

A satellite-style map of the Vanuatu archipelago. A white line represents the cable route, starting from a white circle on the island of Lifou in the lower-left and ending at a white circle on the island of Port Vila in the upper-right. The map shows various islands and surrounding waters in shades of blue and green.

Port Vila
(Vanuatu)

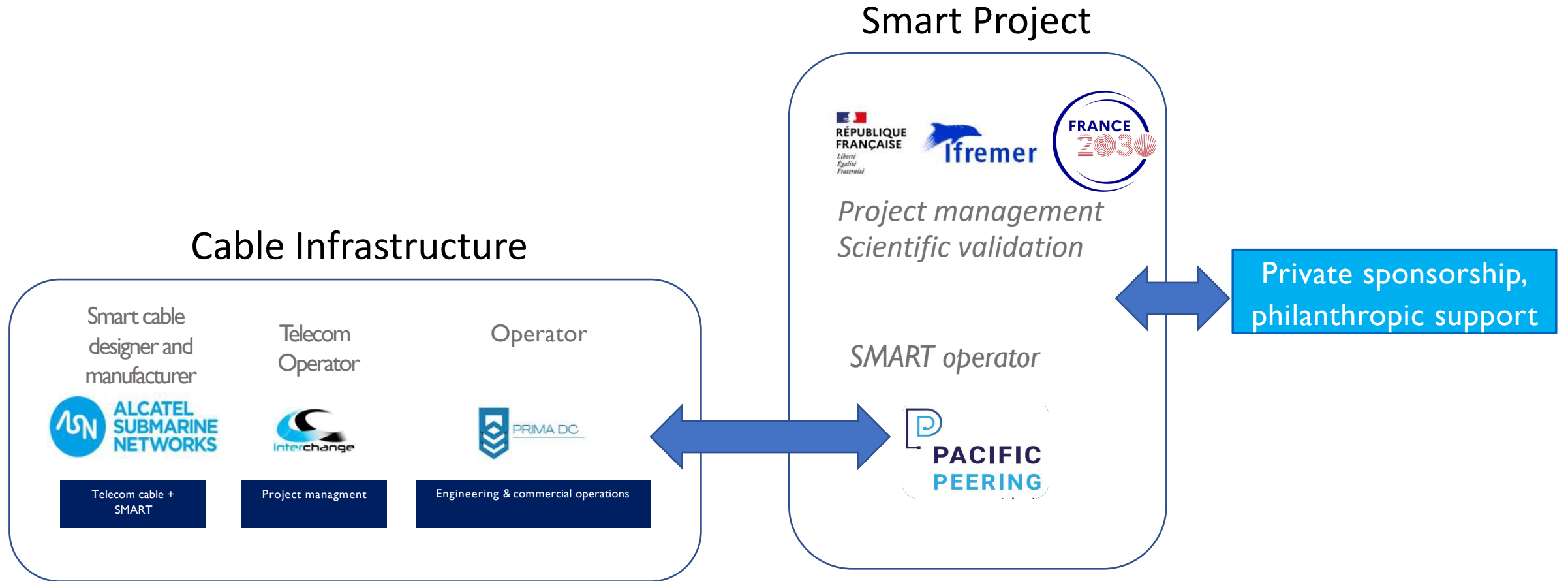
The TAMTAM Project

A SMART cable between Port Vila and Lifou

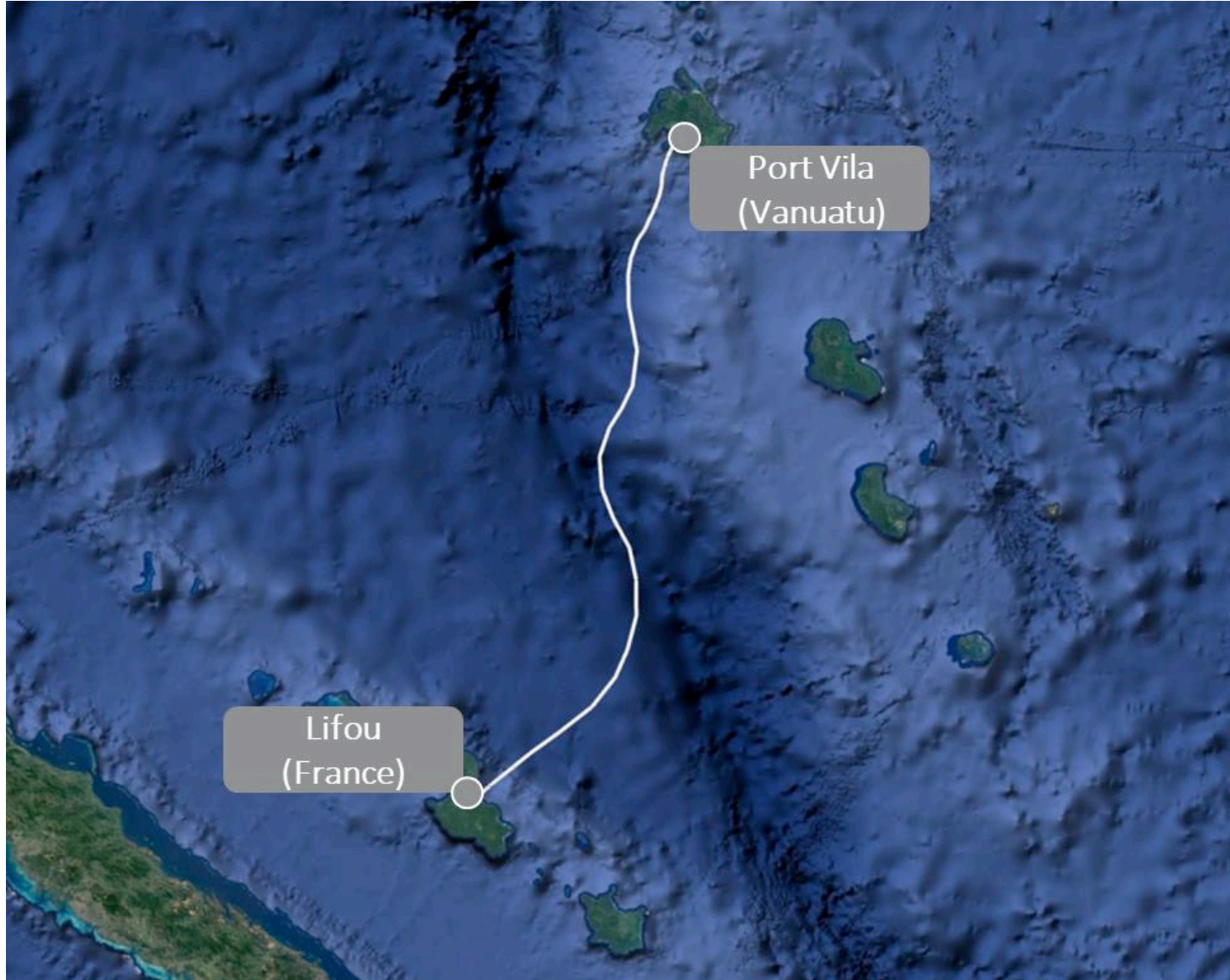
IFREMER, Geoazur (France)

Lifou
(France)

