

Minutes of the meeting

2nd Meeting of the Pilot Project for the Facilitation of Ship to Shore Reporting

**Held in Lisbon on
25 September 2019**

Date: 08 October 2019

1. Background

The meeting was opened and chaired by Mr Lazaros Aichmalotidis, Head of Unit for Vessel and Port Reporting. Delegations from **Belgium, Croatia, Denmark, Estonia, Finland, France, Latvia, Norway, Poland, Romania, Sweden and the Netherlands** attended the meeting.

All meeting documentation and presentations are available at: <http://emsa.europa.eu/ssn-main/documents/workshop-presentations-a-reports/item/3649-2nd-meeting-of-the-pilot-project-for-the-facilitation-of-ship-to-shore-reporting.html>

The meeting agenda is attached in Annex 1.

2. Objective of the meeting

The objective of the meeting was to:

- present and approve the concept paper of the project;
- present the Integrated Report Distribution (IRD) prototype and collect feedback from the project participants on the first version;
- agree on the final content of the Integrated Ship Report (ISR) for the pilot project and the distribution methods for the ISR;
- discuss the electronic exchange of data between ship and shore including interaction with the VDE Capability project; and
- discuss and answer any outstanding questions from the project participants.

3. Meeting outcome

3.1 Introduction

The chairman welcomed the participants and recalled that this pilot project has been established under the project for the promotion of interoperability between industry and competent authorities in the European Maritime Single Window (EMSW) environment under the CISE Process (so called “Interoperability Project”).

He summarized the first meeting that took place in April 2019 with lots of discussion and very interesting points raised by the project participants such as reporting from ship to shore by electronic means.

He highlighted that the VTS topic, although mentioned in the VTMIS Directive, had been put aside due to high workload on reporting formalities, so the work of this group would be a good opportunity to put VTS back in the picture.

3.2 Approval of the agenda and follow-up actions from previous meeting

The group agreed with the agenda indicated in Annex 1.

EMSA summarised follow-up action from the previous workshop, and informed participants that all were addressed.

The group **noted** the information presented.

3.3 Facilitation of ship to shore reporting – concept paper

The 1st meeting of the pilot project for the facilitation of ship to shore reporting agreed that EMSA will draft a document defining the business and technical concept of the project and will distribute it to the project participants. A draft of the document was distributed on 16 May 2019. Following comments received from Member States EMSA updated the document and distributed the revised version on 19 June 2019.

EMSA presented the concept paper highlighting that it is a living document which can be supplemented with new ideas coming up during the project.

The project participants were requested to approve the document and the following comments were received:

- **Denmark** and **Belgium** proposed to indicate that the project solutions can be used by various maritime authorities at national level and not only VTS and MRS centres.
- **Croatia** suggested to add in the document dependencies on other projects such as Central Ship Database (CSD) and VHF Data Exchange System (VDES) project.
- **Estonia** proposed to mention connection to the Sea Traffic Management (STM) and to clarify what is the EMSA's Ship Reporting Gateway mentioned in the document. Regarding EMSA's Ship Reporting Gateway, **EMSA** clarified that the project's scope and objectives had been revised considering the new EMSWe Regulation and renamed it to "VDE Capability" project. The project will focus on the use cases related to ship-to-shore reporting.
- **Croatia** also proposed to include some longer-term idea for simplification of reporting such as no reporting in the VTS/MRS because the data is already available.

The group **agreed** that the concept paper will be updated by EMSA and distributed to the project participants by the end of October 2019 (**Action Point 1**).

3.4 Integrated Report Distribution (IRD) prototype

EMSA developed prototype of the "Integrated Reports Distribution" (IRD) service which will monitor ships sailing in areas of interest of MS coastal stations and distribute to corresponding authorities reports on these ships by combining information from the SSN Ecosystem. **EMSA** clarified that prototype aimed at testing connections between the IRD and various back-end services (SSN EIS, ABM and Tracking system). Two triggers for generating the report have been implemented (entry into area and ad-hoc request) and the ISR is generated and available to end user in the web interface developed for this purpose. The IRD prototype is currently deployed in EMSA Pre-Production environment and is not yet available externally. The tests performed has shown that retrieving, processing and integrating of data from different sources into single report can be achieved.

EMSA made a live demo presenting the generation of the ISR following entry of a ship to an area detected by ABM and possibility to retrieve ISR for any ship upon request.

