



8th Annual meeting of the OceanPredict Science Team

AGENDA

Busan, Republic of Korea

Hotel Grab the Ocean, Songdo

6-10 November 2023

General overview of agenda items:

Average day duration: 6 hours without breaks

Topics	Description	Time allocation	Communication/ presentations	Day
1. OPST-8 objectives	<ul style="list-style-type: none"> ○ Meeting objectives/priorities/actions ○ New OPST activities ○ Challenges 	40 min	Presentations & discussions	Day 1
2. OP/UN Decade activities	<ul style="list-style-type: none"> ○ ForeSea ○ Discussion about ForeSea vs OceanPredict. ForeSea role as connector to other value chain components (obs, data, services) and how to show impact of ocean prediction for society ○ SynObs ○ OP-DCC ○ Ideas for possible future Decade engagements 	120 min	Presentations & discussions	Day 1
3. OP engagements with partner organisations	<ul style="list-style-type: none"> ○ GEO Blue Planet ○ DITTO ○ CoastPredict ○ Ocean Observing Co-Design ○ Other.... ○ Conference attendance at OSOS, OSM2024, 8th WMO Workshop on the Impact of Various Observing Systems, etc. (outcomes, relevance, impact) 	60 min	Short presentations (10 min)	Day 1
4. OP Symposium 2024	<ul style="list-style-type: none"> ○ Status of symposium preparation ○ Science: strategy, aim, content, including outreach to partner organisations, invited speakers, etc ○ Organisation: costs, rooms, advertisement, IOC/WMO, special issue 	90 min	Overview talks, discussion	Day 1
5. Task Teams	<ul style="list-style-type: none"> ○ TT achievements and updates ○ Plans ○ Links with other TTs and OPOS ○ Links with UN Decade 		TT co-chair presentation and discussions	Day 2
6. OPOS	<ul style="list-style-type: none"> ○ National report plans ○ System overviews ○ Links with UN Decade 		Presentation (chairs + systems) and discussions	Day 3
7. Science Day	<ul style="list-style-type: none"> ○ Full day event allowing local scientist to present their work ○ Reflection on OP relevance for current science topic, what's 		Oral & poster presentations	Day 4

	been achieved and what science challenges can be expected in the future			
8. OP communication and visibility	<ul style="list-style-type: none"> ○ Review of internal/external communication and visibility 		Presentation and discussion	Day 5
9. Future activities & plans	<ul style="list-style-type: none"> ○ Presentation and discussion about future direction and planned activities 		Co-chair presentations and discussion	Day 5
10. Group photo				Day 1
11. OPAS group meeting	<ul style="list-style-type: none"> ○ OP outlook/strategy ○ OP finances/programme office ○ Symposium 2024 support 		Separate OPAS meeting (virtual)	
12. Social/special events	<ul style="list-style-type: none"> ○ Opportunity for OP members to talk and network informally 		Dinner, poster sessions, etc.	Day 5

Day 0 – Sunday 5 November

Sunday / Sunday evening events not confirmed (tbd)

Co-chairs only meeting and/or dinner to discuss OPST-8 and agree roles in the meeting ahead

Day 1 – Monday 6 November

Introduction day – Meeting objectives, UN Decade and other external engagements

Diamond room on the 20th floor

Morning session chair: Marie Drevillon

08:30 – 09:15 **Registration and posters set-up for science day**

09:15 – 09:30 **Welcome by local host, Hyi Seung Lee, Vice President of KIOST**

1. OPST-8 objectives and priorities

09:30 – 10:00 **Meeting objectives and priorities**
(20+10) – Fraser Davidson, ECCC (remote)

10:00 – 10:05 **2. OP and links with the UN Decade (5 min)** intro by session chair

10:05 – 10:35 **OP-DCC and OP:** How OP is involved, value chain vision of OP-DCC, what OP support is needed in future
(20+10) – Enrique Alvarez (onsite)

10:35 – 11:00 **Break**

11:00 – 11:30 **ForeSea and OP:** Integration of OP/ForeSea/OP-DCC, what are their roles and how do they interact with each other, what are the ForeSea activities, how can OP support ForeSea, where does ForeSea want to be in 2-3 years ..
(20+10) – Eric Chassignet (onsite)