The organisation

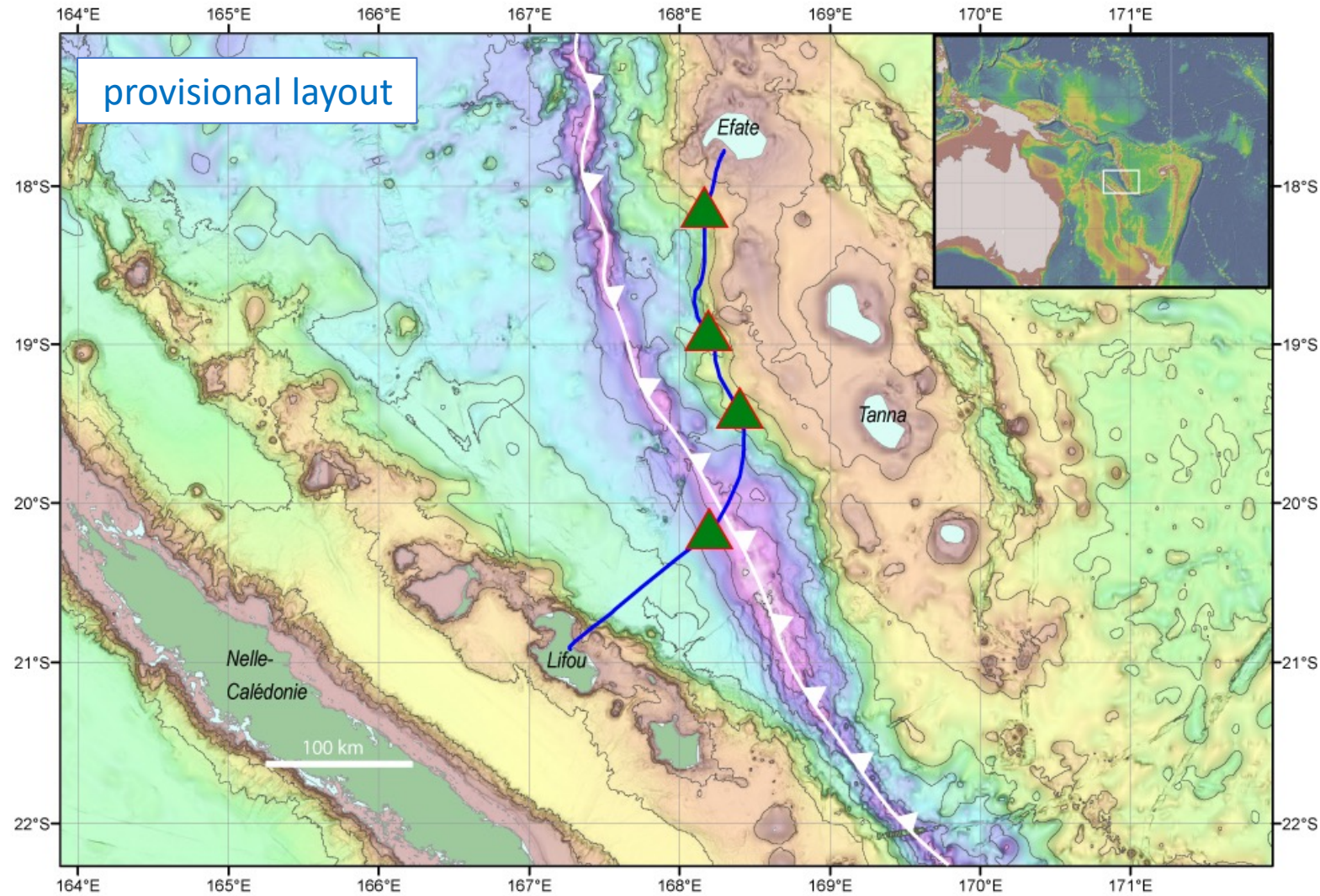


The cable



- Telecom cable ~450km
- From Port Vila to Lifou
- Crossing the subduction zone

The cable

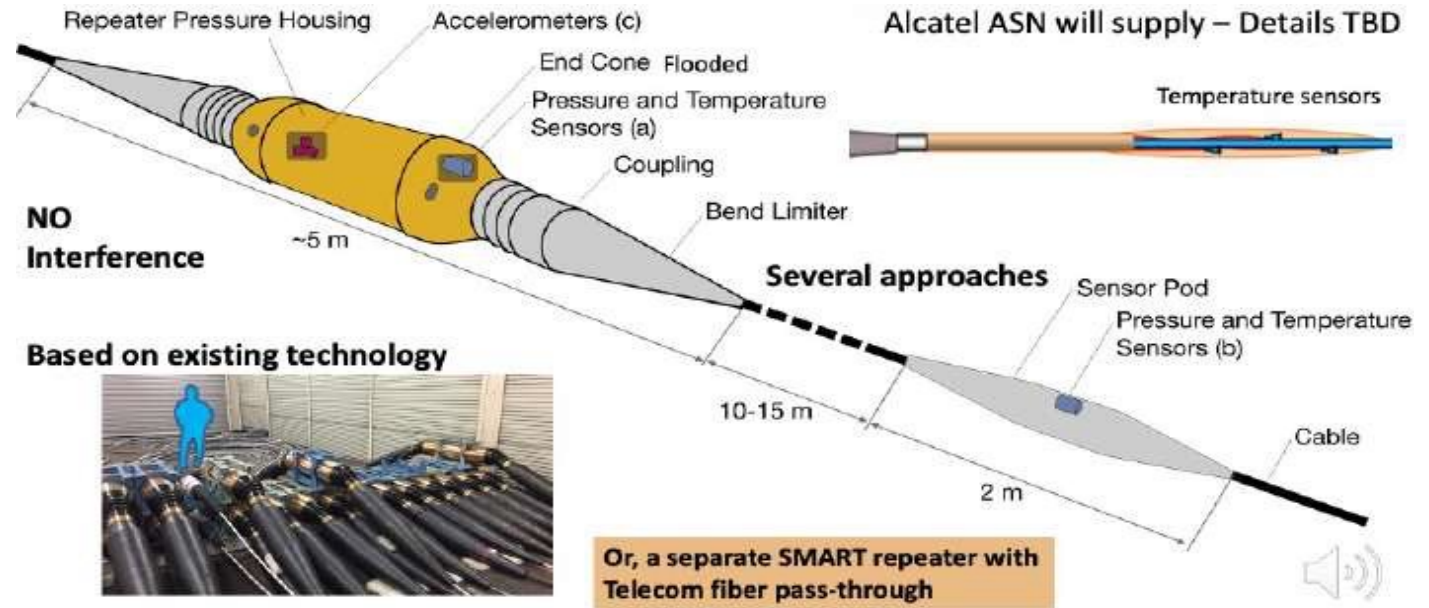


