NEAMTWS

Tsunami Watch Operations status and plans

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TOWS-WG TT-TWO meeting

5th of March 2026

NEAMTWS OVERVIEW

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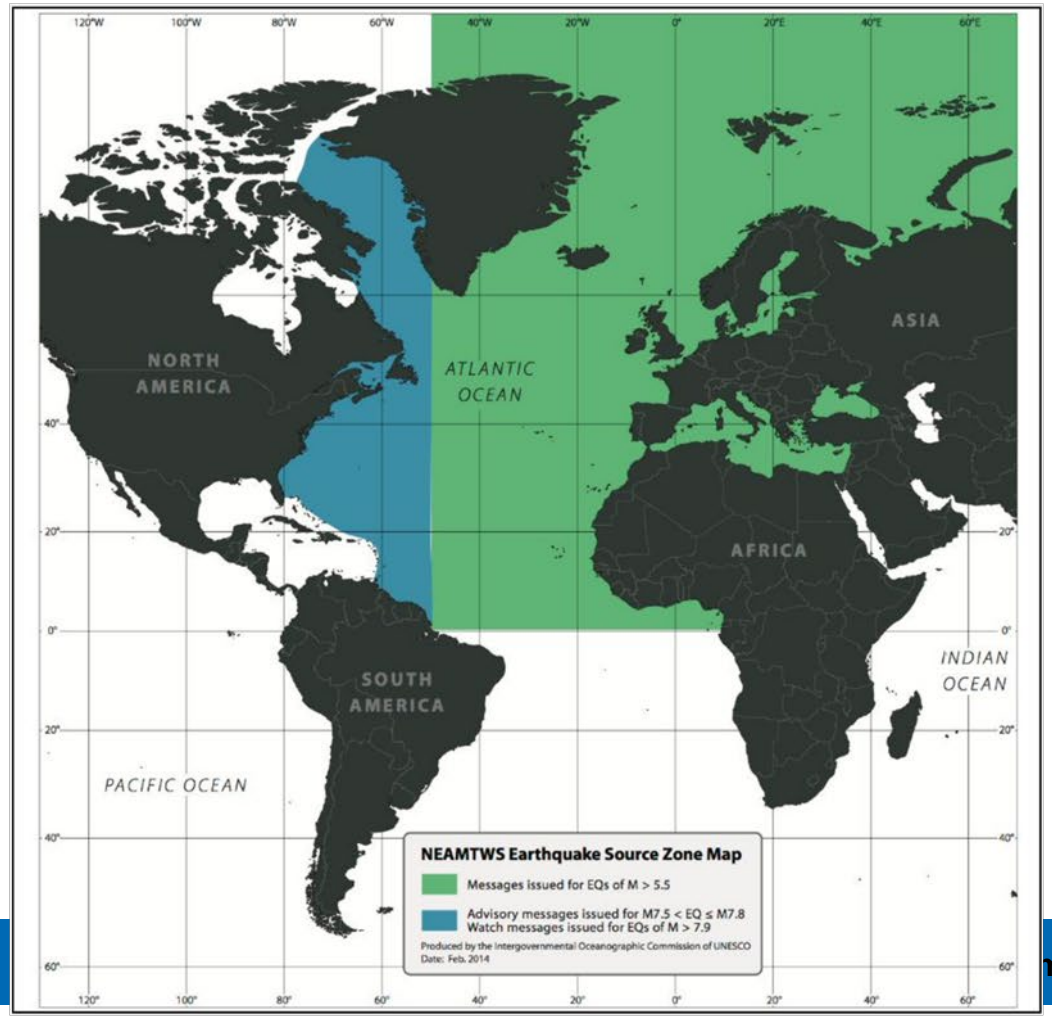
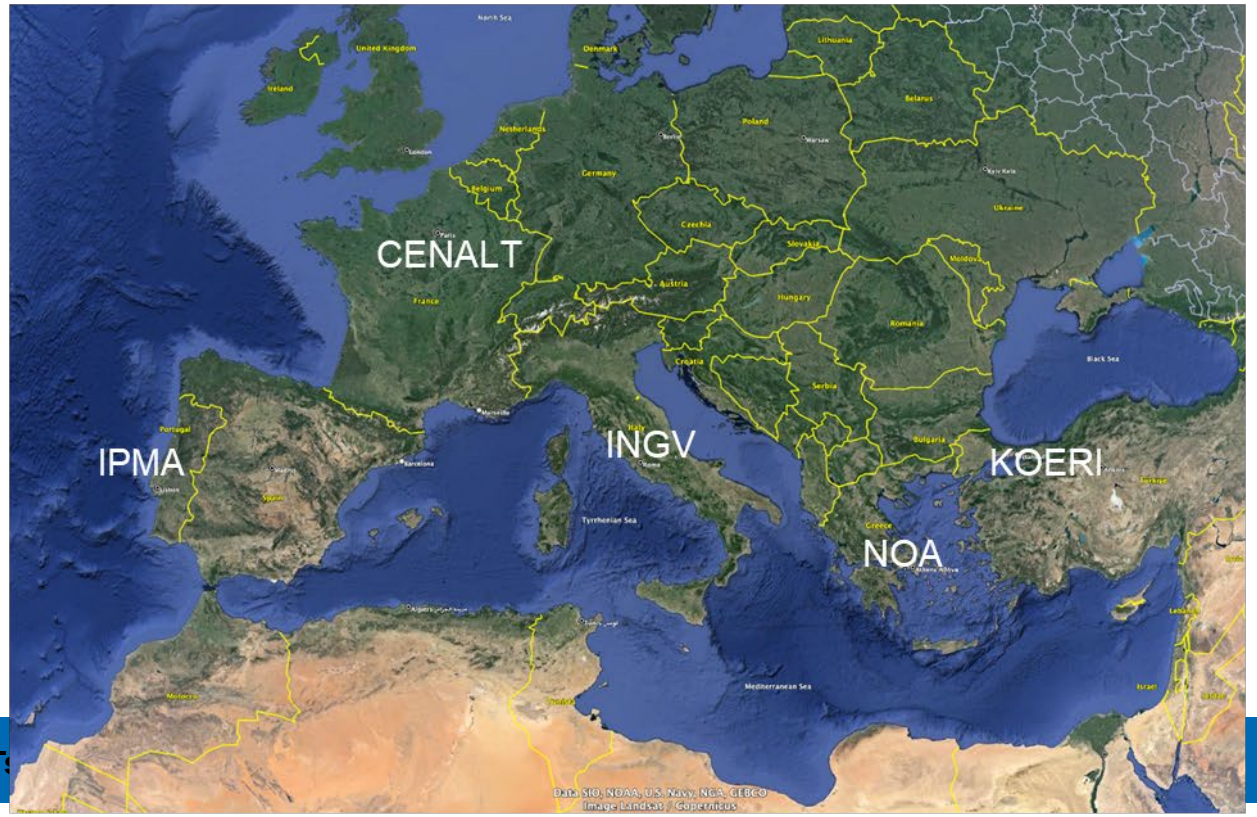
5 TSPs operating in the region: IPMA (Portugal), CENALT (France), INGV (Italy), NOA (Greece), KOERI (Turkye)

