

Future of TCODE

(Technical committee on Data Exchange)

Joon-Soo Lee

History of TCODE

- **Started from WG4 “Data collection and quality control”**
- **Replaced by PICES technical committee in 1994 by Science Board recommendation 94/S/4**
- **Past Chairs:**
 - Toru Suzuki (Oct. 2010 – Nov. 2016, Japan)
 - Bernard A. Megrey (Oct. 2007 – Oct. 2010, USA)
 - Igor I. Shevchenko (Oct. 2001 – Oct. 2007, Russia)
 - Robin M. Brown (May 1995 – Oct. 2001, Canada)
- **Past Vice-Chairs:**
 - Hernan Eduardo Garcia (Oct. 2010 – Nov. 2016, USA)
 - Kyu-Kui Jung (Oct. 2007 – Oct. 2010, Korea)
 - Bernard A. Megrey (Oct. 2005 – Oct. 2007, USA)
- **Number of current Members (as of Oct 2018)**
 - Canada (2), China (2), Japan (3), Korea (3), Russia (2), USA (3),
ex-officio (1), Total 16 members

History of TCODE

- **Major activities**

- Inventory of Long Time Series
- Bering Sea Ecosystem Biophysical Metadatabase (NPEM)
- List of Internet resources
- TCODE webpage
- Inventory of real-time data sources
- assisted Task Teams (MONITOR, MODEL, etc)
- supported Workshops (HAB, Data management, etc), Expert Group activities (WG 13, WG 17, WG-21, HAB-S, NPESR etc), Topic sessions
- Electronic poster session
- developed TCODE strategic plan and action plan

History of TCODE

- **Major activities (continued)**

- Cooperation with international organizations (GLOBEC, ICES, IOC, etc)
- Project "Federate Metadata on North Pacific Ecosystems"
- PICES TCODE GeoNetwork Portal
- POMA (PICES Ocean Monitoring Service Award) nomination

Current activities

- Parent committee of AP-NPCOOS (Advisory Panel on North Pacific Coastal Ocean Observing Systems)
- Supports topic sessions, special projects, workshops
- Maintains TCODE webpage and PICES TCODE Geospatial Portal
- Cooperation with international organizations and programs
- Develops data policy (2014~)

Why does TCODE exist in PICES?

TCODE Terms of Reference

- 1. Identify the data management requirements of PICES;**
- 2. Develop plans to meet these requirements;**
- 3. Recommend establishment of expert groups to deal with specific functions of TCODE;**
- 4. Review the progress of expert groups and provide Annual Reports to Science Board on the work of TCODE;**
- 5. Advise the PICES Secretariat and expert groups on their data exchange activities;**
- 6. Develop PICES data policies.**

Data Management Policy (Drafted by Robin)

- **Preamble**

This policy is developed to ensure that data gathered as a result of PICES activities is responsibly managed to guard against loss and to ensure continued accessibility.

- **Roles and Responsibilities:**

The **Technical Committee of Data Exchange** (TCODE) is responsible to:

1. Maintain an inventory of data and/or data products generated by PICES activities
2. Track/verify that the identified items continue to be managed and accessible
3. Assisting Expert Groups in identification of data or data products developed
4. Assisting Expert Groups in the development of data management options and strategies
5. Make recommendations to Science Board on PICES data management and priorities, with particular emphasis on correcting or mitigating any known or anticipated deficiencies.

The **PICES Secretariat** is responsible to:

1. Support TCODE in the maintenance of the inventory
2. Support TCODE in the development of options to correct or mitigate correcting or mitigating any known or anticipated deficiencies

Science Board is responsible to:

1. Add a Term of Reference for each existing and new PICES expert group requiring the identification of any data or data products developed during the course of the expert group. and forwarding this information to TCODE
2. Reviewing the recommendation made by TCODE and formulating recommendations to Governing Council, as required.

Expert Groups are responsible to:

1. Identify any data or data products developed during the course of the expert group
2. Forwarding this information to TCODE for inclusion in the inventory
3. (with assistance from TCODE as required) development of strategies or options for managing these data during the course of the expert group and upon completion

What is the problem with TCODE?

- Lack of leadership?
- Low interest and participation from TCODE members?
- Absence of data-related staff in the secretariat?
- Contribution for data-related system maintenance and data management only through voluntary participation?
- Any other problems?

What do we have to do?

- Reactivate the TCODE
- How?

