

Introduction of Marine Technology Subcommittee (ISO/TC 8/SC 13)

Manager of ISO/TC 8/SC 13

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About ISO (www.iso.org)

International Organization
for Standardization, ISO



ISO is an independent, non-government international organization with a membership of 165 national standards bodies.

ISO TODAY

24104

International Standards covering almost all aspects of technology and manufacturing.

165

Members representing ISO in their country. There is only one member per country.

802

Technical committees and subcommittees to take care of standards development.



About ISO/TC 8/SC 13

Scope

Standardization of test methods, operation, design, construction and logistics of equipment, systems, infrastructure and technology used for **observation, exploration and protection** of the ocean and sea areas.

**Ships and Marine Technology
Committee (TC8)/ Marine
Technology Subcommittee (SC13)**

Established in 2014

Chairman: Mr. Jiabiao Li

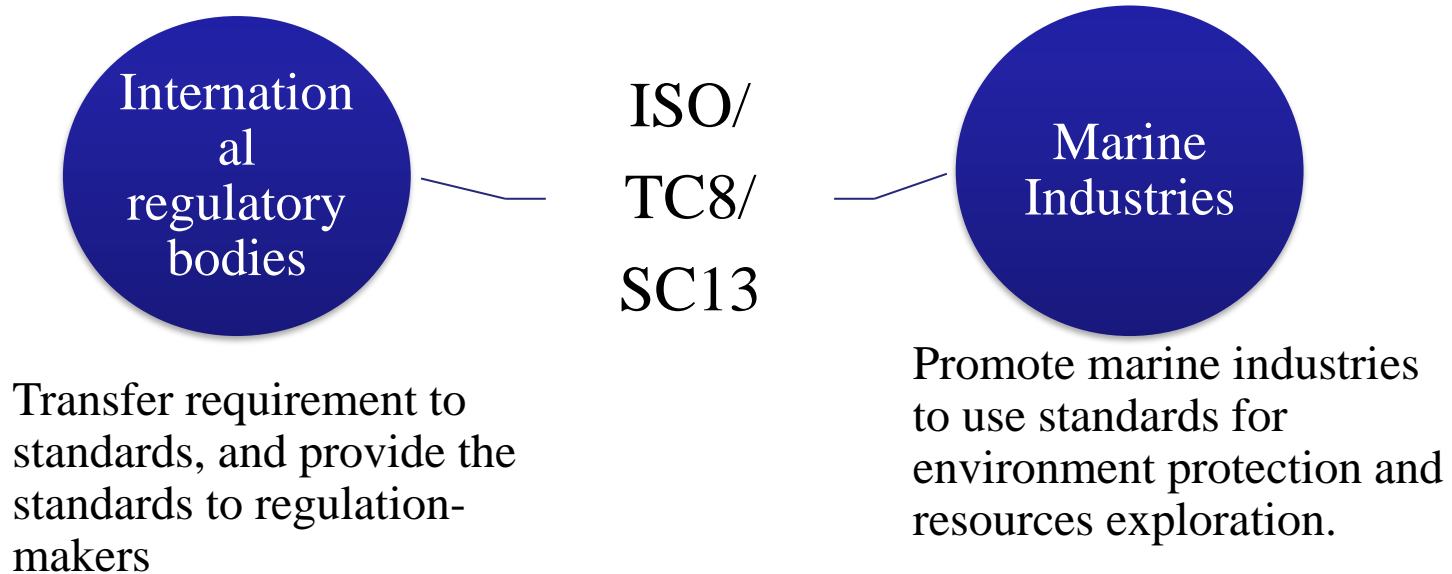
Manager: Ms. Xuwen Feng

marine
observation

exploration

protection

The basic strategy: requirement-oriented, take both regulatory requirements and industry demands as the main drive for standardization, and as a bridge connecting international regulatory bodies and marine industry. Great concern of the 17 Sustainable Development Goals set by UN.



