



Title:

Realisation of the Challenges in Fulfilling the
Hydrographic Prospects due to COVID-19

Speaker:

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Commission Chair, FIG Commission 4 (Hydrography)

Date:

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Organisers:



Supported by:



FIG Commission 4 (Hydrography)

Terms of Reference

Support for all aspects of the Hydrographic Surveying profession including, but not limited to:

- Promotion of hydrographic education, training, Continual Professional Development (CPD) and career pathways within the profession;
- Protection of the marine environment;
- Coastal Zone Management (CZM) including Ports & Harbours;
- Offshore Construction Surveying;
- Nautical charting for safe navigation/bathymetric mapping – analogue and digital including Electronic Navigational Charts;
- Data processing and management of hydrographic data;
- Review and update of standards and guidelines.

Mission Statement

Commission 4 is committed to:

- Promoting the aims and objectives of FIG to hydrographers through the active involvement of national delegates from member associations and other interested parties in the activities of the Commission;
- Fostering closer links with all sister organisations currently active within the global hydrographic community;
- Developing guidelines and standards that will assist hydrographers in the provision of their services;
- Disseminating information relevant to the profession through participation in international meetings, conferences and committees;
- Assisting international bodies such as the United Nations and the International Hydrographic Organization (IHO) in the protection of the marine environment and promotion of safe navigation.

General

Commission 4 is committed to achieving both the long term and immediate aims and objectives of FIG. Its strategy over the next four years is aligned with that of the FIG Council and will include:

- Support for the Hydrography profession internationally including development of best practice guides, certification pathways and advocacy;
- Support the International Hydrographic Organization (IHO) and associated United Nations programmes;
- Cooperation with other FIG Commissions, including joint working groups;
- Active support and participation in FIG regional events;
- Cooperation with sister organisations and other appropriate bodies;
- Cooperation with national surveying and mapping agencies; and,
- Respond to directions from FIG Council to address emerging issues as required.

Working Group 4.1 - Standards and Guidelines for Hydrography

Assist in the development and recognition of standards of competency

Review standards from alternate reputable sources relevant to Hydrography

Policy Issues

Assist in the development of technical standards and guidelines

Assess the impact of international standards on current industry practice

Specific projects

1. Support the International Hydrographic Organization (IHO) through the work of its Hydrographic Services and Standards Committee (HSSC) by participating in HSSC working groups to review hydrographic standards and guidelines, primarily:
S-44 – IHO Standards for Hydrographic Surveys (the most recent version is the 6th Edition, September 2020).
2. Support FIG members on the FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC) in reviewing and updating competency standards.
3. Promote recognition of professional pathways.
4. Represent Commission 4 on the FIG Standards Network and other international fora where appropriate.
5. Support the work of other FIG Commissions and Working Groups, and participate in Commission 4 events where possible.

Working Group 4.1 - Standards and Guidelines for Hydrography

FIG Standards Network

- FIG member associations.
- The international hydrography profession including industry, government, education and academia

International Hydrographic Organization (IHO)

Beneficiaries

Sister organisations and associated national surveying, mapping and charting agencies and relevant international non-governmental organisations

Working Group 4.2 – Blue Growth & UN Sustainable Development Goal 14

Policy Issues

The United Nations Development Programme Sustainable Development Goal 14 (SDG 14) advances the sustainable use and conservation of the oceans and requires effective strategies and management to combat adverse effects on the oceans through overfishing, growing ocean acidification and worsening coastal eutrophication.

The Blue Growth & SDG 14 work plan is based upon the ongoing work of Commission 4. It is a diverse and wide ranging topic but the primary focus for Working Group 4.2 is the development and promotion of measures to manage our oceans and seas in a sustainable manner based upon accurate data, sound environmental principles and good management practices.

The Hydrographic Surveyor has a key role in developing an understanding of our seas and oceans for the wider social benefits and Commission 4 aims to promote this role, the benefits and offer case studies of participation and support.

Working Group 4.2 – Blue Growth & UN Sustainable Development Goal 14 (Specific projects)

- The Working Group 4.2 shall seek to promote and engage with international government and non-governmental organisations to increase the understanding and awareness of the importance of the marine and ocean areas.

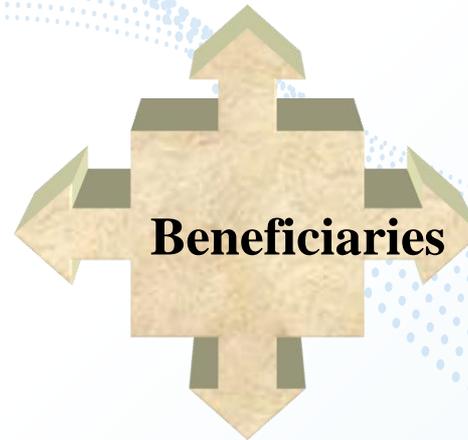
minimum distance of the sun from the earth.

Working Group 4.2 – Blue Growth & UN Sustainable Development Goal 14

FIG member associations.

- Academia.
- Individual hydrographic surveyors.

