FVON UPDATES.

Q1 2025

MEET THE MEMBER COMMITTEE

Kwame Agyekum
Lancelot Blondeel
Ainhoa Caballero
Carles Castro Muniain
Andrew Corso
Caroline Cusack
Julie Duchêne
Naoki Hirose
César González-Pola
Hellen Kizenga
Véronique Lago
Mbiru Moses Mapombe
Terry McConnell
Filipe Nhanquê
Pierluigi Penna
Tanuspong Pokavanich
Linus Stoltz
Tetsutaro Takikawa
R. Venkatesan
Z. Aleck Wang

The Member Committee has officially joined the FVON community! Between **establishing pilot programs** around the world, **engaging and building trust** directly with fishers, **providing critical industry insights**, connecting ocean data to **tangible benefits in science and fisheries**, and more — their work ensures that FVON remains grounded in the real needs of the fishing community while advancing toward a sustainable blue economy.

DIVING INTO THE CARIBBEAN, SOUTH PACIFIC, & MORE

FVON PLANS AN AGREEMENT WITH IOCARIBE

Cooper Van Vranken presented on FVON-Bahamas at the Eighteenth Intergovernmental Session of the IOC Sub-Commission for the Caribbean and Adjacent Regions (IOCARIBE XVIII), which resulted in overwhelming support for implementing FVON throughout the region. Member states discussed next steps for enshrining the implementation of FVON as an obligation for joining IOCARIBE – a resolution which was met with enthusiasm from the representatives present.

This progress was a result of FVON's attendance at several events leading up to IOCARIBE XVIII. At the WMO Hurricane Ocean Panel (RAIV HC-47), the Hurricane Committee recommended collaborations between FVON and Caribbean countries, stating that the "expansion of FVON through the region can significantly increase ocean observations, with the potential of

Chris Cusack on location in The Bahamas. (Credit: Mark Schrope)

improving hurricane forecasting." FVON was highlighted once again at the 16th Session of the Observations Coordination Group (OCG-16) during a presentation by Dr. Scott Glenn (Ocean Gliders).

The FVON pilot in The Bahamas already provides critical support for hurricane forecasting in the Caribbean, and FVON is excited to continue collaborating with fishers and driving impact.

FVON Co-Chairs (Cooper Van Vranken, Miguel Santos) at the OCG-16 meeting.

SOUTH PACIFIC INSTALLATIONS

Moninya Roughan and her team have been traveling across the Pacific to instrument fifty vessels with deck units and sensors by September 2025, rapidly expanding subsurface data collection in key geographies throughout the South Pacific Ocean. So far, vessels are collecting data in Papua New Guinea, the Solomon Islands, Fiji, the Northern Territory, Western Australia, and New South Wales. Check out the new article that features FVON, published in the last SPC newsletter.

Moninya is part of the Pacific Community (SPC), the NGO that is leading the PI-FVON trial in collaboration with the Integrated Marine Observing System (IMOS) and the University of New South Wales (UNSW) Sydney. The subsurface measurements are critical for monitoring the movements of tuna as the oceans change – safeguarding the food security and economic well-being of fishers all over the region.

Moninya Roughan on location in Papua, New Guinea.

NEW DATA FROM BANGLADESH

In April, Carles Castro Muniain traveled to Bangladesh to outfit three vessels in the Bay of Bengal. As of June, the vessels are already starting to catch data and send it to the Global Telecommunication System (GTS).

This pilot project is funded by Partnership for Observation of the Global Ocean (POGO) and implemented by Ocean Data Network (ODN) in partnership with Dr. Subrata Sarker, who is the head of the Department of Oceanography at Shahjalal University of Science and Technology (SUST).

FVON sensors in the Bay of Bengal.

COLLABORATIONS IN THAILAND

Dr. Tanuspong Pokavanich and Kong Yalisa gave a presentation to the FVON Steering Committee on the beginning stages of a fishing vessel observing program in Thailand.

