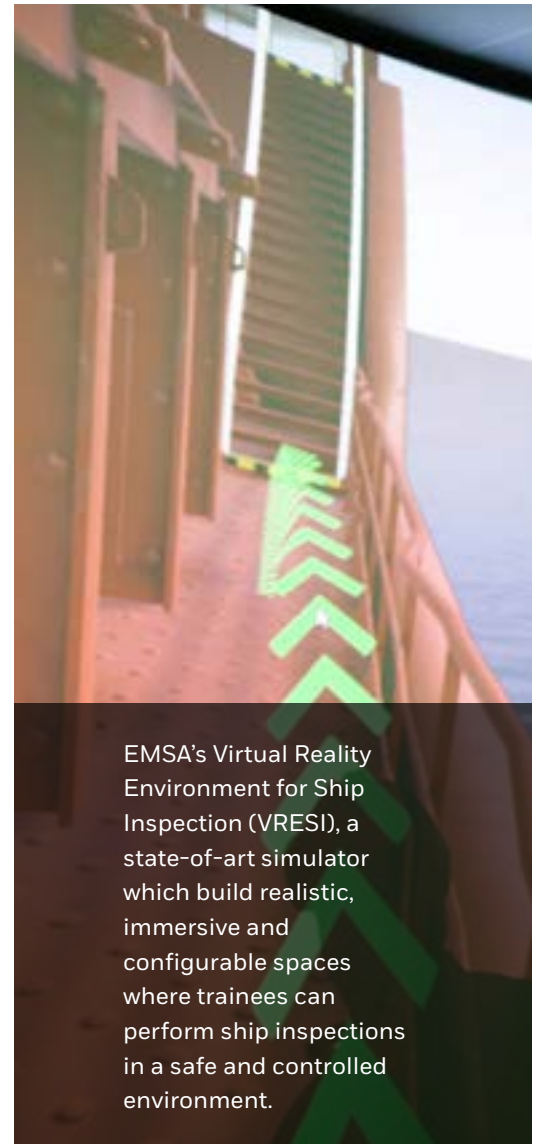
days maximum continuous downtime (MaKCs)

9 days

KPI indicator

percentage of requests closed in less than 9 days
(MaKCs)

75%



EMSA's Virtual Reality Environment for Ship Inspection (VRESI), a state-of-art simulator which build realistic, immersive and configurable spaces where trainees can perform ship inspections in a safe and controlled environment.

1.7.2 VIRTUAL REALITY ENVIRONMENT FOR SHIP INSPECTIONS (VRESI)

SERVICE CLASS	E-learning, maritime knowledge
TYPE OF SERVICE	External service

DESCRIPTION

The Virtual Reality Environment for Ship Inspections (VRESI) aims at enhancing and modernising training activities. Through VRESI the Agency will foster learning experience offered to its stakeholders and will complement existing as well as new courses with situated and more practical contents. VRESI is a web-based, stable and powerful role-playing, serious game, available via internet and via EMSA local network. It is designed and developed so as to permit the use of standard input (e.g. keyboard, mouse, handheld controller) and output (e.g. computer and wall screens, head-mounted goggles) devices. It is used to simulate ship inspections carried out by professionals of organisations in charge of maritime safety, security and the protection of the marine environment by ensuring the same kind of experience, immersion, fluidity, interaction and adherence to reality.

SERVICE ACCESS

Users access the service through the EMSA Portal, either directly or through the MaKCs platform.

BUSINESS UNIT

1.3 Capacity Building

RELATED AGREEMENTS AND LEGAL BASIS

N/A

SERVICE KPI

Scoreboard Activity/Service	Not yet defined	
KPI indicator	percentage per year availability (MaKCs)	85%
KPI indicator	Not yet defined	hours
KPI indicator	Not yet defined	%

1.7.3 RULECHECK

SERVICE CLASS	E-learning, maritime knowledge
TYPE OF SERVICE	External & internal service

DESCRIPTION

RuleCheck provides a digitised library of maritime legislation.

RuleCheck has been designed and developed to give Port State Control Officers (PSCOs) in the Paris MOU region a complete list of all the rules and procedures which apply to ships to be inspected, based on the ship type and age. The system ensures that the users are able to properly apply the relevant rules to ships. As from early 2015 onwards the system is also available to users in the Mediterranean MoU and Black Sea MoU, and to any other governmental authority that may need access to the available information.

