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Reports of Meetings of Experts and Equivalent Bodies



IODE Steering Group for the OceanTeacher Global Academy (SG-OTGA-V)

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Meeting announcement and documents: <https://oceanexpert.org/event/4852>

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1. OPENING OF THE MEETING

1.1 WELCOME BY THE OTGA CO-CHAIRS

The meeting was opened by **Ms Filomena Martins** (RTC Portugal) and **Ms Carolina Garcia** (RTC Colombia), Co-Chairs of the Steering Group for the OceanTeacher Global Academy. They welcomed participants to this session of the Steering Group and informed the Group that the meeting would be held online.

The **Co-Chairs** outlined the objectives of the Steering Group meeting:

- To review the current status of OTGA
- To review the training courses delivered by the Regional and Specialized Training Centres for the last intersessional period
- To discuss the operations of OTGA, including procedures and standards of the Learning Management System
- To discuss the governance of OTGA, under IOC reform
- To discuss the Project work plan for 2026-27, including proposed courses
- To discuss implementation of OTGA Vision 2025-2030

The **Co-Chairs** explained the meeting logistics and informed about the attendees' categories, which include OTGA Secretariat, Co-chair(s), RTC-STC representatives, IOC representatives, and Affiliated partners representatives, and their respective roles.

1.2 WELCOME BY THE IOC REPRESENTATIVES

Ms Joana Post, Head of IOC Ocean Observations and Services Section and of the Project Office for IODE (interim), and Ms Karen Evans, Head of IOC Ocean Science Section and IOC Capacity Development Coordinator, welcomed the meeting participants. They emphasized the importance of OTGA in delivering training and capability development, and highlighted the need for strong planning, innovation, and regional support to ensure effective implementation of IOC priorities. They also highlighted the growing importance and success of OTGA within IOC, noting its evolution into a central component of capacity development. They emphasized the need to expand OTGA's role beyond data-related training to address broader regional needs, making this steering group meeting crucial for shaping its future direction in the next biennium.

1.3 ADOPTION OF THE AGENDA AND TIMETABLE

This agenda item was introduced by the **Co-Chairs**, who reviewed the meeting planning and invited participants for any subject to be added.

The Steering Group adopted the agenda, which is attached as [Annex](#) with no additional items.

The Co-Chairs informed the Group that all documents and presentations of the meeting are available online OceanExpert (<https://oceanexpert.org/event/4852>).

1.4 INTRODUCTION OF PARTICIPANTS

This agenda item was introduced by the Co-Chairs. All participants were invited to introduce themselves. The full list of participants is available as [Annex](#).

2. OTGA STATUS

2.1 REVIEW OF OTGA TRAINING ACTIVITIES

This agenda item was introduced by **Ms Ana Carolina Mazzuco**, OTGA Coordinator. She informed the Steering Group about training activities conducted in 2024 and 2025 (up to 10 November), providing a presentation with the compilation of results and a summary report:

2.1.1. TRAINING COURSES

- A total of 112 training courses delivered by OTGA Regional and Specialized Training Centres and affiliated partner organizations.
- 52% (58) of these training courses were led by IOC, through OTGA Secretariat, on behalf of IOC sections to directly serve the IOC community and all IOC Programmes.
- Over 9100 learners were registered in these courses, with an average of 40% completion rate
- These participants were based in 138 IOC Member States (36 IOC Member States in Africa and 29 IOC Member States in Small Island Developing States), being supported by enhanced capacity development opportunities of knowledge exchange and upskilling.
- Over 650 facilitators (subject matter experts, lecturers and support staff) contributed to course development and delivery, including creation of new sets of learning materials openly and freely available to the ocean community.
- Training courses were delivered in 4 languages: 66% in English, 20% in Spanish, 11% in Portuguese, and 3% in French.
- Courses included distance learning and in-person training; 70% were online, 19% blended, and 11% only face-to-face.
- Approximately 3400 hours of training were made available by OTGA Learning Management System and activities.
- Gender balance among participants was, on average 59% female and 41% male.

Beneficiaries of these trainings were experts, practitioners, and broad civil society working with Research, Natural Data Management, Operational Support (technical), Institutional Management, Decision Making & Policy, Teaching/Education, Information Management and Library, Commercial (Sales & Marketing), Extension Services (Public Awareness), Technical Advice and Consulting, Communication, and Administrative Support. Currently, there are over 17000 users of OTGA e-Learning Platform, of which 12245 are enrolled in at least one training course.

OTGA trainings courses covered a range of topics within ocean research, management, and services related to Sustainable Development Goal 14 and its targets associated to IOC Mandate, including 14a Scientific Knowledge And Research (91 learning sets), 14.1 Marine Pollution (13 learning sets), 14.2 Marine And Coastal Ecosystems (62 learning sets), 14.3 Ocean Acidification (3 learning sets), 14.7 Sustainable Use Of Marine Resources (42 learning sets), 14.5 Marine Spatial Planning (18 learning sets), and 14c Implement Enforce International Sea Law (11 learning sets).

Contributions of OTGA training courses to the capacity development action to the UN Ocean Decade:

- Challenge 1 Understand and beat marine pollution (16%);
- Challenge 2 Protect and restore ecosystems and biodiversity (27%);

Challenge 3 Sustainably nourish the global population (1%);
Challenge 4 Develop a sustainable, resilient and equitable ocean economy (16%);
Challenge 5 Unlock ocean-based solutions to climate change (4%);
Challenge 6 Increase community resilience to ocean and coastal risks (16%);
Challenge 7 Sustainably expand the Global Ocean Observing System (17%);
Challenge 8 Create a digital representation of the ocean (51%);
Challenge 9 Skills, knowledge, technology and participation for all (100%); and
Challenge 10 Restore society's relationship with the ocean (29%).

Contributions of OTGA training courses to IOC High-level priorities and wide implementation plan, under support to capacity development activities:

- *High-level Objective 1. Healthy ocean and sustained ocean ecosystem services*
 - Sub-Objective 1.3 Enhanced application of best practices, tools and approaches for ecosystem-based management
 - KPI 1.3.2 Number of capacity development initiatives provided to Member States to fulfil national commitments related to biodiversity under multilateral agreements including CBD and BBNJ: 20 training courses in themes related to the CBD Aichi Targets and BBNJ-Agreement
- *High-level Objective 2. Effective warning systems and preparedness for tsunamis and other ocean-related hazards*
 - Sub-Objective 2.3 Enhanced deployment of regionally or nationally adapted decision support tools including multi-hazard early warning and mitigation systems
 - KPI 2.3.1 Number of Member States supported to pilot or implement tsunami and other IOC supported EWS, including through capacity development initiatives: 91 Member States (15 in Africa, 23 SIDS) supported by OTGA training courses in the target subjects.
- *High-level Objective 3. Resilience to climate change and contribution to its mitigation*
 - 3.1 Enhanced observations and data for increased scientific understanding of the ocean dimension in climate change
 - KPI 3.1.2 Number of Member States supported with capacity development for collecting and managing observations related to climate change trends including ocean acidification and sea level rise: 95 Member States (33 in Africa, 16 in SIDS) supported by OTGA training courses in the target subjects.
- *High-level Objective 4. Scientifically founded services for the sustainable ocean economy*
 - Sub-Objective 4.2 Enhanced dissemination of relevant scientific knowledge to marine industries and economic actors
 - KPI 4.3.1 Number of Member States engaged in and supported by IOC-led activities on Sustainable Ocean Planning and Management (incl. Marine Spatial Planning) , including through capacity development initiatives: 81 Member States (21 in Africa, 14 in SIDS) supported by OTGA training courses in the target subjects.
- *High-level Objective 5. Foresight on emerging ocean science issues*
 - Sub-Objective 5.3 Improved ability to account for and respond to priority emerging issues in decision-making
 - KPI 5.3.1 Number of capacity development initiatives delivered on emerging ocean science issues: At least 4 training courses in the target

subjects, including topics such as deep sea mining, metagenomics, biodiversity benefit sharing, Artificial Intelligence.

OTGA training courses contributed to the implementation of IOC Capacity Development Strategy, directly contributing to Output 1 Human resources developed at individual and institutional levels, and indirectly supporting Output 2, 3, 4, and 5. Several courses are also aligned with the newly approved IOC Strategy for Ocean Planning and Management (SOPM), including core baseline courses in marine spatial planning (+5 training sets), ecosystem restoration (2 training sets), coastal resilience (+5 training sets), and ocean data management (+5 training sets).

The Steering Group commented that most OTGA trainings have been delivered online to reach a wide audience and overcome resource and time constraints, while face-to-face sessions remain essential for networking and hands-on activities. Hybrid formats combining online preparation with on-site engagement are increasingly adopted, and participant feedback is positive, with blended approaches seen as the most effective way forward to OTGA. Discussions also emphasized topics such as equity, KPIs for monitoring participation and impact, competency frameworks, balancing strategies with regional needs, and challenges to meet the high-level requirements.

2.1.2. PROJECTS

Ms Ana Carolina Mazzuco also highlighted that, through its Secretariat, OTGA collaborated with global and regional projects in 2024-2025:

- UNESCO IOC NORAD FUND OceanTraining Internship Program, a joint initiative with IOC Capacity Development, to promote national and international exchange of professionals to acquire expertise related to the IOC mandate.
- UNESCO IOC NORAD FUND to support on-site and online training courses on ocean best practices in the Caribbean, a joint project with IOC Ocean Best Practices System.
- EU/UNESCO IOC MSPGlobal 2.0-3.0 projects, with the joint development of online self-paced training on marine spatial planning in three languages.
- European Union's Erasmus+ Erasmus Maris project, with support for blended training on marine pollution focused on citizen science in the European blue schools.
- European Union's Horizon Europe BlueCloud2026 project, with the development of 6 Courses on Virtual Research Environment courses.
- European Union's Horizon GES4SEAS project, providing an online platform to openly host and share learning sets about coastal and marine biodiversity, ecosystems and services.
- European Union's Horizon A-AAGORA project, providing an online platform to openly host and share learning sets for cross-sectoral cooperation for restoration of marine and coastal ecosystems and increased climate resilience through transformative innovation.
- UNESCO/FUST OTGA2 -Major funding support for the last 4 years, resulting in the consolidation of the project activities. The project was finalised at the end of 2024, with a narrative progress report approved by April 2025.
- UNESCO/FUST MangRes 1.0-2.0 projects, with support for blended training on mangrove restoration at biosphere reserves in the Caribbean.
- UNESCO/FUST BioES small-scale activity, to build capacity on marine biodiversity observatories through IOC's ocean data tools and services.

- GEF/UNDP Small Grants Program to support marine litter training and monitoring in Cape Verde and for Portuguese-speaking countries.
- ICS/SCOR Working Group 164 CoNCENSUS, on the joint development of a training course on underwater marine life survey techniques.

She highlighted that new project proposals were jointly developed and submitted to funding agencies/donor overview, and results are expected for the next months, including

- EU Horizon - Strict Marine Protected Areas project, with OBIS (under review)
- IOC/Nippon Foundation - Marine Pollution, with IOC Ocean Science Section (under review)
- FWO/International Cooperation Agreement - OceanConnectXL, with Vrije Universiteit Brussel (approved - to start in 2026)

The Steering Group highlighted the need for OTGA to diversify teaching modalities beyond formal courses, introducing short tutorials and innovative, interactive formats. They raised that while new projects are driving these changes, international accreditation requirements (ISO standards) may limit flexibility, and **suggested** that OTGA create a balance between quality assurance and adaptability.