The following comments were received:

- **Norway** said that although it is a prototype version it already looks very promising and asked if the same functionalities can be implemented in the systems at national level. **EMSA** responded that the functionalities available in the web interface will be replicated in the system2system communication.
- **Croatia** stated that in the ADRIREP system only tankers and others ships if carrying dangerous goods are required to participate. **EMSA** responded that ABM can be configured for the specific type of ship and it is possible to filter only tankers. Currently it is not possible to filter only the ships that are carrying dangerous good and it will be considered for the next version of the system. **Croatia** also proposed to implement as a trigger crossing of a specific line and not only entry into an area. **EMSA** responded that this comment will be communicated to EMSA team responsible for the ABM service. **Croatia** also requested EMSA to make a link between the IRD and SSN in order to have possibility to retrieve details of Hazmat, Waste, Security, Bunkers, MRS and Incident Reports and to add in the system possibility to download the ISR in the PDF format. **EMSA** confirmed that these requirements will be included in the specification.
- **Denmark** informed that there are many movements between ports in the BELTREP system which can create false alerts to ABM system. In the Danish system there is similar service as ABM for detecting certain behaviours which was made for purpose. **EMSA** replied that it would be therefore recommended to use the Danish system as a trigger for the ISR. In this case system2system communication would have to be established and request for ISR sent whenever there is a detection in the Danish system. **France** said that they have similar system in their waters and most probably they also would like to use this solution.
- **Poland** noticed that some information provided in the ISR during live demo was presented in the national language and asked EMSA how this could be addressed. **EMSA** replied that data reported in the ISR comes mainly from the national systems and that this situation occurs with information provided under "free-text" fields. EMSA's Maritime Support Services (MSS) during SSN data quality tries to

detect these cases and report them to national authorities for follow-up actions. As stated in SSN documentation data exchanged in SSN should be either in English or in both English and national language.

- **Croatia** proposed also that the ISR could be used for data analysis. Having information on ship voyage it should be possible to know what were the MRSs on ship route and check whether necessary information was provided to central system. In addition, as the data is coming from different sources there could be a tool to compare this data. **EMSA** acknowledged that idea is very good and will be further investigated.

The chairman invited project participants to provide their comments even at the later stage and to consider showing ISR in the national systems. He mentioned some on-going projects at EU level such as EUREKA¹ which could be used for connecting to EMSA system. **Croatia** said that they are part of this project and they are planning to connect to the IRD within this project.

The group **agreed** the following:

- EMSA** to update technical specification for the IRD web interface to reflect comments received (**Action Point 2**).
- EMSA** to take screenshots from the IRD prototype and provide them to group participants by the end of October 2019 (**Action Point 3**).
- EMSA** to investigate if changes to ABM service proposed during the meeting (e.g. trigger when crossing line) can be implemented (**Action Point 4**).

3.5 Integrated Ship Report (ISR) – defining final content for the pilot project

EMSA recalled that during the previous meeting it was agreed that EMSA will work volunteer Member State to define the ISR's content for the pilot project. On 19 July EMSA distributed proposal for the ISR content to the project participants proposing the ISR to be used for different purposes such as for:

- MRS operators as reference information while receiving and recording MRS reports;
- coastal station operators (e.g. VTS, MRCC) to provide a better awareness of the situation by providing in advance the available information regarding all ships navigating in their areas of control.

EMSA informed that the following sets of data are proposed to be used:

- SafeSeaNet European Index Server (EIS)
- Vessel identifiers from ship database
- Ship Tracking Information
- Vessel voyage plan from the Voyage Information Service (VIS) developed by the STM project.

EMSA said that the first three sources were already used in the prototype version. The connection the VIS is a follow up action from the previous meeting where EMSA was tasked to investigate how to integrate the results of the STM project (i.e. voyage plan). EMSA suggested to use the existing infrastructure of the STM project (back-end service) to display the voyage plan in EMSA's SEG interface (front-end) and include it also in the ISR. The representative from **Sweden** who is also the Project Manager for STM confirmed that this connection can be established and the VIS instance for this pilot project will be available in the Azure cloud of the Swedish Maritime Administration.

Norway commented that they participate in the STM BALT SAFE project and they plan to use this data in their national system.

The group **agreed** that the connection with the STM Voyage Information Service (VIS) shall be established and this information should be made available to the project participants in SEG and in the ISR (**Action Point 5**).