Different and partly overlapping monitoring area





NEAMTWS EVENT CALENDAR

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Meeting and coordination events in 2025: (ICG Chair & TT operations)

- **15-16 March 2025**: meeting on **Tsunami Forecast** (Lisbon)
  - *Probabilistic Tsunami Forecasting (PTF) detailed presentation by INGV*
  - *Examples for Mediterranean, INGV & NOA*
  - *Detailed discussion on the PTF implementation*
  - *IPMA (NE Atlantic) and CENALT (NE Atlantic & Mediterranea) will start testing PTF*
- **May 2025 :** Steering Committee
- **July 2025** : Online joint meeting of TT on Operations, TT on Documentation, TSP representatives
  - *Discussions on the new Operational User Guide for NEAMTWS:*
  - *New threat level approach*
  - *Restructuring of the messages*
  - *Clarification on the Area of Service (AoS) and Area of Monitoring (AoM) for each TSP*
- **September 2025 :** Online joint meeting of TT on Operations, TT on Documentation, TSP representatives
  - *New Operational User Guide for NEAMTWS - continuation of the previous topics*
- **1 december 2025**: Steering Committee
- **5-6 december 2025:** Report to ICG/NEAMTWS – XXth session

MAIN TOPICS DISCUSSED AND WORKED ON IN NEAM COMMUNITY

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- **On going implementation of the Threat Levels as agreed in ICG/NEAMTWS XIX (nov. 2024) :**

  - agreement on main structure and work on the content of the new messages

In the meanwhile we continue to use the alert levels.The five NEAMTWS TSPs are using the same 3 levels at the forecast points:

✓ INFORMATION: no damage or relevant effect expected
✓ ADVISORY: wave height < 0.5 m and/or runup < 1 m
✓ WATCH: wave height > 0.5 m and/or runup > 1 m

- **On going work in TSPs and NTWCs on the tsunami forecasting methods (**PTF implementation, precalculated scenarios, IA high resolution modeling,...)

- **On going work on the new operationnal user's guide**

Update on the Seismic and Sea Level Data Base in NEAM REGION (2025)