About SC13 - Members

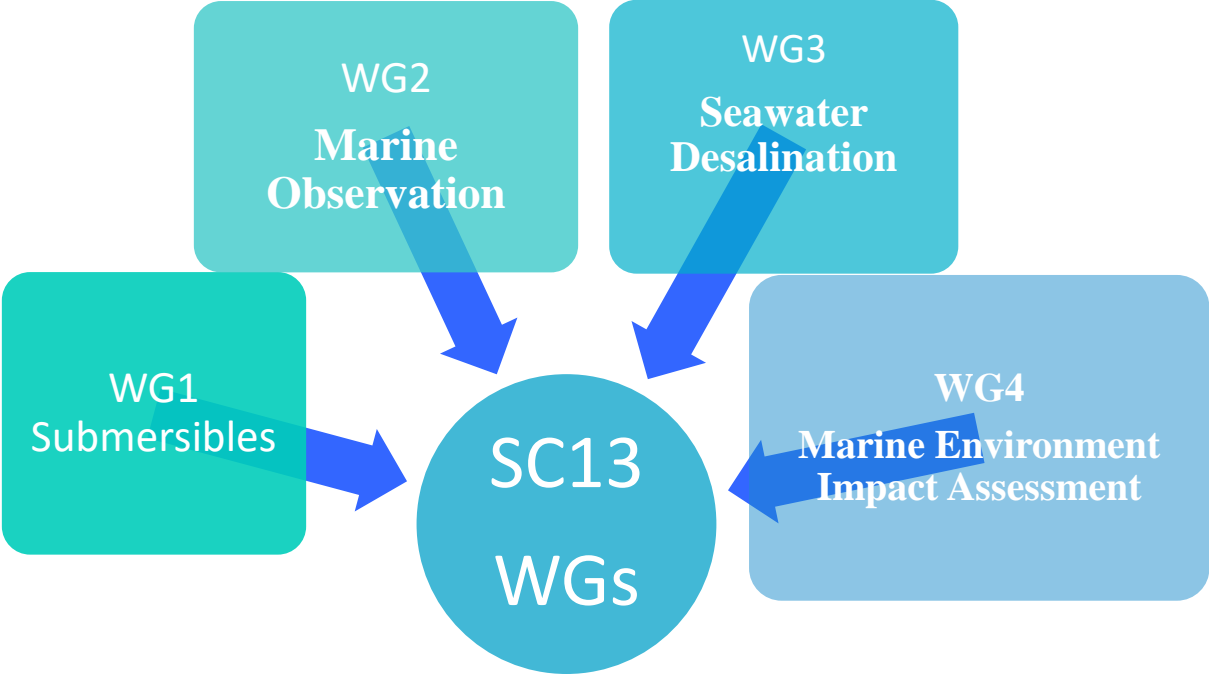
P-Member (12)

- **Canada**
- **China**
- **Germany**
- **Iran**
- **Japan**
- **Korea**
- **Panama**
- **Russian Federation**
- **Saudi Arabia**
- **Singapore**
- **United Kingdom**
- **United States**

O-Member (6)

- **Czech**
- **Indonesia**
- **Italy**
- **Netherlands**
- **Portugal**
- **Romania**

About SC13 – Working groups




About SC13 – Liaisons

SC13 has established liaison relationship with **WMO** (World Meteorological Organization), ISO/TC43/SC3 ‘underwater acoustics’, ISO/TC147/SC2 (Physical, chemical and biochemical methods), TC147/SC5 (Biological methods), and TC147/SC6 (Sampling) .

Contact the potential liaisons such as ISA, IDA, IOC, IHO, ... Keep in line with the requirements from them.

- ISA** International Seabed Authority
- IOC** Intergovernmental Oceanographic Commission
- IHO** International hydrographic organization
- IDA** International Desalination Association

How to establish the liaison relationship?

 Request for the establishment of a liaison arrangement with ISO/TC

Required information	Submitted detail
1. Administrative	
1.1 Full title of organization	
1.2 Postal address	
1.3 Web site URL	
1.4 Name/contact details of Chief Executive Officer/ President/ Secretary General	
1.5 Name/contact details of Liaison (recipient of documents)	
2. Background	
2.1 History of organization	
2.2 Organizational structure – non-profit?	
2.3 Details of stakeholders	
2.4 Categories of membership	
2.5 Full membership details	
2.6 Terms of reference	
2.7 Mission statement	
2.8 Global objectives	
2.9 Details of links with other organizations	
3. Liaison Request Details	
3.1 Category of liaison being applied for A, B, or D (see ISO/IEC Directives, Part 1, Clause 1.10) and to which Committee/Working Group?	
3.2 Is the organization an existing liaison member of ISO (committees and category)?	