11:30 – 12:00 **Discussion** about ForeSea role, support by TTs, future path of ForeSea

12:00 – 12:30 **SynObs** – current status of activities, progress plans, issues, support needed from OP
(20+10) – Yosuke Fujii (onsite)

12:30 – 13:00 **Discussion** on ForeSea, SynObs, OP-DCC and other involvement options with UN Decade actions, proposals for new projects, engagements with programmes, etc.
(30 min)

13:00 – 14:00 **Lunch**

Afternoon session chair: PN Vinayachandran

14:00 – 14:05 **3. OP engagements with partner organisations (5 min)** intro by chair

14:05 – 14:30 **CoastPredict** – overview of activities and existing/expected collaboration with OP
(15+10 min) – Nadia Pinardi (remote)

14:30 – 14:55 **Ocean Observing Co-Design** – overview of activities and existing/expected collaboration with OP
(15+10) – Emma Heslop (remote)

14:55 – 15:20 **GEO Blue Planet** – feedback from GBP symposium (previous week) and vision for OP/GBP collaboration
(15+10) – Pierre-Yves Le Traon (onsite)

15:20 – 16:00 **Break**

16:00 – 16:25 **DITTO (15+10)** – overview of activities and existing/expected collaboration with OP
(15+10) – Martin Visbeck (remote)

16:25 – 16:55 **Discussion** about external OP activities (in and outside UN Decade): what partnerships are in place, what new partnerships should OP seek, where should OP move, what partnerships should be improved and how should we reflect our partnerships and engagement at the OP '24 symposium?

16:55 – 17:00 **Daily recap**

17:00 – 17:10 **Group photo**

17:10 **End of day 1**

From 17:30 **Welcome OPST dinner hosted by KIOST**

Day 2 – Tuesday 7 November

Task Team Day

Diamond room on the 20th floor

Morning session chairs: Fraser Davidson

Continued posters set-up for science day

4. OP Symposium 2024

- 09:00 – 09:30 Organizational status, costs, room
(20 + 10) – PN Vinayachandran, Indian Institute of Science (remote), Marie Drevillon, MOi (onsite)
- 09:30 – 10:00 Science content, strategy and outreach
(20 + 10) - Eric Chassignet (onsite), Andreas Schiller (remote)
- 10:00 – 10:30 **Discussion** about OP symposium 2024

5. Task Teams – science activities and plans by task team co-chairs

10:30 – 11:00 Break

- 11:00 – 11:30 **COSS-TT** (20+10) – Alexander Kurapov, NOAA (onsite)
- 11:30 – 12:00 **CP-TT** (20+10) – Kristian Mogensen, ECMWF (onsite)
- 12:00 – 12:30 **DA-TT** (20+10) – Andy Moore, UCSC (onsite)

12:30 – 13:30 Lunch

Afternoon session chairs: Marie Drevillon

- 13:30 – 14:00 **OS-Eval TT** (20+10) – Yosuke Fujii, MRI-JMA/ Elisabeth Remy, MOI (onsite)
- 14:00 – 14:30 **IV-TT** (20+10) – Fabrice Hernandez, IRD (onsite)
- 14:30 – 15:00 **MEAP-TT** (20+10) – Liuqian Yu, Hong Kong University (remote)
- 15:00 – 15:30 **Discussion or exchange option** for TTs to discuss via breakout groups or with fellow TT members

15:30 – 16:00 Break

6. OPOS

- 16:00 – 16:20 **OPOS progress / plans** – providing overview of WG work and introducing new national reports
(15 + 5) - David Ford and Fraser Davidson
- 16:20 – 16:35 Highlight relevance of Ocean best practice
(10 + 5) - David Ford and Fraser Davidson

OPOS system presentations

- 16:35 – 16:50 CMCC/OSG, Italy – Emanuela Clementi, CMCC (remote)
- 16:50 – 17:05 NERSC, Norway - Laurent Bertino, NERSC (remote)
- 17:05 – 17:20 Operational systems South Africa – Jennifer Veitch, SAEON (remote)
- 17:20 – 17:30 Discussion

17:30 – 17:35 Daily recap

17:35 End of day 2

Day 3 – Wednesday 8 November

OPOS and OP systems

Continued posters set-up for science day

Diamond room on the 20th floor

Morning session chair: PN Vinayachandran

6 contd. OPOS / systems (talks tbc)

