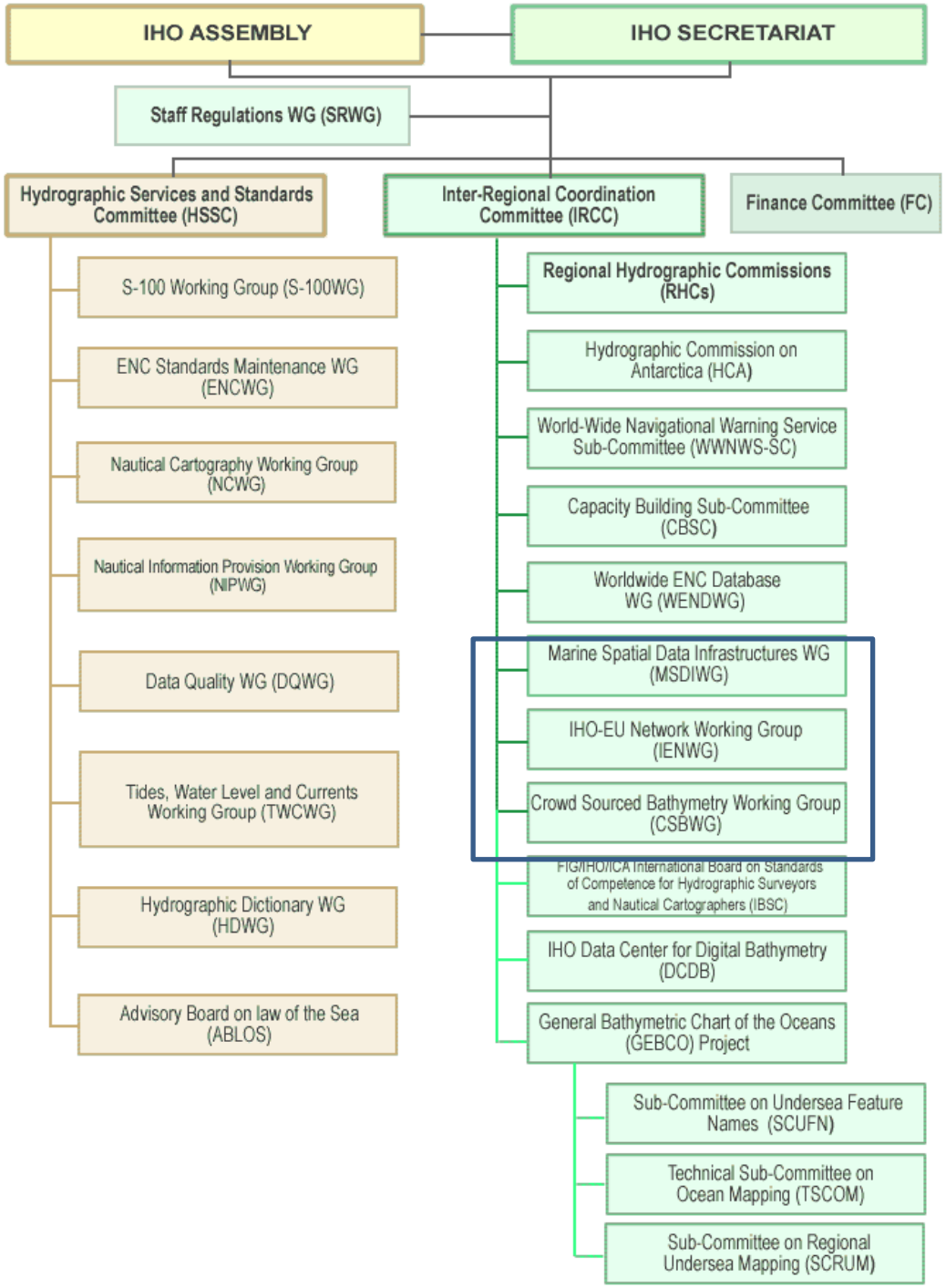
General Guidance Notes on the collection and use of Crowdsourced Bathymetry

