

Minutes of the 16th POGO Plenary Meeting (POGO-16)
27-29 January 2015
Instituto Español de Oceanografía, Centro Oceanográfico de Canarias,
Santa Cruz de Tenerife, Canaries, Spain

Tuesday 27th January

Inauguration

John Field opened the Meeting by welcoming the participants and introducing Mr. Kentaro Ogiue from the Nippon Foundation (NF). Mr Ogiue thanked Eduardo Balguerías, the host of the meeting, and also the outgoing Chair, John Field, for all his hard work during his two-year term. He congratulated Karen Wiltshire on her appointment as Chair of POGO. He then thanked Trevor Platt, whom he considered as a “father figure” within POGO, and in particular for the NF-POGO trainees and alumni. He welcomed the new Executive Director, Sophie Seeyave, and expressed his support for her as representing the “new generation” and taking on many challenges with this new role. He then evoked the NF-POGO alumni and the alumni of other NF programmes, and the excellent work POGO is doing in passing on the custody of the ocean to the next generation. He announced a new scheme to support the alumni, being implemented by the NF. This will enable collaborations across different fields of expertise and different NF programmes. This should also allow NANO to further its success as an alumni network.

John Field then introduced the Spanish General Director for Research, Technology and Innovation, Dra. Marina Villegas. She underlined the importance of POGO as a fundamental mediator for an international strategy on ocean observations. She also mentioned the role of other organisations such as IOC, SCOR and GEO, and underlined the importance of coordination with them. She stressed the need for enabling small nations to develop their capacity for ocean observations, which the Spanish government considers very important. In her opinion, POGO is not just “another international organisation”. It promotes ocean observations, interprets results for decision-makers, and provides training and education. The IEO has been a member of POGO since 2008. The Spanish government is strongly committed to ocean observations, and is grateful to all the Spanish organisations that contribute to advancing this field.

All the participants then introduced themselves.

Some items of POGO Business were taken care of:

- The minutes of the 15th meeting of POGO were approved.
- The Meeting Agenda was approved, with the addition of a plenary presentation by Jim Bellingham to set the scene prior to the “Industry engagement” workshop.

John Field reported briefly on the Executive Committee Meetings that had taken place in June, and the day before the start of the POGO Meeting. These had been very successful in moving POGO forward, and the Committee had been busy implementing changes and would continue this work through the SWOT analysis and Partners’ Meeting discussions. He thanked Shubha Sathyendranath and Trevor Platt for their hard work and dedication to POGO. Not everyone had agreed with Trevor

Platt's strong views, but no one could deny his enthusiasm and contributions. He wished the new Executive Director success in leading POGO into the future, and acknowledged Vikki Cheung's valuable support within the Secretariat. He made the sad announcement that Nick Owens, POGO member and Chair of the Finance Committee, had recently lost his wife. John would send condolences to Nick Owens on behalf of all the members. He thanked the Executive Committee for all the work it had done together with the Secretariat, and thanked Steve de Mora for hosting the Secretariat and for agreeing on a new contract with POGO for the Secretariat hosting. John Field then handed over to the incoming Chair, Karen Wiltshire.

Karen Wiltshire thanked John Field and said that he would be a hard act to follow. She promised to work hard to lead POGO in a way that did justice to its very diverse community. She reflected that the scientific excellence of all the POGO members contributed greatly to the "spirit" of POGO. She underlined the importance of internal communication within POGO, and the need for Directors to delegate some of the communication to their excellent staff. She stressed that POGO is truly international and its members are uniquely important. All organisation need to "reformat" every five years or so, and POGO had initiated this process over the last 1-2 years. She was very encouraged by the progress in discussions within the Executive Committee the day before.

Karen Wiltshire then introduced the new Executive Director, Sophie Seeyave. Sophie stated that POGO faces many challenges, but also a number of opportunities to reaffirm its mission and re-engage its members. Some improvements had been made already, for example by restructuring the dues in a way that was fair to all members. Opportunities to increase funding should be sought. She encouraged the members to provide feedback to the Chair, Executive Director or Executive Committee, so that POGO was run according to the members' wishes. She also stressed the importance of demonstrating the added value of POGO membership, and making membership cost-effective, and also the need for POGO to work with its partner organisations. She invited the members to be more pro-active in leading POGO activities, and promoting the organisation to their institutes and to the outside world. She underlined the importance of POGO Annual Meetings in bringing together many institute directors, and thanked Eduardo Balguerías and his staff for hosting POGO-16, as well as acknowledging the contributions of all previous POGO Meeting hosts.

