

**15<sup>th</sup> MEETING OF THE IHO INTER-REGIONAL COORDINATING COMMITTEE  
IHO-IRCC15**

**Tokyo, Japan, 12-14 June 2023**

**Report of the GEBCO Guiding Committee (GGC)**

<b>Submitted by:</b>	Chair, GGC
<b>Related Documents:</b>	SCUFN Work Plan TSCOM Work Plan SCRUM Work Plan SCOPE Work Plan SCET Work Plan
<b>Related Projects:</b>	Nippon Foundation-GEBCO Seabed 2030
<b>Chair:</b>	Evert Flier, Norway
<b>Vice-Chair:</b>	Marzia, Rovere
<b>Secretary:</b>	Sam Harper, IHO
<b>Member States:</b>	Please see Annex A – GGC Officials are individual experts rather than representatives of Member States
<b>Expert Contributors:</b>	N/A – See statement above
<i>see Annex A for full details</i>	

## **1. Meetings Held During Reporting Period**

### GEBCO Meeting Schedule

After two years of disruption to our normal meeting schedule due to the COVID pandemic, a regular GEBCO week was set up around the 39<sup>th</sup> Meeting of the GEBCO Guiding Committee (GGC39) in Southampton in November 2022. The GEBCO week in 2022 was set up with Sub-Committee meetings and the Map the gaps GEBCO symposium before the weekend and GGC39 after the weekend, allowing more time to produce and read the necessary SC reports. However, this also caused for the GEBCO week to proceed over more days and therefore increased travel cost. Future GEBCO weeks will therefore be executed in condensed format with one day of SC meetings, two days of Map the Gaps symposium and two days of GGC meeting. SC's will conduct preparatory and work meetings during the intersession.

### Dates and Venues of GEBCO Meetings

The dates of the GEBCO Meetings held since IRCC14 are as follows:

- Sub-committee on Undersea Feature Names (SCUFN): 28 Nov – 2 Dec 23 (SCUFN35.2; IHO, Monaco); note: SCUFN35.1 was convened in IOC, Paris during 14-18 March, 22, before IRCC14.
- 39<sup>th</sup> meeting of the Technical Sub-committee on Ocean Mapping (TSCOM39): 26<sup>th</sup> October 2022 (Hybrid)
- 10<sup>th</sup> Meeting of the Sub-committee on Regional Undersea Mapping (SCRUM10): 26<sup>th</sup> October

2022 (Hybrid)4<sup>th</sup> Meeting of the Sub-committee on Communications and Public Engagement (SCOPE4): 26<sup>th</sup> October 2022 (Hybrid)1<sup>st</sup> Meeting of the Sub-committee on Education and Training (SCET1): 26<sup>th</sup> October 2022 (Hybrid)

- Map the Gaps Symposium: 27 – 28<sup>th</sup> October 2022
- GGC39: 31<sup>st</sup> October – 1<sup>st</sup> November 2022 (NOC, Southampton, UK – Hybrid)
- 35<sup>th</sup> Meeting (Part 2) of the Sub-committee on Undersea Feature Names (SCUFN): 16 – 17 Nov 21 & 14 – 18 March 22 (UNESCO, Paris - Hybrid)
- GGC Intersession Meeting 01 2023: 31st March (VTC)

### Future Meetings

The dates and venues of future meetings are as follows:

- 2023 GEBCO week: 6-10 November (Monaco)

## **2. Work Program**

### New Office Holders

Since IRCC14, a number of new Office Holders have started their tenures. These are summarized as:

<b>Position</b>	<b>Incoming</b>	<b>Outgoing</b>	<b>Tenure</b>
IHO appointed GGC member	Ms Yerinelys Santos	Capt. Rodrigo Obino	2022-2027

### Bathymetric Publications

The GGC is responsible for the following Bathymetric Publications, listed here with a summary of their status and relevant activity:

**B-6 – *Standardisation of undersea feature names*.** The latest edition 4.2.0 of Publication B-6 was published in October 2019. Work is currently underway to update this publication with a decision as to whether this will be by way of a Revision or new Edition to be decided.

**B-8 – *Gazetteer of Undersea Feature Names*.** SCUFN35.2 reviewed the comprehensive reports prepared by the Secretariat reflecting the work made by correspondence with Members and Proposers, and also to progress with some pending issues regarding B-8 before the meeting. Thanks to the efforts of all parties involved, all pending issues were resolved throughout the meeting, and subsequent decisions made. In application of the procedure by which pending proposals are stored for two years only in the SCUFN archive and the GEBCO Gazetteer database, the Secretariat reported on the names that were deleted before the meeting since related issues were not solved.

