ISO/TC8/SC2
Ship and Marine Technology
Marine Environment Protection

Activities on ISO standards for Marine Environment Protection

Koichi Yoshida , ISO/TC8/SC2 Chairman
Workshop on propeller and hull performance
At BELLONA Foundation
Oslo, January 15 and 16, 2013

ISO: Development of International standards

- Technical Committees
  - Sub-Committees
    - Working Groups
      - Task groups
      - Maintenance groups
- Members are registered by national standardization bodies of ISO members (such as KATS, ANSI, JISC, Cyprus Standard Association)

ISO/TC8/SC2

Marine Environment Protection

Scope:

Standardization of marine pollution abatement materials, equipment and technologies and environmental matters to be used in shipbuilding and operation of ships, comprising sea-going ships, vessels for inland navigation, offshore structures, ship-to-shore interface and all other marine structures subject to International Maritime Organization requirements.

P-Member bodies (14): Belgium, China, Denmark, Finland, Germany, Italy, Japan, Republic of Korea, Netherlands, **Norway,** Portugal, Russian Federation, Ukraine, United Kingdom, USA

O-Member Bodies (12): Bulgaria, Croatia, Cuba, France, India, Islamic Republic of Iran, Poland, Romania, Slovakia, Spain, Turkey

Please join to ISO/TC8/SC2

ISO/TC8 Ship and Marine Technology
A LINKING INSTRUMENT

IMO, WCO, ILO / ISO / INDUSTRY

REQUIREMENTS
REGULATIONS
REQUIREMENTS

⟸

TRANSFORM
By Developing
STANDARDS for

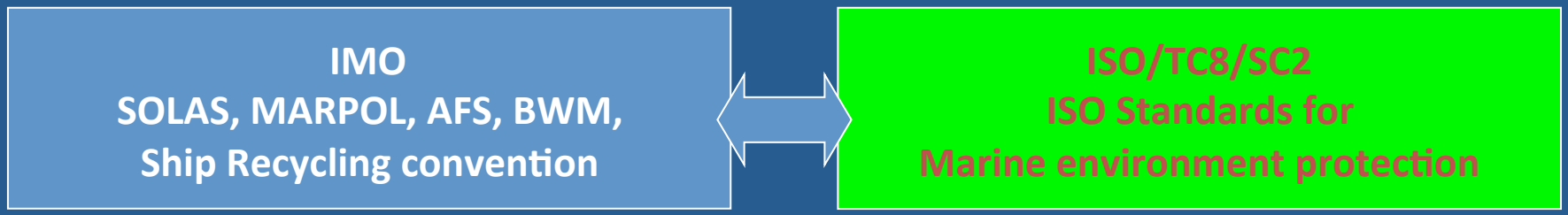
⟹

MANUFACTURERS
SUPPLIERS
TRANSPORT OWNERS
and OPERATORS
OTHERS in SUPPLY CHAIN