2.1.3. STAKEHOLDER ENGAGEMENT, COMMUNITY BUILDING, AND COMMUNICATION

Ms Sofie De Baenst informed the Group about the OTGA communication and outreach activities, including website and social media presence, statistics and presentations at conferences. OTGA Social media presence is available on Facebook (<https://www.facebook.com/IODE.Oceanteacher>), LinkedIn (<https://www.linkedin.com/company/otga-learning>) and X (<https://x.com/OceanteacherA>), where all courses are launched with general information and visuals. The social media strategy includes scheduled posts every 2 weeks in English, French, Spanish, and Portuguese. The social media audience is composed mostly of people between 25-34 years old, 50% gender balance, and from the education-research and science-environmental services sector.

Social media statistics for 2024-2025 (till October 2025) are:

- Facebook: 340 postings (own and reposts), with 6568 followers.
- X: 251 postings (own and retweets), with 993 followers.
- LinkedIn: 241 (own and reposts), 5583 followers.

She reported that announcements on activities are not only published through OTGA social media but also using the [OceanExpert](#) calendar (IOC's online event calendar). OceanExpert is also used for mailings, targeting the correct audience for the specific OTGA trainings. Other websites where OTGA trainings are announced are the [IODE website](#), [Marinetraining](#), [CLME+website](#), [Ocean CD-hub](#), and [WCRP academy](#) website. All trainings are also listed in the [IOC newsletter](#) and through the channels of the training centre/course organiser.

Ms De Baenst highlighted that OTGA Secretariat is currently looking into updating the OTGA website (its e-Learning Platform), adding an extra layer to include more general information and improved search engines before users log in to the classroom. This action aims to make the programme more understandable not only for learners, but also for other stakeholders and beneficiaries (government, donors, etc). The requirements and needs are listed; implementation is foreseen for 2026.

OTGA Secretariat participated in several meetings to communicate about the training programme and activities. Some presentations given in 2024-2025 (online meetings, on-site events and conferences):

- 13th IHO-IMO-WMO-IOC-IALA-IAEA-FIG-IMPA Capacity Building Coordination meeting, Monaco
- IMDIS conference, Norway
- Ocean Decade Conference, Barcelona, Spain
- Belgian Federal Government and BBNJ Sablon Secretariat campaign, Oostende, Belgium
- IMPA Webinar on Gender Balance, online
- IOC Regional Subsidiary Bodies' meetings, online
- IODE28, Santa Marta, Colombia
- Seventeenth session of the IOC-FAO Intergovernmental Panel on Harmful Algal Blooms (IPHAB-XVI), UNESCO, Paris, online
- GOOS Regional Alliances meeting, online
- Ocean and Lakes, presentation on Blue Skills, Oostende, Belgium
- United National Ocean Conference (UNOC3) event on Lehmkuhl (school ship for the Royal Norwegian Navy)
- United National Ocean Conference (UNOC3) event on Meteor (German research vessel)

OTGA was well presented at the United National Ocean Conference (UNOC3) in Nice (9-13 June 2025). UNOC3 was organised by France and Costa Rica to bring UN member states, their head of state and government together with international agencies, local authorities, civil society, the private sector and international donors. Different locations were made available to offer presentations, such as the Statsraad Lehmkuhl (Norwegian Sailing ship) and the German Meteor Vessel. The presentation on the Lehmkuhl (June 2025) discussed the "Advancing Skills, knowledge, technology and participation for all – An interactive marketplace for CD tools and methodologies "Showing key CD tools and methodologies" made available by IOC and its partners. (e.g. the IOC Decades Matchmaking platform, the IOC Oceanteacher global academy, the IOC CD-HUB, IOC Oceanexpert, and the different IOC Regional and Specialized training centers). (The presentations and the panel Discussions on the Meteor Vessel focused on (1) the critical global and regional needs on ocean science capacity development; (2) ways on how progress is being assessed and approached by various initiatives; and (3) recent efforts of existing and new partners such as other UN agencies, intergovernmental institutions, and international initiatives leading Capacity Development in marine and maritime space, in a call to a jointly coordinated action towards Goal 14. The theme connects SDG 14 to SDG 4 and SDG 17, inviting leading experts to share and commit to supporting global collaboration in Ocean Capacity Development.

During the European summer, there was a successful Ocean Decade campaign dedicated to several Decade contributors, including OTGA (ahead of the 2025 United Nations Ocean Conference).

<https://oceandecade.org/news/ocean-science-in-action-how-global-cooperation-helps-to-advance-ocean-science/>. Additionally, videos of onsite training courses were created together with course organizers, assisting on promoting OTGA across different networks: (1) ECOPS programme Training Malta (November 2024) (2) Coastal resilience course organised by the Decade Collaborative Centre for Coastal Resilience, Italy (January 2025); (3) video created for the Coastal Ocean Environment School in Western Indian Ocean (COES-WIO) on Coastal and Oceanographic Processes, Marine Pollution, Fisheries and Data Management (September

2025); (4) Video announcement on the blended training course created by the IOC Africa team for the eDNA for Africa and the Adjacent Island States Ghana November 2025.

The Vision 2025-2030 brochure is still in use, with minor updates foreseen this year to print a new batch and share with RTCs/STCs, and affiliated.

The Steering Group commented on the use of additional social media platforms to reach young people for OTGA trainings targeting high school and university students.

2.2 REVIEW OF RTC/STC ACTIVITIES

This agenda item was introduced by the **Co-chairs**, who invited RTC/STCs Coordinators or Representatives to report on:

- description of the scope and priorities;
- major achievements of training in 2024-2025 (with OTGA); and
- course and training activities planned for 2026 (with OTGA).

Coordinators and facilitators were invited to share their experience on the previous courses (lessons learnt, challenges) and the list of courses for the next year(s). Additionally, the Centres highlighted how the training courses organised by your RTC/STC will be contributing to the implementation of IOC Midterm Strategy, IOC Capacity Development Strategy, the workplan of IOC Regional Subsidiary Bodies, and/or IOC Member States priorities. Resources provided in preparation for this meeting, such as presentation slides and recordings, are available through this [external folder](#).

Regional Training Centres (RTCs) and Specialized Training Centres (STCs) are institutions or coordinated groups of institutions that undertake delivery of training on a broad range of topics or targeted specialized training in ocean science that contribute to the high-level objectives of the IOC. RTCs and STCs are nominated by IOC Member States and undergo an official selection process. They provide the institutional backbone for the training activities. As hosting organizations, they ensure the human and financial resources and facilities to design and deliver targeted learning services, responding to the training needs of the IOC Programmes, IOC Regions, and IOC Member States. Each RTC and STCs contact point, Coordinator, is responsible for managing its training activities, including representing the RTC/STC in designated meetings, proposing new courses, providing workplans, monitoring, evaluating, and reporting according to OTGA guidelines. An RTC or STC shares responsibilities with OTGA Secretariat whenever the need is identified and agreed.

OTGA Secretariat provided a general overview of the trainings carried out by the RTC/STCs, highlighting that over 70 training courses (online and blended) were led by RTC/STCs in 2024/2025, with more than 2000 hours of lectures and activities made available by +200 subject experts and facilitators.

List of courses organized by RTC/STCs in 2024:

Date	Course	RTC/STC
16-18 January 2024	IODE/OTGA Training Course: Quality Management System Essentials for NODCs and ADUs	RTC Belgium
22-26 January 2024	IOC/OTGA/MBON/UM-NOAA AOML/CONICET/CADIC/UC : 2nd	RTC Colombia

	<u>Image-Based Biodiversity Monitoring Workshop</u>	
01-29 February 2024	<u>IOC/OTGA/RTC Portugal/CIMA-UAlg: Proliferação de Algas: regulação, impactos e previsão</u>	RTC Portugal
01 February - 31 May 2024	<u>IOC/OTGA: Ocean Data Management</u>	RTC Belgium
5 February -15 December 2024	<u>IOC/OTGA/OIH/ODIS : Implementing the Ocean Data and Information System (ODIS) architecture [self-paced]</u>	RTC Belgium
5 February -15 December 2024	<u>IOC/OTGA/OIH/ODIS :Implementação da arquitetura do Sistema de Dados e Informações Oceânicas (ODIS) [individualizado]</u>	RTC Belgium
5 February -15 December 2024	<u>IOC/OTGA/OIH/ODIS :Mise en œuvre de l'architecture du Système de données et d'informations océanographiques [individuel]</u>	RTC Belgium
5 February -15 December 2024	<u>IOC/OTGA/OIH/ODIS : Implementación de la arquitectura del Sistema de información y datos oceánicos [Ritmo propio]</u>	RTC Belgium
15 February -15 March 2024	<u>IOC/OTGA : Microplástico: natureza, impacto e aplicação prática para monitoramento costeiro e marinho</u>	RTC Belgium
26 February -27 March 2024	<u>IOC/OTGA/RTC Colombia : Tecnologías de Información (SIG) aplicado al Medio Marino y Costero</u>	RTC Colombia
26 February -19 March 2024	<u>IOC/OTGA/ECOPs : Data Analysis with Python Programming for Early Career Ocean Professionals (ECOPs)</u>	RTC Belgium
13 March -15 April 2024	<u>IOC/OTGA/RTC Portugal : A mudança que precisamos para o Oceano que queremos - Literacia do Oceano com escolas (ONLINE)</u>	RTC Portugal
01 May -30 August 2024	<u>IOC/OTGA/VLIZ : Biological Data Management 2024 (self-paced course)</u>	RTC Belgium
06-10 May 2024	<u>IOC/OTGA/RTC Colombia : Curso regional de capacitación y entrenamiento sobre medición del sistema de carbonatos para la evaluación</u>	RTC Colombia
06 May -12 July 2024	<u>IOC/OTGA/OSS/OA/RTC Ghana : Ocean Acidification</u>	RTC Ghana
27-31 May 2024	<u>IOC/OTGA /RTC Moçambique CePTMar : Análise de dados para gestão costeira / Data analysis for coastal management</u>	RTC Mozambique
18 June - 05 July 2024	<u>IOC/OTGA/STC Argentina/COPLA Argentina : Determinación del Límite Exterior de la Plataforma Continental [online]</u>	STC Argentina
01 July -20 September 2024	<u>IOCHABS-IOC Science and Communication Centre on Harmful Algae International Phytoplankton Intercomparison (IPI) test 2024</u>	STC HAB
19-23 August 2024	<u>IOC/OTGA/STC Argentina: Observador de Hielo Marino y Témpanos [virtual]</u>	STC Argentina
01 September - 12 December 2024	<u>IOC/OTGA: Ocean Data Management</u>	RTC Belgium
03-06 September 2024	<u>IOC/OTGA/RTC Colombia : Curso de Manejo Integrado de Zonas Costeras y Planificación Espacial Marina / MIZC-PEM</u>	RTC Colombia
09-13 September 2024	<u>IOC/OTGA/RTC Belgium: Erasmus Maris Week 2024</u>	RTC Belgium
14 September -08 November 2024	<u>IOC/OTGA/RTC ConoSur: Planificación Espacial Marina y Costera</u>	RTC Cono Sur
17 September - 15 November 2024	<u>IOC/OTGA/WMO/BMKG: Implementation of Satellite Altimetry Data for Operational Meteocean Services</u>	STC Indonesia
23-26 September 2024	<u>IOC/OTGA/IOCAFRICA/RTC Kenya: Training on the implementation of FAR Principles to African Marine and Coastal</u>	RTC Kenya

