**Project Team S-57 to S-101 - Part 1 Assessment of Project Proposal submitted by Project Team Leader for Consideration by IHO-Singapore Innovation and Technology Laboratory Governing Board**

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| **S/No** | **Description** | **Summary of Proposal** |
| 1 | Project objective | The goal of the Project is to thoroughly test, and propose refinements to, the "S-57 to S-101 Conversion Guidance" document, produced by the IHO ENC Working Group (ENCWG).  To use existing conversion tools to test the Conversion Guidance document and produce outputs conformant to its contents. |
| 2 | Indicative budget duration | Not indicated. |
| 3 | Duration | Not indicated. |
| 4 | Team composition and Project Team Leader | The Project Team Leader is Thomas Mellor, Chair of the ENCWG. The Team also comprises:   1. Christian Mouden (France) and Jonathan Pritchard (IIC Technologies), co-chairs of the S-57 to S-101 Conversion Sub-Group; and 2. Yong Baek, Jeff Wootton (IHO Secretariat). |
| 5 | Project scope, challenges identified, innovation opportunities and potential benefits. | In its final version, the "S-57 to S-101 Conversion Guidance" document should be as complete as possible so that any ENC producer can find all information needed to convert his ENCs from S-57 to S-101.  Some possible challenges and opportunities for innovation exist already:  a. S-101 standard is still in progress and some data models will probably change during the project, with implications on the conversions and on the conversion document.  b. Initial S-57 to S-101 converters and S-57/S-101 co-production tools are still in a development phase and substantial improvements will probably occur during the project. A systematic approach to the specification and outputs of such tools is yet to be defined or rigorously stated. The mapping to IMO requirements for ENC under S-101 is also yet to be defined.  c. Due to different S-57 encoding rules between different data producers, the conversion will need to be adapted to individual HOs, while remaining conformance with S57 and S101 standards at all times.  d. S-101 validation checks are still in development and, at this time, there is no S-101 QC tool that can ensure a converted cell complies with a defined standard. No cross-validation standard or set of checks yet exist. Outputs from the project can also be input into validation and S-164 test dataset production. |
| 6 | R&D or test-bedding work descriptions | There may be opportunities for the Innovation Lab to develop tools to compare S-57 and S-101 ENCs and identify different interpretations of conversion and its outputs as well as providing guidance for ongoing co-production to producing HOs during the dual-fuel era. |
| 7 | Key milestones and deliverables for each milestone | The project should be launched in 2022, with the release of edition 1.1.0 of S-101, for a period of one year. |
| 8 | Profile and respective of industry partner(s) participating in the industry consortium (if the company is forming a consortium) including their role and contributions (financial or in-kind). | As previously stated, the project team will have to use a number of tools to test ENC conversion.  Partnership with industry is thus a key for the success. Arrangements will have to be established with providers of ENC production tools (including converters) and S-101 data visualizers. |
| 9 | Project risk assessment and mitigation plan |  |
| 10 | Brief description of the Intellectual Property (IP) arrangements to facilitate eventual commercialisation of the project IP developed | None. |
|  | **Recommendations** | **Good proposal. Need to engage software developers and ECDIS OEM to participate in field testbedding.** |