- Telecom cable ~450km
- From Port Vila to Lifou
- Crossing the subduction zone
- Equipped with 4 SMART nodes
- 2 scientific fibers

The instrumentation

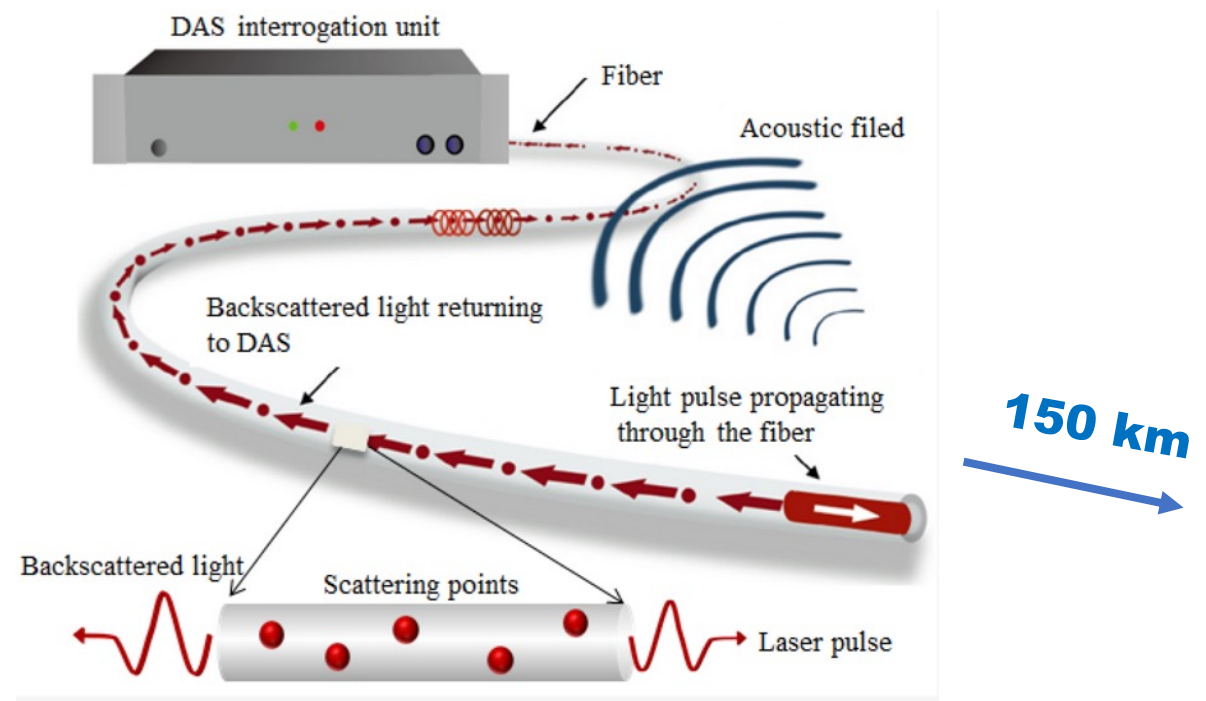
SMART Techniques:

