Paper for consideration by NIPWG 5

Outcome of 1st HGDM meeting

Submitted by:	NIPWG Chair
Executive Summary:	This paper provides a brief overview of the 1st HDGM meeting results
Related Documents:	HGDM Report to NSCR 5
Related Projects:	IMO e-navigation

Introduction / Background

As instructed by the Maritime Safety Committee the IMO/IHO Harmonization Group on Data Modelling (HGDM) met from 16 to 20 October 2017.

The meeting was attended by representatives from 16 Member States and by representatives from 2 intergovernmental organizations and 8 non-intergovernmental organizations.

The HGDM was tasked by the (MSC 98) to work only on the "*Guidance on the definition and harmonization of the format and structure of Maritime Service Portfolios (MSPs).*"

Analysis/Discussion

The Group discussed various overarching issues related to how to commence the work on the Guidance, including purpose, scope, the role of the Organization, the means to achieve harmonization, as well as how to balance the challenge of providing high-level guidance for the rather technical matter of harmonizing format and structure of MSPs.

The Group confirmed the need to reference the S-100 framework within the Guidance as one baseline standard.

The Group agreed that it was prudent to have a common understanding of a Maritime Service Portfolio (MSP) prior to developing Guidance or template on the harmonized format and structure of MSPs, and decided to work on a revised definition of MSPs first.

Definition of Maritime Service Portfolio

The Group considered a revision of the definition of Maritime Service Portfolio (MSP), as part of the task of the output and in order to have a clear understanding of the scope and meaning of an MSP.

After some discussion the Group agreed to a revised definition of MSPs which was more concise and believed to capture the purpose and scope of MSPs better than the existing definition. The term "Maritime Service" was introduced into the definition and intended to emphasize that a Portfolio comprised two or more related maritime services which were grouped together. Hence the Group decided that the current list of MSPs in the IMO e-navigation Strategy Implementation Plan (SIP) should not be called a list of MSPs but rather a list of e-navigation "Maritime Services".

Consequences on the change of definition for MSP

With the change of the definition for MSPs, the Group agreed to subsequently change the title of the template to "Template for a Maritime Service" (instead of MSP).

In discussing the purpose of the template the Group agreed that the Guidance should serve as a tool to assist in the transition from traditional information provided to ships to the provision of digital information, using the existing framework of IMO's instruments that described the information which was to be communicated to and from the ship. With the definition of format and structure the Guidance would describe how the maritime service would be structured to facilitate digitalization.

Note: FOR REASONS OF ECONOMY, DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

The Group acknowledged that the description of the operational service needed to be differentiated from the physical service (e.g. information on tug services available in a port versus the actual service of towing or manoeuvring a ship by the use of tugs). It was therefore agreed that the Guidance should describe and help implement the operational service by providing the maritime service-related information.

Controlling body
In considering the role of the Organization, it was agreed that IMO had the lead role on e-navigation development and implementation, and therefore should manage and control the development of maritime services to achieve harmonization.

Further discussion items
3-levels of control and ownership were agreed, with the Organization having the leadership and overarching control of maritime services and requiring domain coordinating bodies, when developing maritime services, to use the template. The Group concluded that there was a need for procedures and actions to be taken by the Organization after receiving the completed Maritime Service template from a domain coordinating body.

There was agreement in the Group that a challenge faced in the harmonization of data element IDs for maritime data was the large number of data models developed by different international bodies that did not conform to the S-100 framework.
In discussing the possible solutions to ensure that users of the Guidance would apply unified data element IDs, the Group considered establishing a mechanism to issue, manage and make them available for use by stakeholders. A data model that reflected the structure of such a proposed identification system (including all associated metadata) should be developed and maintained by a competent international body, such as IMO.
It was proposed that a registry framework (similar to the one established by the IHO) would provide an appropriate mechanism for managing the individual registers (data bases) containing the ship identifier information and associated metadata. Furthermore, it was suggested that the Maritime Resource Name (MRN∗) framework could be used for data models such as, for example, the IMO identification numbers for ships.

It was agreed that there is no pre-defined coverage information needed. If considered necessary, coverage information could be provided at the relevant template section.

Technical aspects will not be implemented as they are not appropriate for the high-level guidance which the Group was tasked to develop.
However, the group noted that technical aspects should be discussed and provided by a separate document. IALA was invited to provide a short non-technical description that explained the nature and need for the guideline.

It was agreed that the current terms of reference were broad enough to continue the work, given the limitation set by MSC 98, it was noted by the Group that they restricted the development of the MSPs to SOLAS-related services. However, the scope of work of the Group had been expanded and included also maritime services not governed by SOLAS. The Group therefore agreed to bring this matter to the attention of NSCR5.

There was consensus in the Group that the current draft was at a very early stage of development and required more input in the future. Given the large amount of work necessary to finalize the draft Guidance, the Group agreed to request NCSR 5 to invite MSC 99 to approve the holding of a second meeting of the HGDM.

Justification and Impacts

No impacts on the current level of involvement are expected for the period until NIPWG6. NIPWG members should consider their participation in future HGDM meetings.

Assuming that the completion of the template (current Draft see ANNEX) emerge to a workable level of maturity, the description of maritime services which will form the basis for a Maritime Service Portfolio "Hydrographic Services" may become necessary for NIPWG.

Action required of NIPWG5

The NIPWG5 is invited to:

        a.   note this paper.

ANNEX

Note that, according to IMO rules, content in square brackets has not been finalized and should be considered as not-present.

TEMPLATE FOR A MARITIME SERVICE

This template should be used by international organizations to describe the maritime services that are within their remit. Descriptions of maritime services provided to IMO using this template will enable IMO to exercise, leadership and overarching oversight and to provide a globally harmonized list of maritime services.

To ensure a standardized approach in the development and implementation of maritime services, the content should include a general description of the operational services, and a reference to associated technical services that will enable the exchange of information in digital format.

1. **Title of the maritime service (Maritime Service number)**

2. **Submitting Organization**

3. **Description of the maritime service**

Stating the exact nature and scope of the maritime service in accordance, if applicable, with existing IMO instruments. Additional details might be added for clarity as required.

4. **Purpose**

What is the purpose of the maritime service?

What value does it bring to its intended stakeholders?

Is the maritime service compliant with regulatory requirements, if applicable?

In the case that the maritime service covers existing services, a description of the steps required to transition from analogue to digital information promulgation must be included.

5. **Operational approach**

How is the purpose of the maritime service achieved, taking into account existing guidance of the Organization and other international bodies?

6. **User needs**

Describe the user needs the maritime service addresses. In so doing make reference to any relevant IMO instruments and, where applicable, include one or more use cases.

7. **Information to be provided**

List the information elements the maritime service provides. The information elements will be the starting point for data modelling, as part of the technical services to access, promulgate or exchange the information.

8. **Associated technical services**

Using the table below list existing or potential technical services associated with this maritime service.

Name	ID (MRN)*	Description	Architect(s)	Standardization body

9. **Relation to other maritime services**

Describe any relationships between this and other maritime services such as interdependencies or areas of overlap. This section should clarify the nature of interdependencies, overlaps and provide recommendations for their resolution.