The system allows easy access to Convention references supporting deficiencies found during inspections. Containing all relevant documentation from the International Maritime Organisation (IMO), the International Labour Organisation (ILO), the European Union (EU), and the Paris, Mediterranean and Black Sea Memoranda on Port State Control, it provides PSCOs with documentation applicable to any type of ship.

The availability of these documents and the ease of accessibility of their content leads to improvement in the effectiveness and consistency of inspections carried out in all countries where the system is used. The system is revised bi-annually as new content becomes available.

SERVICE ACCESS

N/A

SERVICE DATA

None of the existing data sets. VRESI interfaces with MaKCs using a data protocol called SCORM (Shareable Content Object Reference Model)

BUSINESS UNIT

1.3 Capacity Building

RELATED AGREEMENTS AND LEGAL BASIS

N/A

SERVICE KPI

Scoreboard Activity/Service	RuleCheck user response	
KPI indicator	Number of system errors per year	<10 max
Scoreboard Activity/Service	RuleCheck availability	
KPI indicator	hours maximum continuous downtime during EMSA business hours	<20 max



1.8 MARITIME SUPPORT SERVICES

1.8.1 MARITIME SUPPORT SERVICES

<p>SERVICE CLASS</p>	<p>Note: MSS is a horizontal sector that may cover several services, mainly EO, IMS, Vessel positioning and pollution response (among those listed) and other services, e.g., monitoring data flows, monitoring and issuance of digital certificates or reporting on specific ships or traffic.</p>
<p>TYPE OF SERVICE</p>	<p>External & internal service</p>

DESCRIPTION

24/7 operational and technical helpdesk to serve the users of the different maritime applications, and single point of contact for responding to request for assistance in case of maritime emergencies.