- 4 observation nodes
- Temperature sensor*
- Pressure sensor*
- Seismometer*
- Accelerometer*



Distributed sensors Technique

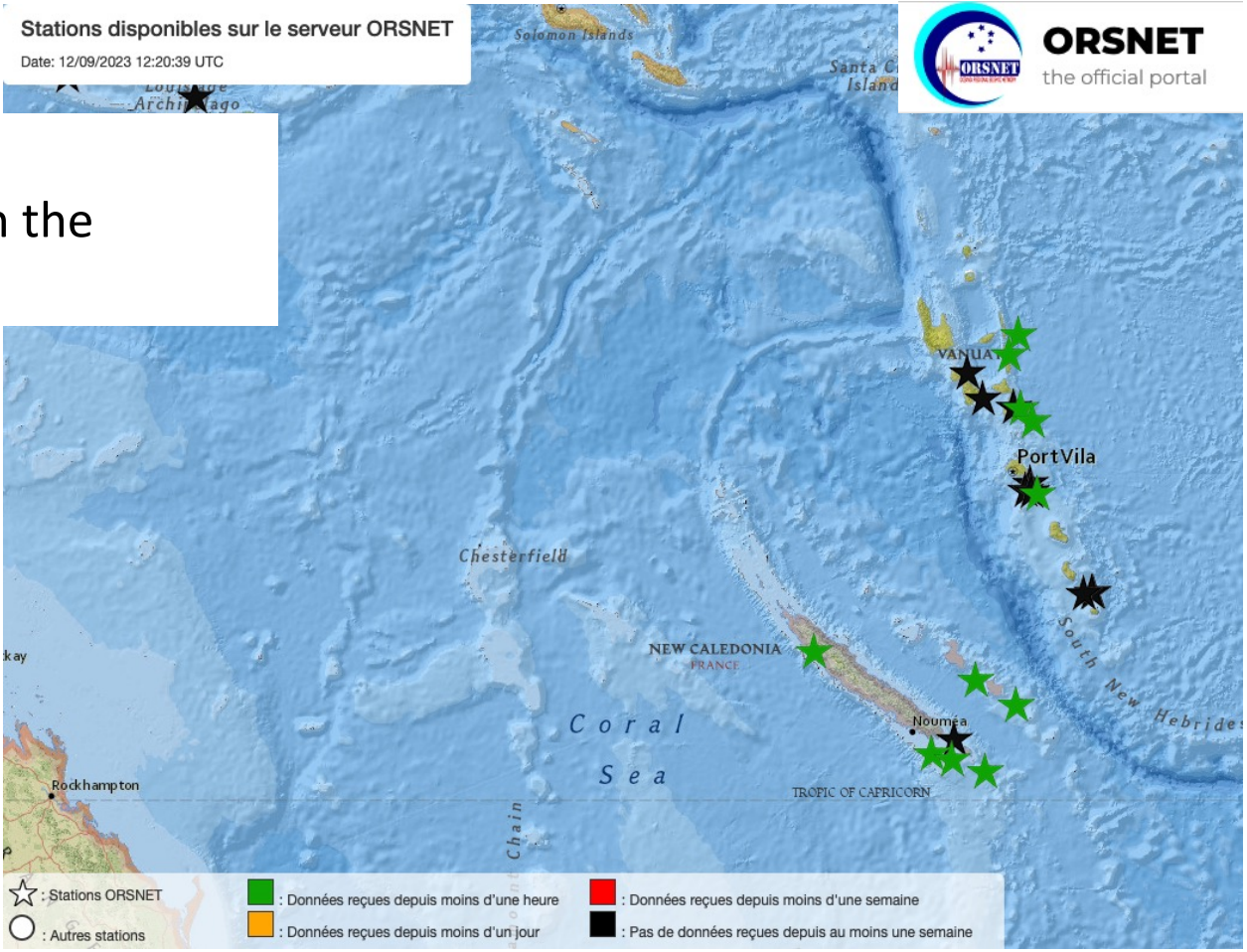
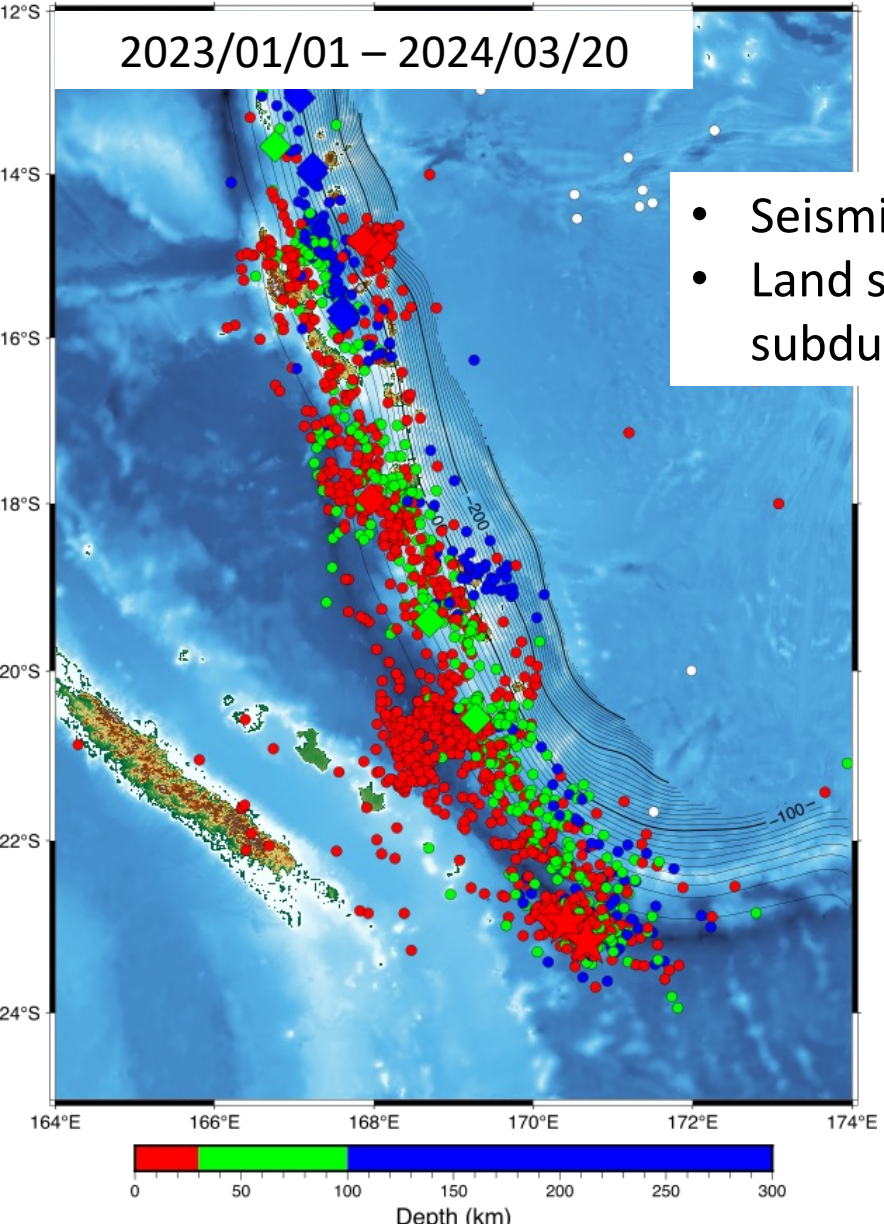
- 2 additional scientific fibers
- 1 Interrogator



