1st Meeting of S-100 ICE Project Team
7th Sep. 2023 / 13:00 - 15:00 (UTC+2/CEST)

S-100 ICE PT1

IHO International Hydrographic Organization

Provisional Agenda and Timetable

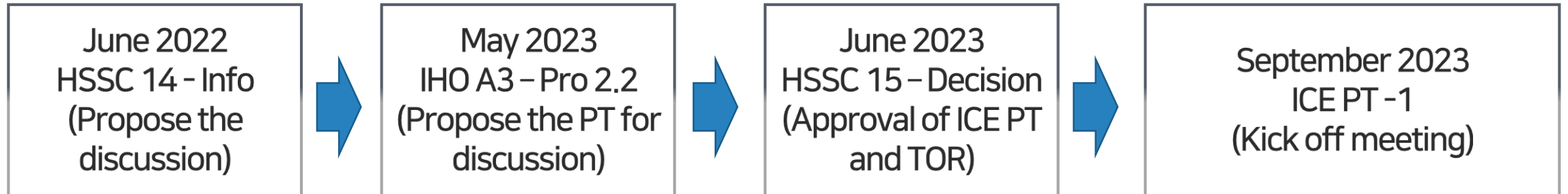| Time	Agenda #	Title	Lead
7 Sep2023			
13:00 - 13:15	ICEPT1-1	o Welcome o Participants Introduction	All (IHO Director, HSSC Chair)
13:15 - 13:20		Group Photo	All
13:20 - 13:30	ICEPT1-2	o Agenda adoption o Confirmation of the Chair group of the Project Team o Expert Contributors	All
13:30 - 13:40	ICEPT1-3	o Background of ICE PT establishment o ToR and RoP review	KHOA All
13:35 - 13:40	ICEPT1-4	o Purpose and responsibilities of the IHO S-100 Infrastructure Centre	All
13:40 - 14:00	ICEPT1-5	o Work items of PT	All
14:00 - 14:20	ICEPT1-6	o Timeline of PT	All
14:20 - 14:50	ICEPT1-7	o Governance of S-100 Infrastructure Centre - Review options and discuss on its composition and work procedures	All
14:50 - 14:55	ICEPT1-8	o Upcoming plan of the PT (Reporting to HSSC16)	All
14:55 - 15:00	ICEPT1-9	o Any Other Business o Next Meeting (Date and Venue) o Review Draft Outcomes	All
		Close	-

Intro

- Welcome remarks (IHO Technical Director, HSSC Chair etc.)

- Participants introductions (Members)

- Agenda adoption

- Confirmation of the Chair group of the Project Team

- Expert Contributors

Background of ICE PT establishment

Progress of ICE PT organization

- Proposal of the discussion and approval of ICE PT

June 2022 HSSC 14 – Info (Propose the discussion)	→	May 2023 IHO A3 – Pro 2.2 (Propose the PT for discussion)	→	June 2023 HSSC 15 – Decision (Approval of ICE PT and TOR)	→	September 2023 ICE PT – 1 (Kick off meeting)

- Decision from A3 on the S-100 Infrastructure center

- Recognized the need to establish the S-100 Infra Center and approved the foundation of a new Project Team under HSSC with a three-year work plan including the establishment of the S-100 Infra Center and to prepare for the actual implementation period with consideration of the possible location of the Center.
- Requested HSSC to propose to the Council to establish the S-100 Infra Center and how it can support the S-100 framework.
- Tasked Council to report to the 4th IHO Assembly the progress of its three-year operation including the establishment of the S-100 Infra Center.

ToR and RoP review

ICE PT – TOR/ROP

- HSSC15 reviewed and approved the ICE PT TOR
- The role of the S-100 infrastructure center and the role of PT are separate and distinguished

HYDROGRAPHIC SERVICES AND STANDARDS COMMITTEE (HSSC)

S-100 Infrastructure Centre Establishment Project Team (ICE PT)

Background

Recognizing the need to accelerate the implementation of S-100 worldwide and leave no Member States behind (A-3 Decision No. 14, PRO 2.2), the 3rd Session of the IHO Assembly requested HSSC to propose to the Council to establish the S-100 Infrastructure Center and how it can support the S-100 framework. Therefore, the HSSC sets out to establish the S-100 ICE PT under the HSSC. Its work plan shall include to propose to the Council the establishment of the S-100 Infrastructure Center.