Increasing needs for Data-related activities

- Metadata
- ETSOs (Environmental Time Series Observations) for NPESR
- Data and Data products from Special Projects
- Activities of Expert Group
- Potential demand for Data Management

WHO WE ARE

› Member countries

› Council

› Advisory Committee

› Science Committee

› Expert Groups

› Secretariat

› Staff list

› Our history

Recent

Who we are

The International Council for the Exploration of the Sea (ICES) is a global organization that develops science and advice to support the sustainable use of the oceans.

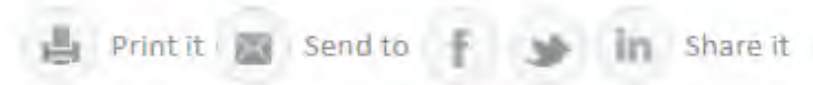
ICES is a network of more than 5,000 scientists from over 690 marine institutes in 20 member countries and beyond. 1,500 scientists participate in our activities annually.

Through strategic partnerships our work also extends into the Arctic, the Mediterranean Sea, the Black Sea, and the North Pacific Ocean.

ICES is committed to building a foundation of science around one key challenge: **integrated ecosystem understanding** of marine ecosystems.

ICES advances this through the coordination of oceanic and coastal monitoring and research, and advises international commissions and governments on marine policy and management issues.

Our goal is to provide the best available science for decision-makers to make informed choices on the sustainable use of the marine environment and ecosystems.



ICES structure

GEOGRAPHY

- > by ICES area
- > by HELCOM area
- > by OSPAR area

BIOLOGY

- > Biological communities
- > Biological effects
- > Environmental contaminants
- > Fish trawl surveys
- > Stock assessment
- > Catch statistics
- > Fish eggs and larvae
- > Fish stomach
- > Plankton
- > Vulnerable Marine Ecosystems

HYDROCHEMISTRY

- > CTD and bottle
- > Surface data

ICES Datasets

ICES has a well established Data Centre, which manages a number of large dataset collections related to the marine environment.

Dataset	Measurements	No of Years
Biological community	1 983 073	38
Contaminants and biological effects	12 629 656	41
Eggs And Larvae	1 073 423	95
Fish predation (stomach contents)	1 149 608	12
Fish trawl survey	7 686 784	53
Historical datasets	334 837	58
Oceanographic	159 098 461	129
Vulnerable Marine Ecosystems	26 376	44

Print it Send to Share it



[MAKE A DATA REQUEST](#)

[CONTACT US](#)

OTHER DATASETS

- > Cruise summary reports (CSR) (ROSCOPS)
- > Project datasets
- > Station dictionary

ICES DATA PORTAL

[Data inventory](#)

[> by dataset](#)

[> by ICES areas](#)

[> by HELCOM sub-basins](#)

[> by OSPAR regions](#)

[> by species](#)









[> by parameter](#)

[Map](#)

[Query](#)

[Web services](#)

ICES Datasets

Metadata	Dataset	Measurements	No of years	Last Updated
	Biological community	1 983 073	38	29/06/2018
	Contaminants and biological effects	12 629 656	41	12/06/2018
	Eggs And Larvae	1 073 423	95	03/11/2015
	Fish predation (stomach contents)	1 149 608	12	16/03/2011
	Fish trawl survey	7 686 784	53	19/09/2018
	Historical datasets	334 837	58	21/02/2012
	Oceanographic	159 098 461	129	18/02/2018
	Vulnerable Marine Ecosystems	26 376	44	06/03/2018

ICES MARINE DATA

- > [Upload data](#)
- > [Download data](#)
- > [ICES spatial facility](#)
- > [ICES data policy](#)



Discover the new SmartDots online age reading platform

[Click here more](#)

STOCK ASSESSMENT GRAPHS
Explore the ICES Stock Assessment Database

BROWSE OUR DATA

The data portal has over 300 million measurements to explore and download

FIND A MAP RESOURCE

Looking for a simple pdf, shape file or a link to a map? Start here

HOW TO USE THE DATA TOOLS

Video guides to accessing, visualizing and downloading data from the ICES Data Portal

LATEST NEWS

12 October 2018
[Data Officer vacancy](#)



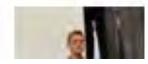
12 October 2018
[Call for workshop participants](#)