Denmark and **Croatia** proposed that the data available in the THETIS system should be made available in the ISR. Especially for the coastal station awareness it is important to know the ship profile. In addition, **Croatia** stated that PSC in return could also benefit from ISR. This information could help PSC to better track ships targeted for inspection.

The group **agreed EMSA** to investigate how to establish connection with THETIS system and what kind of data can be integrated in the ISR (**Action Point 6**).

¹ EUREKA project aims at raising the productivity and competitiveness of European businesses through technology.

Sweden informed that some ships sharing voyage plan provides also information about the draft. **EMSA** will include this data in the ISR.

It was proposed by the group to replace group *MRS reports received in the last 3 days* by *Last 5 MRS reports received*. **EMSA** confirmed that this change can be done however requested **France** to verify if this will not impact their developments as the initial proposal about last 3 days was submitted by them.

The group **agreed** on this change and **requested France** to confirm by end of October 2019 if replacing group *MRS reports received in the last 3 days* by *Last 5 MRS reports received* in the ISR will not impact their developments at the national level (**Action Point 7**).

The group **agreed EMSA** to update the ISR content document to reflect changes proposed in this section and distribute it to the project participants by the end of November 2019 (**Action Point 8**).

Belgium made a presentation proposing inclusion of the last 10 ports of call based on historical position info. This information would be used by pilots/SAR units/crew of patrol vessels to assess health risk of a ship before going on board especially for the ships sailing through Belgian waters and not arriving to Belgian ports. The second use case is to verify if the data reported by the ship agent (e.g. last 10 port of call in the ISPS pre-arrival message) is correct.

EMSA thanked Belgium for this proposal and informed participants that this data is not yet available in EMSA systems. The work on automatic detection of port calls worldwide is planned and there were already some internal discussions.

The group **agreed EMSA** to investigate the possibility of detecting port calls automatically (**Action Point 9**).

3.6 Means of communication for distributing the ISR

EMSA informed that the IRD will distribute the ISR on request (“request/response”) or through “automatic push” when a vessel enters or leaves a specific area or when monitored ship’s data changes (e.g. Incident Report, MRS report, arrival to a port). To request or retrieve the ISR, the system will offer the system2system option for those who would like to integrate it in their national or local system, web user interface which will be available at central level to all users and e-mail notification system. The web user interface was presented together with the IRD prototype live demo and feedback is noted in section 3.4.

EMSA prepared a set of questions on system2system communication to choose the most suitable structure and protocol. EMSA also informed project participant that the system2system interface will be only developed if there are Member States willing to use it during the pilot project. The discussion concluded that there is no standard in place that could be re-used, and that the system2system interface should be developed using SOAP protocol as currently done in SSN.

The group **agreed EMSA** to prepare a technical specification for system2system communication (SOAP protocol) and make it available in the 1st quarter of 2020 (**Action Point 10**).

Croatia asked EMSA to provide short description of the software modules and how they could be used at the national level.

The group **agreed EMSA** to prepare and distribute by end of November 2019 a short document describing the software modules and explaining how they could be used at the national level (**Action Point 11**).

Estonia proposed to make this ISR service available in the Maritime Connectivity Platform (MCP) as it is the case for STM Voyage Plan. **Sweden** shared their experience from STM project and confirmed that it is possible however to process this data VTS software would have to be available.

The group **agreed EMSA** to investigate if the ISR service could be made available in the MCP (**Action Point 12**).

Belgium asked if the Hazmat or Security details will be available to coastal station via the IRD system2system communication. **EMSA** responded that normal SSN communication must be established to get details via system2system. No messages from SSN will be replicated in the IRD.

Finland informed that their current application can only support XML messages and asked if also this protocol can be implemented together with SOAP. **EMSA** responded that new EMSA services are currently developed with SOAP protocol only but it will be further investigated.

Croatia, France and Norway confirmed that they are planning to develop system2system communication during the pilot project.

The group **agreed** that **Member States** willing to establish system2system communication within the pilot project are requested to communicate this to EMSA and share technical documentation of their system by the end of 2019 (**Action Point 13**).

EMSA informed participants that it will be also possible to receive the ISR via e-mail and asked what the format should be (i.e. plain text, PDF, XML, XLS).

The group **agreed** that the ISR should be provided as a plain text in e-mail's content and that there should be a hyperlink to the IRD web interface.

The group **agreed EMSA** to update technical specification for the IRD system2system communication and e-mail notification system to reflect comments received (**Action Point 14**).

