**1.1. IHO-IOC GEBCO Technical Sub-Committee on Ocean Mapping (TSCOM) Work Plan 2024-2025**

**1.1 TSCOM Tasks**

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| B | Ensure conduct of TSCOM meeting in 2023-2024 (IHO Task 3.6.1) |
| C | Ensure effective operation of IHO DCDB (IHO Task 3.6.2) |
| D | Develop and maintain tools to facilitate the contribution of bathymetric data to the IHO DCDB (IHO Task 3.6.3) |
| E | Maintain IHO bathymetric publications (IHO Task 3.6.6) including: B-4, B-9, B-10 and B-11 |
| F | Develop the on-line function of B-4 (Information concerning recent bathymetric data) (IHO Task 3.6.6) |
| G | Support SCOPE in its outreach and education about ocean mapping (IHO Task 3.6.7) by development and dissemination of IHO-IOC GEBCO products such as the Global Gridded Product and Printed World Map |
| H | Ensure IHO-IOC GEBCO Web site is kept current and updated regularly (IHO Task 3.6.8) |
| K | Provide technical support, advice, and review to Seabed 2030 Project Director, RDACCs and GDACC |
| L | Provide support and advice to developing and validating emerging technologies for compiling and disseminating bathymetry |

| **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** | **Existing budget** | **Funding Bid (€)** | **GGC Decision** |
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| B | Ensure conduct of TSCOM meeting | H | Report of TSCOM meeting to GGC | Continuous |  | O | Chair TSCOM |  |  |  |  |
| C | Ensure effective operation of IHO DCDB | H | Conduct review | Continuous |  | O | Director DCDB |  |  |  |  |
| D3 | Conduct DCDB Industry Day and Data Contribution Workshop | H | Conduct virtual workshop and industry day | 2020 | 2023 | C | Chair TSCOM  Director DCDB |  |  |  |  |
| D4.0 | Develop and structure plans for the Goals identified in D3 | H | Structure for WG and ToRs for each of the goals | 2023 | 2024 | P | Chair TSCOM  Chair SCRUM  Chair SCOPE  Director DCDB |  |  |  |  |
| D4.1 | Goal 1: Increase data availability: Transit Mapping | M | Objective A, B, C  See Annex A | 2023 | 2026 | P | Chair TSCOM  Chair SCRUM  Chair SCOPE  Director DCDB |  |  |  |  |
| D4.2 | Goal 2: Enhance Metadata and improve Web services | M | Objective A, B,C  See Annex A | 2023 | 2026 | P | Chair TSCOM  Chair SCRUM  Chair SCOPE  Director DCDB |  |  |  |  |
| D4.3 | Goal 3: Encourage the use of a common generic sonar format for bathymetry | M | Objective A, B, C  See Annex A | 2023 | 2026 | P | Chair TSCOM  Chair SCRUM  Chair SCOPE  Director DCDB |  |  |  |  |
| D4.4 | Goal 4: Unify an approach for disseminating information & outcomes | M | Objective A, B  See Annex A | 2023 | 2026 | P | Chair TSCOM  Chair SCRUM  Chair SCOPE  Director DCDB |  |  |  |  |
| E1 | Maintain IHO bathymetric publications | M |  | Continuous |  | O | All members of GEBCO GC through the Chair | B-4 - Information concerning recent bathymetric data  B-11 - GEBCO Cookbook |  |  |  |
| E2 | Add and update instructive chapters in IHO-IOC GEBCO Cook Book | H  M  H  M | Maintain B-11  Maintain section related to Seabed 2030  Create on-line wiki structure for Cookbook  Seek instructive chapters on contributing data, metadata requirements, platforms for viewing gaps and coverage, CSB, etc. | Continuous  2019  2020  Continuous | 2030  2024  2030 | O  O  O  O | Chair TSCOM  Chair, Cookbook editorial board | B-11 GEBCO Cookbook |  |  |  |
| E3 | Review GEBCO Digital Grid and methodologies | H | Yearly review | Continuous |  | O | Chair TSCOM  Digital Atlas Manager |  |  |  |  |
| F | Develop, review, and maintain the on-line function of B-4 | M | Conduct review | Continuous |  | O | Director DCDB |  |  |  |  |
| H3 | Review, Update and Maintain IHO-IOC GEBCO website | H  M  H  M  M  L | Ensure Website  Continuity by providing funds  Update website with meeting documents  Validate members and contact information for SCRUM, TSCOM, and SCOPE  Review and maintain all working links  Provide technical and content review  Investigate possible integration of SCOPE website into main GEBCO website | Continuous  Continuous  Continuous  Continuous  Continuous  2022 | 2024 | O  O  O  O  O  P | Chair TSCOM  BODC  BODC  Chairs TSCOM, SCRUM, SCOPE  Chair TSCOM, BODC  Chairs TSCOM, SCRUM, SCOPE  Chairs TSCOM, SCOPE, BODC |  | See note |  |  |
| K1 | Support Seabed 2030 | H  M | Provide scientific expertise and outreach  Proposal for Discrete Global Grid Systems | 2018  2022 | 2030  2024 | O  O | Chair TSCOM,  Chair TSCOM |  |  |  |  |
| K2 | Travel to assist gathering technical needs from Seabed 2030, RDACCs and GDACC | M | Attend RMCs for RDACCs | 2019 | 2025 | O | Chair TSCOM |  |  |  |  |
| K3 | Provide oversight and review of Seabed 2030 web services, methodologies and applications in accordance with TSCOM ToRs | H | Conduct regular reviews and participate in technical meetings | 2019 | 2030 | O | Chair TSCOM |  |  |  |  |