**B-9 – *GEBCO Digital Atlas*.** Publication B-9 has been redundant for some time given the digital nature of the GEBCO Global Gridded Product. It has been decided that this publication should be withdrawn and not replaced.

**B-10 – *The history of GEBCO*.** Publication of B-10 was last published in 2003 to coincide with GEBCO's 100<sup>th</sup> anniversary. Work is currently underway to produce a new Edition in 2023 to coincide with the 120<sup>th</sup> anniversary.

**B-11 *IHO/IOC Manuals and Guides – GEBCO Cookbook*.** Christie Reiser (NOAA/DCDB), Chief Editor/Chief of the Editorial Board is leading the update to B-11 alongside seven members from

the GEBCO community that make up the GEBCO Cookbook Editorial Board. The ~500-pg Word document has been migrated to InDesign format, making it much easier to handle/update in the future. Seven chapter-sections have been updated and/or consolidated with new material. A DOI has been generated for B-11 and is going through copy edit and Section 508-compliance review. Once complete, it will go to the Editorial Board, TSCOM, the GEBCO Guiding Committee, then the IRCC for final approval before publication.

GEBCO Website

GEBCO’s web site (<https://www.gebco.net>) is maintained and updated at BODC. News items, meeting information and ad hoc page update requests from the GEBCO committees have been added to the web sites throughout the year.

A key activity since HSSC13 has been the migration of the GEBCO site to a new management platform (Drupal). The new platform will allow users external to BODC to manage sections of the site and give more options for future development of the site. The majority of the site content has been migrated to the new platform. The finalization of the launch of the new site is expected to take place during the summer 2023.

This migration work was directly funded through an additional budget line provided through TSCOM. The analysis of visits to the GEBCO Website since 2009 shows a general increase in traffic (Figure 1).

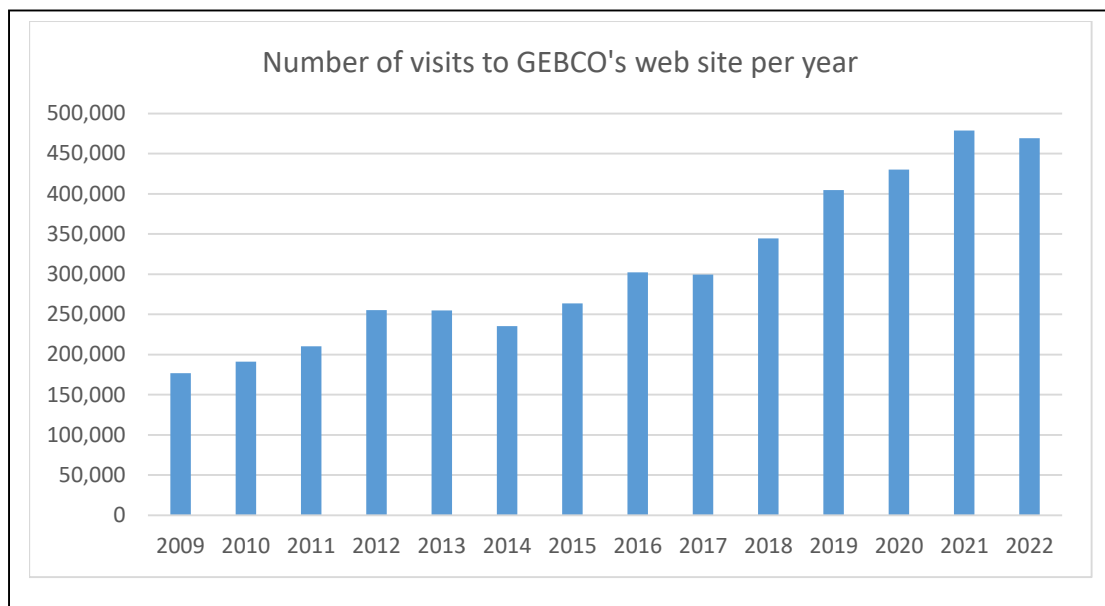
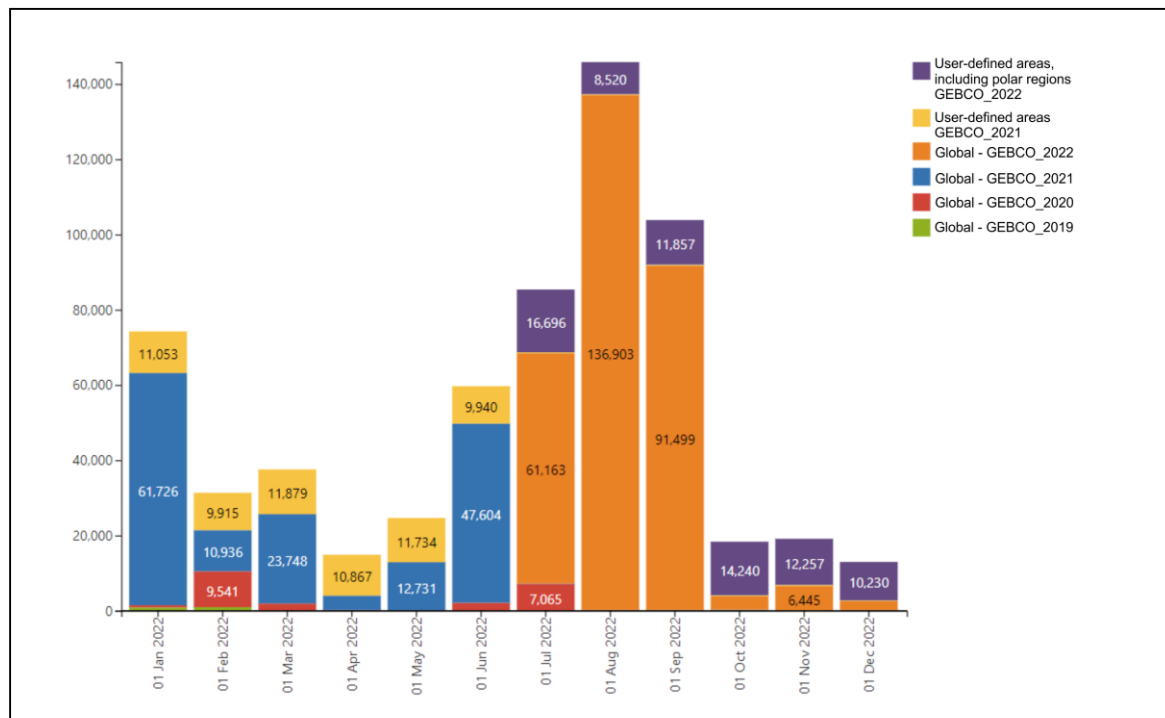


