

Highlights of the e-Navigation Underway Asia-Pacific 2020 Conference

The fourth e-Navigation Underway Asia-Pacific Conference was held on 8 and 9 September 2020, in Sejong City, Republic of Korea, using an online conference platform.

The highlights of the conference were:

1. Some 700 participants, from more than 50 countries, registered and participated in the online conference. Sixteen world-renowned e-navigation experts presented on a variety of topics under the conference theme - *Collaborating to Harmonize Maritime Digitalization*.

2. The conference discussed examples of the implementation of e-Navigation services and noted plans for their future development. Delegates also considered the opportunities and challenges associated with adopting cutting-edge technologies, such as block chain, digital maritime communications frameworks, automation on board and marine autonomous surface ships.

2.1. The conference recognised the necessity to build a digital ecosystem for making global standardization and collaboration of maritime digitalization, to secure more sustainable, efficient and safe for all stakeholders.

2.2. There was a strong emphasis on international cooperation, which delegates considered necessary to achieve harmonisation and enhance safety. Testbeds and sea trials were recognised as key elements to introduce and promote e-Navigation services.

2.3. The conference recognised that any new technologies should align with IMO's vision and the importance of IHO's S-100 standards for e-Navigation.

They should be implemented based on a judicious mix of goal-based and prescriptive rules.

2.4. The conference recognised that further collaboration is necessary, and that national and international projects should exploit the progress made by IMO related to the common maritime reference data model when developing various solutions for global shipping.

2.5. The conference agreed, that international standards developed by robust standardization bodies are necessary to avoid incompatibility between standards and systems.

3. The conference noted the decision to expand the scope of international cooperation (using the current series of e-Navigation underway conferences) to include some new initiatives:

3.1. The Digital@Sea Initiative, which consists of a series of Digital@Sea international conferences with the possibility of global Digital@Sea test bed cooperation and capacity building workshops;

3.2. The series of Digital@Sea conferences will replace the current series of e-Navigation underway conferences from 2021 including Digital@Sea International, Digital@Sea North-America, and Digital@Sea Asia-Pacific;

3.3. Establishing a multilateral MOU to facilitate and secure the effectiveness of testbed activities, which contribute to international harmonization, standardization, verification and validation of maritime digital technology using testbeds and sea trials. In connection, as the first collaborative testbed, MOF proposed to carry out the Global e-Navigation Route Testbed to bring actual benefits and effectiveness of e-Navigation to all stakeholders;

3.4. Capacity building workshops as technology cooperation programmes for the sake of building capacity in developing countries, so maritime digital technology can be promoted to share growth among advanced and developing countries;

3.5. As the coordinator, IALA promotes and supports the Digital@Sea Initiative.

4. Two instances of the Maritime Connectivity Platform (MCP) were showcased during the conference. It was evident the MCP framework is a sound platform for the delivery of maritime services in the context of e-navigation.

5. Discussions during the conference suggested that some matters should be brought to the attention of the IMO, such as the concept of Digital@Sea Initiative, with the aim of providing an opportunity for more countries to participate in global e-navigation development.