

## BOOS Annual Meeting Day 3 – Business meeting, 6 November 2020

### 1. Registration, approval of agenda & appoint a rapporteur

- Among 22 partners (including two associated partners), 12 partners joined the meeting, 6 partners with apologies.
- No comments to the agenda
- Jun She is appointed as rapporteur

	Partner	Registration
1	AU	X
2	BSH	X
3	DMI	X
4	EMI	N/A
5	GEOMETOC	X
6	FMI	X
7	HZG	X
8	IMGW	Apology
9	IOPAN	X
10	IOUG	Apology
11	IOW	X
12	KU	Apology
13	LVGMC	Apology
14	RSHU	Apology
15	SMA	X
16	SMHI	X
17	SYKE	Apology
18	Taltech	X
19	UL	X
20	NWAHEM	N/A
21	SPbSOI	N/A
22	EPA	N/A

### 2. BOOS STG membership election

- 14 votes have been collected (incl. 3 from emails), agreed for Jun She and Taavi Liblik to be the BOOS STG member. The rest 8 partners are abstentions.

### 3. Summary report of BOOS Modelling Program (Thorger Brunning)

- BMP strategy document was discussed. An updated version will be circulate within BMP
- Existing WGs: Data Assimilation WG, MME WG and Cal/Val WG (Simon Jandt): major cooperation is within BAL MFC, but the groups are going to have extended cooperation open to all BOOS partners.  
Actions:

- Data assimilation WG: an extensive WG meeting will be organized in a few month with involving all interested partners (Lars Axell)
- MME WG:
  - to add more sea level stations in Latvian, Lithuanian and Polish coast (Thorger Brunning)
  - LEGMC sea level data exchange (Valters, Vibeke, Jan Reissmann and Thorger)
- Cal/Val: a python-based validation protocol is ready. In a suitable time, this will be open to all interested BOOS partners (Simon Jandt)
- New WGs:
  - Estuary-coast WG: a list of interested partners has been identified in BOOS AM Day 1. Jens Murawski agreed to be WG leader.
  - NEMO WG: Joanna Steneva agreed to organize an online meeting
- Administration: BOOS GA approved BMP Board proposal on extension of BMP Board membership to another year and Thorger Brunning's position as BMP Manager.
- Discussions: Jaromir (IOPAN) is interested in joining the Cal/Val WG.

#### 4. Summary report of BOOS cooperation Day-1 (Jun She)

In BOOS AM Day-1, several new potential cooperation areas have been proposed and discussed.

##### 1. BOOS Data and Data Science Cooperation

It was proposed that BOOS Data cooperation should cover on-going BOOS data activities and also new cooperation, including private data with public-private partnership, river data, NRT data delivery, QC, new data collection and machine learning. This is regarded as one of the major components of "BOOS Observation Program".

1.1 Public-private partnership for private data: Patrick Gorringer will lead this activity to initiate meetings between interesting BOOS partners and private companies.

##### 1.2 River data

Patrick Gorringer (Led) will contact BOOS partners to get either river data links or a national contact point for the river data.

Comments:

- both freshwater and nutrient load should be included
- Philip Axe has a Baltic-North Sea river dataset.
- For DK data, Jun is the contact for the moment but Marie Maar will check if colleagues in AU (related to ODA data) are interested to join.

##### 1.3 NRT Ship data delivery

Many partners have already made data available in near real time. SMHI is currently working on a new QC process, which is expected to be sorted out in 2 weeks. Then the NRT delivery process can be started.

Action:

- Johanna Linders (led) will prepare a guideline for BOOS members to upload CTD data from monitoring cruises in the NRT mode as well as a user manual for QC. Both documents can be made available via BOOS website.
- Johanna Linders (led) will contact national contacts for NRT data access

#### 1.4 Quality control

SMHI (Johanna), DMI (Jun), FMI (Laura) and FCOO (Johan) are interested partners. This cooperation is currently at a level of information and best practice exchange. In a suitable time, a workshop can be organized.

#### 1.5 Big data and machine learning

DMI used ML for sea level QC; FMI used ML for identify outliers of Argo/glider data; BSH also has a AI project for ensemble drift prediction. This cooperation is currently at a level of information and best practice exchange. In a suitable time, a workshop can be organized.

#### 1.6 Data mining and ingestion

This task aims at collecting new data, all members in Data cooperation are well come to contribute.

### 2. Marine plastic cooperation

Action: Jun She will set up an online meeting with interested partners to follow-up. It was suggested to put the cooperation document on the web for common access and editing.

### 3. Argo-glider cooperation

Laura Tuomi and Waldemar Walczowski will contact interesting partners (BSH, Taltech, SMHI, VOTO) to form the cooperation. It is recommended to put an information page on BOOS Argo-glider cooperation on the BOOS website.

### 4. Chart Datum WG

Currently SMA, SMHI, BSH and FMI are working together to implement common reference level.

Actions:

- BOOS tidal gauge operators should well receive the progress of CDWG, and potential to switch to common reference level (SMA has the action to contact the tidal gauge operators)
- When implemented, sea level data (both model and observations) should be adjusted to the common reference level. BOOS website should made similar adjustments.
- Next meeting of CDWG is April 2021

### 5. Estuary-coastal modelling

Action: Jens Murawski will contact interested partners to start the discussion on the implementation of this WG.