References:

    a. A-3 Decision No. 14, PRO 2.2

    b. HSSC Terms of Reference and Rules of Procedure

Terms of Reference

1   **Objective**

To develop the management documents and operating plan for the proposed S-100 Infrastructure Center taking into account the following and report its progress to the HSSC:

    1.1   The role, scope, function and governance

    1.2   The composition, financial considerations, and work procedures

    1.3   The location

    1.4   A preliminary work plan

    1.5   The timeline for the establishment

    1.6   Support the HSSC with the creation of documents required to submit the proposal to the IHO Council.

2   **Authority**

The Project Team is a subsidiary body of the HSSC. Its work plan is subject to the HSSC's approval.

ToR and RoP review

ICE PT – TOR/ROP

Rules of Procedure

3 **Composition**

3.1 The PT shall comprise representatives of IHO Member States (MS), Expert Contributors (EC), observers from accredited NGIOs, and a representative from the IHO Secretariat. A membership list shall be maintained and posted on the IHO website.

3.2 EC membership is open to entities and organizations that can provide a relevant and constructive contribution to the work of the PT.

3.3 The Chair and Vice-Chair shall be representatives of an MS. The election of the Chair and Vice-Chair shall be decided at the first meeting and determined by the vote of the MS present and voting.

3.4 If a secretary is required, it should generally be drawn from a member of the PT.

3.5 If the Chair cannot carry out the office's duties, the Vice-Chair shall act as the Chair with the same powers and responsibilities.

3.6 ECs shall seek approval for membership from the Chair.

3.7 EC membership may be withdrawn if a majority of the MS represented in the PT agrees that an EC's continued participation is irrelevant or unconstructive to the work of the PT.

3.8 All members shall inform the Chair in advance of their intention or inability to attend meetings of the PT.

3.9 In the event that a large number of EC members seek to attend a meeting, the Chair may restrict attendance by inviting ECs to act through one or more collective representatives.

4 **Procedures**

4.1 The PT should work through correspondence, teleconferences, group meetings and workshops.

4.2 Decisions should generally be made by consensus. Only Members may cast a vote if votes are required on issues or to endorse proposals presented to the PT. Meeting votes shall be based on one vote per Member represented at the meeting. Correspondence votes shall be based on one vote per Member represented in the PT.

4.3 The PT should liaise with other IHO bodies, the S-100 Working Group, and its other project teams, in particular for this matter, international organizations, and industry representatives, to ensure the relevance of its work.

4.4 The PT should report to HSSC on its activities and submit a work plan, including the expected time frame.

4.5 Once the objectives listed in Section 1 are met, then the project team should be dissolved

Purpose and responsibilities of S-100 infrastructure

Background

- S-100 ECDIS will be legal to use after 1 January 2026 and from 1 January 2029 new systems must comply with the new IMO Resolution MSC.530(106) on ECDIS Performance Standards

- IHO has commitments to achieve operational status on the prioritized S-100 product specifications and substantial coverage of S-101 and related products
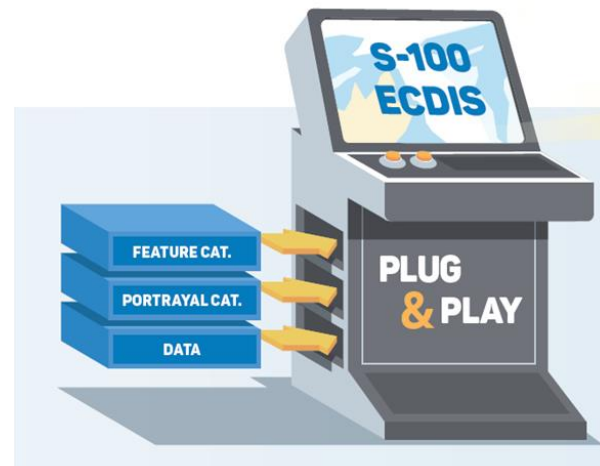
S-100 Dynamic Framework