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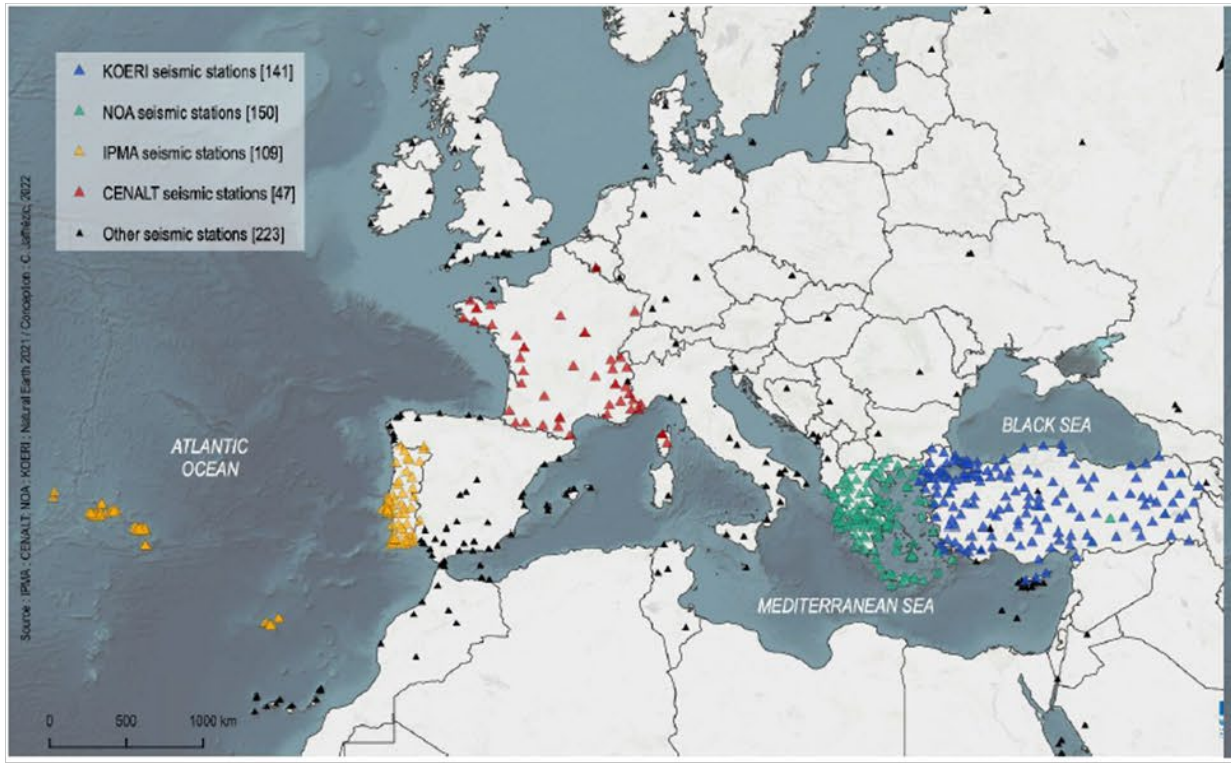
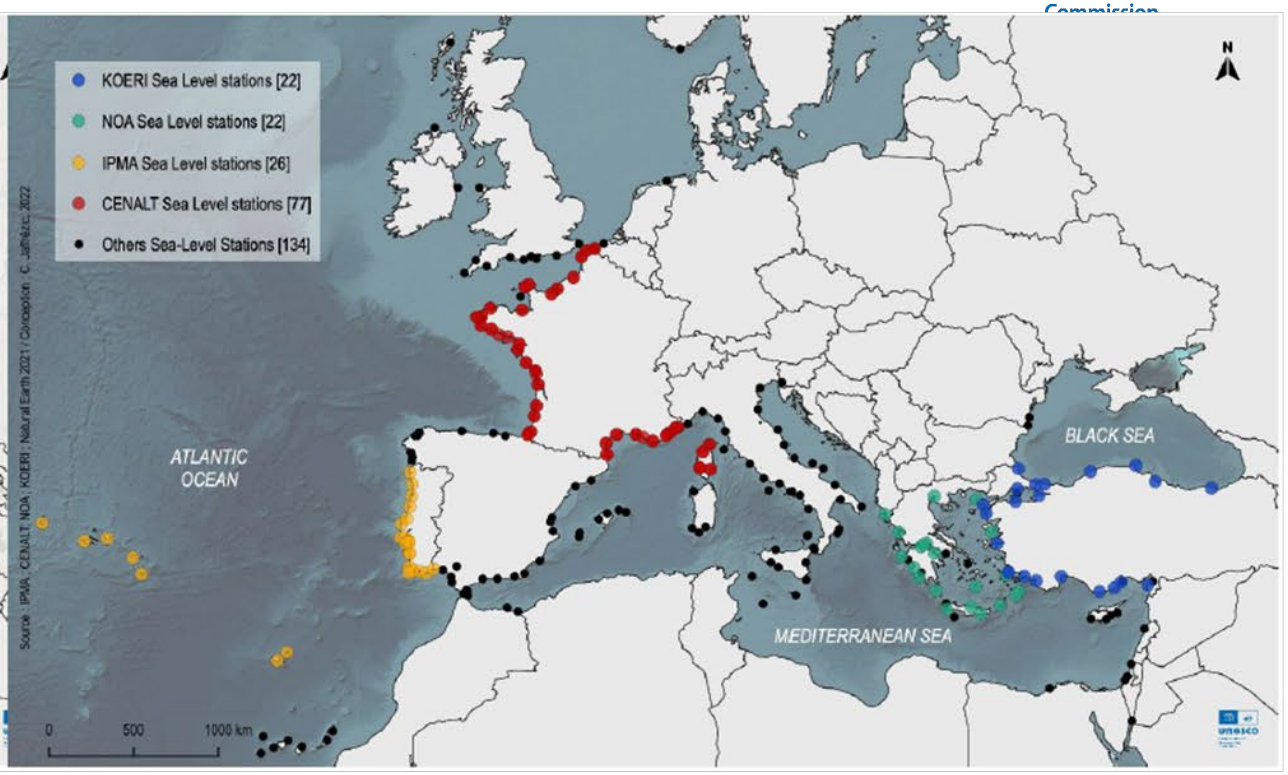
Seismic Stations



Sea-Level Stations



by Claire Jaffrézic (UNESCO-IOC), March 2023

Seismic and Sea Level Data Base in NEAM REGION (2024)

