FVON UPDATES

JUNE 2025

WELCOME, NEW MEMBERS

Caroline Cusack
Julie Duchêne

César González-Pola
Pierluigi Penna

Tanuspong Pokavanich
Tetsutaro Takikawa

Thank you for all of your support. Welcome to the FVON Member Committee!

Kwame Agyekum
Mbiru Moses Mapombe
Lancelot Blondeel
Ainhoa Caballero

Carles Castro Muniain
Naoki Hirose
Hellen Kizenga
Véronique Lago
Terry McConnell

Filipe Nhanquê
Linus Stoltz
R. Venkatesan
Z. Aleck Wang

PROGRESS ON KEY FVON WORKSTREAMS

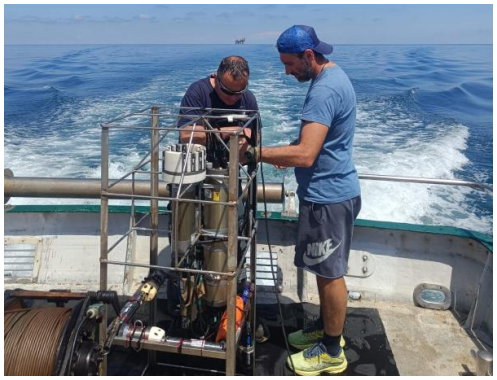
PHASE 1 SENSOR TESTING UNDERWAY

FVON has officially launched Phase 1 of its sensor intercomparison study: a review of best practices for oceanographic sensors. Initial trials were completed in Ancona harbor and the Adriatic Sea and will be replicated in Japan and the United States.

This work is key for documenting data quality and informing sensor deployments. The team aims to provide best practices for sensors on fishing vessels, ultimately building towards creating economies of scale and clear targets for innovation.

Michela Martinelli (CNR-IRBIM) is chairing the Sensor Intercomparison Study Task Team and leading the charge. She has already downloaded preliminary datasets from the initial sensor trials and will begin processing them with support from the team. The cruise report will be released soon, with the goal of documenting results from the study, highlighting places of improvement and best-use cases, and offering practical guidance for broad sensor usage on fishing vessels.

Enrico Cecapolli, Filippo Domenichetti, and Pierluigi Penna participating in the sensor tests. (Credit: Michela Martinelli)



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.

We're grateful for the collaboration and support of **Consiglio Nazionale delle Ricerche (CNR)**, **JFE Advantech**, **nke Instrumentation**, **ZebraTech**, **Star-Oddi**, **Lowell Instruments,** and the many dedicated team members bringing this work to life:

CHECK OUT THE ANNOUNCEMENT:

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Zac Anderson, **Emilie Breviere**, **Enrico Cecapolli**, **Julie Duchêne**, **Julie Jakoboski**, **Shin Kida**, **Véronique Lago**, **Michela Martinelli**, **George Maynard**, **Peter McComb**, **Pierluigi Penna**, **João Souza**, **Linus Stoltz**, **Tetsutaro Takikawa** – thank you!

HELP SHAPE DATA PORTAL DEVELOPMENT

A huge thank you to **Carles Castro Muniain** (Ocean Data Network) and the Data Management Subcommittee for putting together the demo Fishing Ocean Data Portal.

The goal of the eventual FVON data portal is to create practical tools for managing data and monitoring the health of networks of instrumented fishing vessels. For now, the initial Fishing Ocean Data Portal is meant to be used as an internal platform to support diagnostics and coordination across FVON programs. In the future we will also develop a data portal for publicly showcasing data.

METRIC	VALUE
Number of Tows	259
Vessels	11
Vessels with WMO IDs	9
Min/Max Pressure	1.4 / 241.3 dbar
Min/Max Temperature	4.6 / 28.6 °C
New Vessels	1

Metrics for all programs during the month of May 2025.

PLANNING GRANT DELIVERABLES COMPLETE

FVON's one-year planning grant officially ended in May. Under this grant, the FVON team met in a series of strategy calls to progress toward the development of FVON as a self-sustained organization. This required the completion of eight deliverables: (1) a systems map of ocean data, (2) a strategy document, (3) an immediate action plan, (4) a governance structure document, (5) a data and sensor market analysis report, (6) a business plan, (7) a fundraising document, and (8) a communications plan.