02 October 2018
[Scientists rewarded at the ICES Annual Science Conference](#)



29 September 2018
[Joining the data on data on data](#)



› Requesting data

› Submitting data and meta data

GUIDELINES

› ICES Data Type Guidelines

› ICES TIMES

› Survey protocols

› OSPAR guidelines

› HELCOM guidelines

POLICIES

› ICES data policy






› ICES project policy

› RDB data policy

› VMS data use

Guidelines and policy

A collection of helpful guides and policies that help you understand how to work with data, and how ICES receives and outputs data

 Print it  Send to    Share it



[CONTACT US](#)

[DOWNLOAD DATA REQUEST FORM](#)

OTHER GUIDELINES

› [AMAP trends and effects](#)

GUIDELINES AND POLICY

› Requesting data

› **Submitting data and meta data**

GUIDELINES

› ICES Data Type Guidelines

› ICES TIMES

› Survey protocols

› OSPAR guidelines

› HELCOM guidelines

POLICIES

› ICES data policy

› ICES project policy

› RDB data policy

› VMS data use

Submitting data and meta data

The ICES Data Centre accepts a wide variety of marine data and meta-data types into its databases.

The data formats, guidelines and vocabularies are specific to the type of data and whether it is associated with a marine convention monitoring programme.

To make it as easy as possible for data to get to the right place in the right shape, please follow the guide in the link to your right.



SUMMARY LINKS

- › [Overview of Data Submissions](#)
Status of Accessions to the ICES Secretariat Databases
- › [Submitting Data](#)
Follow the guided route
- › [Submitting Meta Data](#)
Follow the guided route

› Requesting data

› Submitting data and meta data

GUIDELINES

› ICES Data Type Guidelines

› ICES TIMES

› Survey protocols

› OSPAR guidelines

› HELCOM guidelines

POLICIES

› **ICES data policy**

› ICES project policy

› RDB data policy

› VMS data use

ICES data policy

By maximizing the availability of data to the community at large, ICES promotes the use of these data, thereby ensuring that their maximum value can be realized and thus contribute to an increased understanding of the marine environment.

ICES Data policy was reviewed and an update approved by ICES Council in November 2016, this replaces all previous versions.

Key points about this policy

- States the conditions for data use, data contribution and data redistribution.
- Is intended to facilitate the production of science based advice and status reports, and serve the scientific community.
- Applies to data managed by ICES, and to ICES activities for providing access to data managed elsewhere.
- All data products are by default publicly available, including those derived from restricted data.

Exclusions to unrestricted public access:

- Commercial catch data from the Regional Fisheries Database (RDB-FishFrame) and InterCatch, which have independent data policies.
- VMS and Logbook data, which are governed by the conditions under the specific data call.
- Biodiversity data portal where data may have been provided by non-governmental organisations.
- Vulnerable Marine Ecosystems (VME) data portal, where location information is sensitive.

 Print it  Send to    Share it

SUMMARY LINKS

- › [ICES Data Policy](#)
- › [RDB data policy](#)
- › [ICES VME data use arrangements](#)