04 October 2024-20 February 2025	<u>IOC/OTGA/RTC Colombia : Fundamentos para la publicación de datos de biodiversidad marina en OBIS [autodidacta]</u>	RTC Colombia
06-26 October 2024	<u>APC13 : 13th Advanced Phytoplankton Course- Identification, Taxonomy, Systematics</u>	STC HAB
14-25 October 2024	<u>IOC/OTGA/RTC India INCOIS : Ocean Colour Remote Sensing - Data, Processing and Analysis [blended]</u>	RTC India
15 October -15 November 2024	<u>IOC/OTGA/RTC Portugal : Management and mitigation of coastal erosion [online course]</u>	RTC Portugal
21 October - 02 November 2024	<u>IOC/OTGA /RTC Moçambique CePTMar : Tecnologias de Observação Oceânica</u>	RTC Mozambique
04-15 November 2024	<u>IOC/OTGA/ECOPs: Introduction to Oceanographic Survey Techniques and Data Management</u>	RTC Belgium
05-29 November 2024	<u>IOC/OTGA/RTC Colombia: Datos e información para el manejo de Áreas Marinas Protegidas</u>	RTC Colombia
12 November -15 December 2024	<u>IOC/OTGA/STC Argentina: Introducción a la geología y minería de fondos marinos</u>	STC Argentina
15 November - 15 December 2024	<u>IOC/OTGA/RTC Portugal: Biomonitorização de substâncias e materiais perigosos em ecossistemas costeiros</u>	RTC Portugal
15-29 November 2024	<u>IOC/OTGA/RTC India INCOIS : Coastal Vulnerability Mapping and analysis using QGIS [blended]</u>	RTC India
18 November 2024 - 25 April 2025	<u>UNESCO/MAB/IOC/OTGA/RTC Colombia/VLIZ : Conservación y restauración de manglares en reservas de biosfera</u>	RTC Colombia
25-29 November 2024	<u>IOC/OTGA/NCOSM/NMDIS Observation technique about blue carbon</u>	RTC China
26 November - 13 December 2024	<u>IOC/OTGA/STC Argentina/COPLA Argentina : Determinación del Límite Exterior de la Plataforma Continental [online]</u>	STC Argentina
16-20 December 2024	<u>IOC/OTGA/RTC Indonesia : Online Training on Ocean Forecast System</u>	STC Indonesia
20 July - 30 December 2024	<u>UNESCO-IOC Tsunami Awareness self-paced course</u>	STC ITIC

List of courses organized by RTC/STCs in 2025:

Date	Course	RTC/STC
15 January - 15 December 2025	<u>IOC/OTGA/OBPS : Ocean Best Practices</u>	RTC Belgium
24 November 2023 - 31 December 2026	<u>IOC/OTGA/EMODnet : Contributing datasets to EMODnet Biology (self-paced)</u>	RTC Belgium
17 February 2024 - 31 December 2025	<u>IOC/OTGA/OBIS: Contributing and publishing datasets to OBIS (self-paced)</u>	RTC Belgium
1 February - 31 May 2025	<u>IOC/OTGA/VLIZ : Ocean Data Management 2025 (self-paced)</u>	RTC Belgium
17 – 21 February 2025	<u>IOC/OTGA/JRC/ASE/CAMPUS MAX TEM: Erasmus Maris from sampling and analysis to data</u>	RTC Belgium
1 Apr to 31 July 2025	<u>IOC/OTGA/VLIZ : Biological Data Management 2025 (self-paced)</u>	RTC Belgium
01 July - 31 October 2025	<u>IOC/OTGA/VLIZ : Ocean Data Management 2025 (self-paced)</u>	RTC Belgium

15 -19 September 2025	<u>IOC/OTGA/RTC Belgium: Erasmus Maris 2025: From sampling and analysis of microplastics to data</u>	RTC Belgium
03 September - 30 November 2025	<u>IOC/OTGA/VLIZ : Biological Data Management 2025 (self-paced)</u>	RTC Belgium
10 - 21 November 2025	<u>IOC/OTGA/DCO-ODS: Data quality assurance (QA) and quality control (QC) in the Ocean Decade</u>	RTC Belgium
04 November 2025 - 28 February 2026	<u>IOC/OTGA/DCO-ODS: De la observación a la acción, empoderando a las comunidades hacia la excelencia en datos marinos.</u>	RTC Belgium
04 November 2025 - 28 February 2026	<u>IOC/OTGA/DCO-ODS: From Observation to Action: Empowering communities towards excellence in marine data</u>	RTC Belgium
20 to 29 May 2025	<u>IOC/OTGA/RTC China: Sea Level Rise and Its Impact on Coastal Zones under Climate Change</u>	RTC China
04 October 2024 - 20 February 2025	<u>IOC/OTGA/RTC Colombia: Fundamentos para la publicación de datos de biodiversidad marina en OBIS [autodidacta]</u>	RTC Colombia
3-8 March 2025	<u>UNESCO/IOC/OTGA/RTC Colombia: Entrenamiento en gestión de datos de biodiversidad para incrementar el conocimiento en áreas profundas del Corredor Marino del Pacífico Este Tropical</u>	RTC Colombia
28 April to 2 May 2025	<u>IOC/OBPS/OTGA/RTC Colombia: ADAPT Curso de formación sobre mejores prácticas oceánicas</u>	RTC Colombia
13 May to 13 August 2025	<u>IOC/OTGA/RTC Colombia: Todos por una causa: El Océano que queremos</u>	RTC Colombia
Dec-25	<u>IOC/OBPS/OTGA/RTC Colombia: ADAPT Curso de formación sobre mejores prácticas oceánicas (self-paced)</u>	RTC Colombia
09 - 16 July 2025	<u>IOC/OTGA/RTC Ghana: Earth Observation and fishing vessel monitoring data for fisheries management</u>	RTC Ghana
03 - 07 November 2025	<u>IOC/IOCAFRICA/OBIS/OTGA: Environmental DNA (eDNA) Training for Africa and the Adjacent Island States</u>	RTC Ghana
21 - 27 September 2025	<u>IOC/OTGA/ECOPs/RTC Kenya: Coastal Ocean Environment School in Western Indian Ocean (COES-WIO) on Coastal and Oceanographic Processes, Marine Pollution, Fisheries and Data Management</u>	RTC Kenya
31 March - 02 May 2025	<u>IOC/OTGA/RTC Portugal: A mudança que precisamos para o Oceano que queremos - Literacia do Oceano com escolas</u>	RTC Portugal
02 June - 18 July 2025	<u>IOC/OTGA/HAB/RTC Portugal, and Centro de Investigação Marinha e Ambiental (CIMA), Universidade do Algarve (Portugal): Harmful Algal Blooms: environmental drivers, impacts, and prediction</u>	RTC Portugal
28 July - 22 August 2025	<u>IOC/OTGA/RTC Portugal: Recursos online para análise de ecossistemas marinhos (1ª turma)</u>	RTC Portugal
03 November - 08 December 2025	<u>IOC/OTGA/RTC Portugal: Biomonitorização de substâncias e materiais perigosos em ecossistemas costeiros</u>	RTC Portugal
03 - 28 November 2025	<u>IOC/OTGA/RTC Portugal: Recursos online para análise de ecossistemas marinhos (2ª turma)</u>	RTC Portugal
30 June to 30 July 2025	<u>IOC/OTGA/STC Argentina: Introducción a la geología y minería de fondos marinos</u>	STC Argentina
2 to 19 September 2025	<u>IOC/OTGA/STC Argentina/COPLA Argentina: Determinación del Límite Exterior de la Plataforma Continental</u>	STC Argentina
03 March - 09 April 2025	<u>IAEA/IOC/HAB/OTGA: IAEA-IOC Training Course and Certification on Identification of Harmful Marine Algae</u>	STC HAB
06 October - 29 November 2025	<u>IOC/OTGA/HAB: IOC Training Course and Identification Qualification in Harmful Marine Microalgae</u>	STC HAB

14 - 18 July 2025	<u>IOC/OTGA/STC Indonesia: BMKG Training on Tsunami Mitigation</u>	STC Indonesia
20 Jan - 15 Dec	<u>UNESCO-IOC Tsunami Awareness self-paced course</u>	STC ITIC
17 Jan - 15 Dec	<u>IOC/OTGA/ITIC: UNESCO-IOC Tsunami Ready self-paced course</u>	STC ITIC

The **Steering Group** commented on the formats of the training and shared impressions on the experience of participants, endorsing the importance of face-to-face activities depending on the audience and training topic, as well as for community building.

2.2.1. STC ARGENTINA

Ms Nancy Correa, STC coordinator, reported that STC Argentina continues to deliver impactful training aligned with IOC strategies, regional work plans, and Member States' priorities. The "Introduction to Seabed Geology and Mining" course was highly successful and well-attended by South American participants, though it will not be offered in 2026 due to scheduling constraints. The long-standing "Determination of the Outer Limit of the Continental Shelf" course will be updated next year to better match participant profiles, with a less technical approach. The planned "Sea Ice and Iceberg Observer" course was cancelled in 2025 due to funding limitations, but there is a strong commitment to reschedule it in 2026, either in-person or virtually. For 2026, STC Argentina plans to offer three courses in collaboration with OTGA: the updated Continental Shelf course, the Sea Ice and Iceberg Observer course, and a new "Visualizations with Python" course combining theory and practical skills.

2.2.2. RTC BELGIUM

Ms. Ana Carolina Mazzuco, RTC coordinator and IODE Training Coordinator, reported that the Centre opened 12 courses in 2024 and 12 courses in 2025, mostly focused on joint collaboration with ocean data initiatives such as IOC Ocean Biodiversity Information System (OBIS), IOC Ocean Best Practices System (OBPS), IOC Ocean Data and Information System (ODIS), the IOC Decade Coordination Office (DCO) for Ocean Data Sharing (ODS), the European Marine Observation and Data Network (EMODnet), the Ocean Decade Early Career Ocean Professional Programme, and the Data Centre of Flanders Marine Institute (VLIZ). These trainings focused on various steps within the ocean data pipeline, including data management, quality assurance, best practices for observations and sharing, analysis and visualization, among others. The interest in these baseline trainings has been increasing over the years, reaching more than 2000 registrations in the last biennial.

RTC Belgium also started a collaboration with the EU Erasmus Maris project, assisting with the development of training for microplastics monitoring in a regional citizen science framework related to the European Blue Schools. This initiative was a collaboration between the EU Joint Research Centre in Geel, Belgium, an innovative infrastructure, reference materials, measurements, methodologies and tools for policies, and Ayam Sailing Europe AISBL, building citizen science learnings. RTC Belgium engaged in several projects, through its secretariat, highlighted in the other items.

Ms Ana Carolina Mazzuco highlighted that RTC Belgium faces most challenges in combining the activities of OTGA Secretariat and its expansion of the training centre. It envisions enhancing its activities on-site, in support of the European ocean-related priorities in the coming years. She reported that new courses are planned to be launched in 2026, including a BBNJ-Agreement and Indigenous and Local Knowledge (jointly with Ocean Decade Unit/Capacity Development Facility), Emerging topics in Ocean Data, and an expanded online course on Nagoya Protocol/ABS (jointly with VLIZ).

The Steering group discussed the upcoming training needs and collaborative opportunities within IOC and related programs, including through the Decade Coordination Office for Ocean Data Sharing and leveraging internal and external initiatives to ensure high-quality training. There was expressed interest in the participation of the RTC/STCs in the BBNJ-Agreement and Indigenous training initiatives.

2.2.3. RTC CHINA

Ms Dian Xu, representing the RTC China, reported that, in collaboration with NMDIS and the National Centre of Ocean Standards and Metrology, successfully delivered an impactful training program in 2025 focused on sea level rise and its impact on coastal dunes and climate change. The course covered key topics such as catastrophe risk modeling for disaster risk financing, enhancing climate resilience and disaster preparedness, social and ecological impacts of monsoons and heatwaves, marine dual evaluation technology, and included a study tour to the National Marine Museum of China. This initiative built capacity in critical environmental areas and technical disciplines, attracting 16 trainees from eight Indo-Pacific countries—China, Egypt, Indonesia, Malaysia, Pakistan, the Philippines, Thailand, and Vietnam—resulting in a 100% completion rate with all participants submitting final reports. Building on this success, a new online course is planned for November 2026 on the formulation and practice of international marine standards, targeting researchers and management staff involved in marine standardization. To further enhance training quality and impact, the Centre recommends increased support from the Secretariat to secure world-renowned lecturers and the development of specialized training opportunities for regional training coordinators, both online and on-site, to strengthen collective capacity and coordination.

