



2022 United Nations Ocean Conference Side Event

“Our Changing Ocean: Navigating Observations and Building Research-Driven Solutions”

Wednesday 29 June at 5.30pm in Side Room 2

Organized by: Earth Observatory of Singapore (EOS), Consortium for Ocean Leadership (COL), Ocean Air-Sea Interactions Strategy (OASIS), Ocean Acidification Research for Sustainability (OARS), Nanyang Technological University, with keynote address by Dr Sylvia Earle

Background on the event (one paragraph)

Our side event entitled: *Our Changing Ocean: Navigating Observations and Building Research-Driven Solutions* occurred on June 29, 2022 from 17:30- 18:45 inside event room 2, and consisted of a 75 minute panel with presentations and discussions. Our panel of speakers had expertise in various disciplines that discussed scientific solutions, through research, collaboration, and data. Panel participants included keynote speakers Dr. Vladimir Ryabinin and Dr. Sylvia Earle, Dr. Meghan Cronin, Professor Ben Horton, Dr. Jan Newton, and Dr. Ana Colaco. The theme of our side-event, unifying observational partners and strategies to develop an integrated global research network creating ocean and climate solutions critical to our survival, coincides with UN Ocean Conference goal of “scaling up ocean action based on science and innovation for the implementation of Goal 14: stocktaking, partnerships and solutions” by increasing scientific knowledge and developing research capacity and transfer of marine technology as well as, leveraging interlinkages between Sustainable Development Goal 14 and other Goals towards the implementation of the 2030 Agenda and desired UN Decade of Ocean Science for Sustainable Development outcomes. Our event brought together multidisciplinary stakeholders to grow a community committed to achieving a global network of ocean

observations with new perspectives and ideas to accomplish the goals of the UN Ocean Conference and further the 2030 agenda.

Key Issues discussed (5- 8 bullet points)

- Global and local driving processes impacting sea level rise
- Marine ice-sheet instability and need for technology lead data points
- Scientific frontiers to observe, reconstruct and project sea-level rise in southeast Asia
Research solutions for observing air-sea interactions
- Air-sea exchanges of heat, momentum, water, carbon dioxide, and other gases to understand their impact on weather, climate and the ecosystem.
- Study ocean acidification through observations to understand conditions, impacts, and future predictions
- Exploration and management of sea level rise and deep sea resources
- Importance of collaboration globally to build complete datasets on the changing ocean

Key recommendations for action (5 - 6 bullet points)

- Alignment of data globally to enable shared access and cross- partnership projects
- Fill observation gaps with new technology, coordination, and partnerships
OASIS aims to quantify the air-sea exchanges of heat, water, momentum, and carbon dioxide, and their impacts on weather and climate and life in the ocean
- OASIS will help provide air-sea interaction products that are observed globally and used globally
- Public-private partnerships can help fill data gaps, e.g. Philanthropic data buys
- The global science community, led by OARS, will be equipped to provide the high quality, high quantity and high-resolution ocean acidification data needed.
- Specific data and evidence needs for mitigation and adaptation strategies to ocean acidification and other stressors, from regional to global scales, will be clearly identified and provided.

Voluntary Commitments (one paragraph)

The organisers of this event are committed to unifying observational partners and strategies to develop an integrated global research network creating ocean and climate solutions critical to our survival. OASIS and EOS will strive to develop a collaboration in southeast Asia on the UN Decade Program measuring the interaction between ocean/atmosphere dynamics. The organisers will also coordinate all relevant programs under the UN Decade of Ocean Science for Sustainable Development, such as OASIS, OARS, and others.