The international hydrographic surveying profession.



National surveying, charting and mapping agencies.

Working Group 4.3 – Mapping the Plastic

- The effects of plastic pollution on the Earth's oceans are well documented, potentially catastrophic and increasing exponentially year on year. The UN Environment Programme has calculated that each year more than 8 million tonnes of plastic ends up in the oceans, wreaking havoc on marine wildlife, fisheries and tourism, and costing at least \$8 billion in damage to our marine ecosystems. Eighty per cent of all litter in our oceans is made of plastic. This is an intolerable but not insurmountable problem that needs immediate and far-reaching action to remedy.
- Rivers have been identified as a significant contributor to and enabler of the plastic pollution problem. Working Group 4.3, a combined initiative of the FIG Young Surveyors Network and Commission 4, will focus on the dumping of plastics (and other waste) into major rivers, river systems and deltas at strategic locations around the world. Waste measurement in these water bodies using remote sensing, bathymetric, current measurement and topographical surveys of plastic waste along the banks of rivers will enable a greater understanding of the quantum of plastic waste being transported to the oceans and inform the control and regulation of land use practices with an ultimate goal of eradicating the dumping of plastics into river systems.

Policy Issues

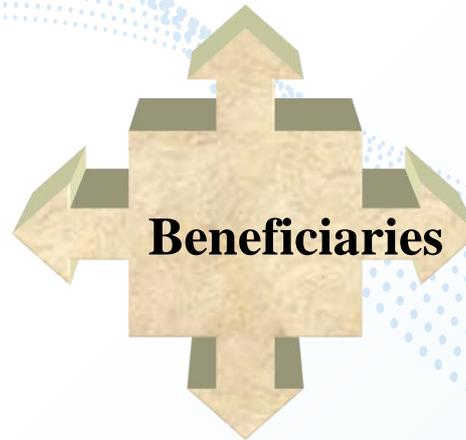
Specific project

A pilot project will focus on the Mekong River delta in the south of Vietnam at its outfall to the South China Sea. This project will be undertaken in conjunction with The Centre for Supporting Green Development (GreenHub), a Vietnamese, non-governmental, not-for-profit organisation and Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO).

Working Group 4.3 – Mapping the Plastic

The international maritime
community.

FIG member
associations, the
hydrographic
surveying profession
and academia.



Government
organisations and
non-governmental
organisations.

The United Nations and
other national and
international agencies.

Working Group 4.4 – Marine Development and Administration

Assist in the development of institutional policy and framework.

Assist in the development of indigenous marine management systems.

Policy Issues

Assist in the development of conceptual and technical standards, guidelines and practice.

Assist in the land and sea governance for a marine cadastre.

Specific projects

Review of national and international hydrographic and marine administration policies, standards and guidelines.

Promotion of best practice on marine development and administration.

Development of Marine Cadastre Institutional Framework for participating countries (pilot project in ASEAN).

Strategy Selection for Marine Administration by Multi-Stakeholders.

Marine Institutional Analysis and Development (MIAD).

Technical and Legal Framework for Marine Cadastre.

Indigenous marine management study.

Working Group 4.4 – Marine Development and Administration

International Coastal and Marine Institutions.

Marine related community.

Sister organisations and other (national) agencies.

Beneficiaries

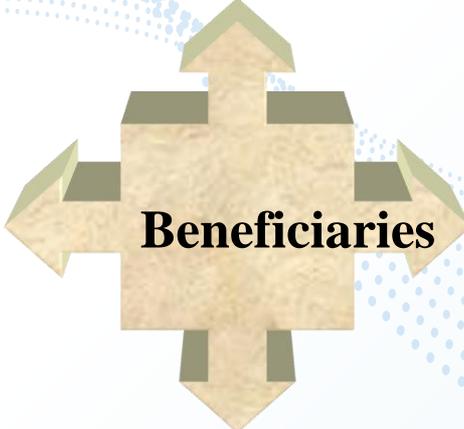


FIG member associations, the hydrographic surveying profession and academia.

Concluding Remarks

Challenges to WG4.2, WG4.3 and AG4.4 in respect to travelling, data collection and cooperation due the global pandemic.

For WG4.1, meeting/working with the online platform.

Working Group 4.1 - Standards and Guidelines for Hydrography

On-going projects.

Meeting/working with the online platform.

Working Group 4.2 – Blue Growth & UN Sustainable Development Goal 14

The UN SDG's, especially SDG14 cannot be obtained without a much more systematic survey coverage of our oceans.



Working Group 4.3 – Mapping the Plastic

Mapping the Plastic brings together scientific, surveying, spatial and engineering skills and expertise to accurately determine the amount and type of plastic litter in our waterways.

This is a joint initiatives of :

FIG Young Surveyors Network

And FIG Commission 4 (Hydrography)

Working Group 4.4 – Marine Development and Administration

Marine spaces are sources of wealth and environmental function that provide impacts and implications especially in economy.

The needs for sustainable marine administration and development.

Proper standards of marine space are needed for sustainable development as stated by UN SDG.

THANK YOU...