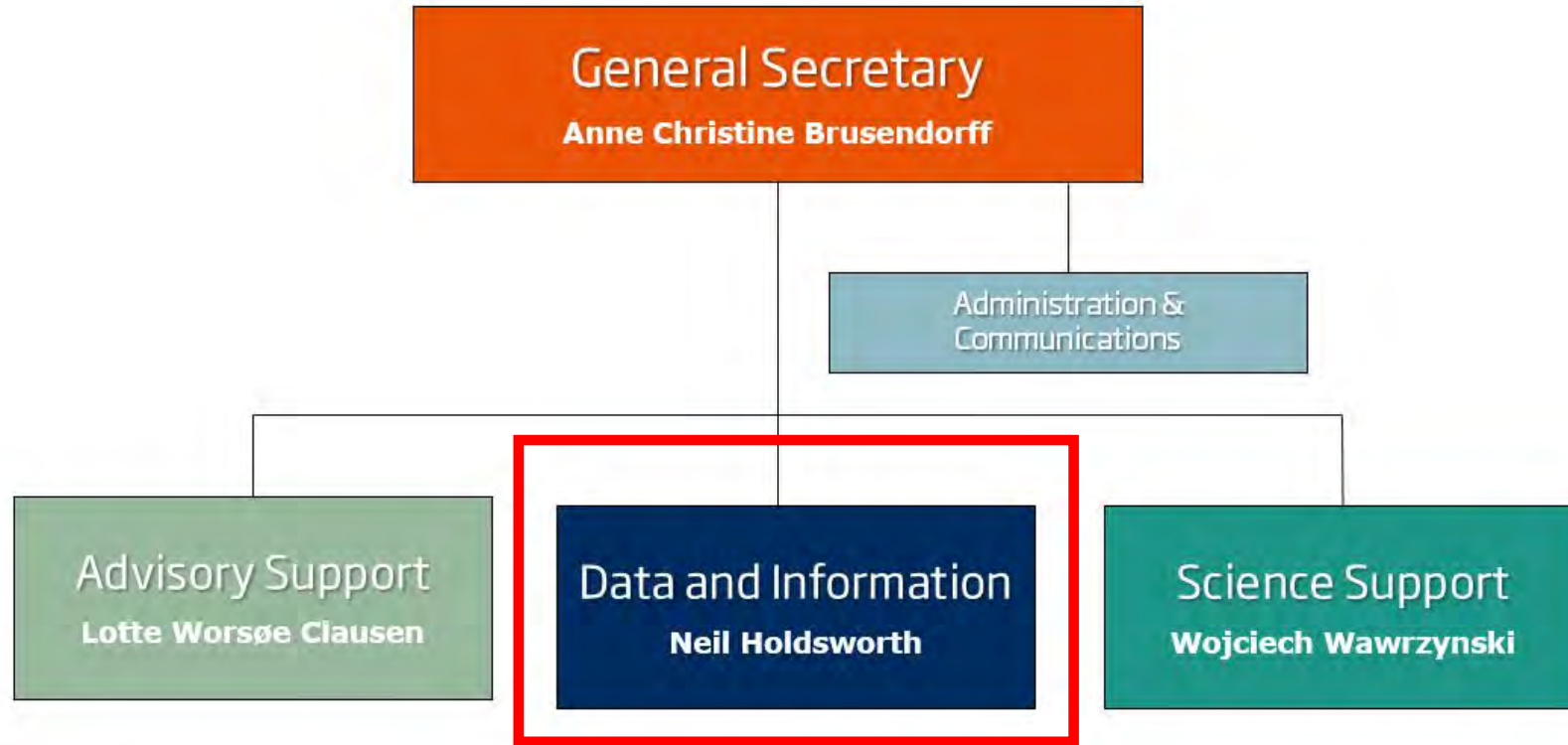
Contents of ICES Data Policy

- Scope
- Definitions
- Use of Data
- Contribution of Data
- Redistribution of Data
- Data Quality
- Data Citation
- Supplemental information to the ICES data policy
 - Motivation objective and framework for the Data Policy
 - Data security and storage

Composition of ICES Regional Fisheries Database (RDB) Data Policy

- Goal
- Scope
- Access rights
- Access Roles
- Security
- Data ownership
- Policy for Data Providers
- Policy for Use of Data
- Data Quality
- Management of the RDB-FishFrame
- DISCLAIMER

ICES



- Data-related staffs (more than 12 staffs) : Data scientist (2) , Data officer, GIS data analyst, Data network analyst, Data programmer, Data manager (2), Oceanography data scientist, Data systems analyst (2), etc

Nothing here matches your search

Suggestions

- Make sure all words are spelled correctly
- Try different search terms
- Try more general search terms
- Try fewer search terms
- Try these [tips for searching](#)

The Data and Information group (DIG) provides ICES with advice on all aspects of data management including data policy, data strategy, data quality, technical issues and user-oriented guidance.





DIG supports ICES Data Centre with feedback and advice on a number of topics, including existing products, current developments, potential new products, and the potential risk of data-duplication resulting from multiple submission roots, and the evaluation of the checklists.

DIG provides advice and guidance across multiple disciplines regarding data and information, such as expertise on spatial, oceanographic, VMS and biological data, as well as expertise on metadata, vocabularies, user guidance and quality control. When there is a need for it, the group initiates study groups, workshops, expert groups or training courses on specific topics.

Topics of interest to the group and a wider audience are posted on the ICES LinkedIn group, in the ICES Data and Information Forum.

DIG is able to react quickly to ad-hoc requests from inside and outside the ICES community, like ICES Data Centre, ACOM, SCICOM, and Expert Groups. SCICOM and ACOM are both represented in the group.

DIG meets twice a year: at a plenary in May in Copenhagen at ICES, and at ICES Annual Science Conference with DIG participants present. In case of ad-hoc requests a subgroup will meet via a web-conference.