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| L1 | Develop template for seafloor mapping route optimization application  Monitor and advice (on) use of metadata based on outcome of metadata working group | H | Conduct requirements survey  Prototype and document web app  Optimal use of metadata schema | 2019  2022 | 2025  2030 | O  O  O | Chair TSCOM |  |  |  | Approved by GGC38 |

**1.2 Remarks**

**B.** Ensure conduct of TSCOM meeting in 2024-2025 (IHO Task 3.6.1)

TSCOM is expecting to have one (face to face) meeting in 2024. Possibly aligned with the activities of the GEBCO symposium/week. In addition to the face to face meeting, at least one virtual meeting will be held in September 2024.

**D**. Develop and maintain tools to facilitate the contribution of bathymetric data to the IHO DCDB (IHO Task 3.6.3)

The successful series of Webinars and the Industry Workshop have resulted in 4 strategic goals to improve the availability, discovery and access of Bathymetric data. These goals are described in Annex A. The document describes the goals, objectives and possible actions at a high level and it is necessary to further structure these into concrete work items. It is likely that these goals, objectives and work items go beyond the terms of reference of TSCOM but in order to define them as important they are translated in high level work items (D4.1 to D4.4) in this workplan. How they will be reflected in the various workplans of GEBCO should be the outcome of work item D4.0 above.

**E.** Maintain IHO bathymetric publications (IHO Task 3.6.6) including: B-4, B-10 and B-11

It is the proposal of the Cookbook manager and Chair TSCOM to develop the GEBCO cookbook into an on-line wiki. This requires advice from the GGC what to do with the official IHO publication B-11.

**H.** Review, Update and Maintain IHO-IOC GEBCO Website

After discussions on the Website cost at the GGC39 meeting and internal reviews at BODC the required yearly budget for the GEBCO website hosting and maintenance has been reduced to 4k annually. TSCOM is happy and thankful as this is a considerable reduction of the budget spent so far.

**K.** Provide technical support, advice, and review to Seabed 2030 Project Director, RDACCs and GDACC

Seabed 2030 has requested TSCOM to investigate options for use of multi resolution grids and to optimize the use of map projections in the GEBCO grid. Originally TSCOM had the intention to set up two separate working groups for this. Initial work has shown that Discrete Global Grids (DGGs) can fulfil both. This has resulted in the formation of a single WG studying the use of DGGs.

**L .** Provide support and advice to developing and validating emerging technologies for compiling and disseminating bathymetry

Work of the Opportunistic Mapping Resources Working Group is on-going. The WG participation in the D3 (webinars and Industry workshop) activities shows that the creation of a Data-NoData layer very much aligns with the goals described in D4. It is likely that an outcome of D4.0 will lead to integration of L1 into the work of D4.2

At the time of GCC40 $ 3.600 has been spent out of the total of 10k requested Euro budget. The remainder of the budget will be requested again at GGC40.

**1.3 TSCOM Meetings (IHO Task 3.6.1 refers)**

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| **Date** | **Location** | **Activity** |
| 1-4 October 2012 | IHB, Monaco | XXVIIIth Meeting |
| 7&9 October 2013 | Venice, Italy | XXIXth Meeting |
| 11-13 December 2014 | Mountain View, California, USA | XXXth Meeting |
| 5-7 October 2015 | Kuala Lumpur, Malaysia | XXXIIth Meeting |
| 10-12 October 2016 | Viña del Mar, Chile | XXXIIIth Meeting |
| 13-14 November 2017 | Busan, Korea | XXXIVth Meeting |
| 5-6 November 2018 | Canberra, Australia | XXXVth Meeting |
| 4-5 November 2019 | Portsmouth, NH, USA | XXXVIth Meeting |
| 11&14 January 2021 | Remote VTC | XXXVIIth Meeting |
| 9&19 November 2021  September 2022  26 October 2022  November 2023 | Remote VTC  Remote VTC  Southampton, UK  IHB, Monaco | XXXVIIIth Meeting  Intermediate meeting  XXXIXth meeting  XXXXth meeting |
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