Figure 1. Access to GEBCO’s web site since 2009

GEBCO's gridded bathymetric data sets are made available for direct download via GEBCO's web site ([https://www.gebco.net/data\\_and\\_products/gridded\\_bathymetry\\_data/](https://www.gebco.net/data_and_products/gridded_bathymetry_data/)) either as global grid files or for user-defined geographic areas. During 2022, there were over



633,000 downloads of GEBCO's data sets.

Figure 2. The number of downloads of GEBCO's gridded data sets in 2022

Figure 2 shows the number of downloads for each of GEBCO's data sets and if these are downloads of the global grid file or for user-defined sub-sections of the global grids. During 2022, the GEBCO grid download app (<https://download.gebco.net/>) was updated to allow download of gridded bathymetry data for polar regions in polar projection co-ordinates. A dedicated Web Map Service (WMS) is created for each release of the GEBCO grid. The WMS can be accessed from GEBCO's web site ([https://www.gebco.net/data\\_and\\_products/gebco\\_web\\_services/web\\_map\\_service/](https://www.gebco.net/data_and_products/gebco_web_services/web_map_service/)). The WMS includes a number of pre-processed layers:

- Shaded relief imagery coloured for elevation
- Imagery showing ice surface and sub-ice topography
- TID grid colour coded for TID value
- Layer showing areas based on measured data or pre-generated grids

### GEBCO Guiding Committee

At its 39<sup>th</sup> meeting, the GGC received brief reports from its Sub-Committees and Working Groups and endorsed the work which they had undertaken. The GGC also received reports from key personnel performing functions on behalf of GEBCO as well as reports from its parent bodies, IHO and IOC, on activities since the previous meeting.

IOC noted in its opening remarks that the work of GEBCO has never been more relevant for the broader ocean policy. The GGC considered outreach and ways to raise the profile of the GEBCO program among the different stakeholder and user communities, including the IHO and the IOC Member States, the maritime and scientific communities and the general public, especially in view of the GEBCO 120 year anniversary in 2023. The GGC reviewed the communications strategy and approved SCOPE to continue its work in line with the strategy. The GGC devoted considerable time on discussions on the Seabed 2030 Project. The Seabed 2030 Project Director provided a comprehensive presentation on the activities of the Seabed 2030 Project Team and the Regional Centers. The GGC reviewed the Year 5 Seabed 2030 Project report and the proposed Year 6 Project Work Plan and both were endorsed.

Work is well underway in developing a GEBCO strategic plan and a strategy workshop was held during GGC39 focusing on vision, mission, outcomes and goals and objectives. The updated plan is to have a draft strategy finalized by GGC40 for further endorsement by IHO and IOC in 2024.