 Print it  Send to    Share it



DIG at their meeting in Copenhagen in May 2018.

LINKS

- [View all members of this group](#)
- [DIG Terms of Reference](#)
- [View latest DIG report](#)
- [ICES Data Policy](#)
- [ICES Marine Data](#)

[GO TO SHAREPOINT SITE](#)

[FOLLOW DIG ON LINKEDIN](#)

Mission of DIG

To provide ICES with advice on all aspects of data management including data policy, data strategy, data quality, technical issues, and user-oriented guidance:

TOR of DIG

- a) Review priorities on the ICES Data Centre action list;
- b) Provide guidance and feedback to the ICES Data Centre;
- c) Advise on other data regulations and their impact on ICES Data Strategy, ICES Data Policy;
- d) Propose ad-hoc groups (governance, workshops, training, etc.) related to specific topics, and/or datasets, to facilitate improvements related to data issues to SCICOM, ACOM, SCICOM SSGs and/or EGs, and review the outcome of those ad-hoc groups;
- e) Promote new technologies and data management infrastructure development (e.g. IODE/JCOMM/ICES Clearing house, data citation, training).



General Information

- Home
- About IODE
- IODE 50th anniversary
- Project Office 10th ann.
- Data Management
- Info Management
- IODE Gallery

Expert Information

- Data/Info national
- Data global/regional
- How to...
- IODE Work Plan
- Policy/Strategy/Partners
- IODE Network structure
- IODE Management
- Activities
- Training / Education
- Products/Services
- IODE Calendar
- Standards
- Research Cruises
- Find IODE People
- Documents/Publications
- Country Participation
- News
- IODE Awards
- History
- Jobs
- Contact Us

Member Login

User



The programme "International Oceanographic Data and Information Exchange" (IODE) of the "Intergovernmental Oceanographic Commission" (IOC) of UNESCO was established in 1961. Its purpose is to enhance marine research, exploitation and development, by facilitating the exchange of oceanographic data and information between participating Member States, and by meeting the needs of users for data and information products.

Latest News

23-October-2018: Report of the 6th Session of the IODE Steering Group for the OceanDocs project published

Intergovernmental Oceanographic Commission
Board of Intergovernmental Oceanographic Data and Information Exchange



Steering Group for the
OceanDocs Project

Chairman:
Prof. Dr. J. G. J. van den Broek

The 6th Session of the IODE Steering Group for the OceanDocs project was held in Oostende, Belgium between 10-12 October 2018. The meeting reviewed progress with the implementation of its previous work plan and adopted a work plan for the next two years. It was decided to develop a promotional leaflet to highlight 10 reasons to use OceanDocs to develop an institutional repository. The meeting was informed that 2

new IT experts have now been recruited by the IOC Project Office for IODE in Oostende, Belgium which will assure professional

Quality Policy

The IODE Meeting & Training Centre



IOC Project Office for IODE
Oostende, Belgium



fust
OCEAN



IODE-XXV
(and Scientific Conference)
Tokyo, Japan, 18-22 February 2019

Launchpad

WOD WORLD OCEAN DATABASE

OBIS OCEAN BIOGEOGRAPHIC INFORMATION SYSTEM

Is this TCODE TOR enough?

- 1. Identify the data management requirements of PICES;**
- 2. Develop plans to meet these requirements;**
- 3. Recommend establishment of expert groups to deal with specific functions of TCODE;**
- 4. Review the progress of expert groups and provide Annual Reports to Science Board on the work of TCODE;**
- 5. Advise the PICES Secretariat and expert groups on their data exchange activities;**
- 6. Develop PICES data policies.**

What can we for the Future of TCODE?

Option. 1

- ICES-like System
 - operates Data Center by PICES secretariat
 - Provide guidance and feedback to the Data Centre;
 - advise on data regulations, Data Strategy, Data Policy
 - Promote new technologies and data management infrastructure development (e.g. data citation, training).

Option. 2

- Strengthen the current system
 - Step by step development of Data policies, guidelines, etc
 - Promote new technologies and data management infrastructure development (e.g. data citation, training)

My idea

- Secure budget and one staff of secretariat for data management
 - work for data and data product inventory, metadata system, ETSO, etc.
- TCODE focuses on
 - advice on the expert groups, projects, etc
 - develop data policy
 - promote new technologies, data management infrastructure development
 - etc.

Thank you