EXPANDED DELEGATIONS & PARTICIPATION TO
ALL IMO COMMITTEES & WCO, UNECE, UNCTAD, EU, APEC

IMO Activities and ISO/TC8/SC2 Activities

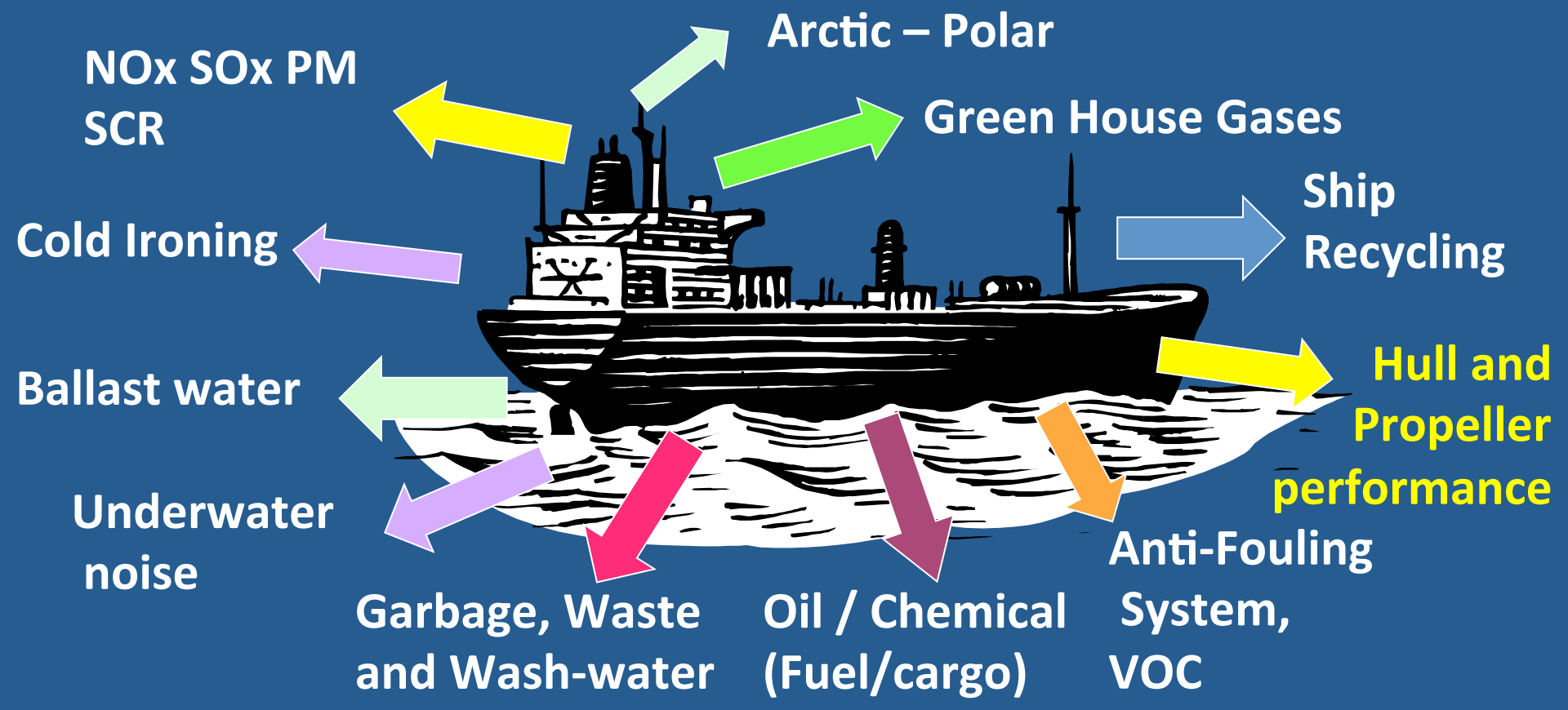
- International Maritime Organization (IMO) is the international and inter-governmental forum where international binding instruments, such as International Convention, are being developed.
  - SOLAS; International Convention for the Safety of Life At Sea
  - MARPOL; International Convention for the Prevention of Marine Pollution
  - AFS Convention; International Convention on the control of harmful anti-fouling systems on ships, 2001
  - BWM Convention; International Convention for the control and management of ships' ballast water and sediments
  - Hong Kong International Convention for the safe and environmentally sound recycling of ships
- International Organization for Standardization (ISO) is developing various international standards and relating documents, in voluntary basis among industries.
- ISO TC8 (Ship and marine technology) Sub-Committee 2 (Marine environment protection) is developing ISO standards relating to the marine environment protection.
- These ISO standards can be used , in voluntary basis, in conjunction with the international binding instruments.



ISO/TC8/SC2 is supporting IMO by developing ISO standards.

Ship and environment

- Ships have closed relation with their environment (water and air) from their construction, through operation, until decommission and recycling.
- World fleet size of ships is increasing.
- The environment is a finite world.
- Ships need to be friendly with the environment.



