



# 2nd IHO Geospatial Information Registry Workshop

## **IHO S-100 Registry Infra & Maintenance**

### **Agenda Item 5**

12-13 December 2022, IHO Secretariat, Monaco



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# IHO S-100 REGISTRY INFRA & MAINTENANCE

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## IHO S-100 Infra (Development, support and maintenance by KHOA)

### S-100 GI Registry

The screenshot shows the S-100 Geospatial Information Registry website. A 3D block diagram is overlaid on the page, listing the following components from top to bottom:

- Concept Register
- Data Dictionary Register
- Portrayal Register
- Metadata Register
- Producer Code Register
- S-100 Test Bed
- Product Specification

### FC Builder

### PC Builder

The screenshot shows the FC Builder software interface. It displays a table with columns for 'Catalog Information', 'Information Types', and 'Feature Types'. The 'Feature Types' column contains XML metadata for a feature type named 'S100FC'. The metadata includes details about the feature type's name, version, and associated metadata files.

The screenshot shows the PC Builder software interface. It displays a table with columns for 'Catalog Information', 'Information Types', and 'Feature Types'. The 'Feature Types' column contains XML metadata for a feature type named 'S100FC'. The metadata includes details about the feature type's name, version, and associated metadata files.

### DCEG Builder

The screenshot shows the DCEG Builder software interface. It displays a table with columns for 'Mandatory' and 'Optional'. The 'Mandatory' column contains XML metadata for a feature type named 'S100FC'. The 'Optional' column contains XML metadata for a feature type named 'S100FC'. The metadata includes details about the feature type's name, version, and associated metadata files.

The screenshot shows the DCEG Builder software interface. It displays a table with columns for 'Mandatory' and 'Optional'. The 'Mandatory' column contains XML metadata for a feature type named 'S100FC'. The 'Optional' column contains XML metadata for a feature type named 'S100FC'. The metadata includes details about the feature type's name, version, and associated metadata files.

### Symbol Builder

The screenshot shows the Symbol Builder software interface. It displays a yellow triangle symbol on a grid. The symbol is a simple yellow triangle with a black outline. The interface includes a toolbar and a panel on the right side.