Karen Wiltshire then introduced the Finance Committee, which was being chaired by Gilles Lericolais (Ifremer, France), in the absence of Nick Owens. Other members were Ken Lee (CSIRO, Australia) and Sun Song (IOCAS, China). She thanked them for their work on the Committee, and thanked Gilles Lericolais for stepping up at short notice.

The presentations made during the following Plenary sessions and Workshops are being shared with all Meeting participants via Dropbox. The Executive Committee decided against making them accessible on the POGO website, to avoid possible litigation issues.

Showcase of Spanish oceanography (Chair: Eduardo Balguerías Guerra)

Overview -Research and operational activities of the IEO: Pedro Vélez Belchí

Research and operational activities of the Spanish Port Authority: Enrique Alvarez Fanjul

Research activities in marine sciences of the National Research Council: José Luis Pelegrí Llopart

Regional Spanish ocean observatories:

Coastal Ocean Observing and Forecasting System of the Balearic Islands (SOCIB): Joaquin Tintoré Subirana (presented by Pedro Vélez Belchí)

Oceanic Platform of the Canary Islands (PLOCAN): Joaquín Hernández Brito

Spanish capacity for Marine Sciences careers: Marine Sciences Colleges: Miriam Torres Padrón

Updates on POGO activities (Chair: John Field)

Peter Tyack provided an overview of progress with the International Quiet Ocean Experiment (IQOE), which is a joint initiative of POGO and SCOR. A clarification was requested on the role of POGO. Peter responded that until now the Secretariat had provided logistical support, for example with preparing the Science Plan and response to review. It was stressed that in partnerships with industry one needed to be careful about keeping to the programme's scientific priorities. Some discussion followed about new methods to replace air guns.

Albert Fischer provided a brief overview of IIOE-2. The Research Plan is being led by SCOR, and will be launched in Dec 2015.

Karen Wiltshire provided an overview of POGO highlights. Jan Mees congratulated the Executive Committee on the improvements that had been implemented. He also congratulated the new Chair and Executive Director on their positive statements and forward look. He asked that the Executive Committee host a special celebration for Trevor Platt and Shubha Sathyendranath to thank them for all their hard work.

Sophie Seeyave provided the Report on Action Items. A clarification was requested on the long-term data Workshop, and the exercise that had been conducted to determine how effective portals were in making data discoverable. Sophie responded that the exercise had been conducted by Karen Wiltshire in response to some disagreement at the POGO-15 Workshop as to whether data discovery was a problem or not. The result had been that EU portals were good for finding EU data, and the same with the US, but there were issues of visibility of EU datasets within US portals and vice versa. The Workshop on Wednesday would discuss this issue further.

Mini-presentations by new/selected members (Chair: John Gunn)

P.P. Shirshov Institute of Oceanology: Sergey Shapovalov

JAMSTEC, Japan: Masao Fukasawa

IOCAS, China: Sun Song

CNRS, France: Jean-Marie Flaud

SWOT analysis (*open to all participants*) **Chair: Mike Coffin**

See separate report circulated to the participants.

Partners' Meeting (*POGO members only*) **Chair: Karen Wiltshire**

See separate minutes.

Wednesday 28th January

Partner organisations (Chair: Erlend Moksness)

The European Marine Board: Jan Mees

Strategic Marine Alliance for Research and Training (SMART): Pauhla McGrane

Joint Programming Initiative (JPI) –Oceans: Jacky Wood

Keynote presentations introducing parallel workshops (Chair: Steve de Mora)

Ocean observations and Marine Protected Areas (Stefan Hain, AWI)

It was mentioned that Google Earth was involved in monitoring Marine Protected Areas. Stefan was looking forward to receiving feedback from the workshop on the ocean observations aspects.