Interlocking elements
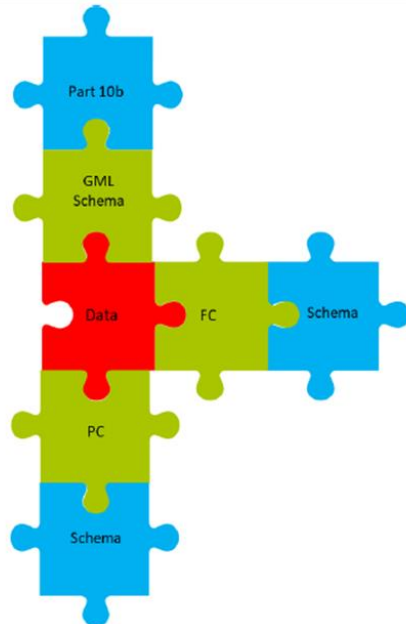
Plug & Play

Dynamic Updates

Multiple Products

Interoperable information
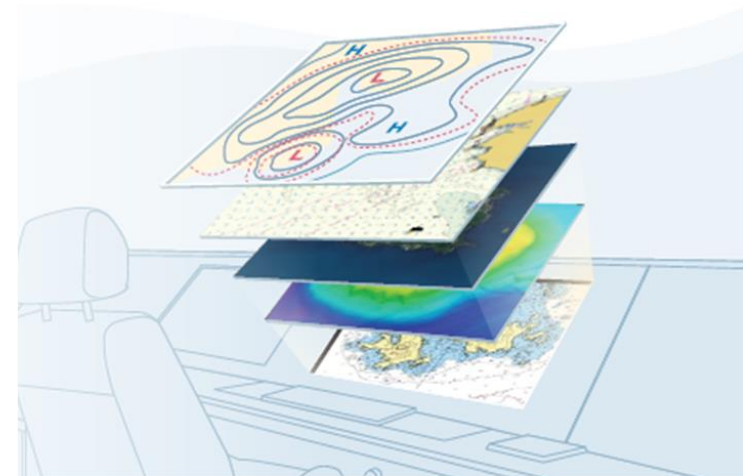
Purpose and responsibilities of S-100 infrastructure

What we need to support S-100 implementation

- Sustainable operation of the Geospatial Information Registry

- Maintenance Application schema and Catalogues(FC/PC)
    - FC from application schema, DCEG and GML schema from FC
    - PC produced according the type of features

- S-100 Development Tools for Product specific updates

- S-164 Test Data Set
    - Including datasets with scenarios and S-10X FC/PC

Major tasks of the S-100 Infrastructure Center

Purpose and responsibilities of S-100 infrastructure

What we agree on

- Need for permanent, sustainable, operational structure to support the implementation of S-100 and its maintenance

- Leave no one behind in the migration to S-100

- Need for interaction among the S-100 Infra Center, existing IHO bodies and the Secretariat

What we need to further consider

- Decision process of the PT on the S-100 Infra Center

- [Project Team – HSSC – Council] → Assembly

- Precise objectives, work scope and operational governance of the S-100 Infra Center

- Solution for budgetary challenges

Work items of PT

Basic items

- The role, scope, function and governance

- The composition, financial considerations, and work procedures

- The location

- A preliminary work plan

- The timeline for the establishment

- Support the HSSC with the creation of documents required to submit the proposal to the IHO Council

Invited to suggest additional ones other than the work items included in the ICE PT TOR

Example tasks of Infrastructure center

Challenges for creating and updating product specifications

S-123 PT
Application schema(EAP)   Ed. 1.2.2
Feature Catalogue   Ed. 1.2.2
Portrayal Catalogue   Ed. 1.2.2
Point/Line/Pattern Symbol
DCEG Document   Ed. 1.2.2
GML Schema   Ed. 1.2.2
Sample Datasets (S-164)

S-124 PT
Application schema(EAP)   Ed. 2.1.0
Feature Catalogue   Ed. 2.1.0
Portrayal Catalogue   Ed. 2.1.0
Point/Line/Pattern Symbol
DCEG Document   Ed. 2.1.0
GML Schema   Ed. 2.1.0
Sample Datasets (S-164)

S-127 PT
Application schema(EAP)   Ed. 3.0
Feature Catalogue   Ed. 3.0
Portrayal Catalogue   Ed. 3.0
Point/Line/Pattern Symbol Ed. 3.0
DCEG Document   Ed. 3.0
GML Schema   Ed. 3.0
Sample Datasets (S-164)

S-100 Infra Center Needs to support Creation and update of PS Items

S-XXX Sample datasets
Sample data/TDS **FC/PC/Encoding Structure(GML Schema)**

S-164 Sub group
• **S-164 ed. 1.o → 2.0** • **Datasets (of course)** • **Catalogues (FC,PC,IC)** • **Metadata (CATALOG.XML)** • **Signatures (All Part 15 etc…)**

S-1XX products from S-164 Ed 2.0, Catalogues, TDS and manuals need to be updated

- Each WG/PT does? Or IHO sec?

