

Report of the Technical Committee on Data Exchange

Day 1 (Virtual)

Wednesday, 15 October 2025 | 16:00–18:00 (Vancouver, Canada Time)
(Thursday, 16 October 2025 for Western Pacific participants)

AGENDA ITEMS 1 & 2

Welcome, Introductions, Agenda, and Rapporteur

TCODE Chair Ms. Jeanette Gann could not attend, therefore Vice-Chair Prof. Fangfang Wan chaired the meeting. She welcomed members and guests. Following introductions, the agenda was adopted unanimously. Mr. Brett Johnson agreed to serve as rapporteur.

AGENDA ITEM 3

Election of TCODE Chair

With the term of Chair Jeanette Gann concluding after the 2025 Annual Meeting, Vice-Chair Fangfang Wan was nominated and elected as the new TCODE Chair.

AGENDA ITEM 4

Election of TCODE Vice-Chair

Mr. Brett Johnson was unanimously elected as the TCODE Vice-Chair.

AGENDA ITEM 5

TCODE-related Sessions and Workshops at PICES 2025 in Yokohama

The meeting chair provided updates on upcoming TCODE-sponsored events and invited members to discuss how TCODE could support these activities.

AGENDA ITEM 6

Working Group 52 update

Mr. Brett Johnson, Co-Chair of Working Group 52 (WG52) on PICES data, presented the group's activities over the past year. He outlined WG52's objectives and Terms of Reference for new members and explained the revised PICES data and report publication flowchart, which guides expert groups in handling data products from PICES collaborations. Progress includes:

- Finalizing revisions to the PICES Data Policy, including a list of national and recommended data centers in each member country;
- Introducing the PICES Ocean Data Award (PODA); and
- Establishing a new PICES metadata catalogue.

AGENDA ITEM 7

Update, contract to transfer old metadata records to Zenodo

Mr. Johnson provided updates on the new PICES metadata catalogue and the development of an Expert Group Data Reporting Protocol by WG52. A dedicated PICES community has been established on Zenodo, with plans underway to migrate PICES metadata records from the legacy Geonetwork catalogue to this new platform. WG52 members have conducted tests on uploading new metadata records, and supporting documentation for metadata creation is currently in preparation. A Request for Quotation for the migration contract was issued earlier this year; however, no formal response has been received to date. Notably, Mr. Johnson has successfully completed the transfer of over 4000 PICES metadata records to Zenodo, marking a key milestone for this initiative.

AGENDA ITEM 8

Discussion of SmartNET/AP-UNDOS TCODE liaison

Mr. Johnson has officially joined AP-UNDOS. He will provide an introduction to related progress during the second TCODE business meeting on 9 November 2025 in Yokohama or

share slides with TCODE members.

