



# Deliverable 1.30

## Final Report on IALA Work

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# DOCUMENT STATUS

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## Review

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## Background

EfficienSea 2 is an EU H2020 funded Project, led by DMA, with 32 partners, including IALA. Its objective is to enhance safety of navigation and increase efficiency at sea. The focus is on e-navigation services, the Maritime Connectivity Platform and communications, especially VDES.

## Introduction

In WP1 of EfficienSea 2, IALA lead Task 1.2 and Task 1.3.

Task 1.2 was 'Liaison and coordination with other projects and test beds'. IALA managed the work in Task 1.2, preparing reports and deliverables in conjunction with the other members of the Task Group (DMA, CIRM, OFFIS).

Task 1.3 was 'Coordinating standardisation of solutions'. IALA managed the work In Task 1.3, preparing reports and deliverables in conjunction with the other members of the Task Group (CIRM, UKHO).

Following completion of the planned Deliverables D1.4 and D1.5, IALA undertook a further work plan, in consultation with the E2 Project Management Team and its WP1 partners. This work plan resulted in Deliverables 1.10-1.30, as detailed below.

## Deliverables

The planned deliverable of Task 1.2 was D 1.4: Report on relevant ongoing external projects and test beds. This report set out the strategy for carrying out the work of identifying the projects, test beds and organisations relevant to E2. The report provided a summary of the more detailed information collected in a spread sheet, the current version of which is posted on the E2 and IALA websites.

The planned deliverable of Task 1.3 was D 1.5: Report on ongoing standardisation work relevant to the project. This report set out the strategy for carrying out the work, identified the organisations involved with standards relevant to the project and related these organisations to the services that it was planned to develop in E2. The report provided a summary of the more detailed information collected in a spread sheet, the current version of which is posted on the E2 and IALA websites.

IALA contributed to Deliverable D1.6, 'Recommendation on a Governance and Business Model for the Maritime Connectivity Platform', which was coordinated by CIRM. IALA facilitated a group of E2 partners preparing an MCP Business Case and this was incorporated as an annex in D1.6.

Deliverables D1.10 to D1.30 were produced by IALA in support of e-navigation communications and information system development, in particular VDES and the MCP within the remit of Tasks 1.2 and 1.3. These developments were aligned with the work in EfficienSea2 as well as that of the relevant working groups in the IALA ENAV Committee.

D1.10 is a Strategy for Future Digital Communications. The vision for digital communications in the maritime environment is: 'Secure, effective, seamless communications within navigable waters to support maritime applications.'

D1.11 is a Report on Future Digital Communications and supports the Strategy in D1.10. It assesses operational requirements, ensuring that existing and developing digital maritime communications technologies interact effectively and seamlessly, evaluates the suitability of different technologies to address the requirements and describes communication options and infrastructure to support digital maritime communications.

D1.12 provides a general overview and detailed review of the IALA documentation related to the VHF Data Exchange System (VDES).

D1.13 was a Technical Overview of VDES, which has been developed into an IALA Guideline documenting the technical basis for the VDES development.

D1.14 was a draft IEC Test and Requirements Specification for VDES (terrestrial) and was used by the IEC Working Group to prepare the VDES Specification.

D1.15 was a description of VDES, which was used as the text for the relevant section of the IALA NAVGUIDE.

D1.16 was to be a Report on Implementation, Validation and Demonstration of a VDES Compatibility Test Bed. This task was transferred to CIRM, another WP1 partner and completed in WP2.

D1.17 is a collection of reports on technical studies carried out on VDES by IALA in E2, including a Review of VDES Test Results, a New Test Plan and a Revised Channel Model.

D1.18 consisted of a proposed layout for the Updated IALA website content on Standards and Test Beds.

D1.19 was to be a presentation on the Maritime Connectivity Platform, but this was to be carried out in WP3.

D1.20 is a Standardisation Plan for the MCP, including a Timeline, prepared as an action from the MCP Implementation Workshop.

D1.21 was incorporated into D1.20.

D1.22 is an Information plan for VDES, providing a framework for managing and coordinating information, promoting support and engendering commitment and ownership amongst those stakeholders involved in the development and implementation of VDES.

D1.23 is a presentation on VDES used to explain the system to stakeholders.

D1.24 and D1.25 were Briefing Notes on VDES provided to IALA and to ITU delegations to inform them and guide their positions at relevant meetings.

D1.26 is a report on a study carried out on Training Sequences for VDES communications synchronization.

D1.27 is a report on the Implementation of the VDES Information Plan in D1.22.

D1.28 is a report on the MCP Implementation Workshop held at IALA in November 2017.

D1.29 is a report on the Inter-operability of VDES and the MCP, prepared for IALA ENAV WG3.

D1.30 is this Final Report on IALA Work in EfficienSea2.

## Conclusions

1. IALA completed the planned deliverables from Tasks 1.2 and 1.3 in WP1 of EfficienSea2, on schedule and these were accepted.
2. A further work plan was then devised and agreed furthering the development of the VDES and the MCP, within the scope of Tasks 1.2 and 1.3.
3. Eighteen further deliverables were produced in the completion of this plan.
4. All these deliverables will remain available on the IALA website for a period of at least 2 years after the end of the project.