SERVICE ACCESS

Over phone/email

SERVICE DATA

Any, including external sources

BUSINESS UNIT

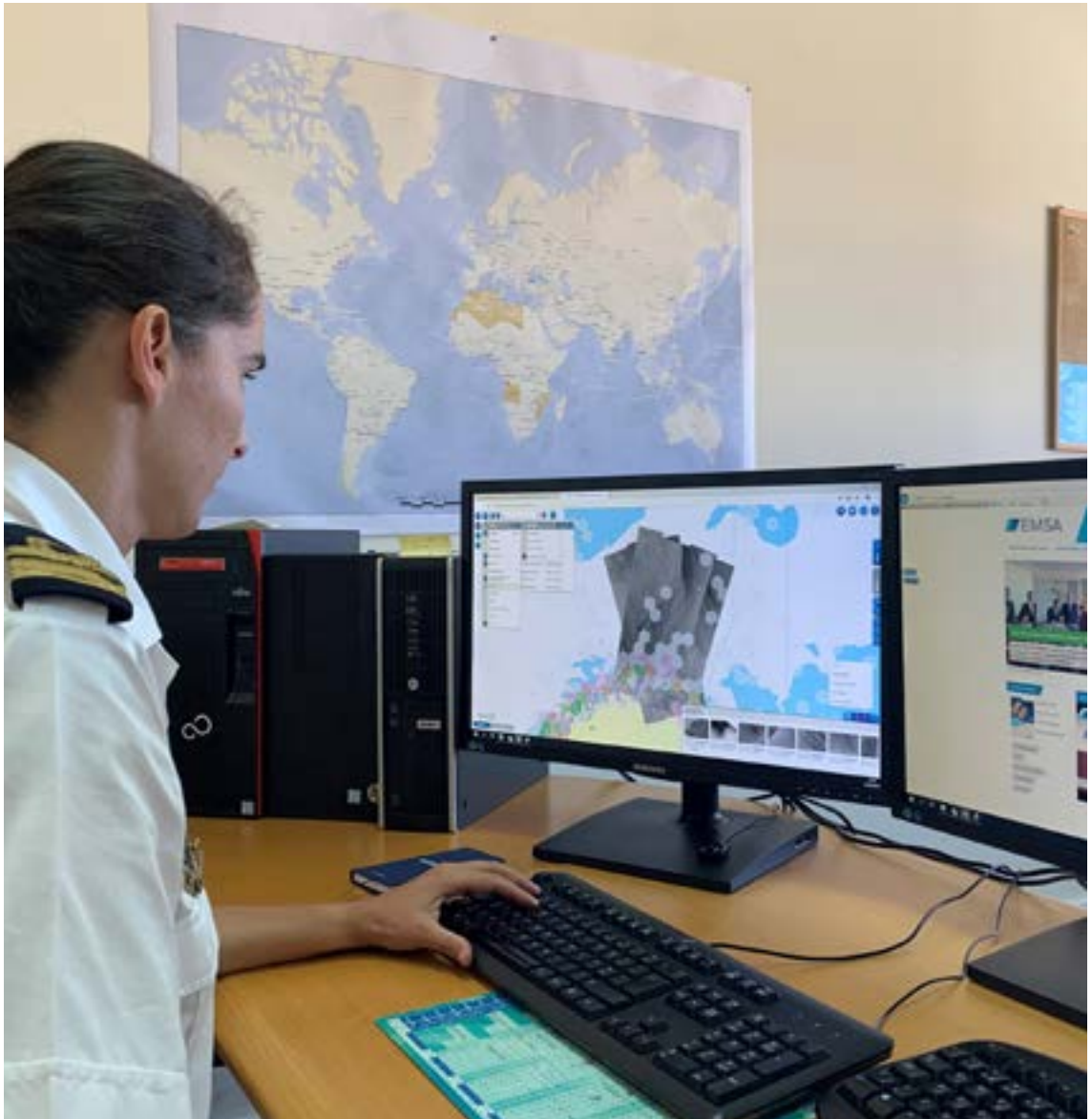
3.2 Digital Infrastructure

RELATED AGREEMENTS AND LEGAL BASIS

N/A

SERVICE KPI

Scoreboard Activity/Service	Helpdesk	
KPI indicator	average time in hours for feedback or resolution of issues relating to emergencies, incidents in maritime applications or urgent helpdesk requests	<2 hours
KPI indicator	average time in hours for feedback or resolution of issues relating to non-urgent helpdesk requests or scheduled interventions	<8 hours
Scoreboard Activity/Service	SSN / LRIT Data Quality Reports	
KPI indicator	reporting on the SafeSeaNet implementation and data quality (overall and per Member State)	20 reports minimum





1.9 REMOTELY PILOTED AIRCRAFT SYSTEMS

1.9.1 RPAS SERVICES

SERVICE CLASS	Remotely Piloted Aircraft Systems
TYPE OF SERVICE	External service

DESCRIPTION

EMSA RPAS services, through a portfolio of Remotely Piloted Aircraft Systems contracted by EMSA to the industry, assist Member State authorities and EU institutions involved in maritime surveillance including, aircraft, staff to pilot and maintain the aircraft and payload, logistical costs on site for:

- Multipurpose maritime surveillance – Coast Guard Functions
- Emission monitoring - Air Emissions (SOx and NOx)
- Support to Pollution response operations on EMSA OPRV

Under command of the maritime administration requesting the service, this is a complementary tool in the overall surveillance chain which includes satellite imagery, vessel positioning information and surveillance by national manned maritime patrol aircraft and vessels, the RPAS service increases the maritime situational awareness with additional sources of data.

The data sources are made available live to the users through the RPAS Data Centre application contracted as a service to the industry and which connects to EMSA systems to exchange data.

SERVICE ACCESS

Users have access to the service through a web-based graphical user interface as well as a system-to-system interface to EMSA systems for a sub-set of the data collected (RPAS-AIS and THETIS-EU reports on emissions). The service follows all relevant agreed access rights, as defined by the data owners.

SERVICE DATA

Dataset 5.2 THETIS EU Sulphur emissions

Dataset 9.1 Video and images (optical and IR)

Dataset 9.2 Radar images

Dataset 9.3 Radar derived vessel tracks

Dataset 9.4 AIS data

Dataset 9.5 Distress signals

Dataset 9.6 Gas emission concentrations

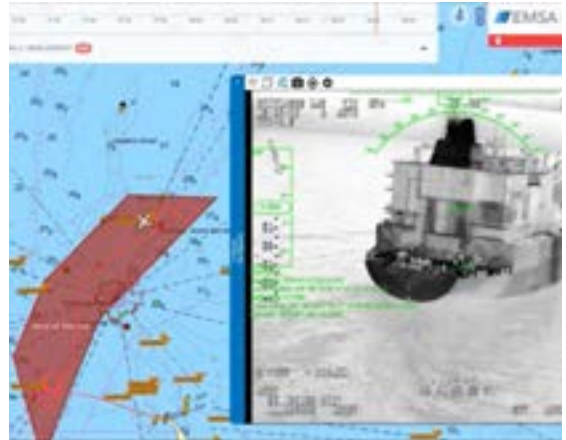
BUSINESS UNIT

2.2 Surveillance

RELATED AGREEMENTS AND LEGAL BASIS

EMSA founding regulation 2002/59, including cooperation agreement

SERVICE KPI		
Scoreboard Activity/Service	RPAS Services	
KPI indicator	number of RPAS available for deployment for multipurpose operations	<10 max
KPI indicator	number of Deployment Days per year for multipurpose operations	300 days
KPI indicator	number of RPAS systems available for environmental protection (pollution and emissions)	8
KPI indicator	number of deployment days per year (pollution monitoring and emission monitoring)	180
KPI indicator	RPAS DC availability	95%