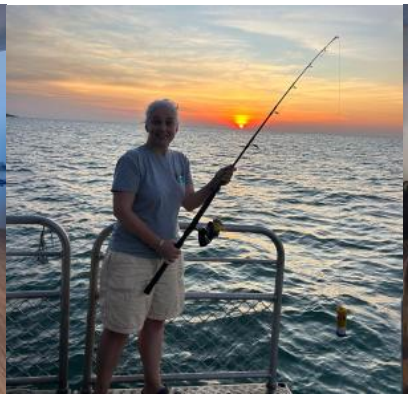
Thank you to **Chris Cusack**, **Dustin Colson Leaning**, **Aubrey Taylor**, and others at the **Environmental Defense Fund** who led this effort, as well as the participants of virtual meetings, the in-person workshop at the University of New South Wales in October, and monthly Steering Committee meetings that culminated from everyone's hard work:

The FVON team meeting at the University of New South Wales, Sydney. (Credit: Greg Muller)

Brett Beamsley, **Emilie Breviere**, **Rita Esteves**, **Patrick Gorringe**, **Naoki Hirose**, **Kim Howe**, **Matt Irwin**, **Fabrice Jaine**, **Julie Jakoboski**, **Shin Kida**, **Véronique Lago**, **Michela Martinelli**, **George Maynard**, **Terry McConnell**, **Peter McComb**, **Hassan Moustahfid**, **Greg Muller**, **Miguel Santos**, **João Souza**, **R. Venkatesan**, **Cooper Van Vranken**, **Zdenka Willis**, **Moninya Roughan**, and **Nadia Pinardi**. Thank you!

GLOBAL SPOTLIGHTS ON FVON

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.

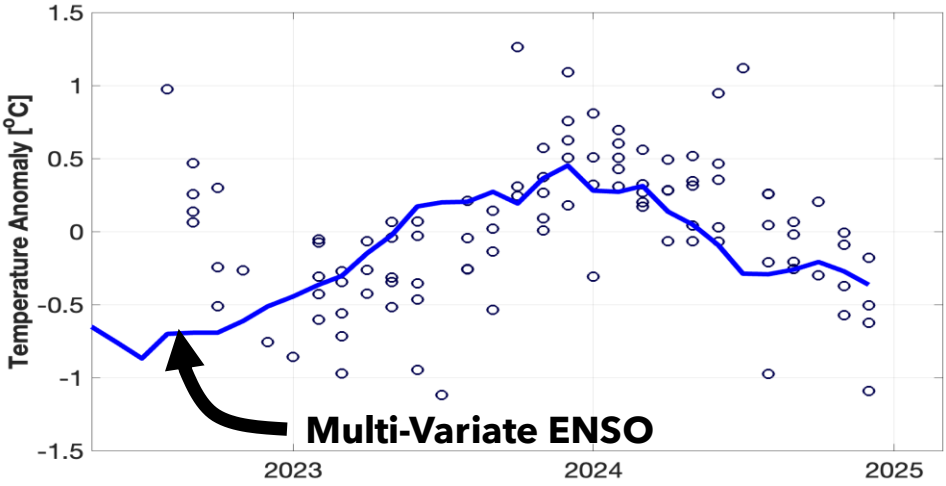
AOOS FISHING VESSEL OBSERVATION NETWORK IN ALASKA

Since August 2022, the Alaska Ocean Observing System (AOOS) – one of the regional associations of NOAA's Integrated Ocean Observing System (IOOS) – has been partnering with Southeast Alaska's fishing community to collect crucial oceanographic data through the AOOS fishing-vessel-based network: the Southeast Alaska Trolling Vessel Ocean Measurement program. Working closely with local trollers, AOOS provide 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. In contrast to core-FVON activities this Southeast Alaska program does not deploy the instrumentation on the fishing gears, but rather has vessels take periodic casts. Similar programs also include the WHOI-CFRF Shelf Research Fleet, and the Ocean Networks Canada Community Fishers Program.