Enhancing visibility of and access to long-term data (Antonio Bode, IEO)

It was underlined that all time-series stations are run on research project funding, renewable every 5 years or so, with a need to justify the scientific reasons each time. Institutes need to commit funding for sustaining these (examples of Scripps/CalCOFI and IEO).

Deep-ocean observations (Eric Lindstrom, NASA –*via Webex*)

Engaging with industry: lessons learned, successes and failures (Sam Walker -*via Webex*)

Parallel workshops

Deep-ocean observations (Leaders Uwe Send/ Pedro Velez/Alicia Lavin)

The group discussed and clarified the definition of “deep ocean”. The DOOS and scientific communities in this case mean “the lower half of the ocean”, the deep layer, below 2000m, since that is largely unobserved. The European Marine Board document seems to use “deep ocean” in the sense

of “offshore” or “open ocean”. There is a need to define a term that avoids confusion, e.g. deep layer, lower half, etc, and to add clarifying words in title/subtitles. This should be defined quantitatively, e.g. “below 2000m”.

Mini-presentations were given by Pedro Vélez-Belchí (IEO), Mike Meredith (BAS), Tony Knap (GERG), Alicia Lavin (IEO) and Uwe Send (Scripps), on current and planned deep layer observing elements.

The group then addressed what POGO could do to underline the economic need for and impact of deep ocean observations. It also discussed how POGO could support existing initiatives and opportunities (promote, enhance, supplement, add to, fund...). Some ideas included:

- Adding biogeochemical and ecosystem sensors
- Adding capability for benthic layer
- Coordinating/synergizing Go-Ship, deep Argo, deep OceanSITES
- Issuing a POGO Declaration.

Once POGO becomes a legal entity in Europe it can be part of funding proposals as a guarantee for quality. POGO itself cannot provide enough funding for a seed project, but can encourage its members to donate equipment, as was done for the OceanSites.

The DOOS document is a very comprehensive and solid statement of the need for deep observations, although POGO could make a contribution on the technology readiness levels. POGO could issue a Declaration similar to the Sao Paolo declaration, indicating the need to observe the deep ocean. Another idea would be to translate the DOOS strategy into a summary for policy makers.

Members would need a clear mandate to create a Working Group. For example, to produce a Declaration, an assessment of the technology readiness, or an overview paper focused on stakeholders.

POGO actions to follow up:

- Directors to discuss what they can and want to do
- POGO to assure deep coordination with new GOOS panels.

Ocean observations and Marine Protected Areas (Leaders Stefan Hain/Margaret Leinen)

The group discussed the following:

- Objectives of observations
- Communities involved in the observations
- Scales of areas
- Degree of consensus about strategies of observation and what kinds of measurements are allowed
- Technologies for observation.

It was agreed that the best way forward was probably to convene another Workshop at POGO-17 to educate the POGO community about the issues surrounding MPAs. We would need to invite external

participants from the MPA community, e.g. from the Convention on Biological Diversity (CBD), and those who are involved in setting up MPAs.

Enhancing visibility of and access to long-term data (Leader Karen Wiltshire/Alex Kraberg)

The group briefly discussed the historical and emerging challenges surrounding time series data:

- Diversity of data types (images, sequence information, numeric data)
- Increasing diversity of methodologies (technological advances are a blessing and a curse)
- Different methodologies
- Increasingly complex metadata
- Data access
- Potential lack of interoperability
- Still many geographic areas not represented sufficiently in ongoing data collection efforts
- Considerable differences in visibility of time series
- Lack of inclusiveness.

All of these issues could potentially make large scale comparisons difficult. They could also threaten the internal consistency of the time series.

The group agreed on issues that were either beyond or within the scope of POGO:

Beyond the scope of POGO activities (based on data):

- Support technical solutions to data integration repositories (e.g. new portal)
- Contributions to standardization efforts, metadata catalogues, standardization of vocabularies.

Within the scope of POGO (based on metadata only):

- Address lack of (and unevenness of) visibility of data and further data discovery
- Review data gaps and provide advice
- Produce guidelines on maintaining internal consistency

An unresolved issue was whether POGO should engage in time-series specific capacity building, e.g. combined ship/land-based training. This issue needs to be addressed as part of a more general discussion.