Thailand has a pressing need for ocean observing systems, particularly in the Gulf of Thailand, where the region's shallow waters support a massive fishing fleet and are heavily influenced by seasonal monsoons, pollution, eutrophication, and recurring harmful algal blooms, which regularly cause fish kills. Despite these challenges, continuous oceanographic measurements are almost nonexistent. Oil spills, hypoxia events, and

An aerial view of a plankton bloom off the Chon Buri coastline. (Credit: Napat Wesshasartar / REUTERS)

growing economic initiatives are underlining the importance of real-time, high-quality ocean data for effective fisheries management, environmental protection, and disaster response.

There's a strong opportunity for expanding ocean observing in Thailand. FVON is excited about the momentum and ready to support in any way possible.

BUILDING RESILIENCE IN SOUTH AFRICA

As part of "*Building resilience: Strategies for protecting South Africa's marine and coastal biodiversity and ecosystems amid climate change*," a new CoastPredict project proposal, FVON signed a letter of support to instrument two fishing vessels operating in South Africa's southern Benguela region. By filling critical data gaps in under-sampled coastal and shelf areas, FVON will contribute to the evaluation and calibration of historical biogeochemical and wave models with new in-situ observations.

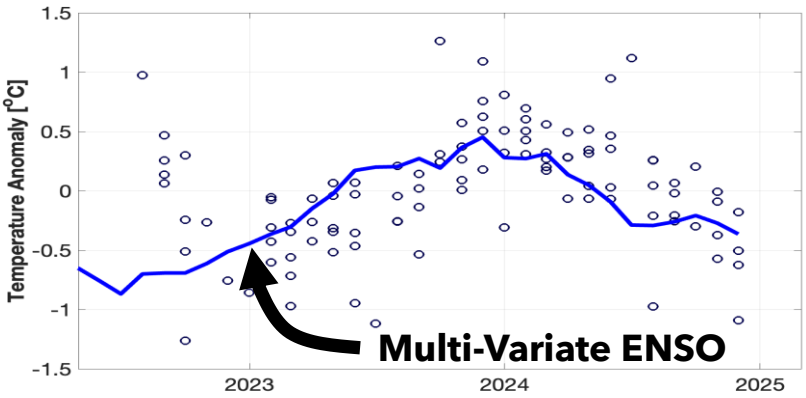
FVON is proud to be working alongside the Department of Fisheries, Forestry and the Environment (DFFE) and the South African National Biodiversity Institute (SANBI), who will contribute to the co-design of tailored climate products to improve economic outcomes for fishers. Other partners include CMCC, University of Connecticut, University of Cape Town, and SAEON. We're excited to move forward!

DEPLOYMENTS IN ALASKA

Gannet Nets is a specialty purse seine net maker based in Washington, USA. Together with Ocean Data Network (ODN), Gannet Nets have developed a seine net performance monitoring and diagnostics tool using multiple ZebraTech Moana sensors on a single net. This win-win for fishers means new opportunities in Alaska in addition to the Alaska Ocean Observing System (AOOS), one of the regional associations of NOAA's Integrated Ocean Observing System (IOOS).

Since August 2022, AOOS has been partnering with Southeast Alaska's fishing community to collect crucial oceanographic data through the Southeast Alaska Trolling Vessel Ocean Measurement program. AOOS provides RBR Concerto CTDs to capture data from depths of up to 100 meters, year-round. In return, fishers are compensated for each monthly cast and contribute valuable insights into regional marine ecosystems. Early findings show promising correlations between observations and long-term datasets as well as climate indices.

Fishers like Jim Moore (pictured) attach RBR Concertos to their gear to profile the water column in a partnership with the Alaska Trollers Association. (Credit: Jim Moore)



Comparison of AOOS fishing-vessel-based observation data with climate indices shows that the state of El Niño/La Niña correlates well with observations from the Southeast region (based on current data).

