16th Meeting of the Hydrographic Services and Standards Committee

Report on the application of some ISO 9001 Principles in the development of S-101 PS

Agenda Item 05.5B

HSSC-16, Tokyo, Japan, 27 – 31 May 2024

PRINCIPAL ACTIVITIES AND ACHIEVEMENTS

1. The GANTT diagram and Risks and Opportunities Management Purposes document are maintained by the S-101 PCO.

2. Action HSSC15/60 is **COMPLETED**. The ISO Cell scope has been extended to S-164 and S-98 developments. S-100WG Chair, Vice Chair and PCO from S-164/S-98 subGroup have joined the Cell and participate actively to the meetings.

3. Action HSSC15/61 is considered **COMPLETED** as the IRCC has been invited to mirror the ISO Cell with the scope of RHC S-101 production/coordination/distribution. Unfortunately, no action has been taken due to lack of human resources.

PRINCIPAL ACTIVITIES AND ACHIEVEMENTS

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Action HSSC15/62 “consider how the efforts on S-101 PS development could be measured”

➔ The following definition of “**Effort KPI for S-101**” is proposed :

Objective	Monitor the resources required to achieve the development of the S-101 PS components in accordance with S-100 Timeline : FC & DCEG / Portrayal Catalog / Test data sets
Target	1- % of closed items ≥ 70 % (KPI is green) 2- Number of active contributors ≥ 7 (KPI is green) 3- No significant item open (significant items represent issues that must be resolved for edition 2.0.0 and don’t currently have a clear way ahead) = 0 (KPI is green)
Data collection	From Github Tracker for 1 and 2 From Sub-Group leaders for 3
Periodicity	Update at each ISO Cell Meetings (chapter 5 – Performance indicators of S-101 PS process of Risks and opportunities document) Annual publication in the ISO Cell report for HSSC

Effort KPI values – Updated 02 April 2024

	% closed items (total items)	Workload distribution (number of contributors)	Number of significant items
FC & DCEG	68% (145)	19	*To be completed*
Portrayal Catalog	94% (349)	13	*To be completed*
Test datasets	65% (77)	9	*To be completed*

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PROBLEMS OR OUTSTANDING ISSUES

S-101, S-164 & S-98 PS progress towards Ed 2.0.0 depends on :

1. **Resources** : active contributions from MS & additional fundings, **focused on meeting deadlines**.

2. **PS at medium & high risk** :
   - **S-164 : medium risk** – important lack of visibility due to enough testbeds
   - **S-98 : high risk** – need testing to mitigate that risk
   - **S-158 : high risk** – funding ? Need formalized FC checks

3. **Lack of full Testbed environment and validation strategy** : “operational edition 2.0.0” will be mostly untested and may require significant revisions post 2.0.0.

DEFINING AN AGILE VALIDATION STRATEGY (1/2)

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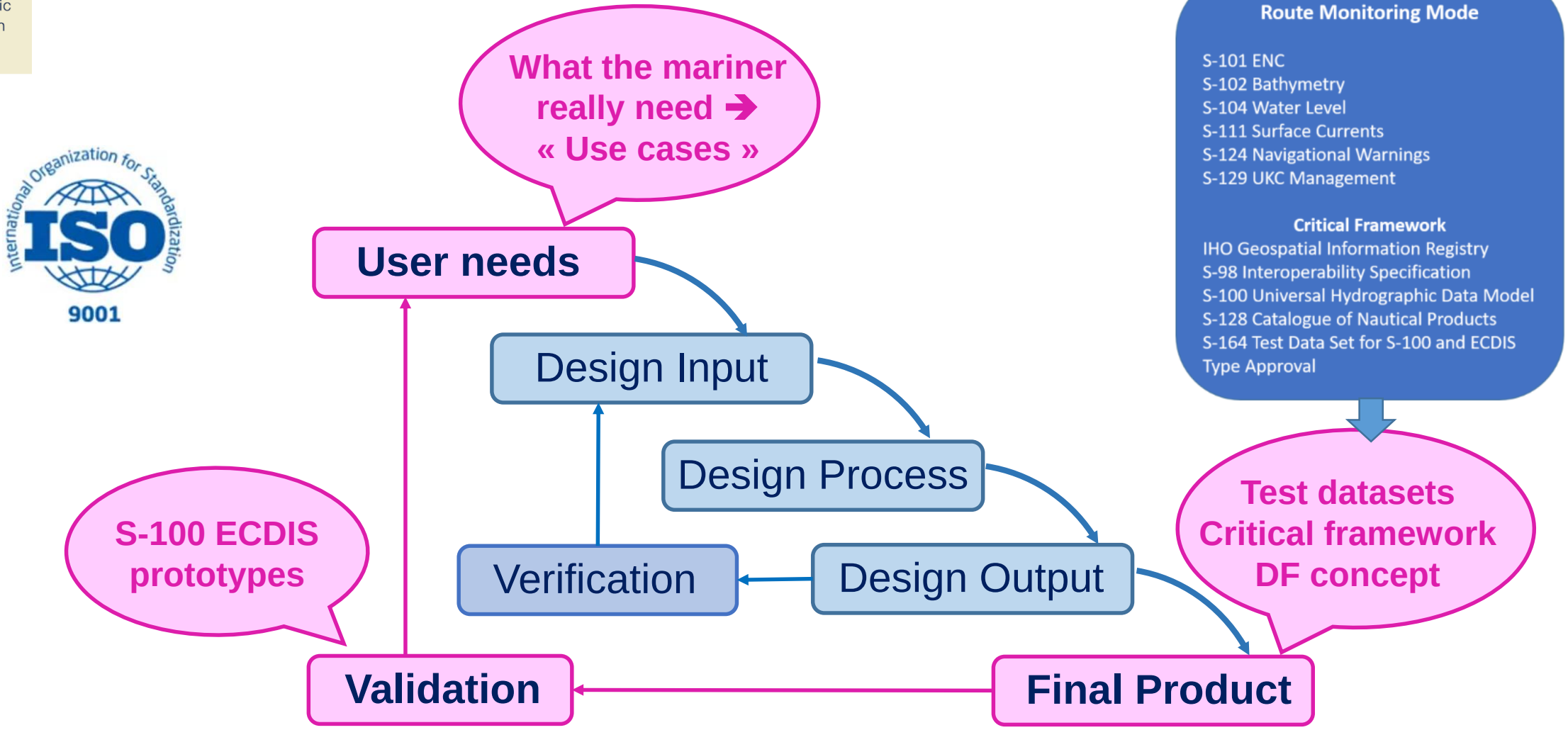