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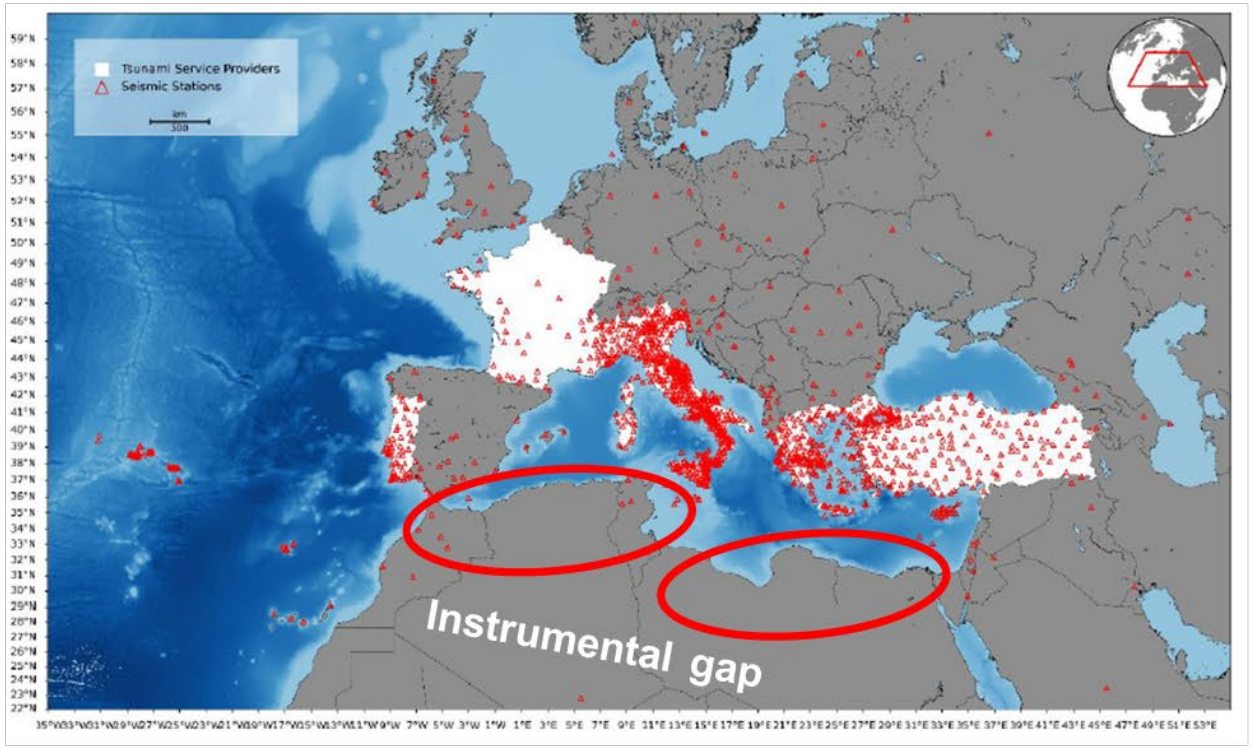
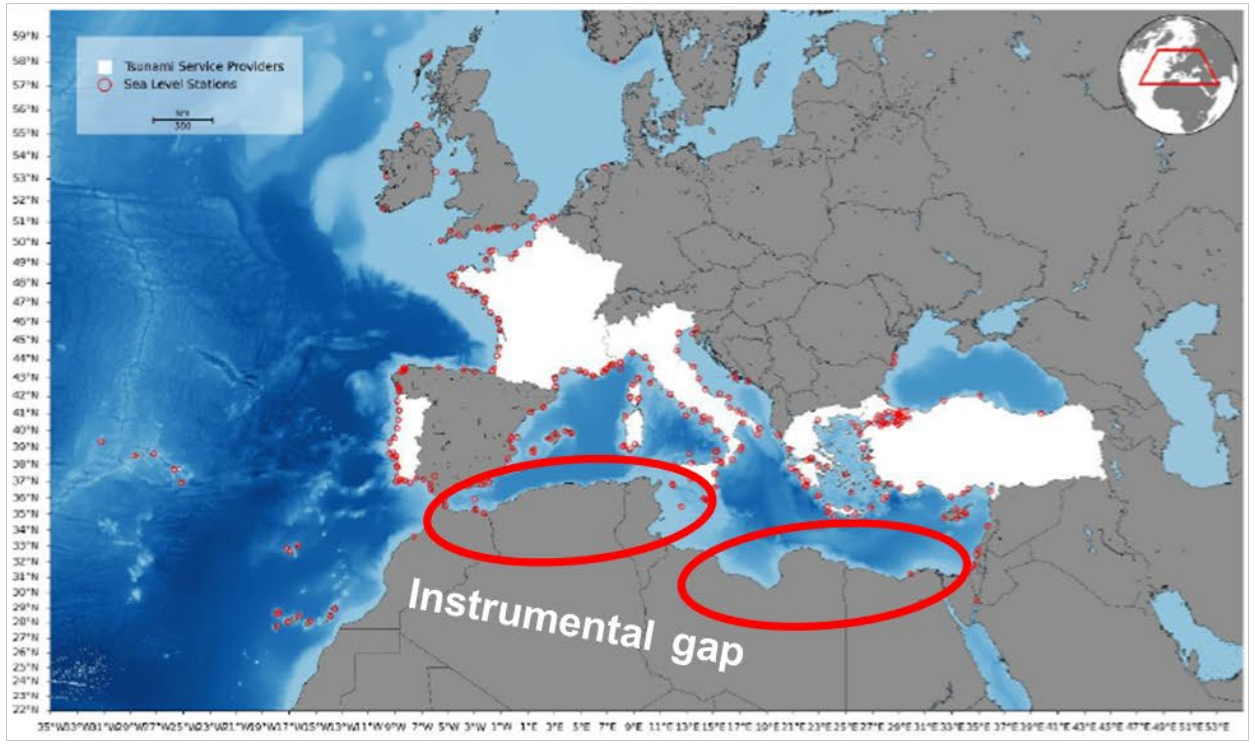
Seismic Stations Monitored by TSP