(Credit: Tyler Hennon, UAF/AOOS)

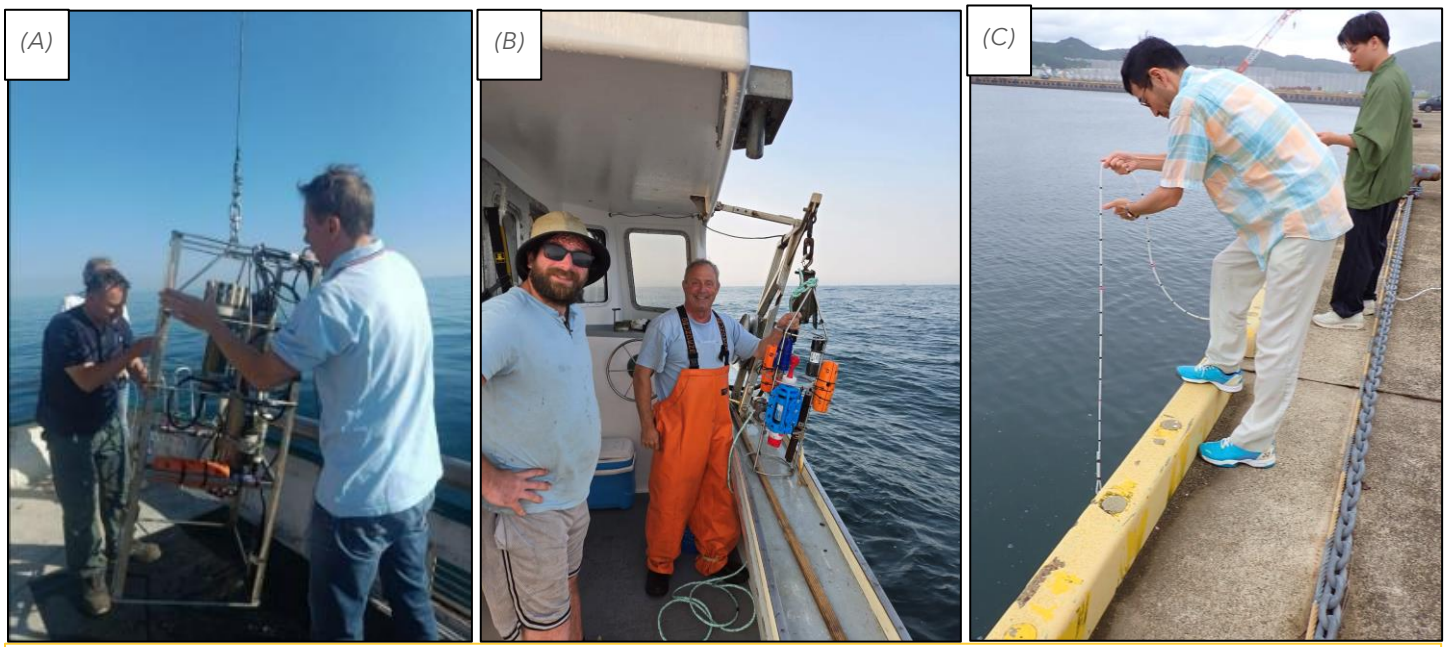
EXPANSION ACROSS THE NORTHEAST UNITED STATES

The Environmental Monitors on Lobster Traps and Large Trawlers (eMOLT) program, led by George Maynard, worked with the Gulf of Maine Lobster Foundation, Center for Coastal Studies, and Coonamessett Farm Foundation to install twelve new systems on fishing vessels of all shapes and sizes under a MassTech-funded project expansion.

Left: The New Bedford-based F/V Retriever, which fishes for squid, mackerel, and herring.

Right: The Wellfleet-based F/V Annie and Joe, which fishes for green crabs.