1.10 IDENTITY MANAGEMENT

1.10.1 IDENTITY MANAGEMENT COMMON MANAGEMENT CONSOLE (IDM CMC)

SERVICE CLASS	Corporate Services
TYPE OF SERVICE	External & internal service

DESCRIPTION

The Common Management Console (CMC) is the access point for enforcing access control policies for all the users accessing the EMSA Maritime Applications, such as the SSN ecosystem applications, EMSA reference databases, etc.

It allows the configuration of user rights based on an association between user profiles, application roles and Organizations for the subsequent configuration of user accounts.

SERVICE ACCESS

The CMC services are accessible via the Maritime Application portal implemented as a single entry point for all EMSA maritime applications in Liferay.

A system-to-system interface allows the query of user account details to determine the set of attributes each account has, for further usage of each system.

Only users registered in the IDM with the proper permissions will have access to the CMC as standard users capable of changing personal data, Local Administrators, capable to managing user accounts in the context of their Organization and EMSA Administrators capable of managing all user accounts.

SERVICE DATA

N/A

BUSINESS UNIT

3.3 Simplification

RELATED AGREEMENTS AND LEGAL BASIS

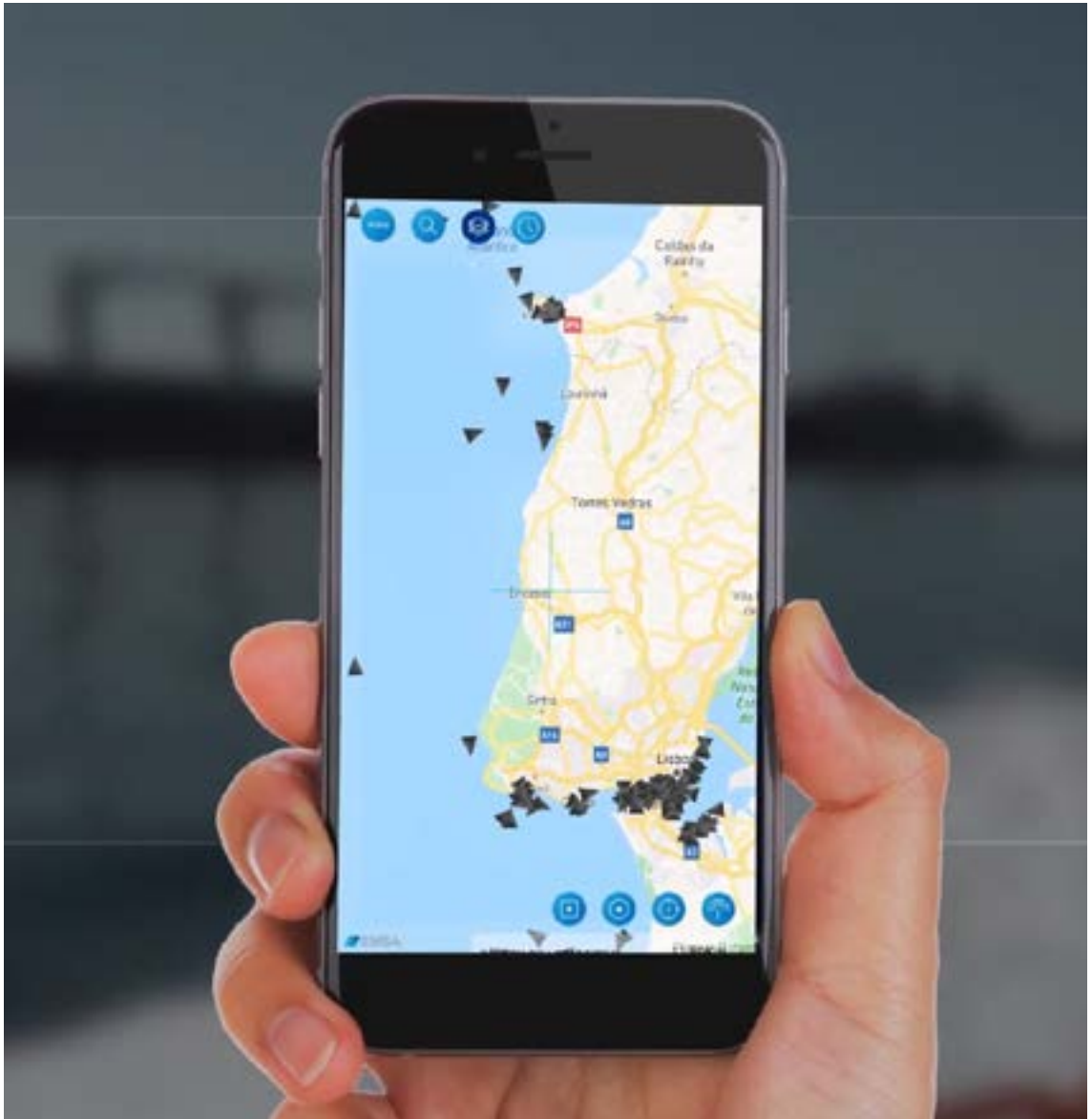
N/A

SERVICE KPI

Scoreboard Activity/Service	N/A
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KPI indicator	N/A
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KPI indicator	N/A
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APPENDIX A

DATA REFERENCES	
1	SSN Products
1.1 Dataset	Port call data
1.2 Dataset	HAZMAT
1.3 Dataset	Waste
1.4 Dataset	Security
1.5 Dataset	Bunkers
1.6 Dataset	Persons on board passenger ships
1.7 Dataset	Persons on board passenger ships
1.8 Dataset	Incidents / accidents
1.9 Dataset	Exemptions
2	Vessel Positions
2.1 Dataset	MRS
2.2 Dataset	T-AIS
2.3 Dataset	T-AIS from SAFEMED
2.4 Dataset	T-AIS from BCSEA
2.5 Dataset	T-AIS from external providers
2.6 Dataset	LRIT
2.7 Dataset	SAT-AIS
2.8 Dataset	VMS
2.9 Dataset	Ship AIS

DATA REFERENCES - CONT.	