AGENDA ITEMS 9

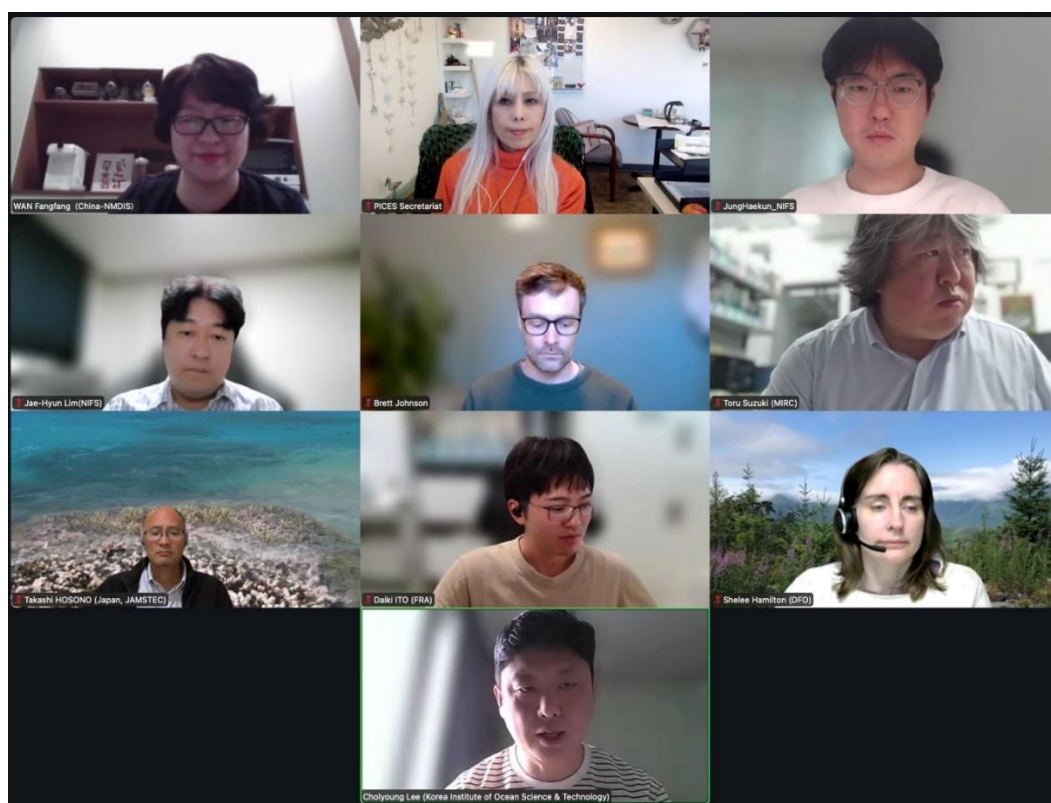
Review TCODE Workplan/ Action Plan

The group discussed the role and necessity of the TCODE Workplan and Action Plan, deciding to maintain them as separate documents. The current Action Plan dates from 2022. In light of TCODE's achievements and shifting priorities over the past three years, members unanimously agreed to update the TCODE Action Plan (2025-) to guide future activities. Revisions proposed by TCODE Chair Jeanette Gann were adopted. The updated Action Plan will be circulated to TCODE members for further input before submission to the Science Board for review.

AGENDA ITEM 10

Final comments/questions and close of meeting

No additional comments or questions were raised. The meeting was adjourned.



Group photo of the virtual meeting

Day 2 (In-Person/Hybrid)

Sunday, 9 November 2025 | 18:00–20:00 (Yokohama, Japan Time)

AGENDA ITEM 1

Welcome and introduction of members

Due to time zone constraints, TCODE Chair Ms. Jeanette Gann was unable to attend. Vice-Chair Prof. Fangfang Wan chaired the meeting.

AGENDA ITEM 2

Membership updates

The composition of TCODE has undergone several changes in 2025. Four members have stepped down due to retirement or professional reassignment, and five new members have been recommended to fill the vacancies. TCODE currently comprises 17 members. Recruitment of 1–2 Russian members remains pending.

AGENDA ITEM 3

Adoption of Agenda & Appointment of Rapporteur

AGENDA ITEM 4

AP-NPCOOS Update

AP-NPCOOS Co-Chair Dr. Jae-Hyoung Park provided an overview of the program and reported on its activities in 2025, along with plans for the coming year. He highlighted the 2026 summer school proposal submitted by AP-NPCOOS. Discussions addressed data types and accessibility from the North Pacific coastal ocean observing systems, emphasizing the need for greater member country participation—particularly regarding long-term mooring data and ship-based CTD data. According to Dr. Park, a Google Docs-based data inventory has been created to facilitate data sharing among member countries. Metadata will be compiled and disseminated to improve data discoverability.

AGENDA ITEM 5

FUTURE update

Due to timing difficulties, Ryan Rykaczewski was unable to provide an update on FUTURE.

AGENDA ITEM 6

BECI update

Dr. Katheryn Berry outlined BECI's key objectives and progress. She described BECI as an interactive platform designed to integrate diverse knowledge sources into a centralized system to support decision-making across the North Pacific. Dr. Berry noted strong synergies between BECI and TCODE, particularly in areas such as common standards and terminology, data interoperability, and joint training workshops. TCODE members expressed agreement and looked forward to enhanced collaboration with BECI.

