



6th Meeting of the IHO Council

**Update to IHO Council on the IHO-Singapore  
Innovation and Technology Laboratory (IHO-Singapore Lab)**

**Agenda Item C6-04.5A**

**Abri Kampfer**

Chair, IHO-Singapore Lab's Governing Board

C-6, IHO Secretariat, Monaco, 18 – 20 October 2022

## 01 | Facilitate

The **conduct of innovative or investigative projects** proposed by IHO Member States(s), IHO organs, or other stakeholders. (including test bedding)

## 02 | Enable

**Knowledge creation** and foster collaboration to evaluate specifications of global standard setting within the scope of IHO standardization activities

## 03 | Foster

A **multidisciplinary and collaborative environment** for **technical experts** to interact learn and promote new solutions and technologies, including collaboration and cooperation with **other international organizations** research and development bodies active in the maritime domain under the guidance of a Governing Board



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# ESTABLISHMENT OF THE IHO – SINGAPORE INNOVATION AND TECHNOLOGY LABORATORY.

International  
Hydrographic  
Organization

- Decision at 2nd IHO Assembly, 2020
- Formation of the Governing Board, May 2021
- Launch the IHO-Singapore Lab, Aug 2021
- Developed Webpage for Lab, Sep 2021
- **Approved 3 Projects** and Evaluated New Project Proposal, Oct 2022
- Kick off Meeting of 1<sup>st</sup> Project in Mar 2022
- To date the Governing Board has held **4 meetings**



C-6, IHO Secretariat, Monaco, 18 – 20 October 2022



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# **UPDATE ON GOVERNING BOARD MEETINGS**

International  
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Organization

- **Composition of the Governing Board (2021 ~ 2023)**



**Abri Kampfer**  
Chair  
(Director, IHO)



**Thomas Dehling**  
Member  
(Chair, IRCC)



**Magnus Wallhagen**  
Member  
(Chair, HSSC)



**Thomas Ting**  
Member  
(Host Country Rep)



**Yong Baek**  
Secretariat  
(IHO)



**Parry Oei**  
General Manager  
(IHO Lab)



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# UPDATE ON GOVERNING BOARD MEETINGS

International  
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Organization

- **IHO Lab Projects (approved)**
  - Project (2021-01): **S-131** Marine Harbour Infrastructure Database (MHID)
  - Project (2021-02): Development of **S-57 to S-101 Conversion** Guidance Document
  - Project (2022-03): Creation and Test-Bedding of **ECDIS capable of displaying S-102 and S-104** on S-101 ENC
- **Proposed Projects (2022)**
  - Proposal: Proof of Concept: IHO-IALA Collaboration to Demonstration Interoperability of S-101 and S-125 at sea using wireless updating via 4G/5G Telecommunications links



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# UPDATE ON THE LAB PROJECTS(1/4)

International  
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Organization

- Project(2021-1): S-131 MHID
  - Headed by: Sarah Rahr, CHS

Goals of the Project:

- Create a **database and interface** that will **improve the information exchange** between harbours and hydrographic offices by acting as a **neutral repository of harbour information**
- **Project implementation commenced in May 2022. Project on scheduled**