The Steering Group discussed the opportunity to replicate coastal resilience training through collaboration with RTC China, a pilot initiative also scalable for other trainings or regions.

2.2.4. RTC COLOMBIA

Ms Carolina García Valencia, OTGA Co-Chair representing the RTC-Colombia Coordinator, presented an overview of its scope, priorities, and training achievements for 2024–2025 in collaboration with OTGA, as well as plans for 2026 at the RTCColombia for Spanish-speaking countries. The focus remains on aligning training with regional needs, supporting projects across the Pacific and Caribbean, and strengthening ocean data and information management. Between 2024 and 2025, RTC Colombia delivered eight courses in various formats (four in person), reaching 108 participants from 15 countries, with 57% women. Key topics included ocean acidification, data management, coastal zone management, marine spatial planning, and marine protected areas. The ADAPT project was highlighted for enabling an in-person workshop and an upcoming online course. For 2026, three courses are planned: one on blue governance, another on carbonate measurements to support SDG 14, and the ADAPT course on best practices for seagrass and mangrove monitoring. The centre continues improving course materials, prioritizing blended delivery, and addressing platform performance issues, while acknowledging strong support from OTGA coordination.

The Steering Group discussed the challenge of training courses receiving far more applications than available slots and how to support those not selected. **Suggestions** included: prioritizing non-selected applicants in future calls, providing access to course materials for self-learning (without certification), developing self-paced versions of instructor-led courses, and recording live sessions for sharing on platforms like YouTube. It was also suggested OTGA consider mechanisms to differentiate between participants seeking certification and those wanting only knowledge, ensure lecturer consent and licensing compliance for content sharing, and adopt a case-by-case approach based on the course nature.

2.2.5. RTC CONO SUR

On behalf of **Mr Daniel Conde**, RTC Cono Sur coordinator, **Ms Sofie De Baenst** reported that the Regional Training Centre (RTC), in collaboration with Uruguay and Brazil, focuses on capacity building and coastal and marine spatial planning. They aim to deliver an annual course, with an online edition held in 2024 that received around 200 applications from 25 countries, though participant numbers were not disclosed. A face-to-face course planned for 2025 in Uruguay was cancelled due to budget constraints and is now proposed for 2026. Challenges in organizing in-person courses, including logistics, funding, and professor availability, were highlighted. The sustainability of RTC and continued delivery of OTGA courses relies on strong commitment from all partners, with support from the OTGA Secretariat for promotion, communication, and coordination. Long-term sustainability and collaboration remain key priorities.

The Steering Group discussed the timing of fund availability and challenges that may prevent implementation of a training, and highlighted the need for improved planning and coordination by the Secretariat to align resource allocation with organizational timelines, communicate these constraints to donors, and optimize opportunities.

2.2.6. RTC Ecuador

No report or presentation was received from RTC Ecuador coordinator.

2.2.7. RTC GHANA

Mr Benjamin Botwe, RTC coordinator, reported that the scope of activities of RTC Ghana is to cover West, Central, and North Africa, focusing on ocean applications and climate change, including environmental DNA (eDNA), fisheries science, oceanographic data, and marine spatial planning. Training delivery has been in-person, online, and blended formats, with a strong emphasis on capacity development for early-career ocean professionals, regional collaboration, and integration of science into policy and governance. Key achievements in 2024 included online and in-person courses on ocean acidification under the Biotal project, training 25 participants from six West African countries on chemical drivers, biological impacts, and monitoring techniques. Additional courses addressed Earth observation for fisheries monitoring and enforcement against illegal fishing, as well as hands-on eDNA training for biodiversity assessment and marine governance. Planned activities for 2026 include repeating high-demand courses on ocean applications, Earth observation, fisheries resource management, and eDNA, supported by partners such as UC Africa, OTGA, the Ocean Foundation, and POGO.

The Steering Group discussed logistical challenges, internet connection, and increased demand for participation, but a limited number could be accommodated. There were also insights on the application review process that RTC Ghana carried out, as an example of a process based on regional representation, gender balance, and an impartial review process where evaluators did not assess applicants from their own countries.

2.2.8. STC HARMFUL ALGAE BLOOM PROGRAMME

Mr Henrik Enevoldsen informed about the activities of the STC HAB, through the IOC Science and Communication Centre on Harmful Algal Blooms (HABs), emphasizing its long-standing role since 1995 in capacity building for managing HABs, especially in developing Member States. Highlights include certified hybrid courses on harmful microalgae identification, international phytoplankton intercalibration exercises, and ad hoc regional trainings, all linked to global research and data collection. Courses are demand-driven, fee-based, and include examinations

and certification, which are critical for seafood safety monitoring. Future plans of STC HAB involve continued annual courses, new partnerships for intercalibration, and expanded in-country training in Southern Africa.

The Steering Group highlighted the importance of cost-recovery models for OTGA training courses. It was reinforced that partial funding and travel grants have worked well, enabling broader participation, especially for early-career professionals. The group **suggested** that OTGA consider expanding cost-recovery practices, maintaining grants for those in need, and organising more regional courses to reduce travel costs and improve accessibility. Demand-driven planning and prioritisation based on surveys were also **emphasised** as key to aligning OTGA courses with Member States' needs.

2.2.9. RTC INDIA

Mr Udaya Bhaskar, RTC Coordinator, reported that INCOIS promotes ocean-related activities and advanced operational oceanography training at national, regional, and global levels. It offers courses in ocean data analysis, remote sensing, modelling, hazard monitoring, and integrated oceanography for students, government staff, decision-makers, and operational centres, supported by state-of-the-art infrastructure for physical, online, and hybrid formats. Since its inception, INCOIS has conducted 132 courses for 7,400 participants from 96 IOC Member States, ensuring gender balance through women-focused programmes. In 2024, it delivered two OTGA courses for 46 participants, while in 2025, despite funding constraints, it organized 25 additional courses and outreach under the Ocean Decade, including training for early-career ocean professionals and hosting IOC traineeships. For 2026, plans include repeating high-demand OTGA courses (subject to funding), expanding Category 2 activities, and launching a self-paced learning platform with integrated hands-on sessions, continuing hybrid and on-campus delivery enhanced by modelling servers.

The Steering Group discussed the formats of training to leverage the potentials of RTC India and training capabilities within the region.

2.2.10. STC INDONESIA

Ms Anni Arumsari Fitriany, representing the STC coordinator, reported that The Indonesian Centre of Excellence reported its activities for 2024–2025, focusing on marine meteorology and tsunami-related initiatives. In 2024, the Centre organized several regional trainings and workshops, including collaborative sessions with OTGA and WMO, despite initial challenges in harmonizing administrative requirements. Key events included two focus group discussions on satellite meteorology applications in ocean weather prediction, a hybrid Data Buoy Cooperation Panel workshop on ocean observations with 239 participants from 33 countries, and a two-phase training on satellite altimetry for operational ocean mapping. These marked the Centre's first collaborative training with OTGA and WMO, supported by funding partnerships. For 2025, planned activities included a regional discussion on satellite meteorology in marine operations and an online tsunami mitigation training with 28 participants from multiple countries. The Centre highlighted the need for improved understanding and management of the OTGA learning platform, suggesting dedicated training for platform administration to enhance future program delivery.

The Steering Group cited opportunities for discussions to enhance the collaboration under IOC/WMO, and the design of training for facilitators on the technicalities of the Moodle platform.

2.2.11. RTC KENYA

Mr Harrison Onganda, who reported on RTC in Mombasa, hosted by the Kenya Marine and Fisheries Research Institute, emphasized that marine spatial planning (MSP) is a national priority, with ongoing MSP processes coordinated by the institute. The centre aligns with IOC Africa objectives and primarily supports English-speaking countries, while also engaging participants from French and Portuguese-speaking regions. In 2024, RTC Mombasa delivered a face-to-face course on implementing FAIR principles for African marine and coastal data, attracting participants from across Africa. The centre highlighted the need for an African Coastal and Marine Atlas Workshop to build on this achievement. A planned joint training with Seabed 2030 on satellite-derived bathymetry was postponed due to competency assessment issues, but is rescheduled. For 2026, proposed activities include: A system dynamics course for sustainable MSP in collaboration with Nelson Mandela University and Scottish Association for Marine Sciences; Training on fundamentals of oceanographic data management and inter-calibration of common datasets, aligned with international strategies; A course on operational remote sensing and satellite oceanography, potentially in partnership with Copernicus or NOAA Ocean Colour programs.

The Steering Group noted with appreciation the requests from RTC Kenya and the challenges faced by some lecturers while adapting to LMS procedures and standards, such as the Competency Assessment Form. It **suggested** that OTGA Secretariat discuss the possibilities to accomplish these trainings in the following years.

2.2.12. RTC MALAYSIA

Mr Aidy Muslim, RTC Malaysia coordinator, informed that RTC Malaysia has recently focused on marine science, aquatic resources, species, and the oil and gas sector, prioritizing specialized training for national agencies to meet operational needs. Over the past few years, the institution has gained attention through the Ocean Decade initiative, resulting in increased involvement in training and research cruises, which limited engagement with OTGA activities. Most training has been face-to-face, funded by agencies, though efforts are underway to adapt courses for OTGA's online model. In 2025, planned OTGA courses, such as Coral Reef Health and Monitoring, were deferred due to staff availability, while other initiatives, like the BBNJ course conducted outside OTGA. For 2026, RTC Malaysia plans to deliver the Coral Reef Health and Monitoring course in June and a Marine GIS course, leveraging UMT's existing credited programs and exploring self-paced formats aligned with OTGA standards.

2.2.13. RTC MOZAMBIQUE

Ms Clousa Maueua, representing the RTC Mozambique, reported that RTC Mozambique focuses on marine research, ocean literacy, and coastal ecosystem management, including seagrass and mangrove restoration. It organizes both onsite and online courses, with recent sessions attracting participants from multiple countries despite challenges like limited funding and connectivity issues. The centre relies heavily on IOC support for logistics and aims to improve planning, reduce tool complexity in courses, and address high demand by repeating popular training. Plans for next year include delivering a postponed sustainable coastal management course and expanding online offerings to accommodate more applicants.

The Steering Group commented on the persistent challenges with internet connectivity for participants, and **suggested** OTGA consider developing offline or self-contained course options, such as downloadable modules or tools like MoodleBox, and exploring mobile applications that work without internet. It was also noted that access to global data systems complicates offline solutions, but creative approaches and resource allocation could help ensure learning is not blocked by connectivity issues.

2.2.14. STC NORWAY

STC Norway is not active and has withdrawn from the programme in 2024. An open call for replacement is foreseen for the next year, in accordance with the Terms of Reference.

2.2.15. RTC PACIFIC COMMUNITY

Ms Maeva Tesan, on behalf of RTC Coordinator, outlined the current priorities and challenges for ocean governance and training in the Pacific region, which comprises 22 countries and territories. Due to the complexity of coordinating across these nations, no courses were delivered in 2025, but plans are underway for 2026. The focus will be on two main areas: (1) regional ocean governance, particularly maritime boundaries impacted by sea-level rise, to ensure internationally recognized zones, and (2) marine spatial planning, including GIS and case studies, supported by a new micro-qualification initiative. Collaboration with regional agencies and platforms like OTGA is essential, and the first courses are targeted for delivery by July and September 2026, with ECOP and ocean science professionals as key audiences.

The Steering Group commented on the positives of the new trainings envisioned by the RTC, and opportunities and synergies with other IOC initiatives and IOC Regional Sub-Commissions.