The agreed goal was to enable visualisation of global time series data in a WebGIS (simple use case already established at AWI). This will facilitate data discovery without having to access the data themselves, and provide a description of time series, but leaving judgement on usability for purpose x,y,z to potential users. The broad mission is to capture existing, historic and emerging time series.

The first steps are to:

- Produce and circulate a concept with suggested data layers to be included
- Set up a small working group to organize work between meetings
- Collect simple metadata and parameter information for as many time series as possible
- Explore the use of google tools for metadata visualisation (maps)
- Explore the use of DOI/handle for metadata summaries
- Can overlay base map with bathymetry (deep sea stations).

Possible layers could include:

- Duration
- Depth

- Parameters
- Networks
- Sensor types
- Sampling frequencies
- Links to data
- Regions

Possible links to Google were discussed, and Esri was highlighted as having more scientifically-oriented tools than Google (e.g. WebGIS).

Engaging with industry: lessons learned, successes and failures (Leader Susan Avery)

Short presentations were given by:

- Sam Walker: BP, formerly NOAA
- Jim Bellingham: WHOI, formerly MBARI, co-founder of Blue Fin Robotics
- Len Srnka: Scripps, formerly Exxon, Professor of Practice
- Ken Lee: CSIRO, formerly DFO
- Steve de Mora: PML.

The group discussed the diverse benefits to industry and academia, such as:

- Training, research and development projects
- Solutions oriented problems that are interdisciplinary
- Risk management, Operational and safety requirements, engineering integrity
- Ocean governance and policy – conflict avoidance.

The participants then discussed opportunities and barriers, such as:

- World Ocean Council (WOC), which has a large number of members
- Scientific community coordination: POGO
- IOGP – International Oil & Gas Partnerships – 40 years
- Joint Industry Partnerships (JIP – Arctic Response Technology; JIP – Sound and Marine Life (more opportunities here), hardware, making measurements
- Very few projects where Met Ocean data shared between companies
- IP, intellectual dividend, perspectives, cultures, training, business decision-making
- Talking at right levels from both sides, people with time to commit
- Lack of clarity about who to go to (and how?).

What works:

- Dialogue, WHOI, NOC, CSIRO, PML place and industry specific
- Trust, open, engage with business on home space.

Unintended or unanticipated consequences:

- Long term project within changing business environment
- Conflict of interests, impacts on individuals

- Being drawn into litigation and associated cultural impacts.

Opportunity for POGO:

- Business advisory council for POGO – focus on advice on approaches
- Bridge to WOC
- POGO representation means industry will engage -- further advice can be taken
- Engage with industry associations.

Thursday 29th January

Partner organisations and projects (Chair: Henk Brinkhuis)

JCOMM–Coordinating cruise information: Champika Gallage

Our Global Estuary: Antonio Baptista

A potential link with the Global Rivers Observatory (Robert Homes) was suggested. PML is involved in a UK-India-Bangladesh-China project on deltas (which are the most populous estuaries). It was proposed that a workshop on observations in estuaries could be held during POGO-17.

IOC’s new capacity building strategy and IODE’s Ocean Teacher Global Academy: Claudia Delgado

POGO Business (Chair: Karen Wiltshire) -POGO members only
See separate minutes and Action Items below.

Final comments and closure: Karen Wiltshire

Karen Wiltshire thanked the members for their active participation, and summarised the meeting outcomes. There had been recognition of the needs and interests of the Partners. The need for closer liaison with other international interest groups had been underlined. The new meeting structure had been successful in allowing direct input by the Partners, and the Finance Committee was a good addition. POGO Capacity Building should not be the sole aim of POGO, but should be connected to POGO Observations and to the POGO Working groups. To conclude, POGO Capacity Building needs to be revised and more focussed on the Partners’ recommendations.

The Meeting was adjourned.

Action Items

1. Finance

Establish Finance Committee for 2015 and update Terms of Reference. Action: Chair and Executive Committee.

Implement new structure for membership dues. Action: Secretariat.