Potential work items of Infrastructure Center

Ref	Component	Purpose	Current Situation
1	S-100 GI Registry	The GI Registry is a repository where S-100 concepts are formally registered. This includes features, attributes and sumbology elements.	
2	S-100 Toolkit	It is a software launcher for the various tools of S-100 PS development.	
2a	Feature Catalogue Builder	An application used to create S-100 Feature Catalogues which are XML files built drawing on content held in the GI Registry.	
2b	Portrayal Catalogue Builder	Allows creation of Portrayal Catalogues by defining colours, symbols and Portrayal Rules.	
2c	DCEG Composer	Used to edit Data Classification and Encoding Guide content ensuring consistency between FC and DCEG	
2d	Symbol editor (Point/Line/Pattern)	Used to create and edit SVG symbols for use within S-100 Portrayal Catalogues.	
2e	Interoperability Catalogue (IC) Editor	Interoperability Catalogues control how multiple S-100 datasets function together this tool supports the creation and editing of these Catalogues in a similar fashion to the FC and PC Builders.	
8	S-100 Part 15 Administration	Allows participants in the security scheme to register as data servers or OEMs and provides the various certificates etc	
9	NIWC View and Shore ECDIS	A testbed for displaying and using S-10x products.	
10	IHO eLearning Centre	Learning management platorm for IHO.	
11	INTOGIS	GIS platform for IHO.	
12	S-164 TDS and Manual	ECDIS Type Approval	
13	S-128	Provide up-to-date S-128	

Work items of PT

S-100 Test Systems

S-100 Registry, Tools and Testbed

S-100 Registry

IHO International Hydrographic Organization

IHO Geospatial Information Registry

Data Dictionary Register

🏠 Home / GI REGISTERS / **Data Dictionary Register**

- 🏠 HOME
- 📖 HELP&GUIDANCE
- 🗐 GI REGISTERS
  - Concept Register
  - Data Dictionary Register
  - Portrayal Register
  - Meta Data Register
  - Product Specification
  - Producer Code Register
- 📋 PROPOSAL
- 📋 TEST BED

| Feature Type **375** | Information Type **30** | Attribute Type **734** | Complex Type **116** | Enumeration Value **2388** | Codelist Value **453** |