### 6. JERICOS-S3 cooperation on coastal sea observations

Baltic Sea activities in JERICOS-S3 include i) to build up a GoF Supersite and ii) network activities for monitoring in Baltic-North Sea transition waters for long-term monitoring. Enhanced interaction with BOOS members (as potential users) are important. User demands and, maybe, joint data applications can be developed in the future. Applications may cover multiple areas, eg climate change adaptation, oxygen depletion, algae bloom etc. Jukka Seppala is leading this cooperation.

### 7. Tailored product cooperation

There are existing BOOS partners who are working on the tailored products for HELCOM, CMEMS, C3S and national usage but no further comments were given on this cooperation. This cooperation can be formed if there is funding available.

For details of the new BOOS cooperation, see document “outcomes of BOOS AM Day1 - BOOS Cooperation”, circulated by Jun She.

## 5. BOOS Website WG

In the past year Jan Reissmann and BOOS STG have worked with EuroGOOS to make a structure of BOOS website and embed it to eurogoos.eu. The work is still on-going. A few on-going issues are discussed in the AM:

- BOOS web domain name
  - i) Will current domain boos.org be kept? DMI can keep the boos.org at least for another year, and if there is a wish from BOOS partners, it can also be kept permanently.
  - ii) Is it fine to use boos.eurogoos.eu as a new domain name? BOOS GA has voted and agreed this solution.
- Social media links in BOOS website: since there is no source to maintain the links, Jan suggested to remove this in the new website.
- BOOS Web WG Chair: Jan will have another position at BSH, thus less time to work on BOOS WG. Jan suggested that BOOS to consider a new WG Chair in the future. However, no one has volunteered for the Chair position.
- BOOS Web WG work: currently the BOOS web WG is not active, and also lack of mandate. To continue the WG work, strong supports are needed. After discussion, following consensus was made:
  - BOOS Web WG has the mandate to assign work to BOOS STG for the provision of renewed web contents; BOOS STG agreed to have this role.
  - BOOS Web WG members agree to spend more time on the BOOS website work.

## 6. Partner progress reporting

12 members presented their year progress reports. The reports and presentations will be collected and presented in the BOOS website. There are a few notable features worthwhile mentioning here:

- i) Seamless forecast capacity: forecasts are moving further to resolve estuary and coastal zone (incl. port, harbor and lakes) with 100 m or higher resolution (BSH, DMI, FMI, HZG, IOPAN, SMHI, SYKE, UL); increasing use of data assimilation for operational forecast (BSH); coupled ocean-wave models and unstructured grid modelling for both hydrodynamics and biogeochemical processes are developed.
- ii) Marine climate change adaptation: national projects are running in Denmark and Germany.
- iii) Ocean health: capacity of pollutant (incl. plastic litter) modelling has been developed. Nature-based solutions are developed for national waters.
- iv) Data: open and free data policy has been adopted by more and more members (BSH, DMI, LEVMC...); new data such as bathymetry (SMA), currents (FCOO), Argo (FMI), ferrybox /Kerist./glider (Taltech) are planned and will be available
- v) Data science: increased usage of ML and AI for data QC and analysis (BSH, DMI and FMI)
- vi) Data-driven service: integrated national marine data service has been developed in Finland (Finnish Open Marine Data) and under-development in Poland; national scale user survey has been done in Denmark.; high resolution grid (<300m) forecast products can be useful for

## 7. External cooperation

### 7.1 BOOS-EMODnet cooperation:

Patrick Gorringer presented a request from EMODnet-Physics on accessing BOOS MME model data and presenting them in EMODnet website. With this, a mutual benefit for both EMODnet and BOOS can be expected. However, this should be approved by MME partners. Jun She also commented that if MME contents are used for proposal application e.g. Digital Twin Ocean, MME partners should be involved.

Action: Patrick Gorringer will need to contact Thorger Brunning for getting approval from MME partners.

### 7.2 BOOS involvement in EuroGOOS TTs and WGs:

BOOS-EuroGOOS TT-WG integration has been discussed in BOOS STG twice. A list of BOOS partner involvement in EuroGOOS TTs and WGs have been made. For next step, Ana Lara Lopez, scientific officer from EuroGOOS, said that EuroGOOS Office can offer support (e.g. as a moderator) on two activities:

- i) Identify BOOS needs in TTs and WGs;
- ii) BOOS contribution to IOC Ocean Best Practices System Project (OBPS), if any.

It was agreed that BOOS STG, BOOS TT-WGs ambassadors and EuroGOOS office will work together on Task i). There is no immediate conclusion on Task ii) but BOOS STG will follow up with potential contribution.

### 7.3 BOOS-NOOS integration

River data work can be a theme for BOOS-NOOS cooperation. Jun She and Patrick Gorringer will follow up the action.

### 7.4 Other BOOS external relations: no comments received.

## 8 AOB:

- Jan Reissmann has a question on BOOS Observational Program (BOP): in BOOS AM 2019, 3 STG members (Patrick Gorringer, Miroslaw Darecki and Michael Neumann) are assigned to work on BOP-related issues, e.g. MoU. What is the status?  
Patrick said there have been no activities yet on BOP.  
No plan for next step was presented.