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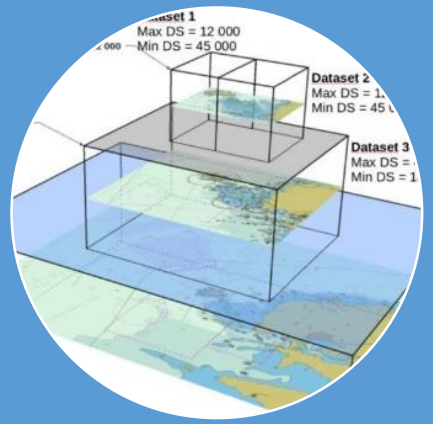
DEFINING AN AGILE VALIDATION STRATEGY (2/2)



Increase the production of test datasets

Accelerate the development of S-100 prototype ECDIS

Validation Plan :

- Define use cases
- Perform testing and sea trials
- **Record and analyse results, identify failures ➔ PS revisions**

Involving HOs, OEMs, end-users, IHO to reach PS maturity for sucessful S-100 implementation

FUTURE OF THE ISO CELL

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ISO Cell has been set up after HSSC-13 with the aim to experiment ISO 9001 principles in the development of S-101 PS to operational edition 2.0.0.
The scope has been extended to S-98 and S-164 at HSSC-15.

The operational edition of these specifications is now planned for 2024/2025, **what next ?**

Edition Ed 2.0.0 of S-101, S-164 and S-98 will be mostly immature, and may require significant revisions.

➔ Keeping the ISO Cell active up to first S-100 type-approved ECDIS and a stabilized version of the PS would enable to continue to monitor the critical path and seek collectively risks mitigation.

➔ ISO Cell offers to volunteer WG chair support to set up a project management approach compliant with ISO 9001, to monitor more closely PS development

ACTIONS REQUESTED FROM HSSC (1/2)

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The HSCC is invited to:

a. **Note** the report

b. **Endorse** the monitoring of the proposed “Effort KPI” as a new KPI for the S-101 PS process

c. **Consider** to update the current objective of the ISO 9001 Cell “Apply some ISO 9001 Principles in the development of Ed. 2.0.0 of S-101 PS” into “Apply some ISO 9001 principles in the development of a stabilized operational version of S-101, S-164 and S-98”.

d. **Consider** the need to keep active the ISO Cell up to the first S-100 type-approved ECDIS and a stabilized version of the PS (target date 2027).

ACTIONS REQUESTED FROM HSSC (2/2)

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The HSCC is invited to:

e. **Consider** the need to develop an action plan to validate the PS : validation must demonstrate that the PS meet users expectations.

f. **Consider** the proposal for IHO to liaise with CIRM in order to define common strategy to accelerate S-100 prototypes development.

g. **Consider** the ISO Cell offer to volunteer chairs to support to set up an ISO approach in order to monitor more closely PS development and ovoid scope creep.

h. **Initiate** any further actions as considered necessary.