The initial draft CSB Guidance Document

IHO


IHO ASSEMBLY
IHO SECRETARIAT
Staff Regulations WG (SRWG)
Hydrographic Services and Standards Committee (HSSC)
Inter-Regional Coordination Committee (IRCC)
Finance Committee (FC)
S-100 Working Group (S-100WG)
ENC Standards Maintenance WG (ENCWG)
Nautical Cartography Working Group (NCWG)
Nautical Information Provision Working Group (NIPWG)
Data Quality WG (DQWG)
Tides, Water Level and Currents Working Group (TWCWG)
Hydrographic Dictionary WG (HDWG)
Advisory Board on law of the Sea (ABLOS)
Regional Hydrographic Commissions (RHCs)
Hydrographic Commission on Antarctica (HCA)
World-Wide Navigational Warning Service Sub-Committee (WWNWS-SC)
Capacity Building Sub-Committee (CBSC)
Worldwide ENC Database WG (WENDWG)
Marine Spatial Data Infrastructures WG (MSDIWG)
IHO-EU Network Working Group (IENWG)
Crowd Sourced Bathymetry Working Group (CSBWG)
FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC)
IHO Data Center for Digital Bathymetry (DCDB)
General Bathymetric Chart of the Oceans (GEBCO) Project
Sub-Committee on Undersea Feature Names (SCUFN)
Technical Sub-Committee on Ocean Mapping (TSCOM)
Sub-Committee on Regional Undersea Mapping (SCRUM)

» Website Content Alert Service

Upcoming Events/Evènements à venir

» Upcoming Public Events / Evènements publics à venir

» IHO Meetings & Events / Réunions & Evènements OHI

IHO Disclaimer, Privacy and Copyright Notice

» IHO Disclaimer, Privacy and Copyright Notice

English

CROWD-SOURCED BATHYMETRY WORKING GROUP (CSBWG)

Chair: Jennifer JENCKS (USA)
Vice-Chair: Serge GOSSELIN (Canada)
Secretary: David WYATT (IHO, Monaco)

Objective:

As a result of Decision 8 of the Extraordinary International Hydrographic Conference 5, the IHO Inter-Regional Coordinating Committee established a Crowd-sourced Bathymetry Working Group (CSBWG) at its 7th meeting in Mexico City.

The CSBWG will examine how best to incorporate, manage and use bathymetric data acquired by other than conventional means and develop principles and guidelines to enable the appropriate collection and use of crowd-sourced bathymetry for the benefit of all stakeholders interested in knowing the shape and nature of the seafloor and its depths.

The CSBWG will draft an IHO publication on policy for trusted crowd-sourced bathymetry including guidelines on the collection and assessment of CSB data, not only for potential use for charting purposes but also for its wider use in non-navigational applications. The publication will take into account the work to enhance the IHO Data Centre for Digital Bathymetry (DCDB) as a data discovery and upload/download portal for Crowd-Sourced Bathymetry and lessons learned and specifications created during the IHO CSB pilot projects. See Terms of Reference and Work Program for further information.

Français

Groupe de travail sur la bathymétrie participative (CSBWG)

Président: *Jennifer JENCKS (EUA)*
Vice-Président: *Serge GOSSELIN (Canada)*
Secrétaire: *David WYATT (OHI, Monaco)*

Objectif:

A la suite de la décision n°8 de la 5ème Conférence hydrographique internationale extraordinaire, le comité de coordination inter-régional de l'OHI a créé un groupe de travail sur la bathymétrie participative (CSBWG), à sa 7ème réunion à Mexico.

Le CSBWG examinera la meilleure façon d'incorporer, de gérer et d'utiliser les données bathymétriques acquises par des moyens non conventionnels et développera des principes et les directives pour permettre la collecte et l'utilisation appropriées de données de bathymétrie participative au profit de toutes les parties prenantes qui s'intéressent à la connaissance de la forme et la nature du fond marin et de sa profondeur.

Le CSBWG préparera une publication de l'OHI relative à une politique de bathymétrie participative fiable incluant des directives sur la collecte et l'évaluation des données de bathymétrie participative (CSB), non seulement pour leur éventuelle utilisation à des fins cartographiques mais également pour une utilisation élargie à des applications autres que la navigation. La publication prendra en compte les travaux visant à améliorer le centre de données de l'OHI pour la bathymétrie numérique (DCDB), en tant que portail de découverte et de téléchargement des données de bathymétrie participative, ainsi que le retour d'expérience et les spécifications issues des projets pilotes CSB de l'OHI. Se référer au mandat et au programme de travail pour de

Structure of the CSB Guidance Document

- Introduction;
- Overview of System and Sensor;
- Metadata;
- Data Collection;
- Uncertainty;
- Data Contribution;
- DCDB;
- Legal Considerations;

1.4 Document Structure

This document addresses six topics related to crowdsourced bathymetry. The first chapter introduces the concept of crowdsourced bathymetry and discusses its potential benefits. The second chapter, "*Overview of Systems and Sensors*", provides basic information about systems, sensors and concepts that are necessary for collecting bathymetric data.

Chapter three, "*Metadata*", details a standard metadata structure for crowdsourced bathymetry datasets which facilitates the efficient exchange and use of the data. This chapter delineates required and recommended metadata fields, as well as the importance of each metadata field. Chapter four, "*Data Collection*", outlines hardware and software considerations for logging CSB information, and provides recommendations for best practices for shipboard data collection.