PROGRESS ON KEY FVON WORKSTREAMS



(A) Deploying operations carried out by the CNR-IRBIM personnel during the intercalibration experiment taking place in the Central Adriatic Sea. (B) Picture from the intercomparison experiment carried out by Linus Stoltz at CFRF. Captain Greg and Deckhand Andrew F/V Amelia Ann getting ready to make a cast in the Mid-Atlantic Blight. (C) Tetsutaro Takikawa and the SFiN team testing out nke and ZebraTech sensors in port in Japan.

PHASE 1 SENSOR TESTING UNDERWAY

FVON has officially launched Phase 1 of its sensor intercomparison study, an effort to document the quality of data collected from sensors on fishing vessels and define best practices. This work aims to also provide guidelines for sensor and logger development, ultimately building economies of scale and clear targets for innovation.

The tests are progressing quickly across Italy, the United States, Japan, and Sweden.

CHECK OUT THE ANNOUNCEMENT:

- LinkedIn
- Twitter
- Facebook
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Italy
Michela Martinelli chairs the Sensor Intercomparison Study Task Team and leads the charge. With support from the rest of the team at the Institute for Marine Biological Resources and Biotechnology of the National Research Council (IRBIM CNR), Michela completed Phase 1 testing in Ancona Harbor and the Adriatic Sea.

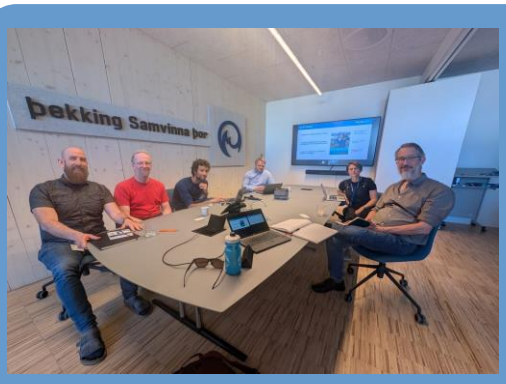
United States
Linus Stoltz led sensor testing efforts off of the coast of Rhode Island, in collaboration with the Commercial Fisheries Research Foundation's (CFRF) ongoing biological surveys within wind energy lease areas. Phase 1 testing is complete, and a cruise report is coming soon.

Japan
Tetsutaro Takikawa carried out testing in port on 23 June. Since then, Tetsutaro and the Smart Fisheries Network (SFiN) team have launched a cruise aboard a training ship from Nagasaki University to carry out the rest of Phase 1 testing.

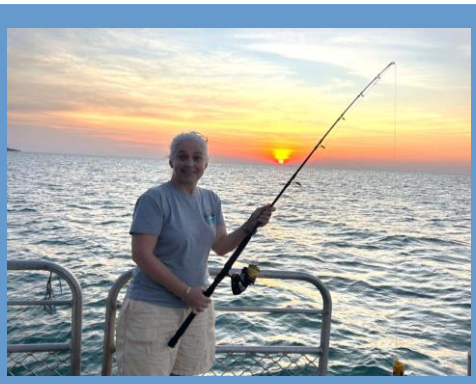
Sweden
Pending final details to be decided by LandSeaLot, Emilie Breviere will build on Michela's Phase 1 report for upcoming tests around the Swedish coast aboard the R/V Svea. Two devices – the Deepod from Sensoid and the WiMo from nke – will be included, with a target deployment on the Svea's September cruise.

We're grateful for the collaboration and support of JFE Advantech, nke Instrumentation, ZebraTech, Star-Oddi, Lowell Instruments, CatchCam, and the many dedicated team members bringing this work to life. Thank you!

Next up is Phase 2: sensor testing on fishing gear. ZebraTech and nke sensors were deployed on a commercial bottom trawler in the Adriatic Sea, kicking off this next phase of the sensor intercomparison study. Stay tuned for updates on the incoming cruise reports and analysis.



Chris Cusack says hello from the International Fisheries Observer and Monitoring Conference in Reykjavik, Iceland.