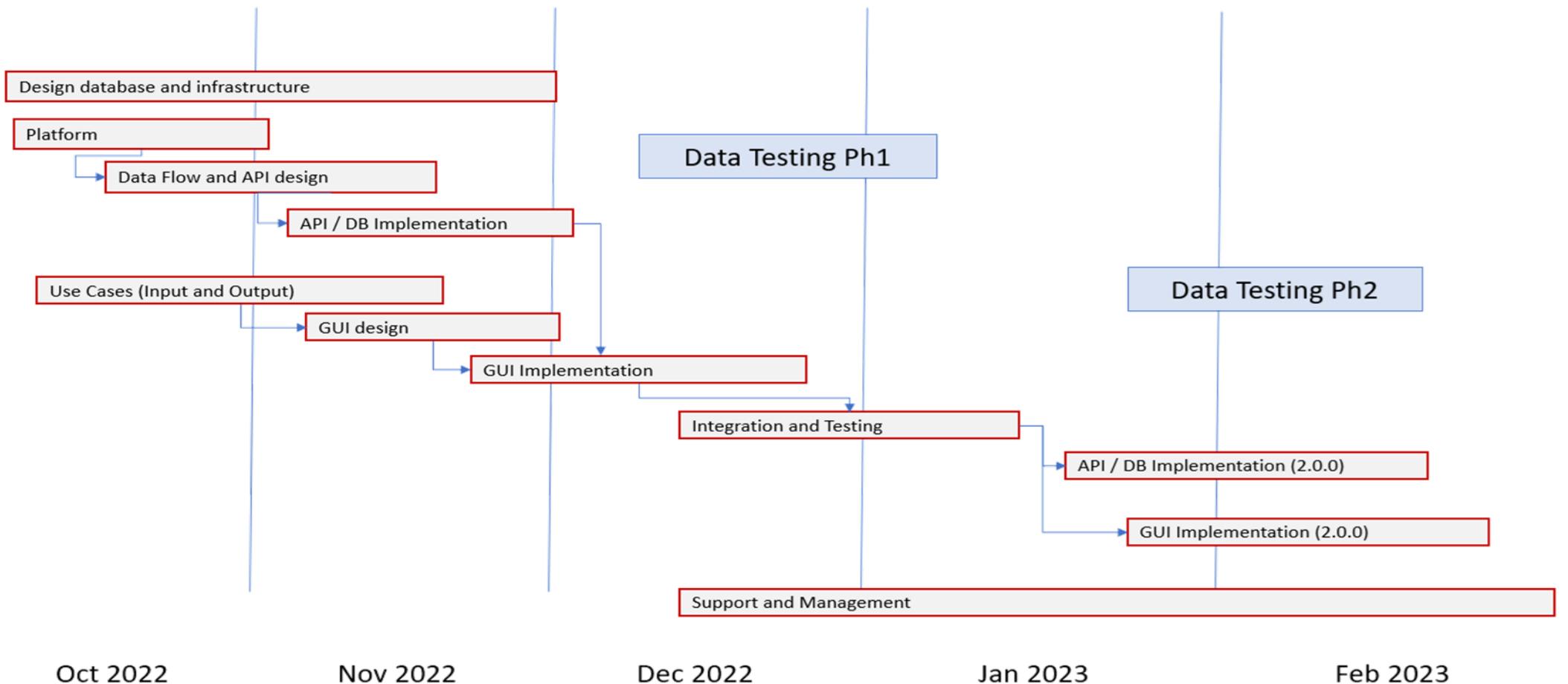


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# UPDATE ON THE LAB PROJECTS(2/4)

International Hydrographic Organization

## • Project(2021-1): S-131 Implementation Timeline





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## UPDATE ON THE LAB PROJECTS(3/4)

International  
Hydrographic  
Organization

- Project(2021-2): S-57 to S-101 conversion
  - Headed by: Thomas Mellor, Chair ENCWG

### Goals of the Project:

- Thoroughly **test and propose refinements** to the "S-57 to S-101 Conversion Guidance" document, produced by the IHO ENC Working Group (ENCWG)
- Use existing conversion tools to **test the Conversion Guidance document** and produce outputs conformant to its contents
- Project Team working with IHO-Singapore Lab on implementation plan. Physical meeting scheduled for Nov 2022.



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## **UPDATE ON THE LAB PROJECTS(4/4)**

International  
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- **Project(2022-3): ECDIS capable of display S-102 and S-104 on S-101 ENC**
  - Headed by: MPA Singapore and 7Cs

### Goals of the Project:

- In-Principle approved, subject to final amendment to submission
- Interfacing S-102 with S-101 to explore display options to best match user needs & requirements without cluttering of information, including in conformance with S-98
- Provision of Test-bed infrastructure or Testbed ECDIS which allows display of S-102 and S-104 onto S-101 ENCs
- Provision of hardware for Testbed ECDIS



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# GOVERNING BOARD ACHIEVEMENTS

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- Established procedures for submission of project proposals
- Approved the 3 projects ;
  - S-131 Marine Harbour Infrastructure Database (MHID)
  - S-57 to S-101 conversion
  - Creation and Test-Bedding of ECDIS capable of displaying S-102 and S-104 on S-101 ENC
- Encourage the involvement of industry stakeholders

**The Governing Board encourage more stakeholders to identify collaborative projects, especially with other organisations and industry partners.**



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**For Information**