2.2.16. RTC PORTUGAL

Ms Filomena Cardoso Martins, RTC coordinator, reported that RTC Portugal, is an open consortium comprising 17 institutions across Portugal. Over the past two years (2024–2025), the consortium has offered a diverse range of online courses, some of which were continuations of earlier editions, such as the Ocean Literacy course, which reached its third edition in 2025. Despite attracting a high number of candidates, participant retention has been a challenge, particularly in courses involving African countries, largely due to internet instability and platform access issues. While courses like Harmful Algal Bloom and Biomonitorization met initial expectations, others require reevaluation and restructuring. The consortium is currently revising and updating course materials, with new courses postponed to 2026. The annual meeting, initially planned for June, was delayed but is expected to occur by year-end to redefine strategies and improve collaboration among institutions. The coordinator expressed gratitude to the secretariat for its essential support in delivering courses during this period.

The Steering Group commented about the possibilities of joint activities with the Decade Coordination Office for Ocean Literacy, the challenges of distance-learning, language barriers, and course completion time; and **suggested** that OTGA consider the implementation of more creative and innovative tools for learning and teaching, and test the trainers' approach, in support of challenges faced by RTC Portugal.

2.2.17. STC INTERNATIONAL TSUNAMI INFORMATION CENTRE

Ms Laura Kong, STC Coordinator, informed that STC ITIC, established in 1965 and hosted by the U.S. NOAA and Chile, reported on its recent capacity-building activities in collaboration with the IOC Tsunami Programme. ITIC operates from offices in Hawaii and Puerto Rico, supporting both Pacific and Caribbean regions. Over the past decades, ITIC has conducted extensive training, with recent efforts focused on the Tsunami Ready Programme and the development of self-paced online courses. Two key courses have been launched: Tsunami Awareness (mid-2024) with 442 enrollments and 226 completions, and Tsunami Ready (late 2024) with 122 enrollments and 82 completions. Current initiatives include creating a comprehensive competency-based training framework for tsunami warning centre staff, funded by U.S. contributions and developed with IOC and country partners. This framework will feature a

progressive series of courses—from awareness to advanced operational modules—integrating resources, culminating in hands-on simulations by 2026. ITIC aims to enhance global tsunami preparedness through scalable, accessible training solutions.

The Steering Group discussed the new Tsunami Ready online training, clarifying that it complements existing community recognition programs by providing accessible, structured learning on tsunami preparedness and certification processes. It was highlighted that the role of these courses is in scaling global participation through self-paced modules, reducing repetitive in-person explanations, and creating a pathway for advanced training. Concerns were raised about how individual certification benefits communities and the challenges of transitioning to blended learning, including monitoring and evaluation. Notes were added about the high demand for in-person training, which is costly and limited, and suggested a tiered approach where completion of online modules qualifies participants for hands-on simulations. **Suggestions** included improving automation and enrollment processes, replicating ITIC's structured training model across other programs to enhance scalability and user experience, opening the materials to more people and sharing some video classes on YouTube.

2.3 JOINT ACTIVITIES WITH OTHER IOC PROGRAMMES AND REGIONAL SUBSIDIARY BODIES

This agenda item was introduced by the **Ms Ana Carolina Mazzuco**, who highlighted that OTGA courses cover a range of topics related to the IOC high-level priorities, contributing to the IOC Mandate and the implementation of the IOC Capacity Development Strategy, enabling equitable participation of all IOC Member States, IOC Programmes, and IOC Regional Subsidiary Bodies. Examples of this support include:

- Tsunami Resilience Section (TRS). OTGA provides a framework for sustainable delivery of tsunami-related training programmes to meet the capacity development priorities of Member States. Some immediate areas where OTGA contributes are by leveraging the RTCs/STCs and co-located Regional Tsunami Service Providers (RTSP) to routinely deliver tsunami-related training, development of online training modules for priority tsunami-related areas to support self-paced training, provision of an effective online training management system, and complementing global TRS capacity development activities and projects.
- Marine Policy and Regional Coordination Section (MPR). OTGA provides additional support to the training needs of MPR for a number of activities and projects such as multi-language online training in Marine Spatial Planning; various learning frameworks and competencies for the Ocean Decade, including the close collaboration with the Capacity Development Facility and Decade Collaborative Centres and Coordination Offices; and wide subjects related to the international ocean governance, i.e., BBNJ Agreement and Sustainable Ocean Planning.
- Ocean Literacy. OTGA supports the Ocean Literacy training programme for business, policy, education and civic groups by providing both online and self-paced training materials and facilitating onsite workshops. The outcome will be business, policy, education and civic groups trained on ocean literacy and empowered to use ocean knowledge for ocean action.
- IOC Harmful Algal Bloom Programme. OTGA supports HAB training activities, such as the IOC Identification Qualification in Harmful Marine Microalgae, the IPI Marine Phytoplankton enumeration and identification, the IOC UNESCO Advanced Phytoplankton Course, and many others.
- Ocean Science Section (OSS). OTGA supports courses that improve the participants' ocean acidification data management skills and familiarize national experts with the 14.3.1 data portal and tools.

- The International Oceanographic Data and Information Programme (IODE). OTGA, created and hosted by IODE, dedicates core training activities to teach the principles of data and information management and promote the use of standards across IODE centres to achieve interoperability. Specific training can include Research Data Management, Discovery and Use of Operational Ocean Data Products and Services, Introduction to Coastal Atlases, Biological Data Management and Monitoring, Quality Management Framework and Marine GIS Applications.

List of courses led by IOC units in 2024:

Date	Course	IOC Section/Unit/RSB
27 Sep - 31 Dec	<u>IOC/OTGA/MSP: MSPglobal Online Training Course (ENGLISH)</u>	IOC MPR/MSP
27 Sep - 31 Dec	<u>IOC/OTGA/MSP: Cours de formation en ligne de MSPglobal (FRANCAIS)</u>	IOC MPR/MSP
27 Sep - 31 Dec	<u>IOC/OTGA/MSP: Curso de formación en línea de MSPglobal (ESPAÑOL)</u>	IOC MPR/MSP
27 May - 15 Dec	<u>IOC/OTGA/OD Codesign for the Ocean Decade [Self-paced online course]</u>	IOC MPR/CDF
1 Jan - 30 Dec	<u>IOC/OTGA/OL Why the ocean should matter to us all (self-paced)</u>	IOC OSS/OL
1 Jan - 30 Dec	<u>IOC/OTGA/OL Mainstreaming Ocean Literacy in Governance (self-paced)</u>	IOC OSS/OL
1 Jan - 30 Dec	<u>IOC/OTGA/OL Educating about the Ocean: Waves of change (self-paced)</u>	IOC OSS/OL
1 Jan - 30 Dec	<u>IOC/OTGA/OL iSea Stories: Understanding the Ocean for Media and Press (self-paced)</u>	IOC OSS/OL
1 Jan - 30 Dec	<u>IOC/OTGA/OL: Ocean Literacy Training for architects and urban planners (self-paced)</u>	IOC OSS/OL
24 - 28 Jun	IOC/OTGA/OL : Save the Wave: Summer School on Ocean Literacy and Ecosystem Restoration	IOC OSS/OL
1- 5 Jul	IOC/OTGA/OL : Summer School on Ocean Literacy and Collaboration on Nature-Based Solutions for the Baltic and North Sea	IOC OSS/OL
16-18 January 2024	<u>IODE/OTGA Training Course: Quality Management System Essentials for NODCs and ADUs</u>	IOC IODE/RTC Belgium
01 February - 31 May 2024	<u>IOC/OTGA: Ocean Data Management</u>	IOC IODE/RTC Belgium
5 February -15 December 2024	<u>IOC/OTGA/OIH/ODIS : Implementing the Ocean Data and Information System (ODIS) architecture [self-paced]</u>	IOC IODE/ODIS
5 February -15 December 2024	<u>IOC/OTGA/OIH/ODIS :Implementação da arquitetura do Sistema de Dados e Informações Oceânicas (ODIS) [individualizado]</u>	IOC IODE/ODIS
5 February -15 December 2024	<u>IOC/OTGA/OIH/ODIS :Mise en œuvre de l'architecture du Système de données et d'informations océanographiques [individuel]</u>	IOC IODE/ODIS
5 February -15 December 2024	<u>IOC/OTGA/OIH/ODIS : Implementación de la arquitectura del Sistema de información y datos</u>	IOC IODE/ODIS

	<u>oceánicos [Ritmo propio]</u>	
26 February -19 March 2024	<u>IOC/OTGA/ECOPs : Data Analysis with Python Programming for Early Career Ocean Professionals (ECOPs)</u>	IOC IODE/RTC Belgium
01 May -30 August 2024	<u>IOC/OTGA/VLIZ : Biological Data Management 2024 (self-paced course)</u>	IOC IODE/RTC Belgium
20 Jul - 30 Dec	<u>UNESCO-IOC Tsunami Awareness self-paced course</u>	IOC TRS/STC ITIC
01 July -20 September 2024	<u>IOCHABS-IOC Science and Communication Centre on Harmful Algae International Phytoplankton Intercomparison (IPI) test 2024</u>	IOC OSS/STC HAB
01 September - 12 December 2024	<u>IOC/OTGA: Ocean Data Management</u>	IOC IODE/RTC Belgium
06-26 October 2024	<u>APC13 : 13th Advanced Phytoplankton Course- Identification, Taxonomy, Systematics</u>	IOC OSS/STC HAB
04-15 November 2024	<u>IOC/OTGA/ECOPs: Introduction to Oceanographic Survey Techniques and Data Management</u>	IOC IODE/RTC Belgium

List of courses led by IOC units in 2025:

Date	Course	IOC Section/Unit/RSB
1 Jan - 30 Dec 2025	<u>IOC/OTGA/MSP: MSPglobal Online Training Course (ENGLISH)</u>	IOC MPR/MSP
1 Jan - 30 Dec 2025	<u>IOC/OTGA/MSP: Cours de formation en ligne de MSPglobal (FRANÇAIS)</u>	IOC MPR/MSP
1 Jan - 30 Dec 2025	<u>IOC/OTGA/MSP: Curso de formación en línea de MSPglobal (ESPAÑOL)</u>	IOC MPR/MSP
8 Jan - 15 Dec 2025	<u>IOC/OTGA/OD Codesign for the Ocean Decade [Self-paced online course]</u>	IOC MPR/CDF
9 Mar - 30 Dec 2025	<u>IOC/OTGA/OL Why the ocean should matter to us all (self-paced)</u>	IOC OSS/OL
9 Mar - 30 Dec 2025	<u>IOC/OTGA/OL Mainstreaming Ocean Literacy in Governance (self-paced)</u>	IOC OSS/OL
9 Mar - 30 Dec 2025	<u>IOC/OTGA/OL Educating about the Ocean: Waves of change (self-paced)</u>	IOC OSS/OL
9 Mar - 30 Dec 2025	<u>IOC/OTGA/OL iSea Stories: Understanding the Ocean for Media and Press (self-paced)</u>	IOC OSS/OL
9 Mar - 30 Dec 2025	<u>IOC/OTGA/OL: Ocean Literacy Training for architects and urban planners (self-paced)</u>	IOC OSS/OL
22 April - 31 October 2025	<u>Co-Design Training Course for Ocean Decade Actions in Africa</u>	IOC MPR/CDF
29 June - 4 July 2025	<u>IOC/OL/OTGA: Summer School on Ocean Literacy and Collaboration on Nature-Based Solutions for the Mediterranean and Black Seas</u>	IOC OSS/OL
31 December 2025 - 31 December 2026	Ocean Literacy for Blue Schools Coordinators and Teachers	IOC OSS/OL
15 Jan - 15 December 2025	<u>IOC/OTGA/OBPS : Ocean Best Practices</u>	IOC IODE/OBPS
17 February 2024 - 31	<u>IOC/OTGA/OBIS: Contributing and publishing</u>	IOC IODE/OBIS