An application form
+ A committee
internal ballot

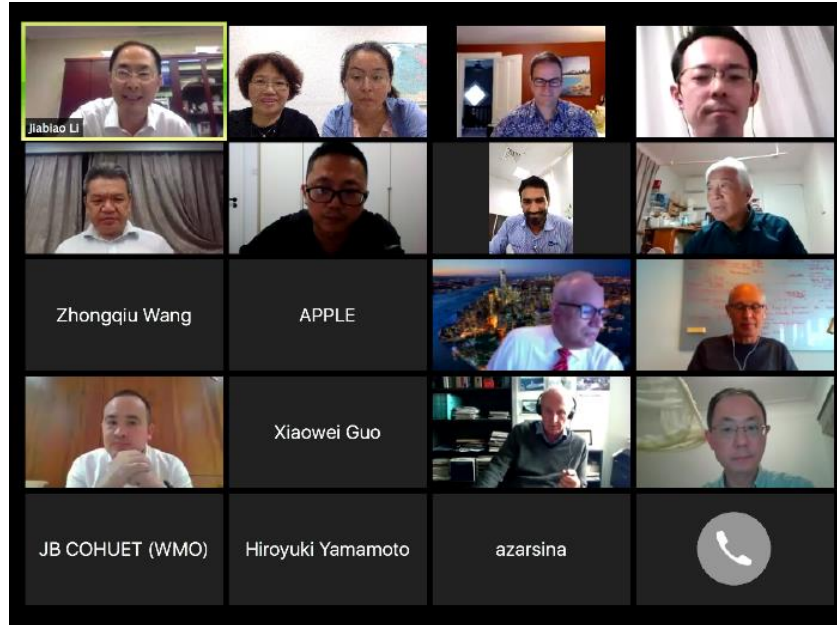


About SC13 – Plenary Meetings

- **Panama, 2014**
- **China, 2015**
- **China, 2016**
- **Japan, 2017**
- **Denmark, 2018**
- **Singapore, 2019**
- **Zoom meeting, 2020**
- **Zoom meeting, 2021**

Last Plenary Meeting Dec. 10, 2021

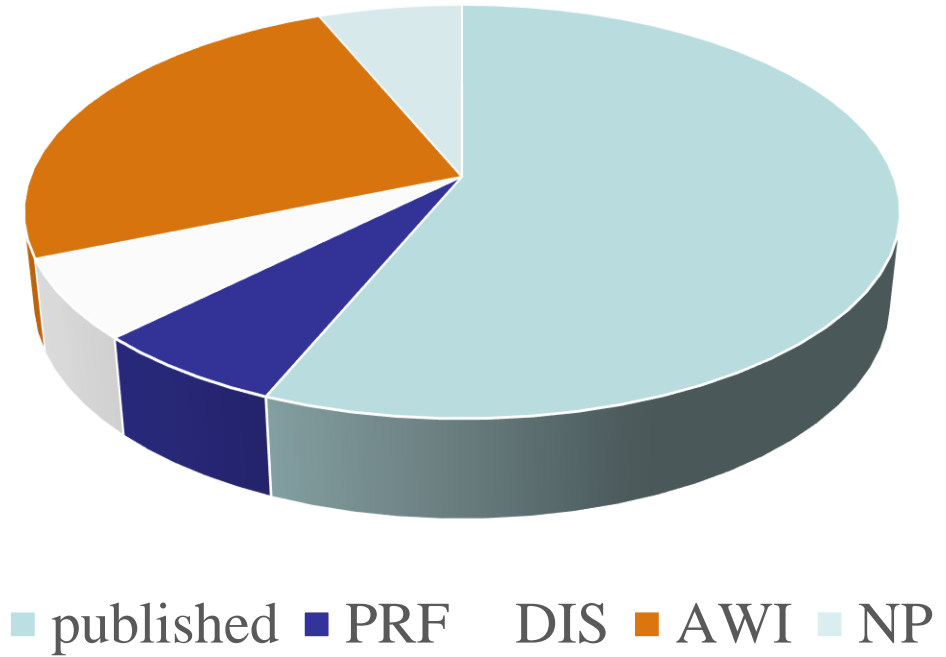
- **More than 30 experts from 10 countries and international organizations (WMO)**



Work items of SC13 – Overview

9 published standard,
6 registered work items
(1 PRF, 1 DIS, 4 AWIs,
1 under NP ballot)

6 standard was published in 2021



Registered Work Items

WG	Reference	Title
WG 1	ISO 21173: 2019	Submersibles – Hydrostatic pressure test – Pressure hull and buoyancy materials
WG 1	ISO 22252: 2020	Manned Submersibles – Breathing air supply and carbon dioxide adsorption – Design requirements
WG 2	ISO 21851: 2020	Ocean observation system – Design criteria of ocean hydrology-meteorological observation system reuse and interaction
WG 2	ISO 22013: 2021	Marine environment sensor performance – Specifications, testing and reporting – General requirement
WG 4	ISO 23731: 2021	Marine environment impact assessment -- Long term in site image based surveys in deep sea environments