After several iterations on a GEBCO wide Code of Conduct and with recommendations from IOC, the GGC had decided to address potential conflicts of interest should they arise through a simplified GEBCO Charter (See Annex C?).

The GGC also reviewed its current financial situation in relation to proposed planned projects. The Committee addressed the budget submissions from its subordinate bodies and approved the proposed allocations. The draft consolidated GEBCO Work Plan and budget will be reported to the 15th meeting of the IHO Inter-Regional Coordination Committee (IRCC) and the 32<sup>nd</sup> session of the IOC Assembly, for consideration and endorsement of the parent organizations.

#### Sub-Committee on Undersea Feature Names (SCUFN) Activities

SCUFN had a significant number of naming proposals to consider in 2022, reaching a total number of 334. Most of them were pending proposals from previous meetings, which were re-submitted after correction or the provision of complementary data and information. With a majority of naming proposals of features located in the South China Sea, the two SCUFN meetings in 2022 were affected by strong statements from the representatives of the Coastal States, claiming priority for naming features within the limits of their EEZ, and ECS, most of these limits being disputed by others. SCUFN35.2 agreed at the beginning of the meeting that on the decision-making process, which was in good spirit, to only use the Rules of Procedure and Guidelines in force, providing the acceptance of their intrinsic uncertainties. Out of 334 proposals, 263 names were finally accepted at SCUFN35.2. Some were rejected for technical reasons and very few still require some mutual consultation due to conflicting naming proposals affecting the same feature: for these cases, in a good will spirit, SCUFN35.2 suggested to the proposers to submit a joint proposal at the next SCUFN36 meeting.

The SCUFN Chair Dr. Hyun-Chul Han stepped down at the end of SCUFN35.2 meeting and the Vice Chair Dr. Yasuhiko Ohara became the Acting Chair until the SCUFN36 meeting in 2023, which will be in Wollongong, Australia, hosted by Australian Hydrographic Office in November.

#### Technical Sub-Committee on Ocean Mapping (TSCOM) Activities

Over the past reporting period TSCOM has held two meetings. One virtual (interim) meeting in September 2022 as preparation for the yearly GGC meeting and one (official) meeting at NOC in Southampton during the GEBCO week.

TSCOM is currently, in addition to ongoing supporting activities, conducting the following tasks.

### 1. The DCDB/TSCOM industry days

A series of four virtual workshops were held hosted by the DCDB and Lamont-Doherty Earth Observatory covering topics as Data Stewardship, Data Discovery & Identifying Data Gaps, Data Access & Community Needs and Data Processing, Transformation & Integration. The workshops were well received and are recorded for future reference and website resources.

In May, the workshops are followed by a three days on-site event at Lamont-Doherty Earth Observatory, NY where the results of the workshops will be refined and analyzed. The meeting in NY will be attended by the vice chair of TSCOM (Federica Fogliani).

### 2. Development of an opportunistic mapping tool

A report was presented by the working group which gives a first idea of what technologies are available today that can underlay the required tool. A meeting will be held in NY during the Industry days event to develop the next step of the roadmap. Input has been received through Seabed 2030 about tools and application in use today.

Important element of this task is the link with the work of the TSCOM metadata working group. The aim is to develop a strong link between the highly necessary tool and the DCDB “backoffice”. Ultimately, it should be possible to access the bathymetric resources held at the DCDB using the GEBCO grid as reference.

### 3. Study of Discrete Global Grids

The GEBCO grid first published in 2003 is based on a (regular) linear grid. This has been the standard in (geo) computer science for many years, but it has its drawback as our globe is not linear. New technologies are being developed by disruptive industries like Uber for using discrete global grids. Using other gridding methods may solve two problems for GEBCO. The problem of map projections and the problem of multi resolution data delivery. This task will result in a report about the current state of technology and the feasibility for GEBCO to adopt global discrete grids as a means of disseminating the GEBCO digital grid.

### 4. Maintenance of the GEBCO Cookbook

The last edition of the GEBCO Cookbook dates back to 2019. Given the speed at which today's technology is progressing, 2019 can be regarded as old. Over the last year many authors have been working on updates of the Cookbook. A new version is available but needs to be endorsed first. As this is a long and tedious process, TSCOM will issue the updates as a on-line resource for those interested. TSCOM will also recommend to GGC 40 to turn the cookbook into a living document instead of a rigid publication.

In addition to above tasks, the Chair of TSCOM has been intensively involved in the drafting work of the new GEBCO strategy and in support of the Seabed 2030 wind in the sails project.

Other scheduled activities before the GGC40 meeting in Monaco are a visit to the Nippon Foundation - GEBCO Seabed 2030 Project's South and West Pacific Regional Mapping Community Meeting, 12-14 July 2023 in Lima, Peru.