Moninya Roughan fishing for data in the Timor Sea.


Patrick Gorringe and Michela Martinelli at the NAUTILOS Final Conference in Horta, Portugal.

FVON AT THE UN OCEAN CONFERENCE

Patrick Gorringe, Cooper Van Vranken, Chris Cusack, and Emma Heslop represented FVON at various UN Ocean Conference events this past month. Many sessions focused on cost-effective and accessible ocean technology, centering on FVON as an exciting solution that's picking up momentum in the ocean observing space.

- During the One Ocean Science Conference, Patrick represented FVON on a GOOS panel titled "The Need for a Sustained and Fit-for-Purpose Ocean Observing System: From Physics to Socio-Ecosystems".
- Emma presented FVON as the keynote speaker at a fishing industry meeting in Vigo, Spain.

- Cooper presented FVON during a biodiversity monitoring session. The session was chaired by Dr. Frank Muller-Karger of MBON, who is interested in working with FVON. Presentation available on YouTube.
- Cooper connected with OceanOPS on its ambitious initiative to scale the number of SOT, VOS, and SOOP ships to 10,000. FVON is a key participant in this goal.
- Patrick presented at a Satlink session. Also present were speakers from FAO and EuroPeche.
- Chris attended the Blue Economy and Finance Forum (BEFF) and presented FVON to a number of investors and financiers.

BY THE NUMBERS

During the first six months of 2025 (1 January to 30 June), FVON pulled in 11,900 tows of data from eMOLT, SFiN, and ODN-supported programs. These metrics will be updated as more programs are added.

Metric	All Programs	eMOLT	ODN	SFiN
Number of tows	11900	8680	1029	2191
Number of tows to GTS	2880	2115	765	0
Vessels	327	85	19	223
Vessels with WMO ID	40	23	17	0
Min/Max Pressure	0.0 / 858.8 dbar	4.5 / 364.5 dbar	1.8 / 858.8 dbar	0.0 / 499.9 dbar
Min/Max Temperature	-0.5 / 31.7 °C	-0.5 / 28.7 °C	0.2 / 16.2 °C	0.6 / 31.7 °C
New vessels	65	50	15	0

SUPPORT FVON COMMUNICATIONS

Show some support by following and sharing FVON's new social media channels on LinkedIn, Twitter (X), Facebook, and Instagram – and, if you haven't seen it yet, look through the revamped FVON website.

OUR OCEAN COMMITMENT

Chris Cusack represented FVON at the Our Ocean Conference (OOC) in Busan. Ahead of the conference, FVON submitted a commitment to supporting sustainable oceans:

> *By 2030, tens of thousands of fishing vessels around the world are collaborating with FVON in ocean observation. We will ensure that fishers receive direct benefits from data collection and work to drive a step-change improvement in our understanding of marine ecosystems that powers an equitable and sustainable blue economy.*

EDF published a blog post featuring the OOC and FVON's attendance, as well as a Twitter (X) post, to accompany FVON's LinkedIn, Twitter (X), Facebook, and Instagram campaign. A press release on the event is available on the FVON website.

UPCOMING FVON WEBINAR

Seafood and Fisheries Emerging Technologies (SAFET) and the Global Ocean Observing System (GOOS) will be co-hosting a webinar showcasing the direct benefits fisheries are receiving from FVON data, including improvements in stock assessments and overall economic resilience. George Maynard (eMOLT), Michela Martinelli (AdriFOOS), Moninya Roughan (FishSOOP), and Nick Hirose (SFiN) will each provide case studies of FVON data in action around the world.

More details with the time, date, and registration link of the webinar will be shared in the coming weeks.

Figure from Hirose et al. demonstrating the automatic transmission of data directly to a fisher's Android device.

DIVE A LITTLE DEEPER

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FVON FISHING VESSEL OCEAN OBSERVING NETWORK