AGENDA 7

Update on relations with IOC/IODE

Dr. Toru Suzuki reported on recent IODE meetings and related activities, including outcomes from the 3rd International Ocean Data Conference and the 28th Session of the IODE Committee. He extended an invitation to PICES participants to attend the next IODE meeting in Poland (2026). TCODE Members discussed potential areas of collaboration between PICES/TCODE and IODE beyond AquaDocs and agreed to explore PICES becoming a partner of IOC/ODIS in the coming year.

AGENDA ITEM 8

Status of CFP Project

Dr. Daisuke Ambe provided an update on the CFP project, including its history. Funding shortages remain a challenge, limiting progress in 2025. As this is the project's final fiscal year, PICES will oversee management of the generated data. Data acquired using project funds will be under PICES control; for data from other regions, maintaining metadata records is considered sufficient. TCODE recommended that CFP upload project metadata to the PICES Zenodo Community.

AGENDA ITEMS 9

Discussion of SmartNET/AP-UNDOS TCODE liaison

Mr. Johnson, originally scheduled to provide an update, was unable to attend the meeting. Dr. Erin Satterthwaite, who is involved with SmartNET, was invited to follow up as well and share progress with TCODE once SmartNET survey results are released.

AGENDA ITEM 10

Discussion (Best practices, collaborations, TCODE direction)

Discussion focused on the following questions:

1. Data management or sharing practices from members' work that could benefit the PICES community.
2. Ways TCODE could enhance collaboration with other PICES committees or international programs.
3. Specific groups to engage, and whether policy, technology, or capacity training should be the top priority.

Key consensus points:

1. Encourage eligible institutions and individuals from member countries to apply for the PODA Award as a mechanism for sharing best practices.
2. Strengthen cooperation with PICES programs (e.g., NPESR, BECI) and deepen collaboration with IOC/IODE in data sharing and capacity building.
3. Given the success of recent TCODE workshops on data and metadata management—which highlighted gaps in standards and technology—capacity building will be prioritized. Collaboration between PICES and IODE/OTGA will be considered, including joint development of training programs on data standards and metadata management for PICES members and partners.

AGENDA ITEM 11

Update and discuss TCODE activity/work**plans**

The first TCODE meeting agreed to summarize achievements from the past three years, analyze future priorities, update the TCODE Action Plan, and develop annual work plans accordingly. Based on today's discussions, the documents were further revised to better reflect changes in TCODE's responsibilities and strategic focus. The finalized Action Plan will be submitted to the Secretariat. It will then be reviewed and considered at the 2026 ISB meeting.

AGENDA ITEM 12

Additional questions and close of business meeting

No additional items were raised. The meeting was adjourned.

Photos of the in-person meeting

TCODE Endnote 1

TCODE participation list

Virtual meeting

Members

Fangfang Wan (China, Vice-Chair)
Brett Johnson (Canada)
Shelee Hamilton (Canada)
Toru Suzuki (Japan, *ex officio* IODE)
Takashi Hosono (Japan)
Daiki Ito (Japan)
Daisuke Ambe (Japan)
Cholyoung Lee (Korea)
Hea-Kun Jung (Korea)
Jae-Hyun Lim (Korea)

PICES

Sanae Chiba (PICES Deputy Executive Secretary)

In-Person Meeting

Members

Fangfang Wan (China, Vice-Chair)
Jianfeng Liang (China)
Daiki Ito (Japan)
Daisuke Ambe (Japan)
Toru Suzuki (Japan, *ex officio* IODE)
Takashi Hosono (Japan)
Cholyoung Lee (Korea)
Hea-Kun Jung (Korea)
Erin Vera Satterthwaite (USA)

Observers

Catheryn Berry (BECI, presenter)
Jae-Hyoung Park (AP-NPCOOS, presenter)

TCODE Endnote 2

Technical Committee on Data Exchange Action Plan(2025-)

Mission

The mission of the PICES Technical Committee on Data Exchange (TCODE) includes the following:

- Identify the data sharing and management needs of PICES and PICES members;
- Develop strategic plans to meet these requirements;
- Review PICES Zenodo entries and ensure they are consistent with PICES activities;
- Recommend to Science Board, establishment of expert groups to deal with specific functions of TCODE;
- Review the progress of tasks assigned within TCODE (see TCODE workplan), and provide Annual Reports to Science Board on the work of TCODE;
- Review and rank annual nominations for PODA and POMA awards;
- Advise the PICES Secretariat on its data exchange activities; and
- Review and update PICES data management policy as needed (latest update-2024 [here](#)).