Dec 2025	<u>datasets to OBIS (self-paced)</u>	
1 February - 31 May 2025	<u>IOC/OTGA/VLIZ : Ocean Data Management 2025 (self-paced)</u>	IOC IODE/RTC Belgium
1 Apr to 31 July 2025	<u>IOC/OTGA/VLIZ : Biological Data Management 2025 (self-paced)</u>	IOC IODE/RTC Belgium
01 July - 31 October 2025	<u>IOC/OTGA/VLIZ : Ocean Data Management 2025 (self-paced)</u>	IOC IODE/RTC Belgium
03 September - 30 November 2025	<u>IOC/OTGA/VLIZ : Biological Data Management 2025 (self-paced)</u>	IOC IODE/RTC Belgium
10 - 21 November 2025	<u>IOC/OTGA/DCO-ODS: Data quality assurance (QA) and quality control (QC) in the Ocean Decade</u>	IOC IODE/DCO-ODS
04 November 2025 - 28 February 2026	<u>IOC/OTGA/DCO-ODS: De la observación a la acción, empoderando a las comunidades hacia la excelencia en datos marinos.</u>	IOC IODE/DCO-ODS
04 November 2025 - 28 February 2026	<u>IOC/OTGA/DCO-ODS: From Observation to Action: Empowering communities towards excellence in marine data</u>	IOC IODE/DCO-ODS
03 March - 09 April 2025	<u>IAEA/IOC/HAB/OTGA: IAEA-IOC Training Course and Certification on Identification of Harmful Marine Algae</u>	IOC OSS/STC HAB
06 October - 29 November 2025	<u>IOC/OTGA/HAB: IOC Training Course and Identification Qualification in Harmful Marine Microalgae</u>	IOC OSS/STC HAB
20 January - 15 December 2025	<u>UNESCO-IOC Tsunami Awareness self-paced course</u>	STC ITIC
17 January - 15 December 2025	<u>IOC/OTGA/ITIC: UNESCO-IOC Tsunami Ready self-paced course</u>	STC ITIC

She noted that having IOC sections leading training initiatives, all the courses are aligned with IOC Mandate, and may also be directly serving one of the programmes/sections. This information can be found within the tag system of OTGA e-Learning Platform.

Ms Ana Carolina Mazzuco also recalled that OTGA also works with the IOC Regional Subsidiary Bodies to ensure the capacity development needs of the regions are being met by supporting the Regional and Specialized Training Centres. This regional input will result in:

- Promoting the use of local experts as facilitators and training assistants.
- Providing a programme of training courses related to IOC programmes, contributing to the sustainable management of oceans and coastal areas and relevant to Member States in the regions.
- Working in a regional context, addressing common regional goals as well as national goals.
- Using the working language(s) of the countries in their region.

List of courses collaboratively delivered with IOC Regional Subsidiary Bodies in 2024 and 2025:

Date	Course	IOC Section/Unit/RSB
23-26 September 2024	<u>IOC/OTGA/IOCAFRICA/RTC Kenya: Training on the implementation of FAR Principles to African Marine and Coastal</u>	IOCAFRICA

28 April to 2 May 2025	<u>IOC/OBPS/OTGA/RTC Colombia: ADAPT Curso de formación sobre mejores prácticas oceánicas</u>	IOCARIBE
03 - 07 November 2025	<u>IOC/IOCAFRICA/OBIS/OTGA: Environmental DNA (eDNA) Training for Africa and the Adjacent Island States</u>	IOCAFRICA

2.3.1. IOC OCEAN SCIENCE SECTION AND IOC CAPACITY DEVELOPMENT UNIT

Ms Ana Carolina Mazzuco informed that there will be no presentations in these Sections, but highlighted the planned support for the development of training modules on:

- Pollution, under the proposed project funded by the Nippon Foundation
- SDG Indicator 14.3.1 on ocean acidification.
- Blue carbon, funded through the Blue Carbon Initiative.

She also highlighted that RTC Belgium is currently updating the IOC Ocean Acidification courses in OTGA (EN, FR) with IOC subject experts to re-launch as self-paced learning in early 2026. IOC Harmful Algal Bloom Programme activities were highlighted under STC HAB.

2.3.2. IOC MARINE POLICE AND REGIONS SECTION

Ms Nayeon Kim, Decade Capacity Development Facility coordinator, reported that the Facility has advanced Ocean Decade priorities by supporting training initiatives focused on integrating indigenous and local knowledge, strengthening science-policy co-design, and building capacity for implementing the Biodiversity Beyond National Jurisdiction (BBNJ) agreement. In collaboration with OTGA, CDF is developing a baseline BBNJ course and plans to expand with additional modules. Efforts also target enabling Least Developed Countries and early-career ocean professionals to adopt technological and digital innovations in ocean science, such as data interpretation. Key needs identified include improving regional coordination, ensuring country ownership, aligning training with long-term capacity outcomes, and creating systems for monitoring and reporting results. In 2025, the facility supported seven technical trainings reaching 34 countries, covering topics like co-design, eDNA, taxonomy, and ocean acidification. Lessons learned highlight the importance of linking initiatives to larger programs, engaging regional experts early, and standardizing reporting. Planned activities for 2026 include implementing the BBNJ baseline course, replicating successful trainings regionally, and collaborating with early-career networks to scale impact.

Mr Niccolo Bassan reported the MSPglobal programme, in collaboration with OTGA, to advanced marine spatial planning capacity building under IOC initiatives. He reported that there were jointly developed and host of one self-paced MSPglobal online training course, available in English, Spanish, and French, which has reached over 400 participants since its launch during MSPglobal 2.0. Building on this success, MSPglobal 3.0 will introduce two new online courses: one on integrating biodiversity conservation and climate adaptation into marine spatial planning, and another on spatial data infrastructure and data toolboxes to address Member States' challenges in accessing reliable, interoperable data. These courses will complement in-person regional trainings and strengthen technical skills for evidence-based decision-making. Additionally, it is envisioned that a course on sustainable ocean planning for decision-makers, linking policy frameworks with ecosystem-based management. All activities align with IOC's capacity development and midterm strategies, addressing gaps in knowledge, data management, and cross-sectoral coordination to promote inclusive, sustainable ocean governance.

2.3.3. IOC TSUNAMI SECTION

IOC Tsunami Section relevant topics were highlighted under STC ITIC.

2.3.4. IOC OCEAN OBSERVATIONS SECTION

There were no interventions or reports from this Unit.

2.3.5. IOC INTERNATIONAL OCEAN DATA AND INFORMATION EXCHANGE PROGRAMME

There were no interventions or reports from this Unit.

2.3.6. IOCARIBE

There were no interventions or reports from this Unit.

2.3.7. IOCAFRICA

There were no interventions or reports from this Unit.

2.3.8. IOCINDIO

There were no interventions or reports from this Unit.

2.3.9. IOC WESTPAC

There were no interventions or reports from this Unit.

2.4 JOINT ACTIVITIES WITH PARTNER ORGANIZATIONS

This item was introduced by **Ms Ana Carolina Mazzuco**, who highlighted that OTGA collaborates with a wide range of partners with the aim of:

- Expanding global awareness of learning opportunities.
- Increasing learning content.
- Developing new cross-cutting learning services.
- Developing and implementing quality standards for the delivery of learning services.

Collaborations are channelled through OTGA Secretariat and RTC/STCs networks to accelerate response to IOC needs, priorities, and demands for training and other aligned requests from the global community. Affiliated partners complement OTGA network with expertise, infrastructure, funding, frameworks, and at the same time, they benefit from OTGA coordination, network, and learning management system. Current partners include UN Agencies, Educational Institutions, Multi-national and national initiatives, Governmental and Non-Governmental Organizations, Capacity Development Programmes and Projects, and others. OTGA Secretariat, reviewed OTGA course jointly developed on the request of partner organizations.

List of courses on behalf of Affiliated partners in 2024:

Date	Course	Affiliated Partner (Leading Organization), Country
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23 Feb - 23 Feb	IOC/OTGA/VLIZ/VLIR : NAGOYA Protocol and Access and Benefit Sharing (ABS) under the Convention on Biological Diversity (CBD)	Flanders Marine Institute (VLIZ), Belgium
18 - 22 Mar	IOC/OTGA/MEDIN : Marine Data Management, Governance and the MEDIN toolset (Mar 2024)	Marine Environmental Data and Information Network, United Kingdom
3 - 7 June	IOC/OTGA/MEDIN : Marine Data Management, Governance and the MEDIN toolset	Marine Environmental Data and Information Network, United Kingdom
2 - 6 September	IOC/OTGA/MEDIN : Marine Data Management, Governance and the MEDIN toolset	Marine Environmental Data and Information Network, United Kingdom
3 September - 3 December	IOC/OTGA/UFSCar: Microplástico: natureza, ocorrência e impacto ambiental 2025	Universidade Federal de São Carlos, Brazil

List of courses on behalf of Affiliated partners in 2025:

Date	Course	Affiliated Partner (Leading Organization), Country
13 - 17 January	<u>IOC/OTGA/UJ/UdeC/IRD : Modelado numérico básico del océano utilizando CROCO</u>	University of Concepción, Chile
27 January - 11 April	<u>IOC/OTGA/DCC-CR: Sustainable Coastal Growth and Resilience. Italy</u>	Decade Collaborative Centre for Coastal Resilience, University of Bologna, Italy
24 February - 08 March	<u>IOC/OTGA/UPMSI/CMCC-CoastPredict/UniBo/DCC-CR/DOST PCAARRD: COMPASS - Philippines - "Coastal Observing and Modeling for Prediction and Assessment to Support resilient Systems"</u>	CoastPredict – Programme for the UN Decade of Ocean Science, International
19 to 23 May	<u>IOC/OTGA/MEDIN : Marine Data Management, Governance and the MEDIN toolset</u>	Marine Environmental Data and Information Network, United Kingdom
17 September 2025 - 31 July 2026	<u>IOC/OTGA/BlueCloud2026: How to use a Virtual Laboratory on Coastal Ocean Currents from Observations</u>	EU BlueCloud 2026 project, International
17 September - 31 July	<u>IOC/OTGA/BlueCloud2026: How to use a Virtual Laboratory on Carbon Plankton Dynamics</u>	EU BlueCloud 2026 project, International
17 September 2025 - 31 July 2026	<u>IOC/OTGA/BlueCloud2026: Navigating the Global Fisheries Atlas Virtual Laboratory: Tools and Techniques</u>	EU BlueCloud 2026 project, International
02 September - 16 December	<u>IOC/OTGA/UFSCar: Microplástico: natureza, ocorrência e impacto ambiental 2025</u>	Universidade Federal de São Carlos, Brazil
13 - 17 October	<u>IOC/OTGA/MEDIN : Marine Data Management, Governance and the MEDIN toolset</u>	Marine Environmental Data and Information Network, United Kingdom
24 November - 19 December	<u>IOC/OTGA/DCC-CR: Coastal Resilience to Sea Level Rise</u>	Decade Collaborative Centre for Coastal Resilience, CMCC Foundation Euro-Mediterranean Center on Climate Change, Italy
1 Nov - 31 January	<u>IOC/OTGA/UNIMI: Pharmacontamination of the Ocean</u>	University of Milan, Italy

24 - 28 November	IOC/OTGA/NF-POGO(CofE): Online resources for marine ecosystem analysis for the NF-POGO Centre of Excellence in Observational Oceanography (CofE)	Nippon Foundation-POGO Centre of Excellence, International
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Interventions received from partner organizations included:

Ms Rita Meneses, on behalf of the EU Blue-Cloud 2026 project, informed that in collaboration with OTGA, the project is advancing marine science capacity building by integrating its technical services into training programs. Blue-Cloud, part of the European Open Science Cloud initiative and contributing to the Digital Twin of the Ocean, provides data management services, thematic virtual labs, and workbenches for marine research. To ensure effective use of these tools, Blue-Cloud and OTGA have launched three online courses and plan to expand to five by January, covering all virtual labs, followed by courses on workbenches and virtual research environments in April. These courses, aimed at marine science researchers, will enhance skills in accessing and analyzing research data and will be available free of charge on the OTGA platform until July 2026. This collaboration strengthens OTGA's course catalogue and extends Blue-Cloud's reach beyond Europe, supporting global capacity development and training the next generation of ocean researchers.