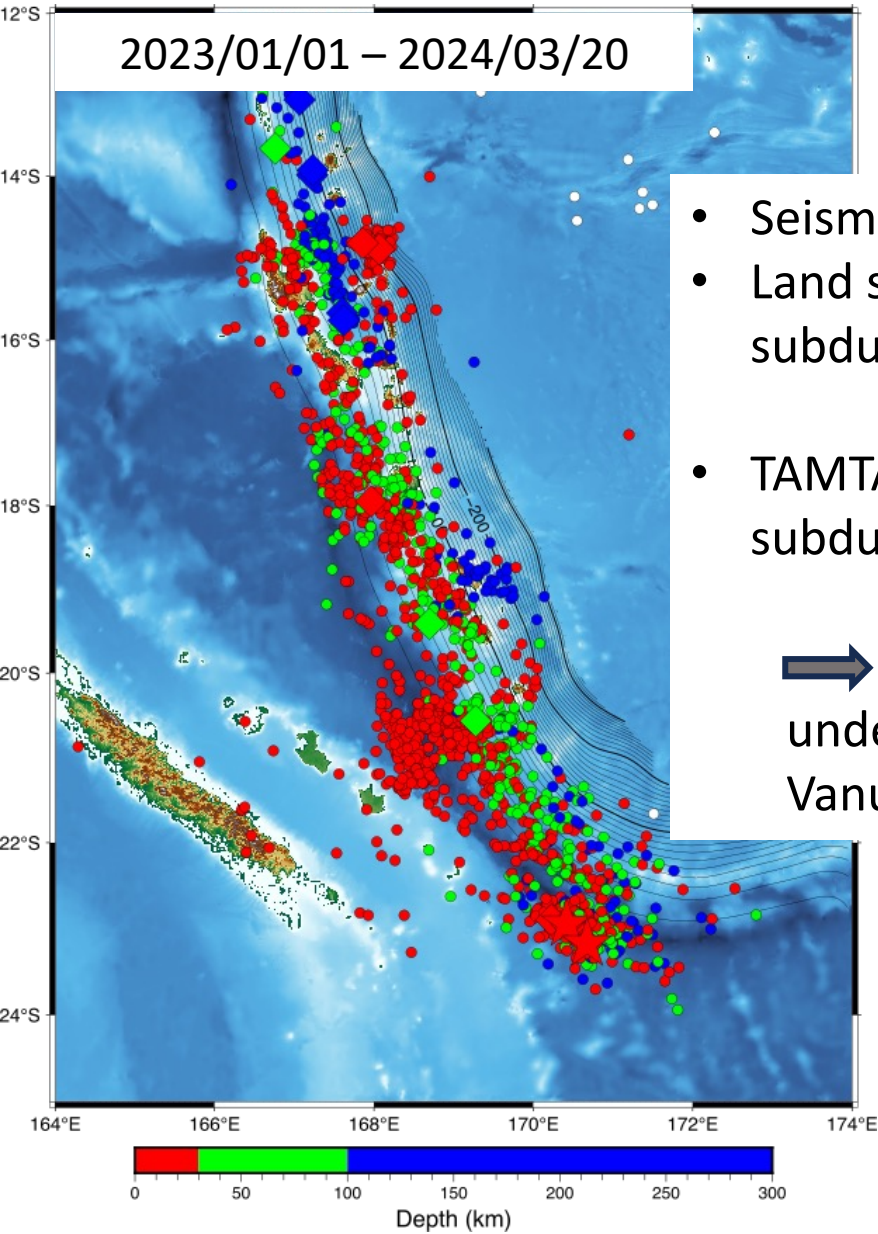
Provisional Timetable

	2024 - 2025	2026	2027	2028	2029	2030	2031-2037
Pacific Peering Services	Contract						
Cable	Manufacturing	Deployment	Operational				
Data Infrastructure		Deployment	Operational			Need for additional funding	
Offshore Validation							
Scientific Validation							