WG 4	ISO 23732: 2021	Marine environment impact assessment – General protocol for observation of meiofaunal community
WG 4	ISO 23734: 2021	Marine environment impact assessment – Onboard bioassay to monitor seawater quality using delayed fluorescence of microalga
WG 3	ISO 23446: 2021	Product water quality of seawater reverse osmosis (RO) desalination – Guidelines for municipal water supply
WG 4	ISO 23040: 2021 (Published Dec.10,2021)	Marine environment impact assessment –Specification for marine sediments in seabed areas – Guidelines for the survey of interstitial biota in marine sediments
WG 4	PRF 23730	Marine Environment impact assessment – General technical requirement on marine environment impact assessment

SC 13 direct	DIS 3482	Technical guidelines for the active source exploration with Ocean Bottom Seismometers (OBS)
WG 2	AWI 22804	General technical requirement of marine conductivity-temperature-depth (CTD) measuring instruments
WG 4	AWI 22787	Technical specification for marine biotic survey in area— General principles, definitions and requirements
WG 2	AWI 23745	Ships and marine technology – General specification for shipborne meteorological instruments
WG 1	AWI 5411	Submersibles – Terminology
WG 3	NP 12305	Seawater desalination-Terminology

More published standard on seawater desalination, marine environment impact assessment and marine observation instruments

What's New

INTERNATIONAL
STANDARD

ISO
23446

First edition
2021-09

Marine technology — Product water quality of seawater reverse osmosis (RO) desalination — Guidelines for municipal water supply

Technologie maritime — Qualité de l'eau produite par le dessalement de l'eau de mer par osmose inverse (OI) — Lignes directrices pour les réseaux municipaux d'eau potable

INTERNATIONAL
STANDARD

ISO
22013

First edition

INTERNATIONAL
STANDARD

ISO
23732

First edition
2021-07

INTERNATIONAL
STANDARD

Marine environment sensors performance — Specific testing and reporting — Requirements

Navires et technologie maritime — Performances

ISO
23731

First edition
2021-07

Marine technology — Marine environment impact assessment (MEIA) — General protocol for observation of meiofaunal communities

INTERNATIONAL
STANDARD

ISO
23734

First edition
2021-07

Marine technology — Marine environment impact assessment (MEIA) — Performance specification for in situ image-based surveys in deep seafloor environments

Marine technology — Marine environment impact assessment (MEIA) — On-board bioassay to monitor seawater quality using delayed fluorescence of microalgae



Reference number
ISO 23446:2021(E)

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What's New

New focus on geophysical marine survey

DIS 3482

Marine technology – Technical guidelines for the active source exploration with Ocean Bottom Seismometers (OBS)

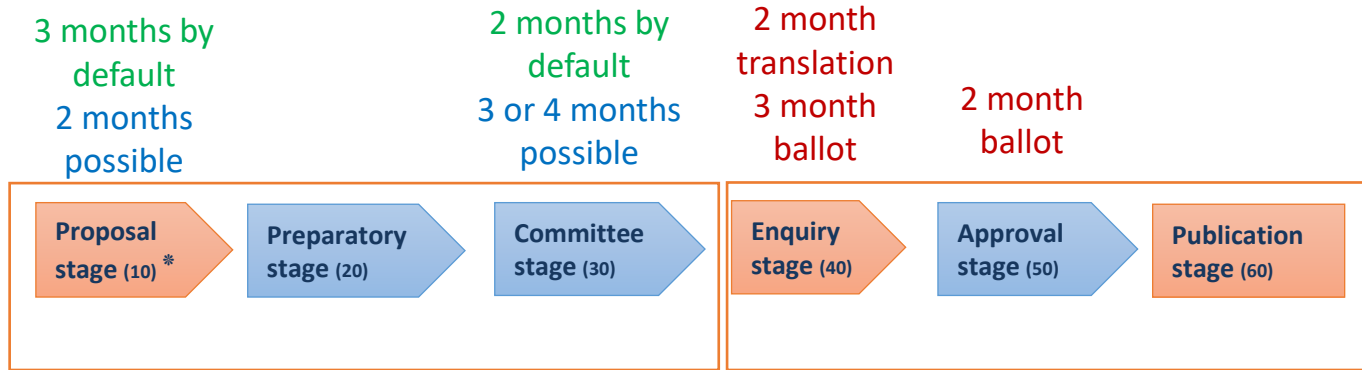


Specifies the technical requirements for main indicators, field design, exploration operation, data processing and interpretation of active source OBS exploration.

New standard proposals are more than welcome!