Chapter five, "*Uncertainty*", delves into data quality issues, and discusses how seagoers and end users can better understand the impact of various factors on the reliability of a dataset.

Chapter six, "*Data Contribution*", focuses on methods for contributing data to the global database of bathymetric data. The Trusted Node model is explained, and includes information regarding the various aspects of the data submissions that are agreed upon by a trusted node and the IHO Data Centre for Digital Bathymetry (DCDB).

Chapter seven, "*Legal Considerations*", discusses several legal considerations related to crowdsourced bathymetry data that collectors and Trusted Nodes may wish to consider before engaging in CSB activities.

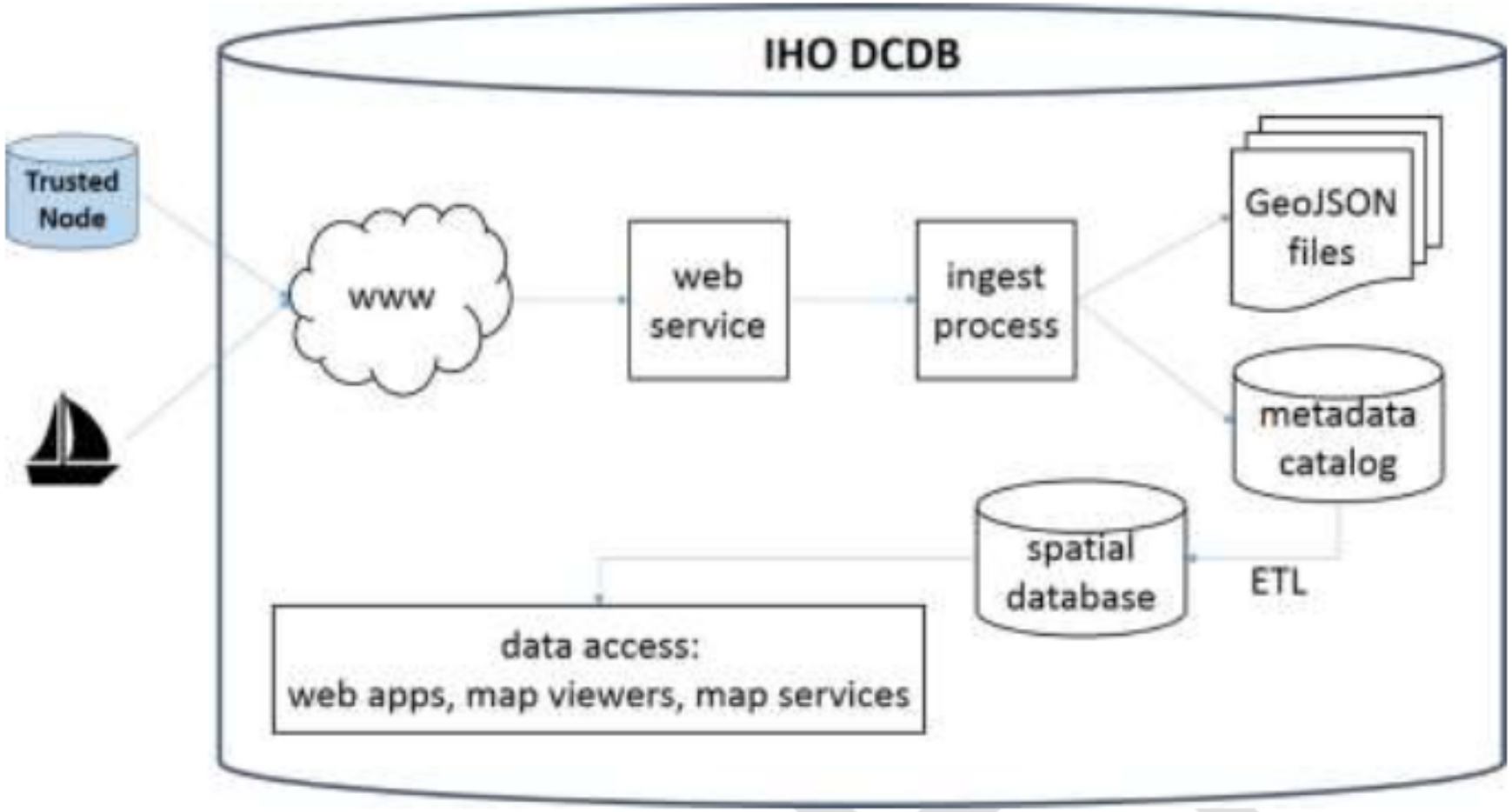


Figure Caption: A schematic of the flow of CSB data from the mariner to the IHO DCDB to the public