Ms Nadia Pinardi, on behalf of the Decade Collaborative Centre on Coastal Resilience, informed that in partnership with OTGA, launched a hybrid training course on coastal resilience combining online modules with an in-person component to foster community building. Targeting young professionals in coastal management and consulting, the course introduced innovative approaches to risk assessment, sustainable blue economy, and practical tools using cloud computing and Jupyter notebooks, supported by the Bologna Supercomputing Centre. Participants accessed global open-source ocean data for interactive exercises, enhancing technical skills regardless of prior computing experience. The program awarded OTGA ISO certificates, adding value for career development, and successfully attracted a diverse, global cohort, prioritizing under-resourced countries. The initiative demonstrated OTGA's flexibility for structuring complex courses and highlighted the effectiveness of hybrid formats in promoting collaboration and long-term engagement among participants.

The Steering Group discussed the potential of OTGA to support Decade trainings.

3 OTGA OPERATIONS

3.1 OTGA LEARNING MANAGEMENT SYSTEM AND SERVICES

This agenda item was introduced by OTGA Secretariat, who cited the process for organizing and managing training activities in OTGA, currently running and frequently updated, such as:

- Planning, development, and delivery of training
- Coordination and management of courses and alumni.
- Shared e-Learning Platform
- Creation of learning resources and activities
- Mechanisms for connecting experts, facilitators, and centres
- Guidance on learning services procedures and standards
- Training and mentoring exchange and internships

It was informed that that UNESCO/IOC Project Office for IODE had its ISO 29993:2017 certification as Learning Service Provider renewed in 2025, after a full audit on procedures and standards. This internationally recognized standard is tailored to learning services outside formal education and has ensured unique learning experiences for the OTGA cohort. This achievement reflects the commitment of OTGA to the quality of its training. New

improvements were implemented after that, and will be highlighted in item 3.2 of the Guidelines.

Mr Cheikh Ould Moulaye informed and presented on OTGA qualitative-quantitative framework to assess the performance of training centres and courses to provide timely improvement of activities, strategic planning, and response to IOC Member States and Programmes. Description of the Five Key Performance Indicators:

1. Capacity to Develop and Deliver Training
2. Impact of Training Activities
3. Mobilization of Experts and Staff
4. Professional Values
5. Core Knowledge and Areas of Activity

These KPIs provide a balanced assessment of training centre performance by examining their capacity, effectiveness, expertise, ethical practices, and contribution to IOC. Using these metrics ensures a comprehensive evaluation that provides valuable insights for improvement and strategic decision-making.

The framework includes a Performance Assessment Rubric that provides a structured, objective, and transparent method to assess performance across the five key performance indicators. The rubric's clear scoring system (Excellent, Good, Fair, Poor) and the specific criteria for each score level make the evaluation process easily understandable. This transparency fosters trust and accountability, both for the centres being evaluated and for stakeholders reviewing the results.

OTGA performance evaluation framework Key Performance Indicators:

Key Performance Indicators	Criteria	Questions
KPI 1. Capacity to Develop and Deliver Training	<ul style="list-style-type: none"> a. Number of New Courses Developed and Delivered in the year of evaluation b. Number of Total Courses Developed and Delivered c. Course Quality d. Resources and Infrastructure 	<p>How many new courses were developed and delivered this year?</p> <p>How does the number of courses compare to the previous year?</p> <p>How do the Centre's courses score on the OTGA Course Design Rubric?</p> <p>Do resources and infrastructure fully support course development and delivery?</p>
KPI 2. Impact of Training Activities	<ul style="list-style-type: none"> a. Number of Participants who completed training b. Geographical and demographic reach 	<p>How many participants completed the courses this year?</p> <p>From how many different countries do the participants come?</p> <p>Do participants reflect equal representation of genders?</p>
KPI 3. Mobilization of Experts and Staff	<ul style="list-style-type: none"> a. Number of Trainers/Facilitators Involved b. Trainer/Facilitator Development 	<p>How many trainers/facilitators were involved in delivering courses this year?</p> <p>How do trainers/facilitators score on the OTGA Competency Self- Assessment Rubric?</p>

KPI 4. Professional Values	a. Commitment to Continuous Improvement b. Ethical Teaching and Learning Practices	How often are training materials reviewed and updated? Does the Centre have clear ethical standards? Does the Centre have clear processes for managing conflicts and ensuring fairness?
KPI 5. Core Knowledge and Areas of Activity	a. Contribution to IOC Programmes and/or the United Nations Decade of Ocean Science	Does the Centre contribute to IOC Programmes and/or the United Nations Decade of Ocean Science?

The performance evaluation was tested on five OTGA training centres in October 2024. The centres chosen for the pilot were:

- RTC Colombia
- STC Argentina
- RTC Belgium
- RTC India
- RTC Mozambique

These centres were selected based on their geographic distribution, the range of training programmes offered and their overall contribution to OTGA's objectives. The performance analysis for the selected centres was conducted using data for the period 2021–2023.

The results show a mixed performance across the centres, with some centres consistently demonstrating high performance while others showed significant improvement over time. The overall trend indicates a positive trajectory toward enhanced capacity-building within the OTGA network. It also shows the need to address reporting gaps related to trainer development, continuous improvement, ethical standards and conflict management processes.

The Steering Group shared doubts about the evaluation process and framework.

3.2 REVIEW OF OTGA COURSE MANAGEMENT GUIDELINES

This agenda item was introduced by **Ms. Sofie De Baenst**, who informed the Group that the OTGA Course Management Guidelines describe the process for organizing and managing training courses within the framework of the OTGA. The guidelines can also be used as a guide for organizing and hosting other training courses. A fully revised version of the guidelines was issued in Q4 2024, and updated in 2025 after the ISO-audit:

The guidelines are intended to support the RTC/STC network by:

- Providing procedures on how to plan and design a course
- Providing recommendations on how to use the OceanTeacher Learning Management System
- Providing instruction on administrative procedures for organizing OTGA courses

It was reported the Group of the different documents listed in the OTGA guidelines, to be completed for all courses by the course organisers: Course proposal form (English and course language); OTGA Competency Assessment Form by Facilitators demonstrating their competencies that meet the learning outcomes of the course and subject expertise; Budget form for onsite courses; Onsite facilities and classroom information; and Lesson outline

(skeleton of the course), based on the course proposal. Some attention points to be considered from the OTGA guidelines:

- Facilitators must register on OceanExpert and enroll in the course, and must provide a description of their professional experience appropriate to the course.
- Onsite courses require course attendance.
- Course feedback survey: All learners are required to complete the feedback survey upon completion of each course.
- Course evaluation and wrap-up meeting: All OTGA courses will be reviewed by OTGA Secretariat against the criteria in the OTGA Course Design Rubric. Feedback and recommendations for improvement will be provided to the RTC/STC responsible for the course delivery. These should be applied to future editions of the course.
- Class observation report.
- Pre and post test required for every course.
- Complaint policy.

The Steering Group noted that, based on their experience, pre-tests are not always well received, as participants often feel uncertain about taking them. A self-assessment approach was suggested as a possible alternative. It was also mentioned that some courses attract diverse audiences with varying levels of prior knowledge, which should be considered in course design. Additionally, the group highlighted that differences in terminology can create confusion; however, the clear definitions provided in the guidelines help address this issue. The guidelines were further commended for their usefulness in planning and for emphasizing that course development requires adequate time. The group recommended exploring various assistive technologies to enhance accessibility for all learners and suggested assessing their added value in future implementations.

The Steering Group reviewed these guidelines, **expressed** ideas and concerns, and **suggested** inputs during the meeting and directly in the shared files. An updated version of OTGA Course Management Guidelines is published as Annex to this report.

3.3 REVIEW OF OTGA TERMS OF REFERENCE

On behalf of OTGA Secretariat, **Ms Ana Carolina Mazzuco** explained that OTGA was requested by IODE to develop a guiding document including its core components and governance procedures, here referred to as Terms of Reference. She highlighted that the document reflects the ongoing activities, participant entities/individuals within OTGA, and that procedures were aligned with IOC Rules and Procedures. This document reinforces the maturity of the programme and its cross-sectional contributions. She informed the group that, in 2026, OTGA is expected to remain as an activity of IOC Capacity Development, with further transition as a result of the IOC reform.

She informed that OTGA has evolved significantly within IOC, transitioning from a project to a more consolidated programmatic component under IODE. This growth reflects IOC's commitment to capacity development as a cross-cutting priority, with OTGA serving as a key implementer of training initiatives across ocean science disciplines. The development of Terms of Reference (ToR) aims to formalize governance, streamline procedures, and ensure alignment with IOC regulations and best practices. These guiding documents will provide clarity on programme objectives, operational standards, and membership requirements, reinforcing OTGA's role in supporting equitable access to ocean research, observations, and services.

The proposed Terms of Reference for OTGA outlines four core objectives: building a comprehensive capacity development platform, ensuring open and free access to knowledge

resources, coordinating and empowering the global network of training centres, and promoting international standards in ocean science training. To achieve these objectives, OTGA will focus on global coordination, delivery of customized training through a shared learning management system, development of learning resources, and fostering innovative opportunities for upskilling and institutional growth. Membership criteria for training centres emphasize resource adequacy, instructional competence, and responsiveness to emerging needs, with periodic reviews every five years to maintain network strength and relevance. These measures aim to consolidate OTGA's governance framework and enhance its contribution to IOC's capacity development mandate.

The Steering Group discussed mainly the upcoming five-year renewal process for training centers and clarifications on the Terms of Reference. It was noted that IOC is expected to issue renewal notifications around February 2026, and the group agreed on the need to set deadlines and issue a circular letter for Regional and Specialized Training Centres as well as Member States. There was consensus on maintaining formal procedures for administrative purposes but simplifying documentation to avoid unnecessary complexity. Suggestions included streamlining the renewal process so that centers performing well would not need to submit a full application again, reducing the burden and ensuring continuity of training activities.

The Steering Group reviewed these terms, **expressed** ideas and concerns, and **suggested** inputs during the meeting and directly in the shared files. An updated version of Terms of Reference for OTGA is published as Annex to this report.

3.4 CHALLENGES AND EXPECTATIONS FOR OTGA

The discussions highlighted several challenges in implementing self-paced and distance learning courses, including difficulties in maintaining participant engagement, language barriers, and internet connectivity issues. Both learners and facilitators often struggle to meet deadlines, while adapting to Learning Management Systems (LMS) and OTGA standards remains complex. Financial constraints and limited awareness of ISO standards further complicate implementation across RTCs. Additional concerns include balancing high-level objectives with local needs, managing centres, and conducting training needs analyses.

Regarding the expansion of the programme, OTGA secretariat highlighted that improvements are needed to leverage RTC Belgium in combination with OTGA secretariat tasks. The Secretariat sees challenges to align internal procedures to comply with the ISO standards, particularly in creating awareness among all contributors on the importance of quality assurance, audits, deadlines to deliver courses, and peer review of course content. Sustainable financial resources are also needed to secure core services.

The Steering Group expects and **suggests** to the members and network to advance on the following topics: more innovative tools, assistive technologies, offline LMS options, increased on-site training opportunities, improved training plans, analysis of the training gaps, support/training in Moodle, investment in offline-remote tools in courses, and enhancement of translations for replication. Collaboration among RTCs to adapt existing courses for regional contexts was also **suggested** to enhance efficiency and address training gaps.

3.5 OTGA WORKPLAN AND BUDGET 2026/2027

This item was introduced by **Ms Ana Carolina Mazzuco**, who reviewed the progress of actions agreed in OTGA-SG-IV and IODE-28.

