# **Decadal goal for GEBCO**

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Late last year we presented to the Nippon Foundation (NF) an application for funding to continue the NF-GEBCO ocean mapping training program at the University of New Hampshire and also to plan a celebration of the 10 years of the training program.

Key elements of the proposal were

- 1) continuation of the training program at UNH
- 2) preparation for a 10 year celebration in Monaco in early 2015
- GEBCO preparing a goal/objective statement of GEBCO's role in stewardship of the oceans over the next 10 years and what resources and actions will be required to achieve that
- 4) an MOU between the Nippon Foundation, the Principality of Monaco and GEBCO reflecting the decadal goal (this would be presented at the 10 year celebration)

The proposal has been funded to cover (1) the UNH program fully and (2) partial funds to facilitate the planning.

Key to the future is that we prepare a 10 yr goal for GEBCO.

The notes below, mostly from the proposal, will set the scene.

## GEBCO goals for the next decade

## PAST VISION AND FUTURE OBJECTIVE

For 111 years, the General Bathymetric Chart of the Oceans (GEBCO) has been the only internationally recognized program which is to map the floors of the oceans of the entire world.

Thanks in large part to the support of Nippon Foundation, GEBCO today is supported by a thriving network of scientists and hydrographers from all the branches of science which contribute to bathymetric mapping, located in the majority of coastal states, both developed and developing, and occupying a variety of levels in their home organizations. GEBCO is the vital focus that brings these individuals together, and through this human network links their home organizations' Ocean Mapping activities into a global activity. The population has been revitalized by a yearly influx of new participants trained through the Nippon Foundation project. Project teams made up of Nippon Foundation Scholars and other GEBCO participants, collect and assemble data for the entire world ocean, archive it efficiently, and create from it a suite of bathymetric products ranging from a global data base to Sea-sized maps. Part of each project team's mandate is to involve countries near to each map area, building capacity in the country through the participation of its Nationals.

The time has come for us to redefine the objective of ocean mapping. We must ask and achieve consensus on answers to questions like: What areas do we map. Do we treat all areas equally? What levels of detail are required and achievable? What will we consider perfect? Are our current products correctly aligned with the needs of the troubled oceans? Are there new products we should develop, produce and disseminate?

How we intend to address these questions and develop a new objective is described below.

## LOOKING AHEAD – OBJECTIVE / GOALS FOR THE DECADE

Development of the GEBCO goals for the next ten years and defining the needs in the three pillars that support it: human capacity, science and technology and outreach, will be carried out by utilising experience across a range of people inside and outside GEBCO. Involving a range of people will ensure a breadth of views and will also mean that those involved in implementing the goals are fully connected to them.

The below is the plan defined in January 2014.

We will set up three working groups each with different experience. They will operate relatively independently to give diversity of approach. Each group will be made up six to ten people to give breadth of views whist keeping the group compact. They will meet in April or May. Their conclusions will be brought together through an integrating working group made up of one or two members of each initial group. The integrating group will meet in May - June and will then report to the GEBCO Guiding Committee (GGC) who will meet in Monaco in mid June.

Note that none of this is covered by NF funding. It all has to be funded by GEBCO.

The three working groups will be as follows

Group One will be made up emerging leaders within GEBCO. Half will be Nippon Foundation Scholars, the balance other active GEBCO participants.

Group Two will be made up of the Nippon Foundation Scholars in JHOD. There has been one every year of the program. The scholars have a range of seabed mapping and research experience. As a result of the breadth of JHOD these Scholars are particularly strong in research and modern technology. We anticipate that this group will have a strong emphasis on the role of technology in defining and achieving GEBCO objectives.

Group Three will primarily comprise experienced management and organization people; it will be half GEBCO people and half people from outside GEBCO.

We hope that each working group (WG) will be able meet face to face at a central location for up to three days. If not able to meet they will have to work remotely but we will endeavor provide systems to facilitate that. Each group's brief will be to come up with the key goals which GEBCO will achieve over the next decade. They will also consider actions and resources required to achieve those goals within the three pillars structure outlined earlier.

Once the three working groups have meet their conclusions will be shared within an Integrating group (IG) made up of one or two representatives from each WG. The IG will probably meet in May or early June; preferably face to face but alternatively remotely. They will bring together the WG thinking into a single set of goals and synthesize the WG suggestions on required actions and resources.

The findings of the IG will be addressed by the GEBCO guiding committee (GGC) June 13 – 15 in Monaco. The GGC will also address in more detail the personnel and financial resources required to achieve the decadal goals and the three pillars. They will also consider the strategic alliances that GEBCO may enter into to achieve the decadal goals.

By July 2014 we will have the key goals broadly defined and issues identified, however the strategic and operational plans will not be fully developed by then. We anticipate this will take several more months. Ongoing development of actions will be needed. Indeed development will be continuous throughout the decade, although the focus on the primary goals will not alter.

## Key elements for the future of GEBCO

#### Human capacity

Capacity Building is a key pillar. A key output of the strategy planning will be identification of what human capacity is needed to achieve the decadal goals and what gaps there currently are. The Nippon Foundation - GEBCO training program at UNH is a major part of GEBCO capacity building. We intend to review the UNH program to identify where amendments may be made to ensure that it best prepares Scholars for the decade. There will be other capacity building initiatives and there will be ongoing assessment of needs throughout the decade.

#### Science and technology

The science and technology pillar is a rapidly developing area. Whilst we can consider needs at the start of the decade there will be an ongoing need for refreshing. As part of the defining of the decadal goals we will identify key science and technology areas and people with involvement in them. GEBCO already has an active Technology Subcommittee. We are likely to use this and establish working groups who will have ongoing specific roles in the science and technology pillar.

### Outreach and Education

We acknowledge that the third pillar; outreach and education, is an area where GEBCO has significant challenges. GEBCO currently has an outreach working group

as a subsidiary body of GGC. However we will seek additional assistance in developing plans to achieve the decadal goals. The recent International Polar Year was a large international program that can provide useful models. It was successful in presenting the work of many research projects carried out by multiple groups to the public, educators and policy makers. Outreach and education require ongoing development throughout the decade.