3	EMSA Central Reference Databases
3.1 Dataset	Central Geographical Database (CGD)
3.2 Dataset	Central Location Database (CLD)
3.3 Dataset	Central Organisation Database (COD)
3.4 Dataset	Central Ship Database (CSD)
3.5 Dataset	Central Hazmat Database (CHD)
3.6 Dataset	MAR-CIS
4	Fishery Information
4.1 Dataset	EU Fleet Register
4.2 Dataset	Maritime boundaries and fishing areas repository
4.3 Dataset	Fisheries inspection and surveillance information
5	Ship Inspection Support and Port State Control
5.1 Dataset	THETIS database
5.2 Dataset	THETIS EU Sulphur
5.3 Dataset	THETIS EU Port Facilities
5.4 Dataset	THETIS EU Maritime Security
5.5 Dataset	THETIS EU Ship Recycling
5.6 Dataset	THETIS EU RoRo Ferry
5.7 Dataset	THETIS MRV - Monitoring, reporting and verification
5.8 Dataset	THETIS Mediterranean MoU

DATA REFERENCES - CONT.	
5.9 Dataset	THETIS eCertificates
5.10 Dataset	THETIS Insurance Information
5.11 Dataset	THETIS Liability of Carriers of Passengers
5.12 Dataset	RuleCheck
5.13 Dataset	Equasis (Electronic Quality Shipping Information System)
6	Earth Observation Products
6.1	CleanSeaNet oil spill and vessel detection services products
6.2	Copernicus Border Surveillance Service (Maritime) products
6.3	Copernicus Maritime Surveillance Service products
7	Meteorological and Oceanographic Data
7.1	Copernicus Marine Environment Monitoring Service
7.2	European Marine Observation and Data Network
7.3	Copernicus Atmospheric Monitoring Service
7.4	European Organisation for the Exploitation of Meteorological Satellites
7.5	Frontex Meteorological data
7.6	Frontex Oceanographic data
8	Assets
8.1	Details
8.2	Deployment
8.3	Position, speed, course, etc.

DATA REFERENCES - CONT.	
9	Data collected by aerial assets
9.1	Video and images (optical and IR)
9.2	Radar images
9.3	Radar derived vessel tracks
9.4	AIS data
9.5	Distress signals
9.6	Distress signals
10	Open source intelligence
10.1	Frontex - open source intelligence
10.2	EMSA - EWS accident/incident/news reports



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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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