3.7 Possibility for ship to report by electronic means – interaction with VDE Capability project

EMSA informed the project participants that there is a continuous work on exploring new technological developments. One of them is VHF Data Exchange System (VDES) which is a radio communication system that operates between ships, shore stations and satellites on AIS, ASM, and VDE frequencies in the Marine Mobile VHF band. There is a terrestrial and satellite component of this system. The VDES component should offer a more robust communication platform that allows for better data exchange between ships and between ships and shore. EMSA collaborates with Norway and ESA through a joint project to test the feasibility of ship reporting through VDES by using Norway's NorSat-2 LEO satellite with a VDES test-payload and VDES equipment on board (test) vessels.

One of the use cases of the VDES project is the reporting of MRS/VTs data by using an on-board application or graphical user interface to be developed. This use case was identified during the first meeting of the pilot project for "facilitation of ship to shore reporting" and participating Member States invited EMSA to investigate how to establish ship-to-shore communication to provide the possibility for ships to report to MRS/VTs by electronic means.

For receiving and processing ship reported data from the VDES ground station, a specific VDE Capability (VDE-C) system will be developed by EMSA. Its main purpose is to act as a relying information hub between a reporting vessel and MS information system (national SSN, VTS, etc.), as well as to handle different message formats for different MS interfaces. In addition to the VDE-C, a specific on-board application will be developed, which will provide a front-end to end-users on board vessels to input information using spreadsheets files or a simple user interface.

The data flow is depicted in Figure 1 below:

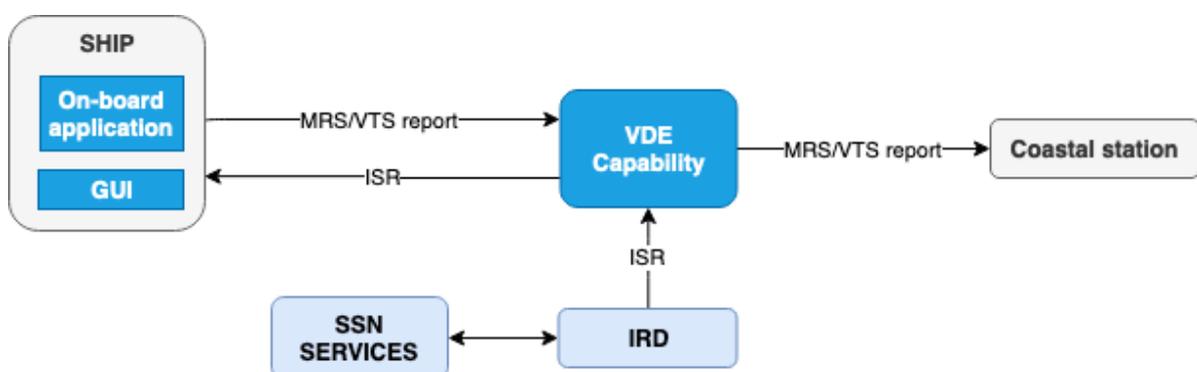


Figure 1: Reporting of MRS/VTs data use case's data flow

The structure of the data exchange format for the reporting of MRS/VTs data will be defined by the "facilitation of ship to shore reporting" pilot project.

To mitigate risks, the development and testing of VDE-C and on-board application will be done stepwise. During the first iterations, the data exchange will be tested by using data communication technologies that participating

vessels already have on-board (i.e. 3G/4G/Iridium). When this first phase is completed successfully, the data exchange via VDE-SAT would be elaborated as a second phase.

EMSA informed project participants that the World Radiocommunication Conference (WRC 19) which will take place in November 2019 will decide on the approval of new radio frequencies to be used by the VDES.

Denmark commented that it is a very valuable product. **Croatia** commented that it seems to be a very powerful solution that can be used in the future for e-navigation when more data will be transmitted from shore to ship.

Norway said that the test run so far in Norway showed that there is a low bandwidth and therefore the expectations should be rather low.

Sweden shared with EMSA their experience from the STM project and said that if it is planned to use a normal Internet connection on board of a ship this should be discussed in advance with the shipping industry. This communication is rather restricted.

Belgium stated that they would like to participate in this project and asked EMSA to keep them updated on the progress.

EMSA thanked participants for their feedback and clarified that the operational tests of VDES will be run after the operational tests of the ISR. The VDES will be only available for testing at the end of 2020 or the beginning of 2021.