09:00 – 09:15 REMO – Luiz Claudio Fonseca or Clemente Tanajura, REMO, Brazil
09:15 – 09:30 CONCEPTS – Greg Smith or Fraser Davidson, ECCO, Canada
09:30 – 09:45 HYCOM – Pat Hogan (NOAA), USA
09:45 – 10:00 FOAM – David Ford, Met Office, UK
10:00 – 10:15 ECCO – Patrick Heimback, University of Texas at Austin, USA
10:15 – 10:30 Discussion

10:30 – 11:30 Break

11:00 – 11:15 ECMWF – Kristian Mogensen, ECMWF (onsite)
11:15 – 11:30 NMEFC – Guimei Liu, NMEFC (onsite)
11:30 – 11:45 INDOFOS – Francis Pavanathara, INCOIS (onsite)
11:45 – 12:00 Discussion
12:00 – 12:15 MOI – Marie Drevillon, MOI (onsite)
12:15 – 12:30 RTOFS – Dmitry Dukhovskoy, NOAA (remote)

12:30 – 13:30 Lunch

Afternoon session chair: Fraser Davidson

13:30 – 13:45 JMA system; MOVE/MRI.COM – Goro Yamanaka, MRI-JMA (remote)
13:45 – 14:00 BLUElink – Gary Brassington, BoM (remote)
14:00 – 15:00 Discussion

15:00 – 17:00 7. Discussion about Observing system interaction with OP

15:00 – 15:15 **Argo (and ARGO BGC)** – Peter Oke, CSIRO (remote)
15:15 – 15:30 **GOOS** – Joanna Post (IOC/GOOS) (remote)
15:30 – 15:45 **Bio/Eco** – Karen Evans (CSIRO), co-chair of the GOOS panel for BIO/ECO (remote)
15:45 – 16:00 Discussion / Q&A

16:00 – 16:30 Break

16:30 – 16:45 **Satellites observations** – Elisabeth Remy, MOi (onsite)
16:45 – 17:00 **SWOT** – Pierre-Yves Le Traon, MOi (onsite)

17:00 – 17:10 Daily recap

17:10 End of day 3

18:00 – 19:30

OPAS meeting (OPAS, PO and OP co-chairs only)

Day 4 – Thursday 9 November

Science session – Topic or header to be confirmed

Crystal room on the 2nd floor

Morning session chair: Do-Seong Byun

Science day presentations (12 min talk + 3 min Q&A)

Potential attendee: ocean and atmospheric scientists, observation specialists, industry representatives, service providers, governments, and users of ocean data & products

Session 1: Regional and global operational ocean forecasting systems in Korea			
Session chair: Alex Kurapov			
09:00-09:15	1.1	KHOA's activity on ocean forecasting activities and their applications	Do-Seong Byun (KHOA)
09:15-09:30	1.2	Development of a marine forecasting system for use in fisheries	Joon-Soo Lee (NIFS)
09:30-09:45	1.3	Introduction to Korean Operational Oceanographic System (KOOS)	Jae Il Kwon (KIOST)
09:45-10:00	1.4	Operational Wave Forecasting System in KMA and its Applications	Pilhun Chang (NIMS)
10:00-10:15	1.5	Introduction to KIOST Ocean Climate Seasonal Prediction Modeling and Outlook Service	Hyouon-Woo Kang (KIOST)
10:15-10:45		Group photo & Coffee break	

Session 2: User application of ocean forecasting systems			
Session chair: Francis Pavanathara			
10:45-11:00	2.1	Digital Twin for Ocean – Extension of Our Experiences and Experiments	Changwon Ahn (MEGAZONE CLOUD)
11:00-11:15	2.2	Applicability of AGRIF in the Regional Ocean Circulation Model	Hyeok Jin (Geosystem Research)
11:15-11:30	2.3	Application of numerical models in UST21: from coastal to open ocean	Joonho Lee (UST21)
11:30-11:45	2.4	Tracking the pumice rafts from the Fukutoku-Okanoba submarine volcano with Satellites and a Lagrangian Particles trajectory model	Young-Gyu Park (KIOST)
11:45-12:00	2.5	The achievement of KOOS in national agencies and industries	Nam-Hoon Kim (KIOST)
12:00-13:20		Lunch break	
13:20-14:30		Poster presentation	