Sea-Level Stations Monitored by TSP



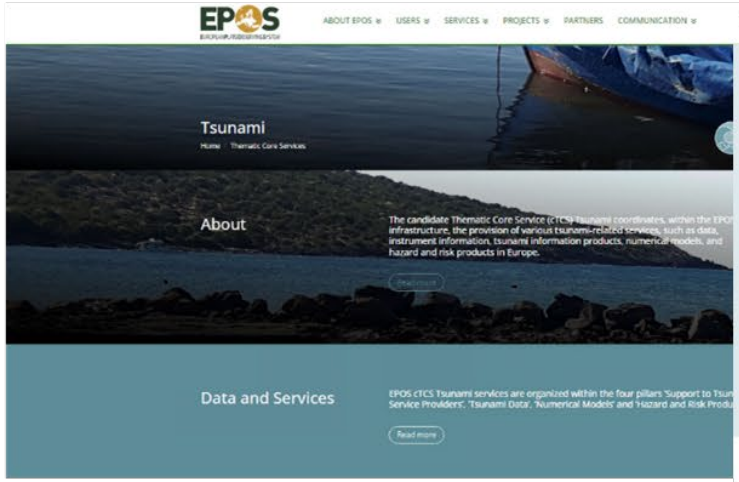
The instrumental gap from northern Africa is a problem

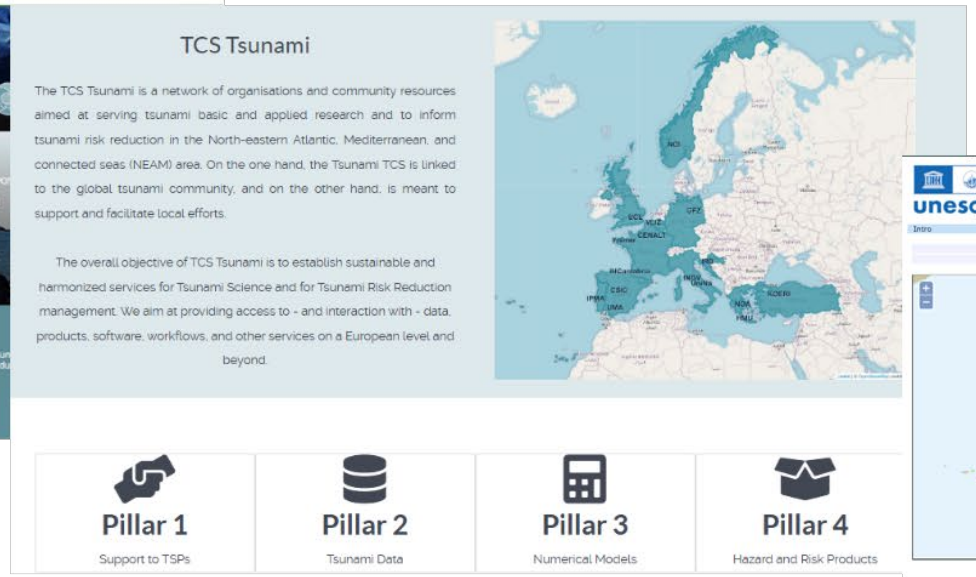
- Detection (timely, precision)
- Magnitude and focal mecanism
- Sea level change and measurements

ONGOING ACTIVITIES: EPOS EU Research Infrastructure

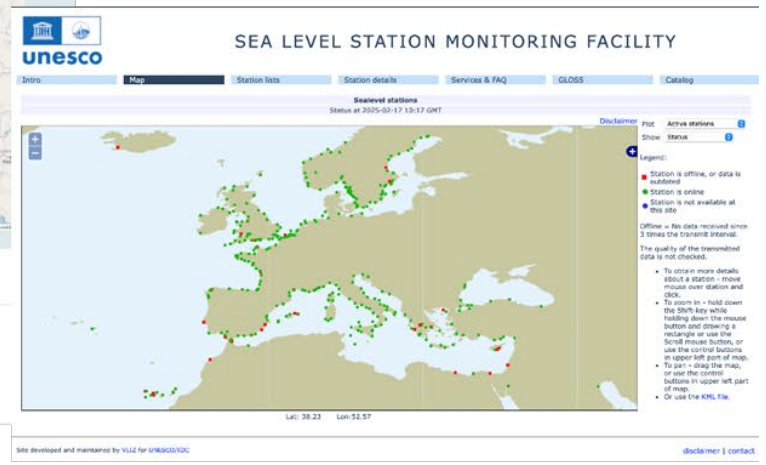
WG2 & WG3

– **Establishment of the Thematic Core Service (TCS) Tsunami (February 2024) – more discussions to come**





tsunamidata.org



– **EPOS-ON Horizon Europe project funds the development of the TSP-IOT prototype**

This service is a **virtual access** to a web service including a **common database** (forecast points, sensor locations, bathymetry and topography models, etc.) that, along with **additional tools** will help warning centres to make their **early warning operations interoperable** and consistent, and to increase redundancy and fall-back solutions during event processing.

This activity is supported in the framework of EPOS (European Plate Observing System) – The European distributed Research Infrastructure for solid Earth science