### Sub-Committee on Regional Undersea Mapping (SCRUM) Activities

A key activity for SCRUM in the past reporting year has included the review and update of the SCRUM web pages on the GEBCO website and the development of outreach materials. These materials are then disseminated for use at regional IHO and IOC meetings covering GEBCO, and other regional engagement opportunities. Coordinated participation in regional IHO and IOC meetings has resulted in 12 out of 13 Regional Hydrographic Commission meetings having GEBCO/Seabed2030 and/or CSB presentations. Additionally, SCRUM has worked closely with members of the IHO CSBWG to identify SB2030/CSB coordinators for RHCs and to coordinate

participation at RHC meetings. To date, coordinators have been identified for 13 RHCs with 3 still to be determined. Looking forward to 2023, we hope to increase communication and provide more support with the current coordinators with the goal of increased participation in RHC meetings. Meetings were held and discussions carried out with TSCOM and Seabed2030 regarding the development of a method to approach priority areas; work remains ongoing.

SCRUM continues to provide scientific expertise, regional connections and outreach support to the Seabed 2030 project director, RDACCs and GDACCs. SCRUM has worked closely with the Seabed2030 GDACC, ensuring that the metrics of completeness and the SCRUM regional Mapping activities web page are all updated. SCRUM, along with the Seabed2030 GDACC, coordinated the GEBCO submission to the IOC's State of the Ocean report. SCRUM Chair also attended the Wind in the Sails events, a series of workshops organized by Seabed2030.

One of the SCRUM highlights for 2022 was coordinating and delivering a session dedicated to Seabed Mapping, at a Marine Safety Information workshop organised by the SEPRHC. Hugo Montoro, Vicki Ferrini and Belen Baron all presented at this session. An additional aim of this session is to raise awareness and encourage the reinitialising of the IBCSEP.

#### Sub-Committee on Communications and Public Engagement (SCOPE) Activities

As a relatively new GEBCO sub-committee, SCOPE continues to grow and increase activities documented in the 2021, 2022 and 2023 workplans. These activities are broadly categorized as strategic and tactical. Strategic activities during the reporting period include the solicitation and review of two proposals for developing a communications plan and understanding communication channels within the GEBCO community. Both proposals were declined due to preferential priority of the GEBCO Strategy and Governance planning. SCOPE is also evaluating how to best leverage social media for increased outreach and engagement of a diverse GEBCO community and users of GEBCO products. Tactical activities include the development and updating the IHO Publication B-10, execution and delivery of the Map the Gaps Symposium in conjunction with Map the Gaps, updating and production of a new GEBCO map in poster format. SCOPE also assisted with affiliates to plan and deliver a GEBCO/Seabed 2030 booth at the IHO General Assembly in Monaco 2023. This included planning, brochure development, new logo for the anniversary, poster printing and distribution, swag, and booth design.

There were changes to SCOPE leadership (retirement of Prof Hyo Sung), election of Mr. Tim Kearns as new Chair, and Ms. Eunmi Chang continued as Vice-Chair. Membership grew to add new observer status individuals and increase engagement among the membership itself.

During 2023, SCOPE will continue to support workplan activities, including preparation of the Map the Gaps Symposium as part of GEBCO Week 2023 (Monaco, November 2023), development of a social media strategy, increased collaboration among other GEBCO sub-committees, website updates, participation in strategy and GGC activities and implementation of a GEBCO wide communication strategy.

#### Sub-Committee on Education and Training (SCET)

Initial work has begun on the inaugural year work plan, including the work to expand SCET's membership beyond that of those already involved in the GEBCO community. It will be the recruitment of membership and mobilizing the membership to move forward the important work of the subcommittee, overarching goals of identifying, building, and promoting global capacity in ocean mapping education will serve well the goals of GEBCO. The development of an inventory of the various International and national groups undertaking seabed mapping capability building programs and perform a gap analysis to identify the role that GEBCO and SCET can take in promoting these programs.

## The Nippon Foundation – GEBCO Training Programme

The program is in its 19th year. In addition to the five students currently at UNH, 108 scholars, from 46 countries have been through the course. COVID -19 has significantly disrupted the program in 2020, 2021 and 2022 with international travel restrictions and lockdowns at the University of New Hampshire. Through a combination of online remote teaching and flexibility of scheduling the course has been able to continue, albeit with a different experience for some of the students.