Session 3: Science in support of ocean prediction			
Session chair: Ann Kristin Sperrevik			
14:30-14:45	3.1	Local stratification preconditions the marine heatwaves in the Yellow Sea	Dong Eun Lee (Chungnam National University)
14:45-15:00	3.2	Containerization of numerical ocean model for computational reproducibility and portability in the cloud computing	Kwangwoog Jung (Seoul Nat. University)
15:00-15:15	3.3	Evaluation of impact on regional observing system through Observing System Experiment in Northwest Pacific	YoungHo Kim (Pukyong National University)
15:15-15:30	3.4	Evaluation of ocean reanalysis data for the Yellow Sea and East Sea	Byoung-Ju Choi (Chonnam National University)
15:30-15:45		Coffee break	
15:45-16:00	3.5	Impact of satellite-based thickness data assimilation on bias reduction in Arctic sea ice concentration	Jeong-Gil Lee (Chonnam Nat. University)
16:00-16:15	3.6	Prediction of sea surface current around the Korean peninsula using artificial neural network	Jeong-Yeob Chae (Inha University)
16:15-16:30	3.7	Seasonal differences in tropical cyclone-induced sea surface cooling in the western North Pacific	Vineet Kumar Singh (Jeju National University)

Poster presentation

Session	Title	Name (affiliation)
1	Influence of warm surface water originating from the East China Sea on surface water temperature off the south coast of Korea in summer	Jong-Kyu Kim and Byoung-Ju Choi (Chonnam Nat. University)
2	An assessment of High-Resolution regional ocean reanalysis for Northwest Pacific K-ORA22	Inseong Chang (Pukyong National University)
3	Conducting and Performance Evaluation of a High-Resolution Regional Ocean Model in Yeosu-Gwangyang Bay using GFDL MOM6	Nayoung Park, Inseong Chang, Young Ho Kim (Pukyong Nat. University)
4	A numerical study on Natural and Anthropogenic effects on Primary Production in Gwangyang Bay, Korea	Seung-Hwa Chae ¹ , Yang-Ki Cho ¹ , Yong-jin Tak ² and Myeong-Taek Kwak ³ (¹ Seoul National University ² Gangneung-Wonju National University ³ Chonnam Nat. University)
5	Data assimilation and upstream open boundary bias correction in a regional model for the East Sea	Jae-Sung Choi and Byoung-Ju Choi (Chonnam National University), Kyungman Kwon (KIOST)
6	A multi-year climate prediction system based on CESM2	Yong-Yub Kim (PKNU) et al

7	Development of Four-Dimensional Variational Global Ocean Data Assimilation System for Coupled Predictions in Japan Meteorological Agency and Evaluation of the effects of Argo Data Quality Control in the System	Yosuke Fujii (JMA-MRI)
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17:00 **End of day 4**

From 18:00/18:30 **OPST- 8 Science Day dinner (invite by host)**

Day 5 – Friday 10 November

Communications, future plans and meeting conclusion

Crystal room on the 2nd floor

Morning session chair: Marie Drevillon

09:00 – 09:30	OPAS group – feedback from the OPAS meeting this week (20+10) – Pierre-Yves Le Traon, MOi (onsite)
09:30 – 09:40	Introduction of new OP coordinator (10 min) – Stephanie Cuven, MOi (onsite)
09:40 – 10:00	Programme office activities (15+5 min) – Kirsten Wilmer-Becker, Met Office (onsite)
10:00 – 10:30	Discussion: Internal & external communication and OP visibility
10:30 – 11:00	Break
11:30 – 11:45	Review of OPST-8 meeting actions (if available) (15 min) – Kirsten Wilmer-Becker, Met Office (onsite)
11:45 – 12:30	OP Future Plan – brief future vision statement by co-chairs, strategy review, executive committee introduction, OPST-OPOS interactions, .. (20 + 25) – Fraser Davidson, ECCC (onsite)
12:30 – 13:00	Discussion about this meeting and lessons learnt
13:00	Meeting closes
From 13:00	Lunch

From 13:30 Bus trip – self pay

To ca 18:00 Drop of at hotel