Seismic Network – NEW real time DAS

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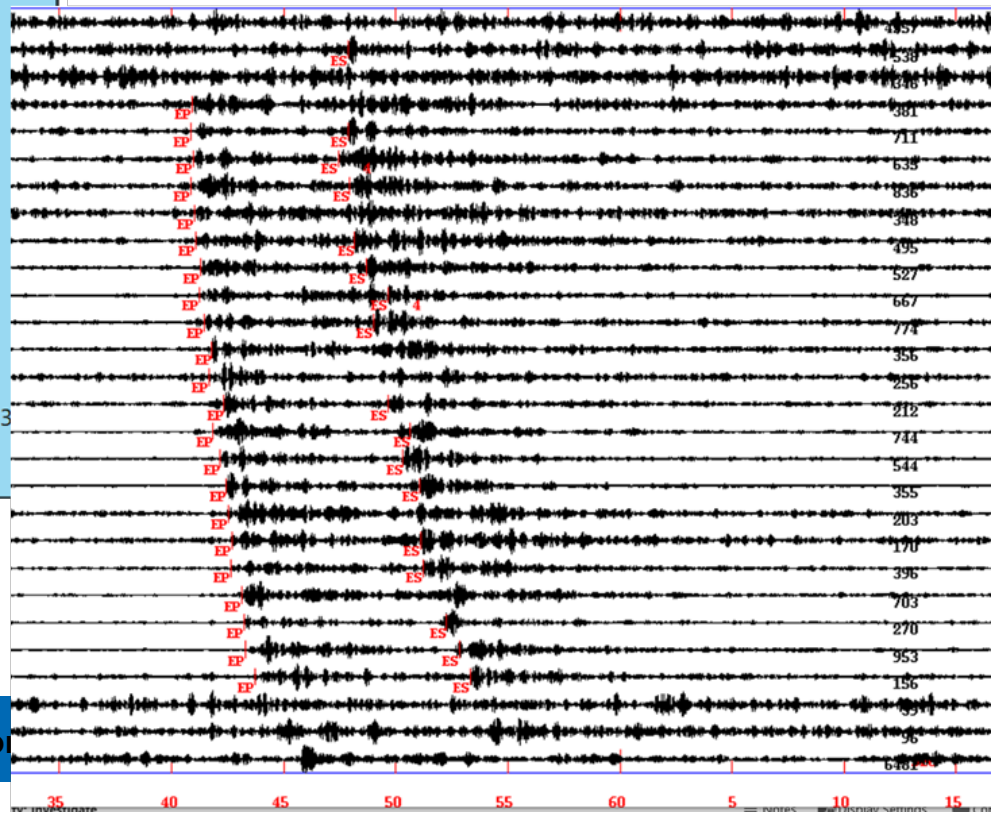
IPMA presentation to ICG / NEAMTWS XX

- 57Km DAS
- virtual stations each 2km
- downsampled to 125Hz

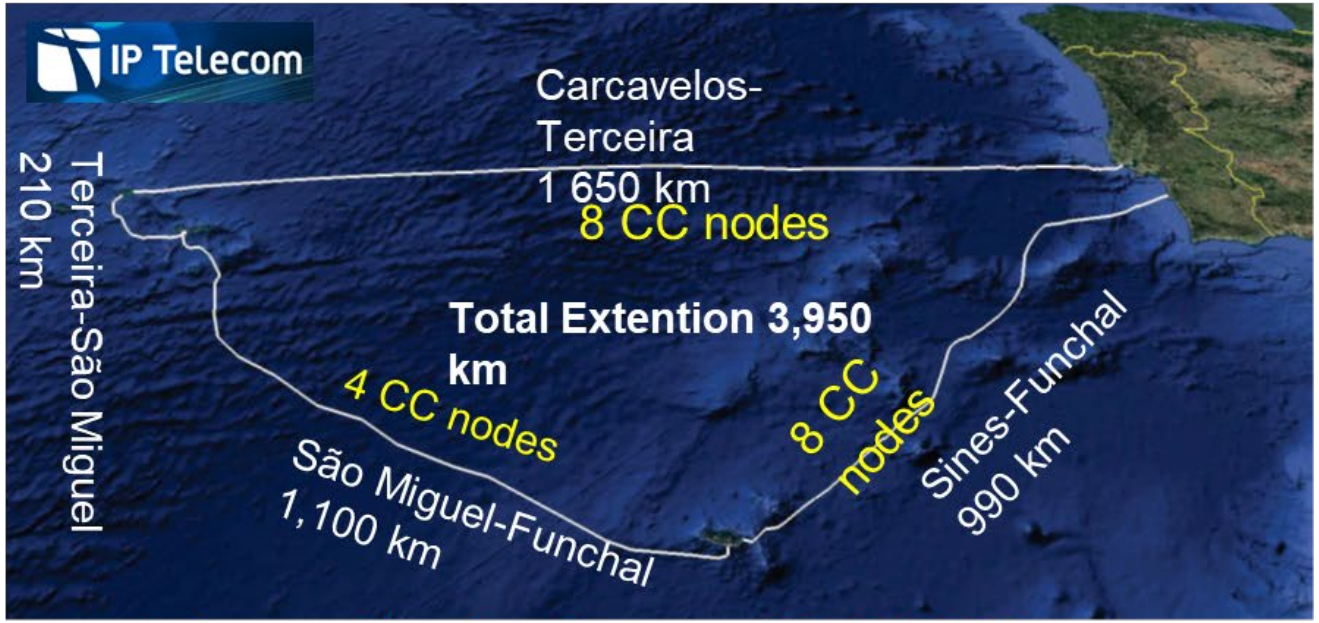
Example of a 1.8ML
60 to 90Km from the cable



