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**□** ARM **□** ENG **□** PAP **□** Input

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Technical Domain / Task Number 2 …………………………………

Author(s) / Submitter(s) KRISO, Republic of Korea

Report of Workshop on  
Global Maritime Digital Route Testbed

# Summary

IALA and ROK coordinated a global workshop on Global Maritime Digitalization Route Testbed/Transition (GDMRT) with various of European organizations and administrations in November 2021 to enhance governance about next maritime digitalization. During the workshop, the GMDRT has been discussed to be a new initiative for IALA.

# Discussion

After several e-Navigation project has been finished during a decade all over the world, each countries and organizations are operating their own systems and services. However present digital maritime services are based on regional range, so unified a global scale digital maritime tested needs to be developed for the next safe ocean. MOF(Ministry of Oceans and Fisheries) hosted a global workshop which was sponsored by KRISO (Korea Research Institute of Ships and Ocean Engineering) to introduce a new concept which title is the GMDRT to enhance connectivity and accessibility to digital maritime services all over the world, anywhere anytime anyone.

In November 2021, 2-days virtual workshop was held to introduce the GMDRT to European sites and achieve consensus for the needs of GMDRT. Over 30 stakeholders of organizations and administrations including the IALA, IHO, EMSA, DMA, BSH attended the GMDRT workshop and shared a view that the GMDRT is not a testbed, but a transition. In order to moving forward with GMDRT as the IALA’s new vision, this paper requires to be submitted to PAP. Also it is recommended to have a session such as seminar or workshop to introduce the GMDRT to the IALA members and to promote to participate in the project.

# Action requested of the Committee

The Committee is requested to take actions appropriate.

**ANNEX – Minutes of gmdrt workshop**

**Minutes of the GMDRT Workshop, session one, on 11th of November 2021**

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Theme: Present the GMDRT Project concept and developing an agreed generic / action plan, to drive unlimited global testbed for New Worldwide Ocean such as e-Navigation, MASS, Smart-mobility.

The meeting was held virtually through the platform GoToMeeting. Those organisations in virtual attendance where:

* BIMCO
* BM Bergmann Marine
* Danish Maritime Authority
* DGON
* European Commission
* Fraunhofer CML
* German HO (BSH)
* IALA
* IHO
* IMO
* Italian HO (IIM)
* JAKOTA Cruise Systems /Fleetmon
* KRISO
* Marine Fields
* MCC
* MOF
* MPA Singapore
* NaveLink
* NAVTOR
* OFFIS
* Port of Barcelona
* RISE
* Sternula
* Swedish Maritime Authority
* Tototheo Marine
* University Wismar
* Wärtsilä

The invitation was distributed on 23rd of October, followed by the agenda on 09th of November 2021. The agenda was slightly amended by IALA changing the topic of its presentation to “D@S Initiative and GMDRT”

The meeting was chaired by Mr. Michael Bergmann (BM). Due to slight delays of some delegates in joining the meeting, the workshop started at 09:05 hours.

After some welcome and introductory worlds by the chairman, a welcome address was delivered by Mr. Sunbae Hong (MOF), in which he pointed out the main principle of the GMDRT project. Specified were

1. the approach to start and continue step by step,
2. the need for maritime services to be user driven, and
3. to identify and verify best practises in e-navigation.

Immediately afterwards, Mr. JinHyung Park presented his topic “domestic e-navigation service status. Introduce the GMDRT project plan 2023-2026”. The respective Presentation is made available to the participants.

According to the agenda, a Q&A session was then scheduled, which however in the run of the workshop was spared out and merged with the second Q&A session.

Thus, without major pausing, the speech of Mr. Minsu Jeon (IALA) was delivered, slides of which again distributed to the participants. Some time before the meeting the title was amended from “Needs of GMDRT Steering Committee and plan, Promote GMDRT Steering Committee participant for Europe” into “D@S Initiative and GMDRT”.

In line with the agenda, the second Q&A session took place. Here, requests to speak could be indicated either by the delegate to switch on his/her camera or place a question on the chat panel. First contribution came from Mr. Albert Gonzalez, who tabled the question how far standards are harmonised between the participating geographic areas. In answering, Mr. JinHyung Park referred to the targeted standardisation of associate technical services, and the achievements in data modelling standardisation in accordance with the S100 series of standards. In the meantime, some participants had made use of the chat-tool of GoToMeeting, from where Mr. Michael Bergmann took the question of Mr. Ralph Becker-Heins how, during the project phase and beyond, to attract partners for non-mandatory maritime services. On the chat tool too, Mr. Omar Eriksson had supported the question in stating that non-mandatory service must have a solid business case to succeed.

Eventually the last presentation came from Mr. Michael Bergmann (BM) named “Related digital maritime service, e-navigation project in Europe / Research report of work process KRISO-BM project / Major Europe organisations and service providers for GMDRT”. Also for this topic the respective presentation is made available to the participants.

Before coming to the last point of the agenda, the chairman used the opportunity to accept some more question from the audience, which referred to the chat correspondence at the GoToMeeting side panel. First input selected came from Mr. Axel Hahn, doubting that certain maritime services are ready to be used in safety critical missions. To address this, Mr. Michael Bergmann referred to the ongoing data model work. He was flanked by Mr. JinHyung Park, who stated that each project contributes its own services, from where working services can be put together to combine different portfolios. Also Mr. Michael Baldauf added his point of view, explaining his chat comment, that there will be not only the high technological ends, but also mixed traffic on the seas.