- ❑ ISO 3455:2007 Hydrometry -- Calibration of current-meters in straight open tanks
- ❑ BS ISO 16063-42:2014 Methods for the calibration of vibration and shock transducers - Part 42: Calibration of seismometers with high accuracy using acceleration of gravity

The development process and term of ISO standards



Committee Internal Stages

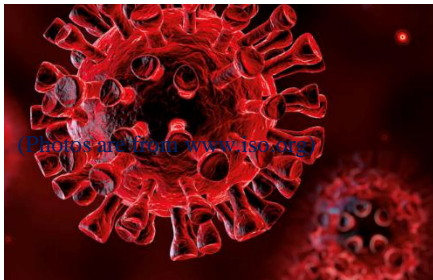
Global

MANDATORY

OPTIONAL

Next step:

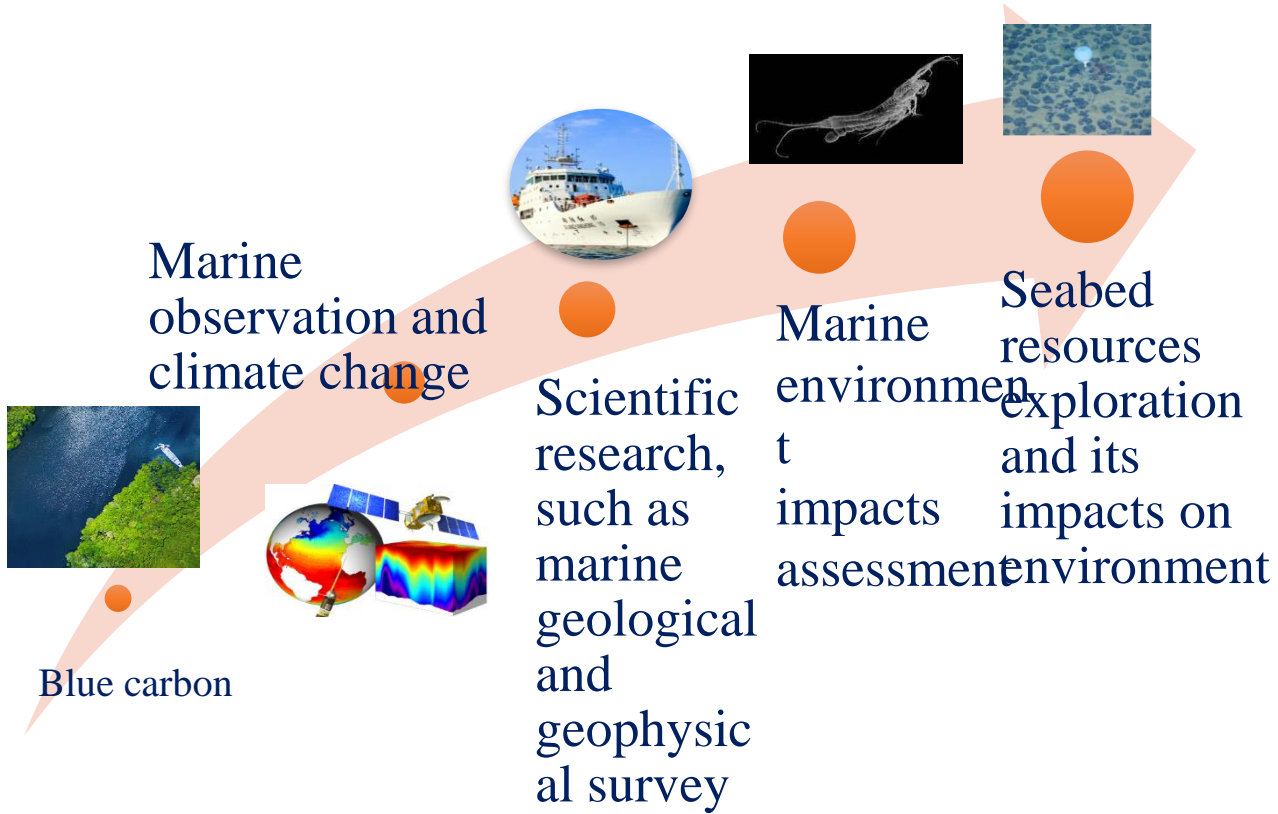
- ▣ More efficient ways to communicate.
- ▣ How to make a faster progress on cooperation with some international organizations.



- ▣ Proactively provide published standards for stakeholders and international regulatory bodies, such as WMO, ISA, IUCN, IHO, UNESCO, IOC etc.
- ▣ Hope to get more proposals especially from new field, such as blue carbon, marine instrument calibration .



SC13 Future Focus





International
Organization for
Standardization



Thanks for your attention!



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