ISO/TC8/SC2
Structure

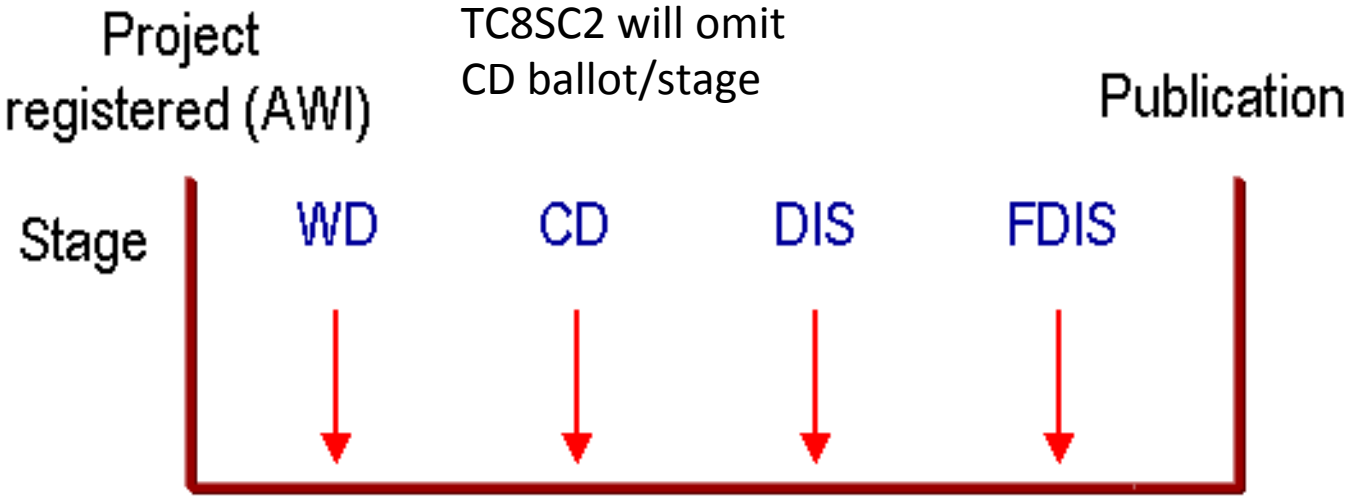
Chairman: Koichi Yoshida, Japan

Secretary: Carolyn Junemann, USA

- **JWG1: Protecting marine ecosystem from underwater irradiated noise: Convenor; Koichi Yoshida (Japan)**
- **WG3: Environmental response: Convenor; Sei-Chang Lee (Korea RO)**
- **WG4: Ship generated garbage: Convenor; David Condino (USA)**
- **WG5: Antifouling system on ships: Convenor; Tetsuya Senda (Japan)**
- **WG7: SCR Agent; Convenor to TBD (Norway)**
- **WG8: Hull and propeller performance; Convenor TBD (Norway)**

SUMMARY OF THREE TRACK OPTIONS

TC8SC2 will omit CD ballot/stage



Accelerated	0	-	-	6	18	24
Default	0	-	12	18	30	36
Extended	0	-	12	24	43	48

Target dates (months)

Key ballot in the process of standard development

- New Work Item Proposal Ballot (NWIP)
  - For establishing NWIP; needs
    - Simple majority support among P-members; and
    - 5 or more supports to joining the project by nominating experts
- Proceeding to DIS
  - Needs decision by the Committee or Sub-Committee by resolution
- Proceeding from DIS to publication or FDIS
  - Needs
    - Equal or more than 2/3 support among P-members voted
    - Negative ballot shall be less than ¼ among those voted members

ISO/TC8/SC2/WG3
Environmental response
(MARPOL ANNEX I and II)

- ISO 21072; Performance testing of oil skimmers
  - Part 1 Moving water condition – Published in 2009
  - Part 2 Static water condition - Published in 2009
  - Part 3 High viscosity oil – Published in 2010
- ISO 16165; Terminology relating to oil spill response
  Published in 2001; now under revision
- ISO 16446; Adapter for joining dissimilar boom connectors
  Published in 2001; now under revision
- ISO 17325; Oil boom
  - Part 1 Design criteria – CD text being prepared
  - Part 2 Tensile strength and performance requirement
    WD stage

ISO/TC8/SC2/WG4
Ship generated garbage
MARPOL ANNEX IV and V

- ISO 21070; Management and handling of shipboard garbage
  FDIS passed – to be published soon

- ISO 16304; Port reception facilities
  DIS ballot underway
  To be published in 2013
- Possible new work items
  – shipboard incinerators and comminuters

ISO/TC8/SC2/WG5
Antifouling system on ships
AFS Convention

- ISO 13073; Risk assessment on anti-fouling systems on ships
  - Part 1: Marine environmental risk assessment method on biocidally active substances used for anti-fouling systems on ships
    DIS finished – published in 2012
  - Part 2; Marine environmental risk assessment method for anti-fouling systems using biocidally active substances on ships
    DIS ballot finished; to be published in 2012/2013
  - Part 3; Human Health risk assessment for the application and removal of anti-fouling systems
    WD stage

ISO/TC8/SC2/JWG1

Protecting marine ecosystem from underwater irradiated noise

IMO MEPC and DE work item
working with ISO/TC43/SC3

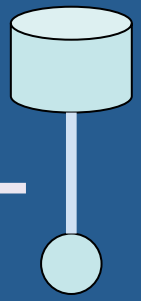
- ISO 16554; Protecting marine ecosystem from underwater irradiated noise -- Measurement and reporting of underwater noise radiating from merchant ships

  DIS ballot completed – To be published in 2012 /2013

Overview of ISO 16554

Scope of application
Merchant ships

Measuring equipment would be
Deployed by buoy, boat
or land-based



Measurement Equipment
- Hydrophone (one or two)
- Data acquisition

Environmental specification
- Distance from ship
- Depth

Determine the
Source power
of sound

Analysis method
and reporting
specification

Matters to be considered and/or defied

- **The measurement can be done at sea trial of the ship.**
- **Depth of water affect the measurement; sound reverberation at sea bottom and surface**
- **Distance between hydrophone and ship would be about the ship length.**
- **The ship may not full voyage condition (full load) at sea trial.**
- **Trials of measurement would be required during the development of the standard .**
- **Measurement results would be added to the ship certificate as a class notation**

Other possible field of activities of ISO/TC8/SC2

- **United Nation's Convention on Biological Diversity; CBD**
  - **Protection of marine life (marine ecosystem) from any impact of ships and marine structures**
    - **Underwater noise**
    - **Damping of waste and residues**
    - **Exhaust particles, black carbon and acid gases**
    - **Collision of marine lives with ships**

Please join to ISO/TC8 and its SC2

Thank you for your attention