She explained that for the past years, planning was based on a predesigned project funded through the UNESCO/FUST. Starting in 2025, a new methodology was adopted, shifting from a

project-based format to a vision-driven approach aligned with IOC's medium-term strategy and capacity development framework. These strategies provide high-level objectives and expected outputs, ensuring that training activities remain consistent while introducing improved alignment with broader IOC and UNESCO priorities, including sustainable ocean planning and data strategies. The Secretariat emphasized the importance of collaboration among training centers to leverage expertise and maintain quality delivery. Core services such as hosting training materials, managing the e-learning platform, and providing technical support remain central to operations.

In 2025, IOC Regular Budget (IODE/CD) requested to OTGA was estimated USD 150,000 for core activities, of which USD 70,000 was available and used after the freeze of expenditures from UNESCO. Estimated extra-budgetary resources mobilized by RTC/STC/IOC Units/Affiliated partners were over USD 600,000. In-kind contributions are not included in these figures. These resources are equivalent to 75% estimated needed for OTGA programmatic planning on a yearly basis, according to the new vision and planning elaborated during the **IV Meeting of OTGA Steering Group** in 2024.

List of specific actions agreed for 2024/2025 biennium and the status:

Action 1. OTGA Steering Group to develop a work plan and budget to be submitted to the IODE committee in 2025. Action by Steering Group members, coordinated by Secretariat. Due by 1 December 2024. Status: concluded.

Action 2. Prepare a proposal for an onsite course, including course description, learning outcomes and budget, which can be submitted to a funder in response to a call. Action by STC Argentina. Due by 30 November 2024. Status: concluded.

Action 3. Provide examples of the different content styles (colours, styles, fonts) needed to maintain document style content for the Secretariat to investigate. Action by RTC Colombia. Due by 1 July 2024. Status: not concluded.

Action 4. All new course proposals will include the OTGA Competency Assessment Form to be submitted together with the Course Proposal Form. Action by all RTC/STC. Starting from 1 July. Status: concluded.

Action 5. Create an OTGA Instagram account. Action by OTGA Secretariat. Due by 30 June 2024. Status: not concluded.

Action 6. Add UNESCO-IOC logos in all IOC languages to the OTGA Project Management site. Action by OTGA Secretariat. Due 1 August 2024. Status: concluded.

Action 7. Provide an estimated cost of RTC/STC contribution for delivering each course. This should include documenting the cost of providing the service from the Secretariat. Include hours needed for course preparation, hours for delivery, technical support, logistics, licences, etc. Action by all RTC/STCs and Secretariat. RTC Colombia could share the template they use. Due by 1 September 2024. Status: concluded.

Action 8. Submit comments and suggestions on the OTGA Vision 2025-2030 brochure to the OTGA Secretariat (to be shared in Gdoc). Action by Steering Group members. Due by 21 June 2024. Status: concluded.

Action 9. Submit comments and suggestions on the Concept Note for Project Proposals to the OTGA Secretariat (to be shared on Gdoc). Action by Steering Group Due by 21 June 2024. Status: concluded.

Action 10. Define minimum requirements for RTCs/STCs. Refer to IODE NODC Health check. Action for the OTGA Secretariat. by 31 October 2024. Status: concluded.

Action 11. OTGA landing page to include descriptions of training centres. Action by Sec by 31 October 2024. Status: in progress.

Action 12. Mapping the local and regional funding opportunities and assessing needs and gaps within the region. Action by STCs/RTCs and OTGA secretariat and Regional Subsidiary Bodies by 30 September 2024. Status: in progress.

During the twenty-eighth session of the IOC Committee on International Oceanographic Data and Information Exchange (IODE-28) and Third International Ocean Data Conference (IODC-3), Santa Marta, Colombia, 10–14 March 2025. Related to OTGA activities and programme component, the Committee

- recommended that the OTGA Steering Group should develop a Resource Mobilization Strategy and take action on its implementation. The Committee instructed all IODE programme components and programme activities to prepare documentation for the next meeting of the IODE Management Group detailing how the new Rules of Procedure have been adopted in their management structure.
- urged IODE data centres as well as its three Programme Components OBIS, ODIS and OTGA to actively participate in, and contribute to, the development and implementation of science-based, sustainable ocean planning and management activities and invited the IODE programme to collaborate with the IOC Secretariat's SOPM team for the development of a first pilot initiative that can inform and fine-tune the design of targeted, future IODE data and information knowledge products for SOPM.
- acknowledged the importance of collaboration with IOCINDIO and requested IODE Programme Components to support data architecture efforts (similar to EMODNet / MEDIN) in the region, with the help of RSB funded CD programmes supported or hosted by OTGA RTCs, C2Cs and NODCs and ADUs (ODIS, OBIS nodes) already established in the region.
- thanked the WDS for its ongoing work to enhance the capabilities, impact, and sustainability of our data repositories worldwide, and encouraged IODE data centres and programme components to collaborate on objectives of mutual interest such as data preservation, sustainability, FAIR data and indigenous data governance.
- instructed the IODE Secretariat to focus on IODE and the various programme components and activities in its communication actions, while also instructing IODE programme components and activities to appropriately acknowledge IODE, when participating in network events.
- instructed IODE programme components and IODE programme activities to actively promote IODE in events and communications and invited other IOC programmes to recognize IODE as a partner in their communication efforts.

OTGA Secretariat reported that the above-listed requested action were successfully concluded and will be presented in progress report to IODE Management Group Meeting in January 2026.

For 2026/2027, core training activities coordinated by OTGA Secretariat in collaboration with RTC/STCs are planned to be sustained with IOC regular budget and extra-budgetary resources:

- (1) Host training materials and provide technical support through a shared eLearning platform.
- (2) Design and develop new or existing course content to address the capacity needs of IOC Programmes.
- (3) Core support on learning management frameworks, including updating existing OTGA content to ensure it meets current OTGA course management guidelines, uploading training resources on the OTGA e-Learning Platform, and liaising with content providers on course design and presentation.

(4) Organize and host on-site training courses, including providing travel grants to facilitate attendance of training.

(5) Publish regular CD communication through social media, newsletters and other communication; provide project governance framework through a steering group (November); create and deliver online training for RTC/STC personnel; and participate in conferences and meetings to promote OTGA.

(6) Audit LMS and confirm certification of the Project Office as LSP (April); Update and publish OTGA Guidelines and Best Practices documentation.

OTGA PROGRAMME COMPONENT: BUDGET BY OUTCOME, OUTPUT, ACTIVITY (2025-26); APPROVED IODE-28:		2026
Outcome 1	Increased capacity and skills by ocean specialists to use standards and best practices tools towards achieving SDG 14.	
Output 1	Learners empowered to apply the skills learned and influencing the implementation and the use of standards and best practices widely accepted	
Activity 1	Organize and host training courses relevant to the Regions	USD 5.000
Activity 2	Provide travel grants to facilitate attendance at training courses	USD 35.000
Activity 3	Provide technical support eLearning platform	USD 17.000
Activity 4	Confirm certification of the Project Office as LSP (April)	USD 3.500
Output 2	Production of new knowledge and training resources	
Activity 1	Design and develop new or existing course content to address the capacity needs of IOC Programmes	USD 20.000
Activity 2	Update existing OTGA content to ensure it meets current OTGA course management guidelines	USD 10.000
Activity 3	Upload training resources on the OTGA e-Learning Platform	USD 10.000
Activity 4	Liaise with content providers on course design and presentation	USD 5.000
Output 3	Promote a network of support and community building	
Activity 1	Update and publish regular CD communication through social media, newsletters and other communication, guidelines and best Practices documentation	USD 2.500
Outcome 2	Regional and Specialized Training Centres efficiently develop and manage the training programme	
Output 1	Increase capacity of Regional and Specialized Training Centres to develop and implement relevant training programmes	
Activity 1	Provide project governance framework through a steering group (November)	USD 25.000
Activity 2	Create and deliver online training for RTC/STC personnel	USD 5.000
Activity 3	Update and publish OTGA Guidelines and Best Practices documentation	USD 5.000
Output 2	Increase awareness and understanding by MS on the benefits of supporting and promoting OTGA and the network of Training Centres	
Activity 1	Participate in conferences, meetings to promote OTGA	USD 7.000
	TOTAL	USD 150.000

In preparation to the meeting, IOC Programmes, IOC Regional Subsidiary Bodies, RTCs and STCs were requested to nominate training courses to be delivered for 2026-27 to be included in the OTGA work plan. The List of courses pre-planned or requested for 2026 was presented and added as an Annex to this report.

Based on the inputs of the meeting, **the Steering Group suggested** specific internal actions related to the training activities and learning management system for 2026/2027

Action 1 – Revise and publish the agreed TOR.

Action 2 – Issue a call to renew of RTC/STC.

Action 3 – Share the compiled list of trainings for 2026.

Action 4 – Implement the courses listed, accounting for the prioritization and resources.

Action 5 – Share training course figures and gap analysis by RTC/STC.

Action 6 – Carry out a training session on the LMS and update OTGA/LMS self-paced course.

Action 7 – Implement expanded resource mobilization, including a focus on onsite activities.

Action 8 – Pilot train-the-trainers approach.

Action 9 – Offline/remote tools implementation.

Action 10 – Pilot replication of courses.

Action 11 – Explore revising content to be more machine-accessible.

Looking ahead, resource mobilization remains a priority, with strategies including voluntary contributions, trust funds, private sector engagement, and flagship initiatives. A potential mobilization strategy prioritization was presented by OTGA Secretariat, who presented that the resource pathways in UNESCO:

- Assessed Contributions
- Voluntary Contributions
- Structured Financing Dialogues
- Pooled / Trust Funds
- Private Sector & Philanthropy Engagement
- Government & Multilateral Partnerships
- Flagship & Initiative-Based Funding
- Core vs. Earmarked Funding Emphasis
- Enhanced Internal Capacity & Governance
- Multi-Year Investment Strategy

The Steering Group indicated potential pathways for the next years, as: Voluntary Contributions, in support of small scale activities; Pooled / Trust Funds, Private Sector & Philanthropy Engagement, Government & Multilateral Partnerships, Flagship & Initiative-Based Funding for project proposals and partnership mechanisms regionally; and Enhanced Internal Capacity & Governance for core activities, and related to new programmatic developments and reforms in IOC.

The Steering Group agreed on the need to break down the programmatic concept note into specific project proposals to attract funding and support national and regional opportunities. The Group **reaffirmed** commitments to implement the vision, strengthen governance, and enhance capacity development under IOC frameworks.

The Steering Group suggested that a similar allocation of USD 150,000 from IOC regular budget, as a minimum, to sustain the programme at baseline levels; and that OTGA vision 2025-2030 and associated budget planning should be envisioned as ideal and covered with extra-budgetary resources in case additional regular budget is not available. These documents are included as Annex to this report.

4 SUMMARY AND DISCUSSION

4.1 REVIEW OF THE MAIN DECISIONS AGREED DURING THE MEETING

The Steering Group reviewed the above mentioned actions and agreements.

4.2 ADOPTION OF THE WORK PLAN AND SUMMARY REPORT

OTGA Secretariat committed to revising the documentation and workplan based on the inputs, and include in the meeting report.

5 CLOSING

The Co-Chairs thanked the Steering Group and closed the meeting.

ANNEX I. LIST OF PARTICIPANTS

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ANNEX II. AGENDA OF THE MEETING

Access link: <https://oceanexpert.org/document/37281>

ANNEX III. OTGA GUIDELINES

Access link: <https://oceanexpert.org/document/37283>

ANNEX IV. OTGA TERMS OF REFERENCE

Access link: <https://oceanexpert.org/document/37726>

ANNEX IV. PROPOSED WORK PLAN AND BUDGET 2026-2027

Access link: <https://oceanexpert.org/document/37724>

ANNEX V. LIST OF PROPOSED TRAININGS 2026

Access link: <https://oceanexpert.org/document/37725>