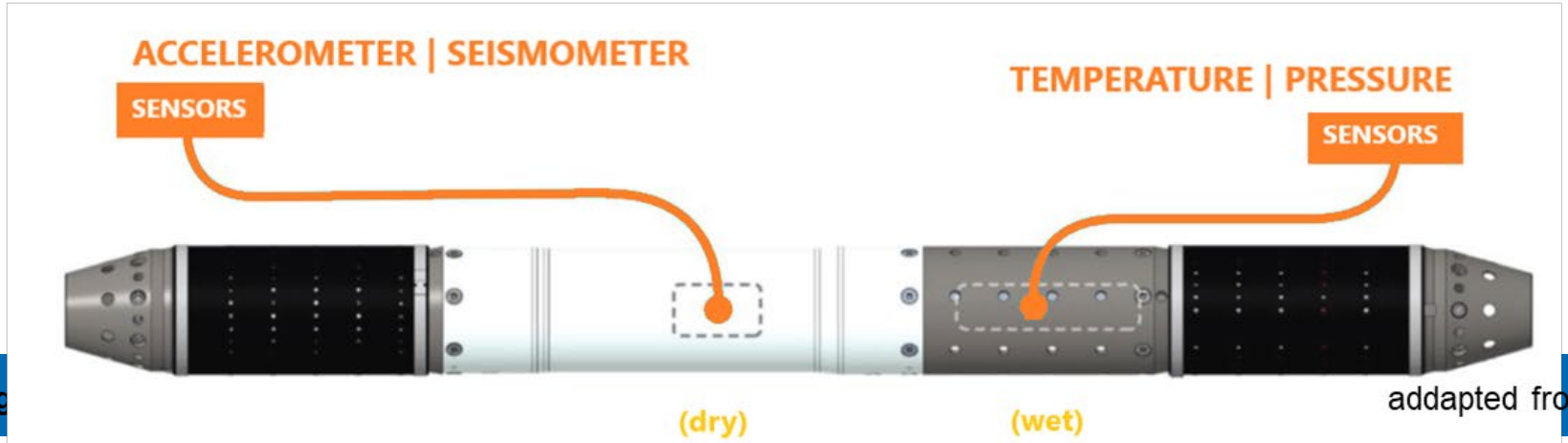
SMART CAM – Physical Layout

- One of the **world's first "SMART"** cables, capable of carrying internet data, but also monitoring the ocean above and the earth below

- For an average of **15% increase in cost**, four sensors – accelerometer, seismometer, water pressure, and temperature – into the CC Node



to be operational on the second half of 2027



addapted from ASN

Tsunami buoys

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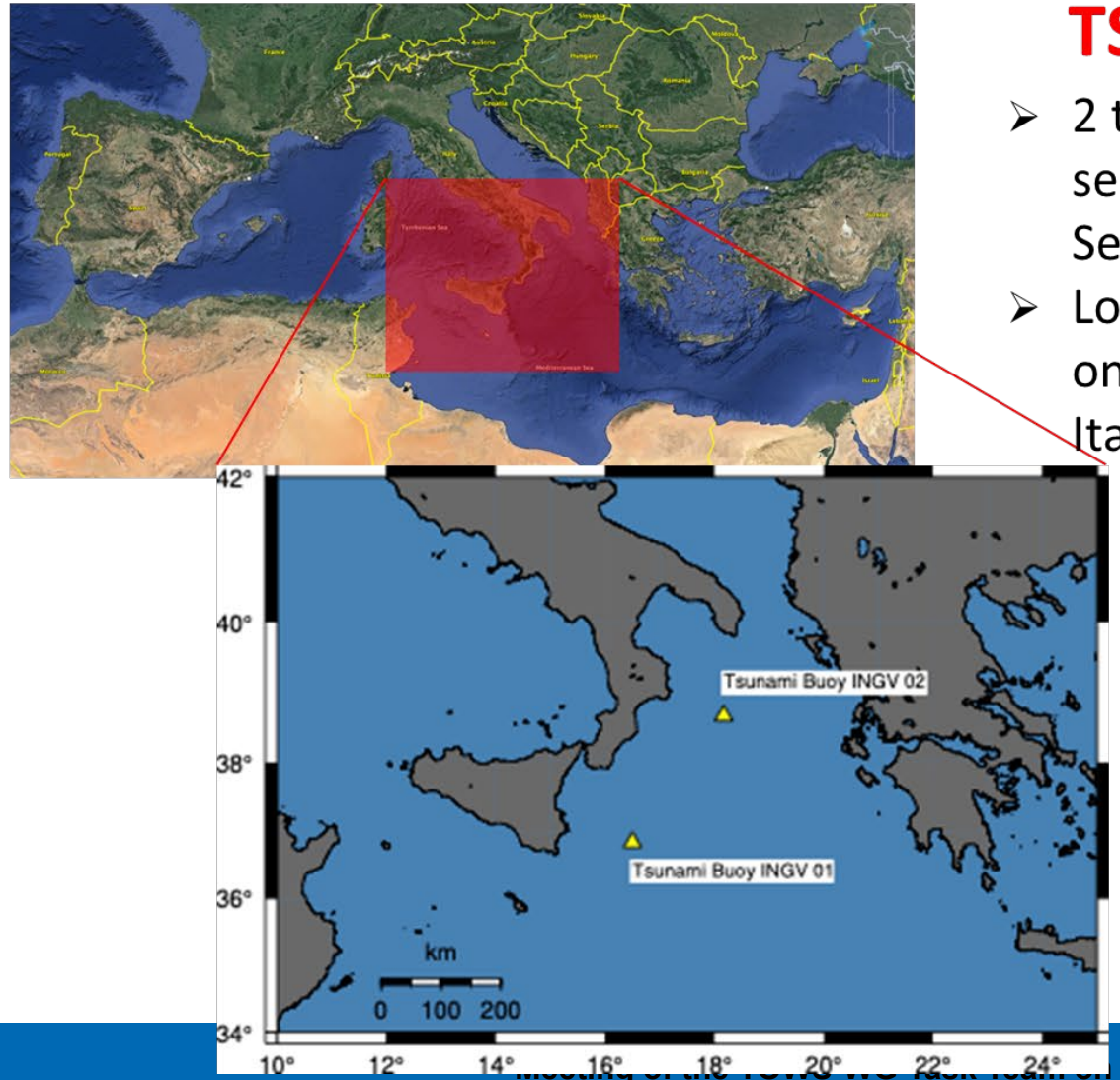