Send agreed allocation of expenditure for 2015 based on “option 4” (category allocations) by e-mail to the members. Action: Secretariat.

10K USD to be committed to POGO-SCOR fellowship programme. Additional funds expected from AtlantOS project. Action: Secretariat, liaise with Karen Wiltshire re: AtlantOS.

Conduct analysis of commitments, time lines and longevity for expenditure. Action: Secretariat and Executive Committee.

Evaluate impact of past POGO training and ask members for their priorities in terms of future observational training. Action: proponents, members, Secretariat to coordinate.

Improve presentation of financial statements. Action: Secretariat, with advice from Jan Mees and the Finance Committee.

When legal status issue has been resolved, close bank accounts in Canada and transfer funds to UK. Action: Secretariat, with advice from Executive Committee and other members.

Issue a call for proposals for working groups, seed funding for coordination of ocean observations, and training initiatives in February. Action: Secretariat in consultation with Executive Committee.

2. Executive Committee

Implement new procedure for determining the membership of the Executive Committee. Action: Secretariat to draft new rules based on vote and discussions during Partners’ Meeting/Business session and Executive Committee wrap-up meeting, and circulate to the members. Follow up with call for nominations and election of members. Nominations made during POGO-16: Margaret Leinen, Ed Hill, Sun Song, Jan Mees, Mike Coffin, Steve de Mora, Ken Lee. Secretariat to check with those nominated if they agree to stand.

3. Legal status

Research and compare options for POGO’s legal status (i.e., European Foundation, UK Charity, associated with international Foundation, operating under host institute’s legal status). Action: Secretariat to liaise with Jan Mees and Gilles Lericolais, possibly requiring legal advice.

4. Strategy

Working Group to continue working on the new Vision Statement, Mission Statement and Values. Action: Ed Hill (Chair), Susan Avery, Sun Song, John Gunn, Tony Knap, Jan Mees (liaison with EMB), Henk Brinkhuis, Karen Wiltshire. Circulate draft to all members for comment.

Same Working Group will draft the Strategy by June/July 2015, in consultation with the Executive Committee. Action: Strategy WG and Executive Committee.

Send results of SWOT analysis to the members for feedback. Action: Secretariat.

5. POGO Meetings

POGO-17 to be held in Japan, hosted by JAMSTEC.

New format (Partners' Meeting, Workshops, Flash presentations) to be continued. Longer Business session needed on Day 3. Action: Secretariat and Executive Committee to work on the Agenda.

POGO-18 to be held in Plymouth, UK, hosted by PML. Action: Secretariat to liaise with PML Organising Committee.

Consider other types of venue closely associated with policy making (Washington DC, Brussels, Canberra...). Action: Secretariat and US members to explore holding POGO-19 in Washington DC.

6. Workshops

Send list of workshop participants to each workshop leader. Action: Secretariat.

Deep ocean observing

Form Working Group to discuss and decide on the way forward (Declaration, joint action by members, seek funding for specific project, translate DOOS strategy into summary for policy makers). Action: Uwe Send, Pedro Velez, others?, with support from Secretariat.

Ocean observations and MPAs

Write short report summarising the different issues encountered with regard to ocean observations in MPAs. Co-authors will be the Workshop participants. Action: Margaret Leinen, Stefan Hain, other Workshop participants, with support from Secretariat.

Follow-up workshop to be held at POGO-17, with some representatives from the MPA community. Action: Margaret Leinen, Stefan Hain, with support from Secretariat.

Engagement with industry

Invite formation of Business Advisory Committee with industry representatives. Action: Susan Avery, others?, with support from Secretariat.

Write summary of different members' experience in engaging with industry (successes, challenges, recommendations), using the workshop contributions as a basis. Action: Susan Avery, others?, with support from Secretariat

Long-term data

Continue development of WebGIS that enhances visibility of long-term datasets, with metadata and links to global data providers/portals. Content to be provided by all POGO members. Action: Alex Kraberg, with support from Secretariat.

7. Partner organisations

Continue to pursue collaborations with partner organisations: European Marine Board, GOOS, JCOMMOPS, IODE, JPI, SMART, Our Global Estuary. Action: Secretariat, Executive Committee, Members.