## The Nippon Foundation – GEBCO Seabed 2030 Project

1 August 2022 saw the start of the 6th year of The Nippon Foundation – GEBCO Seabed 2030 Project (SB2030). The project is split into five work packages, with key developments summarized below (as of end of Year 5, unless otherwise stated):

- **WP1 – Data.** Ocean map coverage stood at 23.4% in June 2022 (Year 5), and there was a steady growth to 24.9% when the next version of the Grid was published in May 2023 (Year 6). IBCAO v4.2 and IBCSO v2.0 were published for the Arctic and Southern Oceans respectively in the spring of 2022. Extensive engagement with data donors is ongoing, and work was undertaken to establish what additional data sets located in the NOC/BODC archives could be contributed.
- **WP2 – Systems and tools.** Statistics routines developed on Amazon Web Services have been implemented and now allow better tracking of coverage progress and more efficient capturing of metadata. Collaboration continues with Scripps on SRTM15+ base grid improvements as well as with the University of New Hampshire (UNH) on improving capabilities of the BathyGlobe product. The SB2030 Global Center is now acting as a Trusted Node for Crowdsourced Bathymetry Data and is working closely with the IHO-DCDB on associated data workflows.
- **WP3 – Technology Innovation.** A professionally drafted strategic white paper was delivered, which included discussion on the use of remotely operated and autonomous technology, cloud computing and machine learning. The development of a new generation of CSB loggers (UNH) has been undertaken, with the first batch due for roll-out late in Year 6.
- **WP4 – Mapping activities.** Several data gathering initiatives have been undertaken via the Ocean Frontier Mapping Project, during which funding was provided for alumni participation, covering travel costs and their services as onboard mappers and remote data processors. Crowdsourced Bathymetry activities are ongoing in South Africa, Greenland, Palau and in the Southwest Pacific. The International Seakeepers Society have been supportive in their efforts to roll out CSB data loggers to its membership and are now frequently submitting data sets via the Global Center. Seabed 2030 collaborated in the *NIWA- Nippon Foundation Tonga Eruption Site Mapping Project (TESMaP)* which saw a blend of crewed and uncrewed technology conduct extensive research around the Hunga Tonga–Hunga Ha'apai area.

**WP5 – Management.** As a Decadal Flagship Programme, SB2030 continues to work alongside the UN Decade team and other global initiatives. There is also ongoing engagement with the wider GEBCO community, as well as the Strategic Advisory Group, which held its first in person meeting in October 2022. There was increased face-to-face engagement during Year 5 following the gradual return of events following the COVID-19 pandemic, with the highlight being the UN Ocean Conference in June 2022, where the Seabed 2030 team delivered a successful side event entitled 'Seabed 2030: Mapping for People and Planet), which attracted over 200 people in person/virtually. The Wind in The Sails (WITS) project is ongoing, with a comprehensive seabed mapping benefits analysis model having been delivered during Year 5, and work on a global prioritisation tool continuing into Year 6/7.



Sustained outreach and engagement activities means the number of MoUs and active supporters are growing:

- 14 new MoUs during Year 5 – 31 in total.
- 192 supporters in total have pledged support to the Project in some way.
- Increased network of potential stakeholders through attendance at key events.

NF Alumni Engagement included:

- Ocean Frontier Mapping activities; survey planning, mobilization of vessels, remote surveying and data processing.
- Extensive support provided to TESMaP Project during both *RV Tangaroa* and *USV Maxlimer* phases.
- Head of Engagement is Chair of 2023 Alumni Seminar organising committee (July 2023).

Key media activity includes:

- 'In-depth' periodic newsletters.
- Press releases widely circulated.
- 350 media items published in Year 5, including high profile articles in Hydro International, Scientific American and BBC.
- Phased roll out of rebrand and new media strategy planned for late Year 6.

#### GEBCO Governance Review

At IRCC14, the creation of a dedicated Project Team to conduct a Governance Review of GEBCO was endorsed. The Project Team was to be led by Mr Sam Harper (IHO) and Supported by Mr Julian Barbier (IOC). The initial findings of the review were presented to, and discussed by GGC39. Subsequently, further work has been completed by the project team which was reported to GGCIS01 2023. It was proposed and agreed by the GGC that given the nature of the findings, these should be properly considered by GGC40 before any necessary actions are requested of IRCC16.

#### GEBCO Code of Conduct

Under the leadership of the GGC Vice-Chair, a GEBCO Code of Conduct has been developed. The task given to the team was to create a GEBCO wide Code of Conduct covering standards of respect and tolerance; individual status within GEBCO in relation to host national organisations and industry stakeholders; governance issues in relation to leadership positions and potential conflicts of interest. To date, a first version had been drafted with a second shorter version developed that included examples of behaviors and disciplinary measures and procedures.

This draft has subsequently been reviewed by the UNESCO Ethics Committee who have provided feedback on the document. The key observations from this committee were that it is currently very long and detailed which would benefit from being made higher level, shorter and simpler. The specific recommendation was that much of the document could be re-cast into a GEBCO Charter that clearly set out expected behaviours and conduct. With this in mind, GGC38 took an action to develop a GEBCO Charter based upon the draft code of conduct, again under the leadership of the GGC Vice-Chair. It was also noted that this work should be done in close collaboration with the Governance Review Project Team and the Strategic Plan Drafting Team to avoid overlaps. The GEBCO charter can be found in Annex C.