### SVG Editor

### Line Symbol Editor

### Color Profile Editor

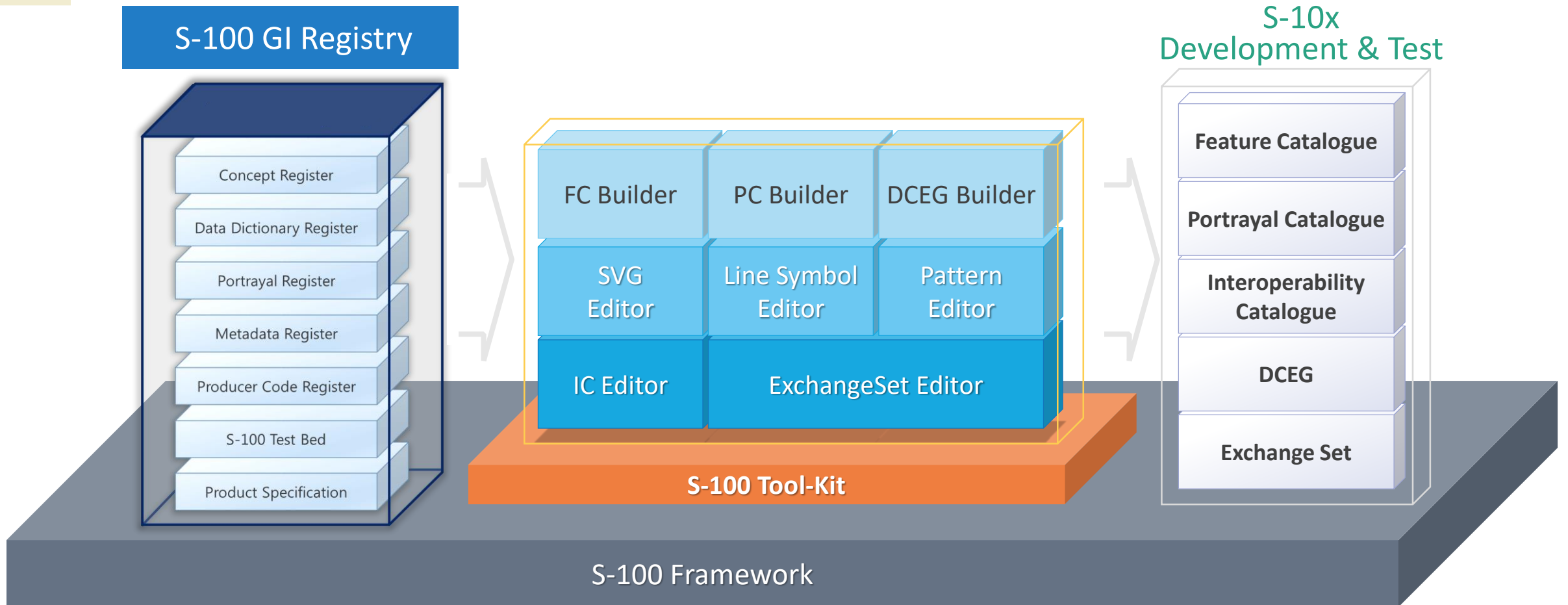


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## • S-100 Infra & S-100 Framework





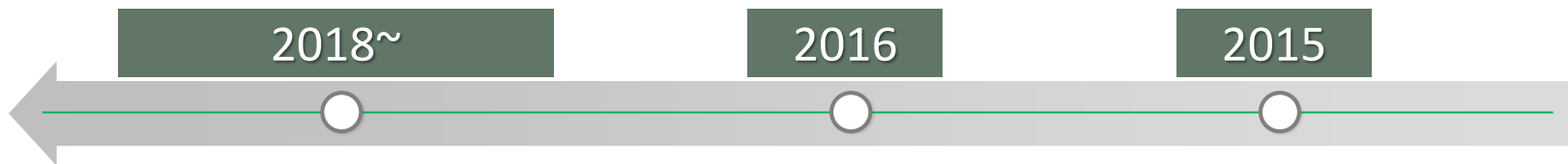
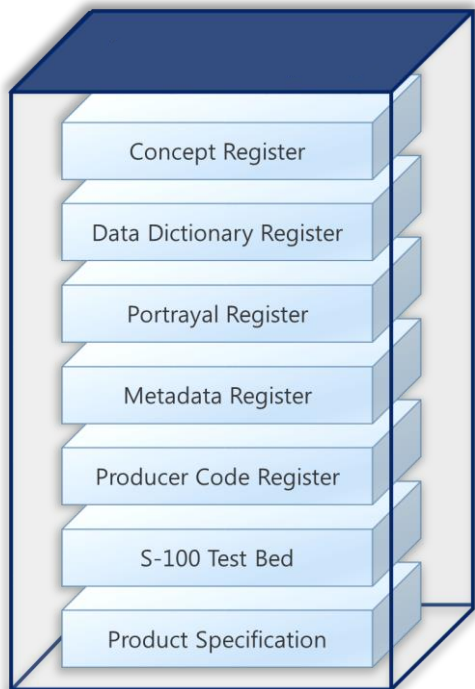
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## • S-100 Registry Development History

### S-100 GI Registry



### 3<sup>rd</sup> Developing/Operating 2<sup>nd</sup> Development/Operation

- Applying Concept Register
- Binding Concept-Feature



2016

- Developing proposal
- ProducerCode(S-63)



2015

### 1<sup>st</sup> Test Operation

- Establish Register under FCD
- Establish Portrayal/Product Specification/Meta/ProducerCode





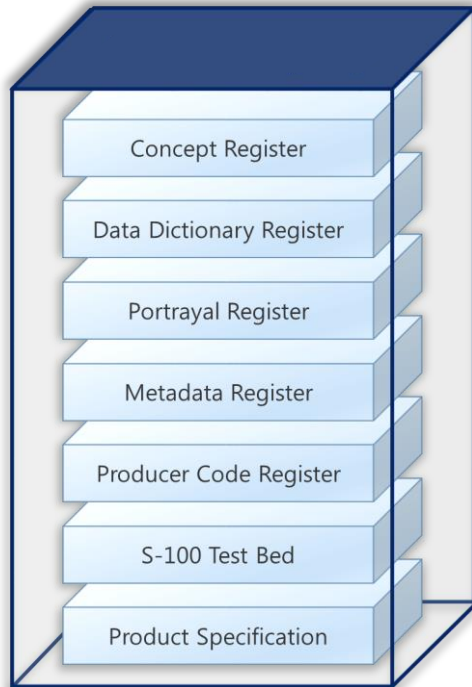
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## • S-100 Registry Systeme Architecture

### S-100 GI Registry



### Register data

Concept Register	DataDic. Register
Portrayal Register	Meta Register
Product Spec. Register	ProducerCode Register

### Proposal Management

New/Clarification	Superssion/ Retirement
Proposal approval/ pending/cancellation	
Inquiry of proposal information by authority	