Strategy of TCODE

To implement its mission, the TCODE will address each of the five specific goals to advance and apply scientific knowledge of PICES strategy. Specific actions and tasks within each of these goals are as follows:

Goal 1: Foster collaboration among scientists within PICES and with other multinational organizations

Action 1 Establish dialogue with the various bodies of the international, national and local organizations, commissions, and programs involved in Marine Data and Information Management issues

Task 1.1 Maintain dialogue with PICES-ICES UN Decade working group, ICES DIG, and SmartNet activities

Task 1.2 Maintain dialogue with relevant programs, sub-commissions, sub-projects in the IOC of UNESCO, such as IODE (ODIS, OTGA), NOWPAP, NEAR- GOOS, IOOS, CIOOS, and ODINWESTPAC

Task 1.3 Establish dialogue with organizations such as UNESCO/IOC and ICES to support the UN Decade of Ocean Science, in particular, its societal outcome of “Transparent and accessible ocean”

Task 1.4 Review and evaluate proposals submitted to SCOR and ICES to establish new working groups

Task 1.5 Keep contact with other committees, programs, and WGs of PICES

Goal 2: Understand the status and trends of international marine data centers and information sites

Action 2 Propose topic sessions and workshops at upcoming annual meetings, and intersessional meetings, and symposia

Task 1 Support topic sessions and workshops at upcoming annual meetings, and intersessional meetings, and symposia

Task 2 Advise the Secretariat and expert groups on data exchange activities

Goal 3: Advance methods and tools

Action 3 Provide support for the use of shared information technologies

Task 3.1 Review and update PICES data management policy

Task 3.2 Work with PICES expert groups and PICES Secretariat to update and maintain PICES data inventory and PICES Zenodo catalogue

Task 3.3 Provide guidance to PICES expert groups regarding PICES data management policy, data inventory, and Zenodo submission protocols

Goal 4: Provide relevant scientific information pertinent to North Pacific ecosystems that is timely and broadly accessible

Action 4 Support preparation of the North Pacific Ecosystem Status Report (NPESR)

Task 4 Assisting development of PICES North Pacific database activities via BECI group

Goal 5: Engage with early career scientists to sustain a vibrant and cutting-edge PICES scientific community

Action 5 Promote training and education activities with local, regional, and international organizations

Task 5 Support training and education activities of regional and international organizations, programs, and projects such as IOC/OTGA.

TCODE Endnote 3
TCODE Workplan 2025-2026
(DRAFT)

1. Maintain a dialogue and collaborate with international organizations and scientific programs

Responsibility

- Brett Johnson for Ocean Decade Data Coordination Group
- Toru for IOC/IODE
- Find a member for ICES DIG communications
- Find new member for NOWPAP/DINRAC, NEAR-GOOS
- Fangfang Wan for ODINWESTPAC
- Closely track the progress of BECI and NPESR and establish collaboration

2. Propose and support topic sessions and workshops, inter-sessional meetings, symposia, and training course/education activities

Responsibility – All

3. Review and update PICES data management policy

Responsibility– All

4. Review PICES Zenodo entries and ensure they are consistent with PICES activities

Responsibility –Gann

5. Review/confirm/comment on recommendations from WG-DATA (WG52) concerning future of the PICES TCODE stewardship.

Responsibility – All

6. Maintain TCODE website (identifies missing items or suggests edits/additions).

Responsibility – All

7. PODA 2026

7-1. Promote and facilitate award nominations by March 2026

7-2. Rank/evaluate nominations in April 2026

Responsibility– All

8. POMA 2026

8-1. Promote and facilitate award nominations by March 2026

8-2. Rank/evaluate nominations in April 2026

Responsibility – All

9. Support AP-NPCOOS

Responsibility – All

10. SmartNET/AP-UNDOS TCODE liaison

Responsibility – Satterthwaite, Johnson

11. TCODE engagement and discussions on UN Decade of Ocean Science
Responsibility – All