### **3. Progress on IRCC Action Items**

There were no specific action items for the GGC arising from IRCC13

#### **4. Problems Encountered**

The principal challenge to delivery of GEBCO objectives is funding. The GEBCO Programme relies heavily on the goodwill of a large number of volunteers. During GGC39 travel funding for one ex-officio GGC member was granted in one specific case but it was acknowledged that the annual income is simply not enough to sustain this. Whilst no specific action is required of IRCC15 at this stage, it should be noted that this position may change following the completion of the Governance Review and Strategic Plan.

Given the tight budget, we are moving to quarterly reporting and calendar year budgets. The assumption will be that funding will not be carried over unless properly justified and agreed by the GGC.

At IHO Assembly 3 a proposal was approved for the establishment of a task force that will look into alternative ways to increase the budget for Capacity Building and related activities such as GEBCO.

#### **5. Any Other Items of Note**

None

#### **6. Conclusions and Recommended Actions**

During the last few years GEBCO has significantly increase its visibility on the international stage, both within the IHO and IOC community but also in international media. The celebration of the 120<sup>th</sup> anniversary of GEBCO was given a high profile at IHO Assembly 3 and will have similar coverage at the 32<sup>nd</sup> IOC Assembly. Many have contributed and especially Seabed 2030 has really accelerated the visibility and the coverage of directly mapped global seabed knowledge which has now increased to 24.9%.

Despite the challenges posed by COVID-19 and two years of virtual meetings, the GEBCO Programme and its sub-ordinate bodies, activities and projects have remained highly productive. The GGC has set itself an ambitious yet challenging agenda of delivery, strategic planning and governance. This has been thought through very carefully noting the other pressures on the various stakeholders and participants. It is however deemed necessary if GEBCO is to remain relevant given the extent of the change occurring within the ocean science and seabed mapping landscape.

The GGC work plan (Annex B) reflects this both in terms of new activity and the amount of the existing budget that has been allocated to activities in this reporting year.

#### **7. Justification and Impacts**

Justifications for planned activities have been provided in the description provided in the body text of this report.

There are no anticipated impacts on IRCC or any of its other bodies.

#### **8. Action Required of IRCC**

The IRCC is invited to:

- a. Note this report
- b. Endorse the GEBCO Code of Conduct
- c. Encourage RHCs to actively contribute new data to GEBCO
- d. Encourage RHCs to discuss how nations can share existing data

## ANNEX A

**IHO-IOC GEBCO GUIDING COMMITTEE  
(GGC)****List of GGC members – 20 April 2023**

- | <b>1. IHO Appointed Members:</b>                   | <b>Term</b> |
|--|-------------|
| <b>Period:</b>                                     |             |
| Mr Shin Tani (Japan)                               | (2018-2023) |
| Mr David Millar (USA)                              | (2018-2023) |
| Mr Evert Flier (Norway) ( <i>Chair</i> )           | (2019-2024) |
| Dr Geoffroy Lamarche (New Zealand)                 | (2021-2026) |
| Ms Yerinelys Santos (Colombia)                     | (2022-2027) |
| <b>2. IOC Appointed Members:</b>                   |             |
| Dr Marzia Rovere (Italy)* ( <i>Vice-chair</i> )    | (2019-2024) |
| Dr Karolina Zwolak (Poland)                        | (2018-2023) |
| Ms Kim Picard (Australia)                          | (2021-2026) |
| Commander Prashant Srivastava (India)              | (2021-2026) |
| Mr Paul Brett (Canada)                             | (2022-2027) |
| <b>3. Ex-officio Members:</b>                      |             |
| Ms Aileen Bohan ( <i>Chair of SCRUM</i> )          |             |
| Mr George Spoelstra ( <i>Chair of TSCOM</i> )      |             |
| Mr Hyun-Chul Han ( <i>Chair of SCUFN</i> )         |             |
| Mr Timothy Kearns ( <i>Chair of SCOPE</i> )        |             |
| Ms Jennifer Jencks ( <i>Director of IHO-DCDB</i> ) |             |
| * Members serving a second 5-year term.            |             |
| <b>4. Secretary:</b>                               |             |
| Mr Sam Harper (IHO)                                | (2021-2026) |