Various scientific interests

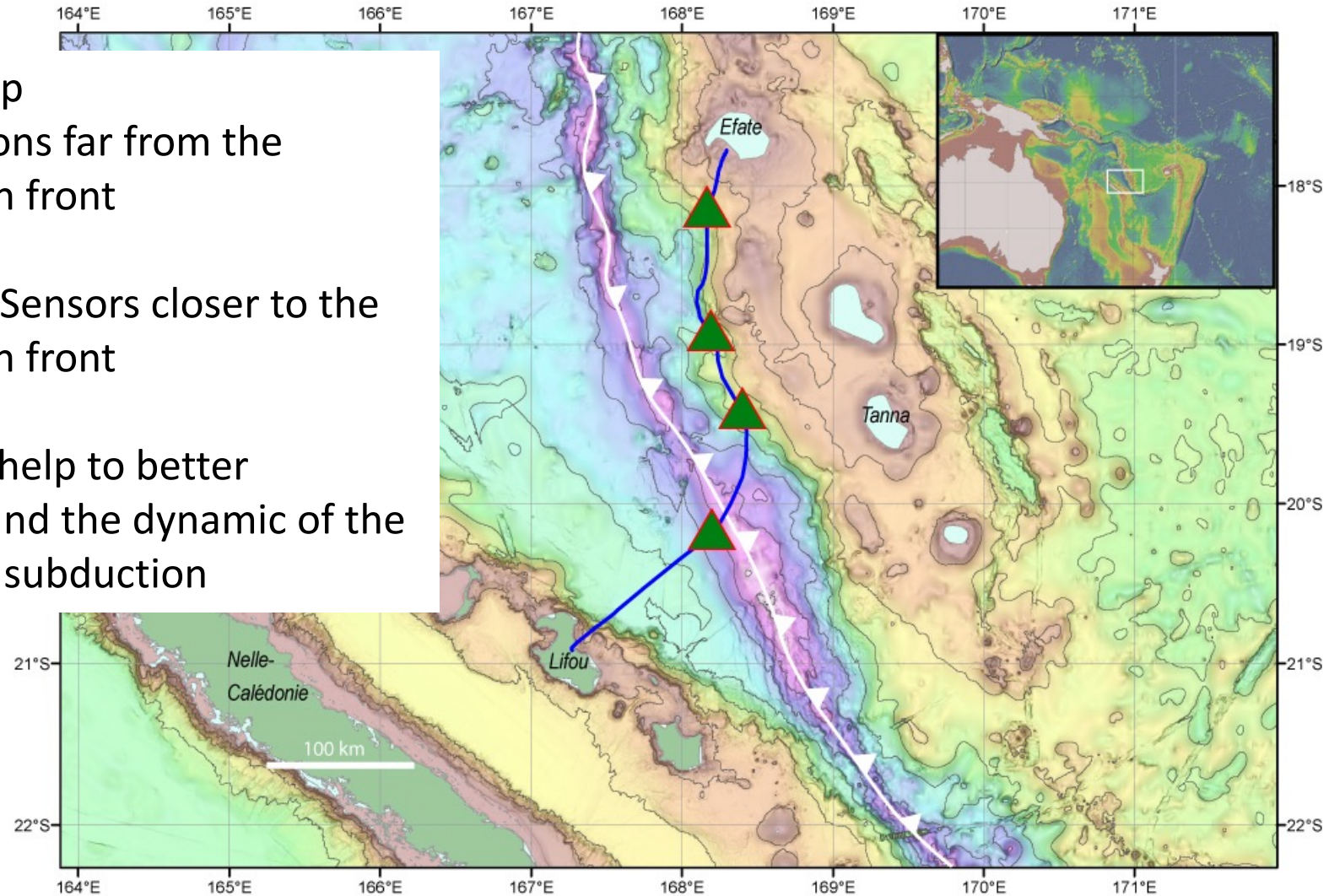


Various scientific interests



- Seismic gap
- Land stations far from the subduction front
- TAMTAM: Sensors closer to the subduction front

➡ can help to better understand the dynamic of the Vanuatu subduction



Various scientific interests

- Seismic gap
- Land stations far from the subduction front
- TAMTAM: Sensors closer to the subduction front
 - ➡ can help to better understand the dynamic of the Vanuatu subduction
 - ➡ research to develop Early Warning Systems for earthquakes and tsunami, using unprecedented data
 - ➡ colocated sensors (temperature, pressure, seismometers) and optic fiber measurements (DAS): what do we measure with DAS? What can we learn?

Various scientific interests

- Seismic gap
- Land stations far from the subduction front
- TAMTAM: Sensors closer to the subduction front
 - ➡ can help to better understand the dynamic of the Vanuatu subduction
 - ➡ research to develop Early Warning Systems for earthquakes and tsunami, using unprecedented data
 - ➡ colocated sensors (temperature, pressure, seismometers) and optic fiber measurements (DAS): what do we measure with DAS? What can we learn?
 - ➡ seismic imagery: will lead to a better location of the seismic events and a better understanding of the subduction
 - ➡ environmental seismology (submarine landslides, volcanoes)
 - ➡ physical oceanography (temperature, currents)
 - ➡ marine biology