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)

The collaboration with the fishing community not only supports scientific research but also strengthens the connection between academia and those who rely on these waters. Early findings show promising correlations between observations and long-term datasets, like the 50+ year record at GAK1, as well as climate indices. While the time series is still growing, AOOS is building a solid foundation for better understanding the environmental forces shaping Southeast Alaska.

Through this initiative, AOOS is fostering a sustainable future by connecting science with the community and sharing knowledge that benefits both. Thank you to **Hassan Moustahfid** (NOAA IOOS) for supporting this effort!



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)

FEATURE: EMOLT EXPANDS ACROSS THE NORTHEAST U.S.

It's been a busy few weeks for the eMOLT (Environmental Monitors on Lobster Traps and Large Trawlers) program, led by **George Maynard** (NOAA NEFSC), as sensor installations move full steam ahead under the MassTech expansion. Between the Gulf of Maine Lobster Foundation, Center for Coastal Studies, and Coonamessett Farm, twelve new systems were installed on vessels of all shapes and sizes. One of these systems was installed on the research dragger *R/V Gemma*, which is operated by the Marine Biological Laboratory in Woods Hole, MA, and promises exciting new scientific collaborations.

As one of FVON's longest-running and most prolific initiatives, eMOLT is a clear example of how fishing vessels can contribute high-value ocean data at scale. The program is generating metrics that matter for both researchers and fisher observer-users. In the latest eMOLT newsletter, the fleet reported 170 tows and 2,592 hours of sensor data, helping track thermal structures across the region. Seasonal thermoclines are now emerging, with sharp gradients recorded south of Rhode Island and east of New Jersey. These patterns, including a warm core ring interacting with an eddy on Georges Bank, are central to understanding fish behavior and ocean health.

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.

INTEREST FROM JAMSTECH FOLLOWING THE BRAVE NEW OCEAN CONFERENCE

During the EarthX2025 Brave New Ocean Conference in April, where **Cooper Van Vranken** (Ocean Data Network) represented FVON at the Expert Panel on Innovations in Ocean Technology, FVON was one of three presentations selected by JAMSTEC to include in a briefing for JAMSTEC President Yamato San. **Sidney Thurston**, the Director for Global Science and Technology at EarthX, will present FVON's slide deck in Tokyo on 14 July and in Osaka for Expo2025 at the *Blue Ocean Dome* Pavillion later on in the week.

NEW & UPCOMING FVON INSTALLS

UPCOMING EVENTS

FVON IN FRANCE FOR UNOC

- **Patrick Gorringe** (SMHI) will give an onsite poster in session "T10-2: Research infrastructure to sustain, expand and share ocean observations, data, monitoring and modelling" of the One Ocean Science Congress 2025.
- **Chris Cusack** (EDF) and **Cooper Van Vranken** (ODN) will be at the Blue Economy Finance Forum in Monaco on 7-8 June.
- **Cooper Van Vranken** will present a 10-minute TED-style talk on FVON at the European Digital Ocean Pavilion on 9 June, from 11:30 – 11:40 CEST. This will take place in the INSPIRE Area of the Green Zone of the 2025 UN Ocean Conference. In addition, he will speak as panelist on a "Partnering for Ocean Sustainability: Engaging the Private Sector" panel at a side event session organized by GEF and IW:LEARN on Tuesday, 10 June 2025, from 16:00 to 17:10, at the Le Saint Paul Hotel.
- **Patrick Gorringe** will represent FVON and EMODnet as a panelist at a Satlink side event on 12 June.

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 increased economic resilience. Stay tuned for the registration link.

A huge thank you to everyone in our speaker list: **Michela Martinelli** (AdriFOOS), **George Maynard** (eMOLT), **Moninya Roughan** (FishSOOP), **Julie Jakoboski** (Moana Project), and **Naoki Hirose** (SFiN).

DIVE A LITTLE DEEPER

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FVON FISHING VESSEL OCEAN OBSERVING NETWORK

Want to contribute? Submit anonymous feedback or newsletter updates.