Domain: ALL   Status: Valid   Category: Name

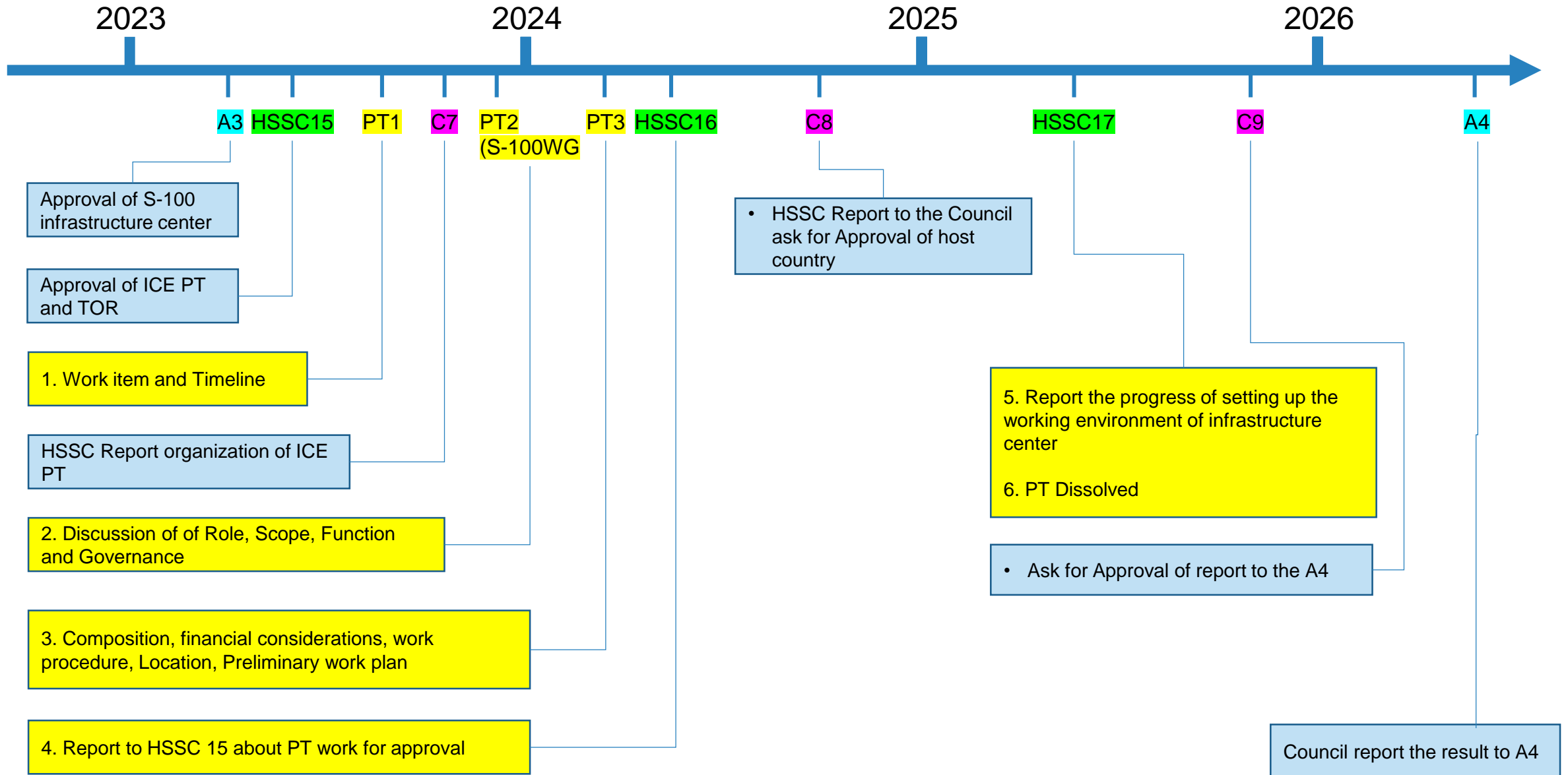| Item ID	Name	Camelcase	Definition	Domain	Status	Date Accepted
641	NAVWARN Area Affected	NAVWARNAreaA...	An area affected by some event marked by a ...	IHO Hydro	Valid	2023-08-24
639	Hulk	Hulk	The hull of a wrecked or condemned ship, fr...	IHO Hydro	Valid	2023-01-27
623	Separation Zone or Line	SeparationZone...	A zone or line separating the traffic lanes in ...	IHO Hydro	Valid	2022-12-16
624	Dock Area	DockArea	An artificially enclosed area within which ship...	IHO Hydro	Valid	2022-12-16
625	Lock Basin	LockBasin	A wet dock in a waterway, permitting a ship t...	IHO Hydro	Valid	2022-12-16
626	Update Information	UpdateInformati...	The Update Information metadata feature is ...	IHO Hydro	Valid	2022-12-16
628	Island Group	IslandGroup	A named group of islands, including archipel...	IHO Hydro	Valid	2022-12-16
630	Offshore Production Area	OffshoreProduct...	An area at sea within which there are produc...	IHO Hydro	Valid	2022-12-16
632	Fairway System	FairwaySystem	That part of a river, harbour and so on, wher...	IHO Hydro	Valid	2022-12-16
633	Two-Way Route	TwoWayRoute	A route within defined limits inside which tw...	IHO Hydro	Valid	2022-12-16
634	Deep Water Route	DeepWaterRoute	A route within defined limits which has been ...	IHO Hydro	Valid	2022-12-16
635	Traffic Separation Scheme	TrafficSeparatio...	A routeing measure aimed at the separation ...	IHO Hydro	Valid	2022-12-16
637	Text Placement	TextPlacement	The Text Placement feature is used in associa...	IHO Hydro	Valid	2022-12-16
638	Berth	Berth	A place, generally named or numbered, wher...	IHO Hydro	Valid	2022-12-16
631	Range System	RangeSystem	Navigation system limited in their positioning...	IHO Hydro	Valid	2022-12-16
621	Buoy Emergency Wreck Marking	BuoyEmergency...	An emergency wreck marking buoy is a buoy ...	IHO Hydro	Valid	2022-12-16