### Reigstry Management

User	Domain
Reference data	Organization
Statistics	
Guidance	Repository



MySQL



Apache





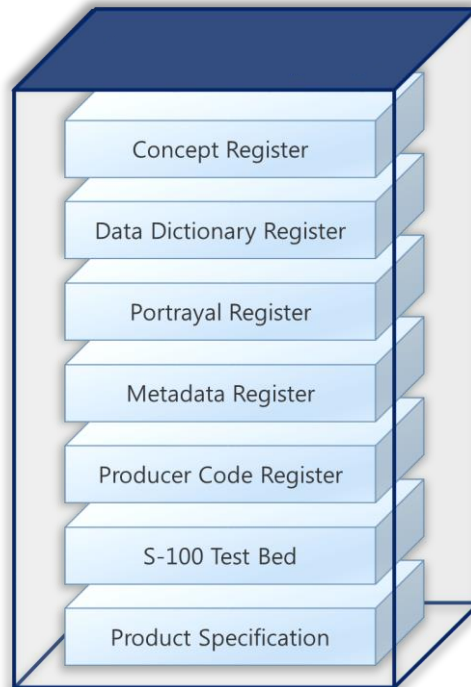
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## • S-100 Registry External Interface

### S-100 GI Registry



HTTPS  
REST POST Method  
& API-key



### S-100 Tool-Kit(FCB/PCB)

Data Dictionary Register – Feature/Attribute  
Portrayal Register – Type/Symbol

### Hydrographic Dictionary System

Concept Register - Concept Detail

*Basic Info* : Name, Definition, CamelCase...

*ID Info* : Concept Identification Number

*History Info* : Proposal Type, Date accepted



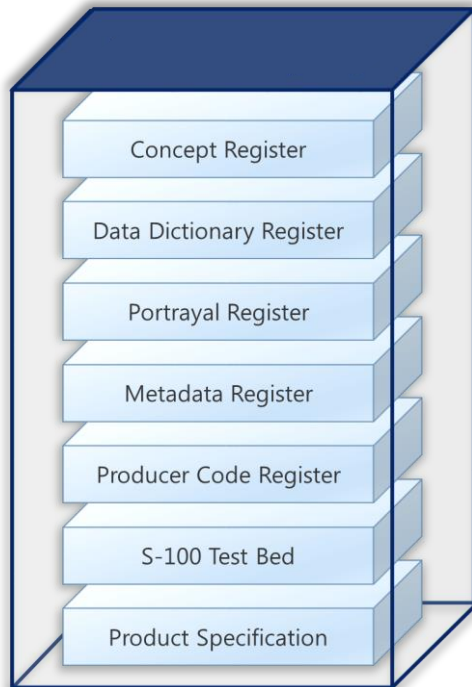
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- **Improvements according to S-100 ed.5.0 revision**

## S-100 GI Registry



- Apply the proposal process of Concept/Data Dictionary Register (*Part 2a1.1*)
- Introduce revised S100\_CD\_Information class (*Part 2a1.1*)
- Add 15 portrayal type like Display Mode, Display Plan (*Part 9-13.3.15*)





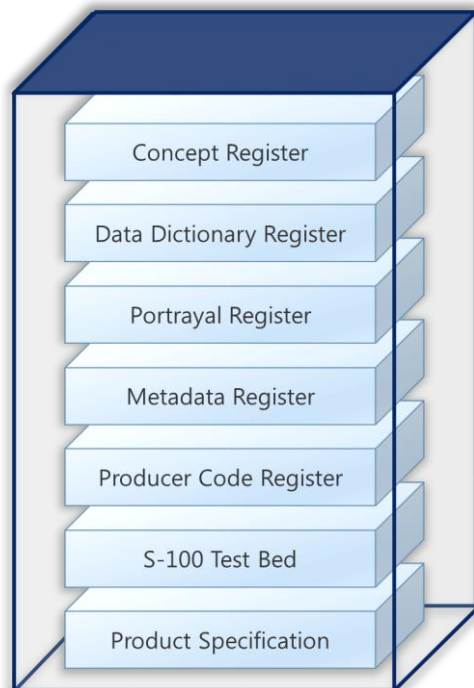
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## • Other Improvement Plan

### S-100 GI Registry



- Add and change Portrayal Register item Type (*Part 2b-4.1*)
  - Delete: Cascading Style Sheet
  - Change: Colour Profile → Colour Palette, Display priority → Drawing Priority
  - Add: Colour Value, Alert, Alert Message, Alert Highlight
- Apply Viewing Group and Associated Viewing Group Layer of deactivation of Portrayal Register (*Part 9-13.3.16*)
- Database redundancy for stable Registry operation
- Unification of individual DB connection functions such as S-100 Tool-Kit into an integrated API





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**Thank you**