Last point on the agenda was the discussion about the GMDRT plan and the Steering Committee. Accordingly, the chairman opened an open floor discussion to collect opinions on the goals and the scope of tasks for the steering committee to be established.

First, Mr. Omar Eriksson was called to give some input. According to him the picture is still blurred, what really is to be achieved. Additionally, the geographical spread of the stakeholders is an issue, but also different perspectives. Before discussing the government of the project, the goals should be clear.

His comment was followed by Mr. JinHyung Park’s statement, that it is important to identify the scenarios of the testbed, to see who must join and what is the needed composition of the steering committee.

To bring this further, Mr. Lars Molten brought up the idea, to make a goal-setting exercise for a possible scenario in 2026, when the route Korea-Europe is sailed by an autonomous surface vessel.

Another aspect was added by Mr. Ralph Becker-Heins, asking the envisaged headcount of such steering committee, with a view on the balance between efficient decision making and representative member composition.

This was taken up by Mr. Minsu Jeon, pointing out the importance to find an appropriate balance between harmonisation and coordination tasks in the committee, which again has an impact on the size and composition.

From Singapore Capt. Segar referred to the Sesame-project steering committee. According to him, the biggest challenge is the inclusion of many geographical areas along the testbed route, and whether all needed standards are in place. For this, IALA is key, he stated. Furthermore, he emphasised that Singapore is very keen to participate in the GMDRT project and add a convenient port. But standards must be aligned, and the EU has operated numerous testbeds already, but the question is how to do this on a global scale.

In commenting, the chairman added that the project may not cover all maritime services, but it must be tried to include as many important services as possible.

As there we no further action points on the agenda, neither additional input from the audience, the chairman arranged for a joint online photo session and closed the session at around 10:30 a.m.

**Minutes of the GMDRT Workshop, session two, on 12th of November 2021**

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Theme: Present the GMDRT Project concept and developing an agreed generic / action plan, to drive unlimited global testbed for New Worldwide Ocean such as e-Navigation, MASS, Smart-mobility.

The meeting was held virtually through the platform GoToMeeting. Those organisations in virtual attendance where:

* BM Bergmann Marine
* Sunbae Hong
* Jongbum Won
* Diego Piedra
* Thomas Christensen
* Jan Bauer
* Lee Elly
* Lloyd Ferguson
* Hyunsoo Choi
* Jens Schroder
* Florian Motz
* Bruno
* Gabriel Ferrus
* Robert Aarts
* Richard Doherty
* Mikael Hagg
* Holger Klindt
* Jin Hyoung Park
* Karno

The invitation was distributed on 23rd of October, followed by the agenda on 09th of November 2021. The agenda was slightly amended by IALA changing the topic of its presentation to “D@S Initiative and GMDRT”

The meeting was chaired by Mr. Michael Bergmann (BM).

After some welcome and introductory worlds by the chairman, a welcome address was delivered (via recorded presentation) by Mr. Sunbae Hong (MOF), in which he pointed out the main principle of the GMDRT project. Specified were

1. the approach to start and continue step by step,
2. the need for maritime services to be user driven, and
3. to identify and verify best practises in e-navigation.

Concluded with many stakeholders are looking forward to the implementation of GMDRT. It’s important that we remain focused, share best practices to ensure a harmonised approach to the implementation of GMDRT.

Next up, Dr. Jin Hyoung Park (JP) presented his topic “domestic e-navigation service status. Provided insight to the GMDRT project plan 2023-2026”.

We followed quickly on to the presentation belonging to Mr. Minsu Jeon (MJ) of IALA. However MJ was unavailable due to other commitments, and therefore was delivered as Video recording from the session one the day before.

The floor was opened for questions, of which there were plenty.

Thomas Christensen (TC) was reassured by (MB) that general services, updates, and navigational warnings (relating to e-Nav) will be harmonised and tested as part of the on-going GMDRT strategic plan. Details will be defined early 2022.

Sunbae Hong (SH) agreed with (TC) that standard services should be made available onboard and onshore.

Holger Klindt (HK) queried different rules and regulations affecting stakeholders. MB replied that this is essential point, procedures and the execution needs to be manageable on a global basis.

The final presentation, to be delivered by Mr. Michael Bergmann (BM) named “Related digital maritime service, e-navigation project in Europe / Research report of work process KRISO-BM project / Major Europe organisations and service providers for GMDRT”.

In closing, we summarised as follows.

* Project Plan
* What can be / or what is feasible now?
* Future planning

Before coming to the last point of the agenda, the chairman used the opportunity to accept some more question from the audience, which referred to the chat correspondence at the GoToMeeting side panel.

Robert stated he was confused as to what the goals of the project were.

* Why don’t we already have a test bed
* Infrastructure needs to be re-defined
* Further development work needs to be carried out to successfully implement GMDRT

MB commented that some roadblocks have been a major factor as to why it has taken so long but is also the reason why we are collaborating and putting together a plan to successfully execute.

JP commented and mentioned that points 1 + 3 raised by Robert are very important. Many components have been developed using different technologies whilst having the goal of building a standard infrastructure.

MB made further comment and referred to TC in relation to multiple MCP Instances. GMDRT should validate that those different instances can successfully collaborate as envisioned by the respective MCP Guidelines of the MCO Consortium.

No further questions.

Meeting closed and group picture taken.

Minutes and presentations will be sent and made available to all participants during the two-day session.

1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-1)
2. Leave open if uncertain [↑](#footnote-ref-2)