TSUNAMI BUOYS (on going)

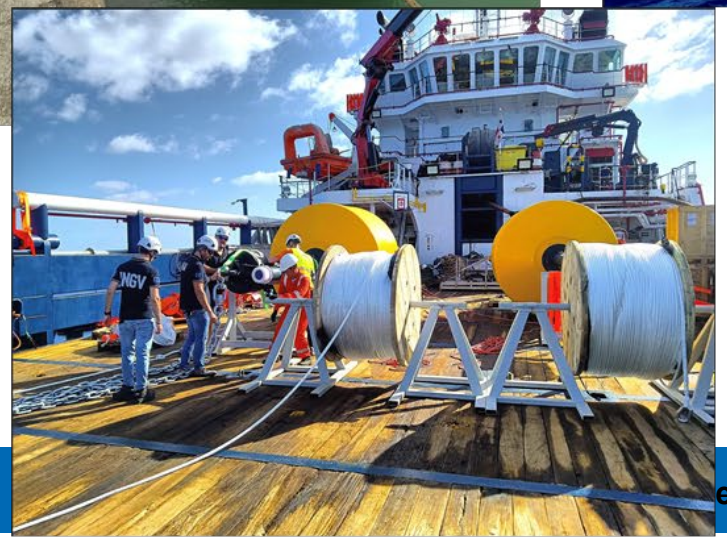
- 2 tsunami buoys have been installed in the Ionian sea in September 2025 by MSM (Mediterráneo Senales Marítimas) that was awarded contract
- Location and technical requirements decided based on possible tsunami sources and ship traffic (in Italian exclusive economic zone)

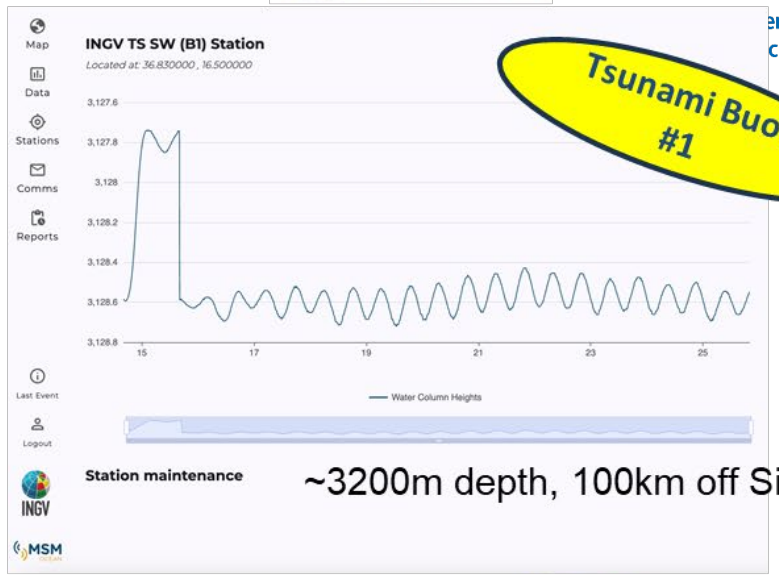
Funding (~2.8 M€) by the Italian Ministery of Research through the European contribution Next Generation EU - NRRP (National Recovery and Resilience Plan) "MEET", coord. by INGV

MEET
MONITORING EARTH'S EVOLUTION AND TECTONICS

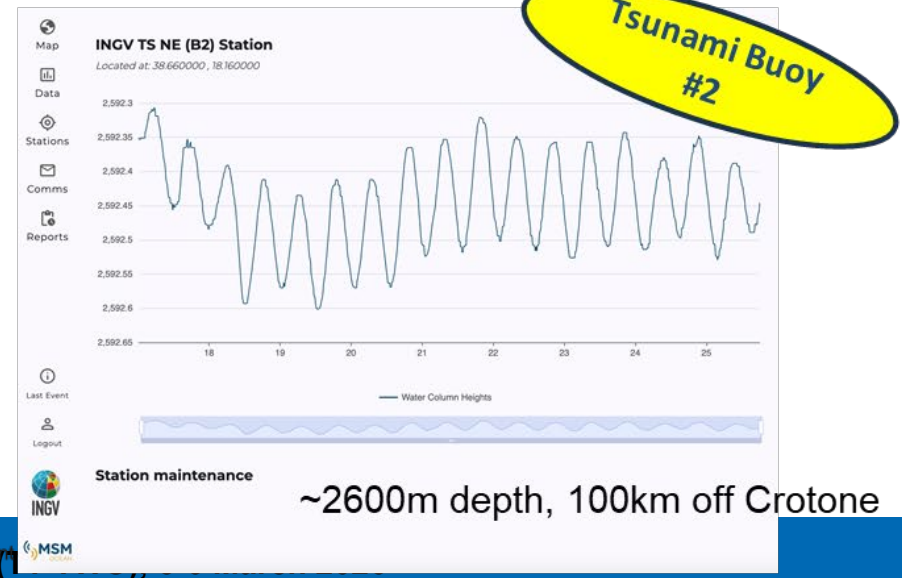
2021 2030 United Nations Decade of Ocean Science for Sustainable Development

Tsunami buoys





~3200m depth, 100km off Siracusa



~2600m depth, 100km off Crotone

2021 United Nations Decade of Ocean Science 2030 for Sustainable Development

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THANK YOU