The group **agreed EMSA** to keep them informed on the progress in the VDE Capability project (**Action Point 15**).

Member States willing to participate in testing of the VDE Capability are requested to communicate this to EMSA (**Action Point 16**).

4. Summary of the follow up actions

The chairman thanked all participants for their active participation and commented that the meeting was very useful in defining the further work of the group. The follow up actions are presented in Annex 2.

The next meeting is planned in the 2nd quarter of 2020 with the objective to discuss the planned deployment of the ISR at the national level and to prepare scenarios for the operational tests (**Action Point 17**). The group will work by correspondence in the interim.

EMSA informed participants about the possibility of organising the next meeting at Member State premises combined with the visit to the VTS/MRS centre. EMSA will cover travel, daily allowance and accommodation costs for the attendance of this meeting as per the EMSA Rules on Reimbursement of Expenses to Experts.

Member States willing to organise such a meeting are requested to contact EMSA by the end of 2019 (**Action Point 18**).

EMSA will draft the minutes of the meeting and will provide attendees with copies of the meeting presentations (**Action Point 19**).

Annex 1 – Meeting Agenda

Time	Agenda Item	Speakers
09:00 – 09:30	Registration	
09:30 – 09:45	Welcome and introduction 2.1 Detailed Agenda 2.2 Follow up actions	EMSA
09:45 – 10:15	2.3 Facilitation of ship to shore reporting pilot project – concept paper.	EMSA
10:15 – 11:15	Presentation of the Integrated Report Distribution (IRD) prototype – live demo	EMSA
11:15 – 11:30	Coffee break	
11:30 – 13:00	2.4 Integrated Ship Report – defining final content for the pilot project	All
13.00 – 14.00	Lunch break	
14:00 – 15:30	Means of communication (S2S, email, web user interface) – defining technical requirements for the interfaces	All
15:30 – 15:45	Coffee break	
15:45 – 16:30	2.5 Possibility for ships to report by electronic means – interaction with VDE Capability project	All
16:30 – 17:00	Discussion and summary of the follow up actions	EMSA

Annex 2 – Follow up actions

Action Point	Topic and Action	Responsible
1	Update the concept paper and distribute it to the project participants by the end of October 2019.	EMSA
2	Update technical specification for the IRD web interface to reflect comments received.	EMSA
3	Take screenshots from the IRD prototype and provide them to group participants by the end of October 2019.	EMSA
4	Investigate if changes to ABM service proposed during the meeting (e.g. trigger when crossing line) can be implemented.	EMSA
5	Establish connection with the STM Voyage Information Service (VIS) and to make this information available to the project participants in SEG and in the ISR.	EMSA
6	Investigate how to establish connection with THETIS system and what kind of data can be integrated in the ISR.	EMSA
7	Confirm by end of October 2019 if replacing group <i>MRS reports received in the last 3 days</i> by <i>Last 5 MRS reports received</i> in the ISR will not impact their developments at the national level.	France
8	Update the ISR content document to reflect changes proposed during the meeting and to distribute it to the project participants by the end of November 2019.	EMSA
9	Investigate the possibility of detecting port calls automatically.	EMSA
10	Prepare a technical specification for system2system communication (SOAP protocol) and make it available to group in the 1st quarter of 2020.	EMSA
11	Prepare and distribute by end of November a short document describing the software modules and explaining how they could be used at the national level.	EMSA
12	Investigate if the ISR service could be made available in the MCP.	EMSA
13	Inform EMSA about intention to establish system2system communication within the pilot project and to share technical documentation of their system by the end of 2019.	Member States
14	Update technical specification for the IRD system2system communication and e-mail notification system to reflect comments received during the meeting.	EMSA
15	Keep project participants informed on the progress in the VDE Capability project.	EMSA
16	Inform EMSA about intention to participate in testing of the VDE Capability.	Member States
17	Plan next meeting in the 2 nd quarter of 2020 with the objective to discuss the planned deployment of the ISR at the national level and to prepare scenarios for the operational tests.	EMSA
18	Inform EMSA about the willingness to organise next meeting at MS premises by the end of 2019.	Member States
19	Draft the minutes of the meeting and provide attendees with copies of the meeting presentations.	EMSA

European Maritime Safety Agency

Praça Europa 4
1249-206 Lisbon, Portugal
Tel +351 21 1209 200
Fax +351 21 1209 210
emsa.europa.eu