**NOTE:** Members of the Secretariats of the IHO and IOC are permanent non-voting Observers in the Committee.

## IHO-IOC GEBCO Guiding Committee (GGC) Work Plan 2022-2023

## GGC Tasks

- A Organise and conduct GGC 40 meeting in 2023 (IHO Task 3.6.1)
- B Ensure conduct of TSCOM, SCRUM, SCOPE and SCUFN meetings in 2022 (IHO Tasks 3.6.1)
- C Ensure effective operation of IHO DCDB (IHO Task 3.6.2)
- D Ensure the delivery of the SCUFN Work Plan
- E Ensure the delivery of the TSCOM Work Plan
- F Ensure the delivery of the SCRUM Work Plan
- G Ensure the delivery of the SCOPE Work Plan
- H Ensure the development of a SCET Work Plan
- I Liaise with and provide support to Seabed2030 project (IHO Task 3.6.5)
- J Conduct GEBCO Governance Review
- K Develop GEBCO Strategic Plan

Task	Work item	Priority H-high M-medium L-low	Milestones	Start Date	End Date	Status P-planned O-ongoing C-completed	Contact Person(s) * indicates leader	Related Pubs/Standard	Approved Funding (€)
A	Organise and conduct GGC40 meeting	H		2022	2023	P	Chair GGC Secretary GGC		

Task	Work item	Priority H-high M-medium L-low	Milestones	Start Date	End Date	Status P-planned O-ongoing C-completed	Contact Person(s) * indicates leader	Related Pubs/Standard	Approved Funding (€)
B	Ensure conduct of TSCOM, SCRUM, SCOPE, SCUFN and SCET meetings	H		2022	2023	P	Chair GGC, Chair, TSCOM, Chair SCRUM, Chair SCOPE and Chair SCUFN		
C	Ensure effective operation of IHO DCDB	H		Continuous		O	Director DCDB	See TSCOM Work Plan	
D	Ensure the delivery of the SCUFN Work Plan	H		Continuous		O	GGC + SCUFN Chair		15000
E	Ensure the delivery of the TSCOM Work Plan	H		Continuous		O	GGC + TSCOM Chair		43000
F	Ensure the delivery of the SCRUM Work Plan	H		Continuous		O	GGC + SCRUM Chair		5000
G	Ensure the delivery of the SCOPE Work Plan	H		Continuous		O	GGC + SCOPE Chair		38500

Task	Work item	Priority H-high M-medium L-low	Milestones	Start Date	End Date	Status P-planned O-ongoing C-completed	Contact Person(s) * indicates leader	Related Pubs/Standard	Approved Funding (€)
H	Ensure the delivery of the SCET Work Plan	H		Continuous		O	SCET Chair		0
I	Support Seabed2030	H	Provide scientific expertise, regional connections and outreach	2018	2030	O	GGC + Chairs TSCOM, SCRUM, SCOPE, SCUFN	See SC Work Plans	
J	Conduct GEBCO Governance Review	H	Update to IHO and IOC Assemblies 2023	2022	2023	O	Chair GEBCO Governance Review Project Team		

**GEBCO Code of Conduct**

This Code of Conduct was developed to consolidate the ethical expectations of all GEBCO participants (Members) and reinforce the values that should be the foundation of the working environment of this international group of experts.

1. GEBCO is grounded on the principles of cooperation, inclusivity, integrity, transparency, fairness, justice, trust and mutual respect.
2. GEBCO Members are expected to treat everybody fairly and with respect. In particular, harassment, discrimination and bullying are considered intolerable behaviors. GEBCO adheres to the guiding principles, definitions and policies contained in ETH/PI/POL/3/REV (UNESCO Anti-Harassment Policy 2019).
3. GEBCO Members shall follow the Code of Conduct to prevent harassment, including sexual harassment, at UN system events ([un.org/codeofconduct](http://un.org/codeofconduct)) during meetings, conferences and symposia, receptions and any other organized forum.
4. GEBCO Members that may have experienced harassment should seek advice from the GEBCO Secretary or Guiding Committee Chair or Vice-Chair, who will properly manage the situation according to the circumstances and in a respectful manner for all the involved parties. If this route is deemed inappropriate, then GEBCO Members should seek advice from another member of the Guiding Committee.
5. GEBCO Members should report any wrongdoing that they may be aware of and raise concerns following the same route described above.
6. GEBCO Members are expected to disclose any other role or participation on a board, panel, committee or such in entities that may interfere or be perceived as incompatible or in conflict of interest with GEBCO.
7. GEBCO Members are encouraged to recuse themselves from GGC and other GEBCO subordinate body deliberations and decisions where conflict of interest might arise.
8. GEBCO Members agree to use best efforts to keep confidential all matters that so require and, in particular, treat all personal matters with privacy and confidentiality, in a manner that is consistent with their own organization ethics guidelines where they exist.
9. GEBCO Members are expected to make or issue either public or internal statements only in an objective and truthful manner.