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| EXPERT GROUP  ON DATA HARMONIZATION  8th session  Agenda item 5 | EGDH 8/5  19 February 2023  ENGLISH ONLY  Pre-session public release: |

**IMO DATA SET ON BERTH LOCATIONS (S-131 (MARINE HARBOUR INFRASTRUCTURE)**

**Harmonization of the IHO GI Registry and the IMO Data Reference Model**

**Submitted by IHO**

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| **SUMMARY** | |
| *Executive summary:* | Continuation of the discussion regarding the harmonization of the IHO GI Registry and the IMO Data Reference Model. Update on the S-131 product specification and related NIPWG work items. |
| *Strategic direction, if applicable:* |  |
| *Output:* |  |
| *Action to be taken:* | Paragraph 13 |
| *Related documents:* | EGDH 7/5 Harmonization of the IHO GI Registry and the IMO Data Reference Model, submitted by IHO |

**Introduction**

1. IHO submitted the document EGDH 7/5 to the seventh session of the Expert Group on Data Harmonization. This document presented the IHO GI-registry and the work of IHO NIPWG (Nautical Information Provision Working Group) related to Marine Harbour Infrastructure data. The product specification S-131 and a related database project were presented.
2. IHO noted that there would be significant benefits for the IHO S-100 Universal Hydrographic Data Model (IHO Geospatial Information (GI) Registry) and the IMO Reference Data Model to be coordinated and aligned. The Expert Group on Data Harmonization was requested to take note of the paper, and discuss the possible ways to harmonize the IHO/IMO Data Models.
3. According to the draft report of EGDH 7, following recommendations to the Facilitation Committee were made;
   * 1. Inform IHO relevant bodies about the work of the Committee on the IMO Compendium in order to raise interest and understanding of the intersection between the IMO reference model and the S-100 product specifications (paragraph 8.1);
     2. Organize a meeting between IHO and IMO to discuss how to best map the relevant S-131 information to the IMO reference model (paragraph 8.2);
     3. Add a standing agenda item to the EGDH provisional agenda to cover collaboration with the IHO (paragraph 8.3);
4. When considering possible ways to harmonize the IHO and IMO models, EGDH 7 noted following options to be further discussed with the IHO:

.1 developing a product specification on the IMO reference model in the IHO GI Registry; and

.2 inviting IHO to send relevant data elements, data sets or references to be included in the IMO Compendium.

**Update on progress since EGDH 7**

1. The first version (1.0.0) of IHO Marine Harbour Infrastructure Product Specification S-131 was handed over to IHO NIPWG in January 2023. The PS is scheduled for approval by IHO HSSC in June 2023, if deemed mature enough by NIPWG.
2. According to IHO technical readiness level specifications, the first version is aimed for external testing by a larger group of stakeholders. The first version contain a well-defined data model.
3. IHO embraces the initiation of permanent collaboration offered by the EGDH. During an IMO and IHO meeting at IMO HQ, it was decided that an IHO (NIPWG) representative shall join the EGDH, starting from EGDH 8 in order to support collaboration and harmonizing of the data models.
4. An initial analyse of the IMO Compendium by IHO NIPWG indicates different ways of structuring of data within the models. Additional to harmonizing of single data element definition and naming, also the overarching structure of the IMO reference data model, and the use of data elements across datasets should be further analysed.

**Proposal**

1. The options proposed by EGDH 7, as possible ways to harmonize the IHO and IMO data models, are supported by IHO. The IMO Compendium is generally described as a guideline for implementation, and S-100 is practically an implementation framework. Drafting of S-100 style data models based on the IMO Compendium seem a natural way to perform a hands-on-analyse of the differences between the data models.

1. A complete S-100 Product specification implementation, including all the required parts, seem too extensive as a goal for the purpose of analysing differences between the data models, considering the current resources available. A simple mapping of selected IMO Compendium Datasets (related to S-131) into S-100 style feature catalogues / data models would be a practical way to identify gaps, and support the mapping of individual data elements.
2. It is proposed, that mapping of selected IMO Datasets into S-100 style feature catalogues / data models, is initiated by the IHO. Initial progress and findings are presented at EGDH 9.
3. At this time, IHO has no data elements to propose for inclusion to the IMO Compendium.

**Action requested of the Expect Group on Data Harmonization**

1. The Expert Group on Data Harmonization is invited to consider the information contained in this document and take action as appropriate.

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