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| **Product Specification description (Harbour Infrastructure)**  |
| **Action**  | **Description** |
| Product Specification number | S-130 |
| Title | Marine Harbour Infrastructure |
| Abstract | The Marine Harbour Infrastructure product intended use is to raise situational awareness before approaching a harbour. Knowing a priori the layout of the berths as well as the services offered for berthing procedure and alongside is important in the berth-to-berth route planning process for an efficient harbour call. Knowing all the services they need while at port are available and accessible as well as having a smooth transition into their berthing position. The data will be able to be filtered according to needs to help reduce the cognitive burden on the mariner and presented in a way that is compact, organised and easily accessible.This information is also useful for shipping companies, brokers and other in the industry to optimize their planning. |
| Product Specification Scope | The Marine Harbour Infrastructure describes relevant and data on harbour infrastructure, facilities and services in a harmonised form.The main source of the data is information from harbour masters. |
| Justification | This Product Specification was a choice listed in an earlier SNPWG survey but did not place high enough by survey respondents for development by SNPWG/NIPWG.Within the Marine Harbour Infrastructure there are the following categories:1. Land-based infrastructure
2. Water-based infrastructure.

Each of these categories can further be subdivided into**Physical Infrastructure**1. Berths—Length, width, height above water, depth alongside, cargo handled, vessel parameters (maximum size, loa, draft, beam, etc.), mooring fittings (chocks, bits, bollards, fairleads).
2. Storage yards/warehouses—Size, availability, location, cargo capability.
3. Cranes—Type (container, rubber tire gantry, rail mounted, forklifts), safe working loads, capacity, number available.
4. Other cargo loading/unloading—Conveyor belts, liquid/solid bulk transfer capability (type of cargo, loading rates)

Repair facilities—Dry docks, floating docks, floating cranes, repair yards (including vessel parameters).**Service Infrastructure**:1. Stevedores/other dockworkers.
2. Line handlers.
3. Bunkers.
4. Fresh water.
5. Trash removal.
6. CHT services.
7. Shore power.
8. Types of repairs.
9. Communications availability.
10. Medical/dental facilities.
11. Truck/rail availability.
12. Ship Sanitation Control Certificates (SSCC)
13. Ship Sanitation Control Exemption Certificates (SSCEC)

The Product Specification content can cover official Nautical Publications information as well as information issued by the competent harbour authority.  |
| Specification Interoperability | S-101ENC will provide the most physical infrastructure information. |
| S-98 Applicability | Applicable to S-98 (Yes [x] or No [ ] ) |
| Cooperation with other HSSC WGs | NCWGS-101 PTS-102 and S-129 may be if water depths information is needed |
| Budget | 55,000 – 65,000 € in total. 30,000 € are preparation work belonging to NIPWG25,000 – 35,000 € are sufficient for the pure product specification development. |
| Schedule | Based on state of currents development 2020 NIPWG starts researches, data model, etc. 2024 Product Specification development starts2026 Product Specification version 1 ready and goes into 2/2007 circle |