S-100 Tools

FC Builder | PC Builder

DCEG Builder

Symbol Builder

SVG Editor

Line Symbol Editor

Color Profile Editor

S-100 Testbed

ShoreECDIS

Timeline of PT

2023   2024   2025   2026

A3   HSSC15   PT1   C7   PT2 (S-100WG   PT3   HSSC16   C8   HSSC17   C9   A4

Approval of S-100 infrastructure center

Approval of ICE PT and TOR

1. Work item and Timeline

HSSC Report organization of ICE PT

2. Discussion of of Role, Scope, Function and Governance

3. Composition, financial considerations, work procedure, Location, Preliminary work plan

4. Report to HSSC 15 about PT work for approval

- HSSC Report to the Council ask for Approval of host country

5. Report the progress of setting up the working environment of infrastructure center

6. PT Dissolved

- Ask for Approval of report to the A4

Council report the result to A4
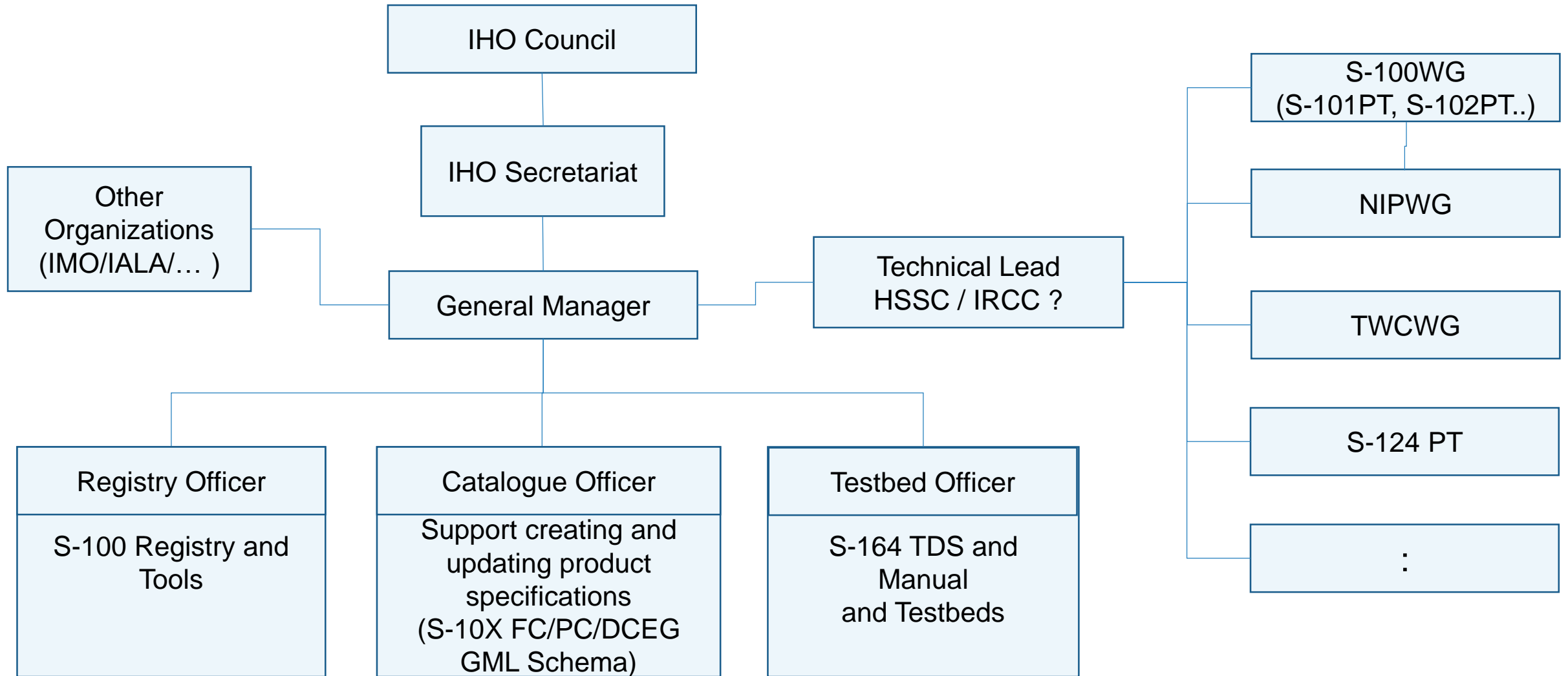
Governance Idea of S-100 Infrastructure Center

Upcoming plan of the PT

- Implementation plan S-100 infrastructure center
    1. The role, scope, function, work procedures and governance
    2. The location, financial considerations, and
    3. A preliminary work plan
- Report the decision to HSSC16

Any Other Business

- Next Meeting (S100WG8, Singapore, 17 Nov 2023)

- Review Draft Outcomes