



SMART Subsea Cables

Science Monitoring And Reliable Telecommunications

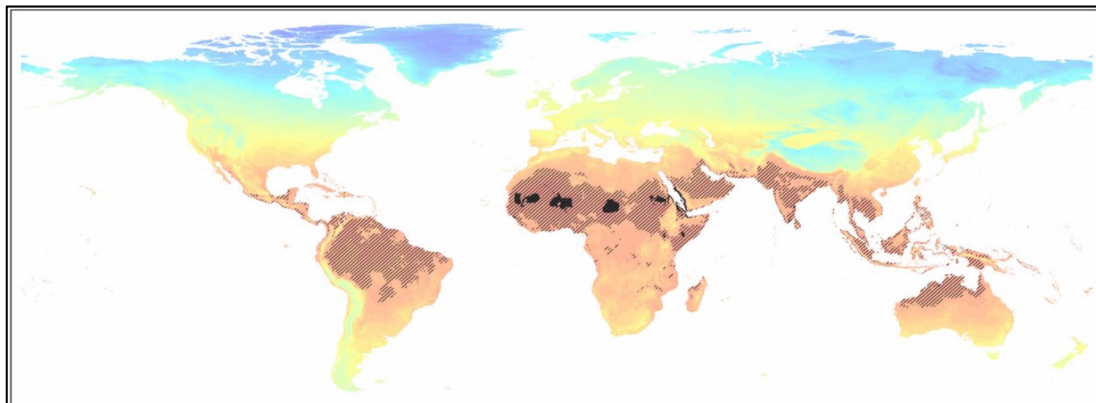
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GOOS 14th Observations Coordination Group (OCG-14)
Cape Town, South Africa
6-8 June 2023

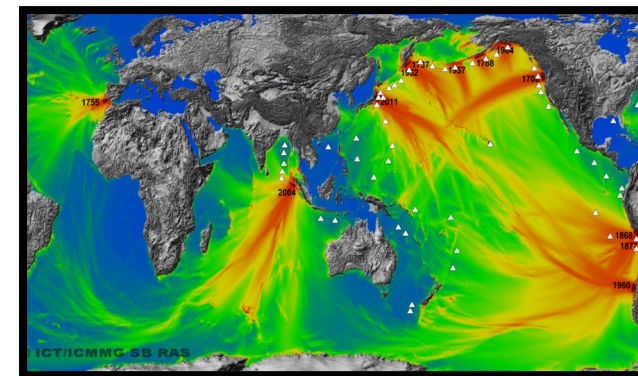


SMART Subsea Cables: Climate and DRR

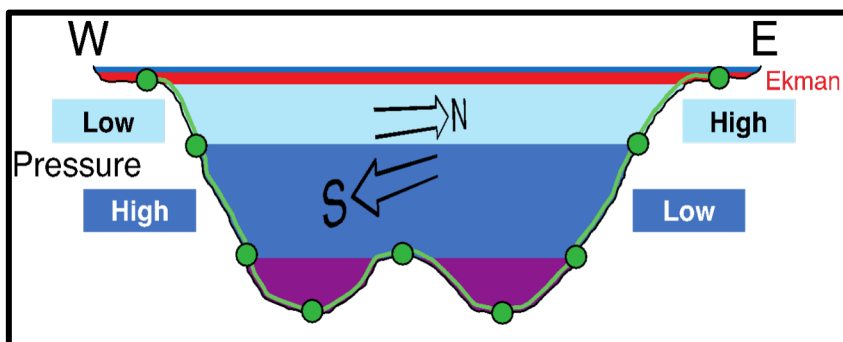
TODAY – 1% of land surface, too hot for human existence – future?



Climate change



Earthquakes, Tsunamis



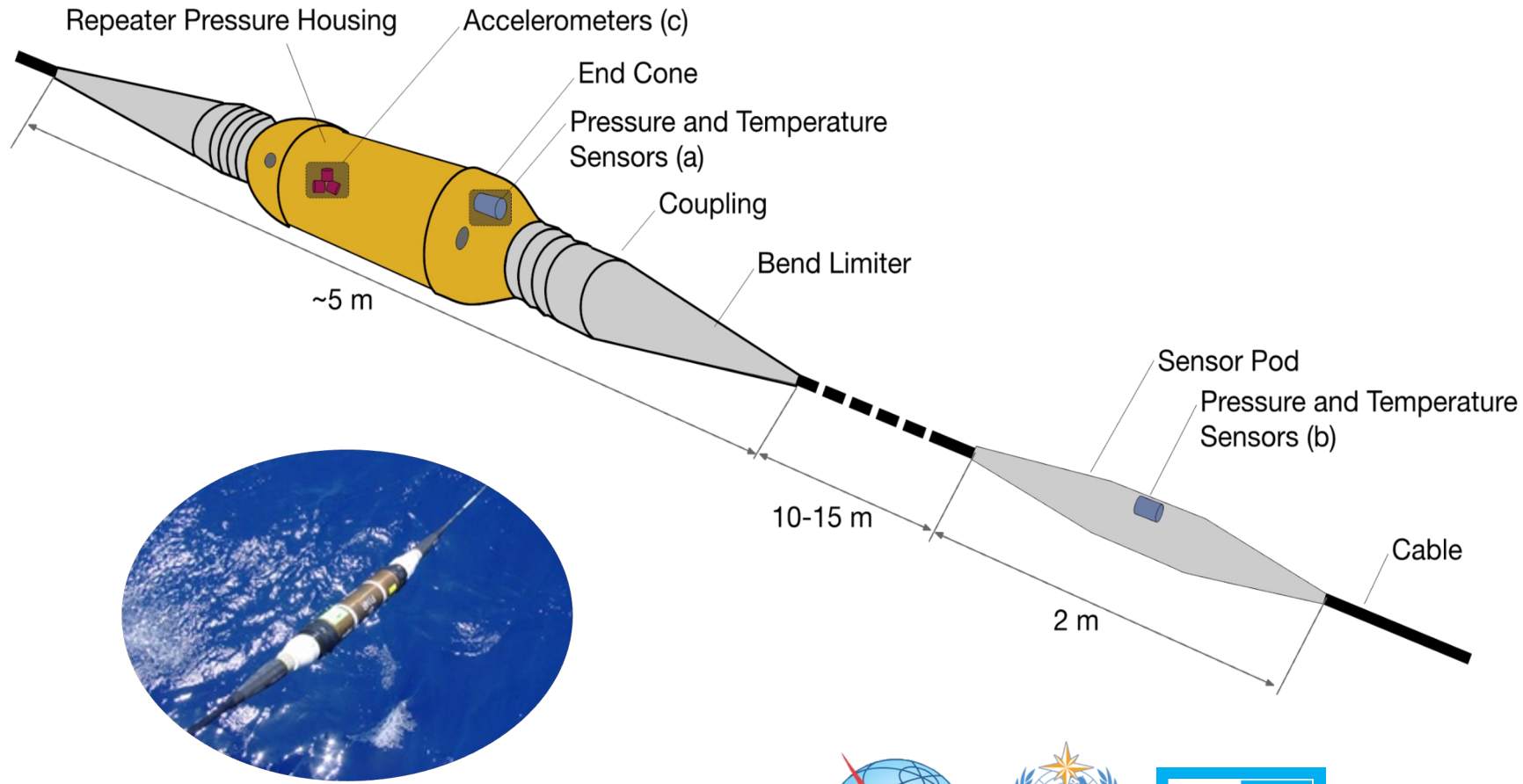
Ocean circulation

Sea Level Rise



SMART Subsea Cables: Solution

Shared cable infrastructure: Telecom + science



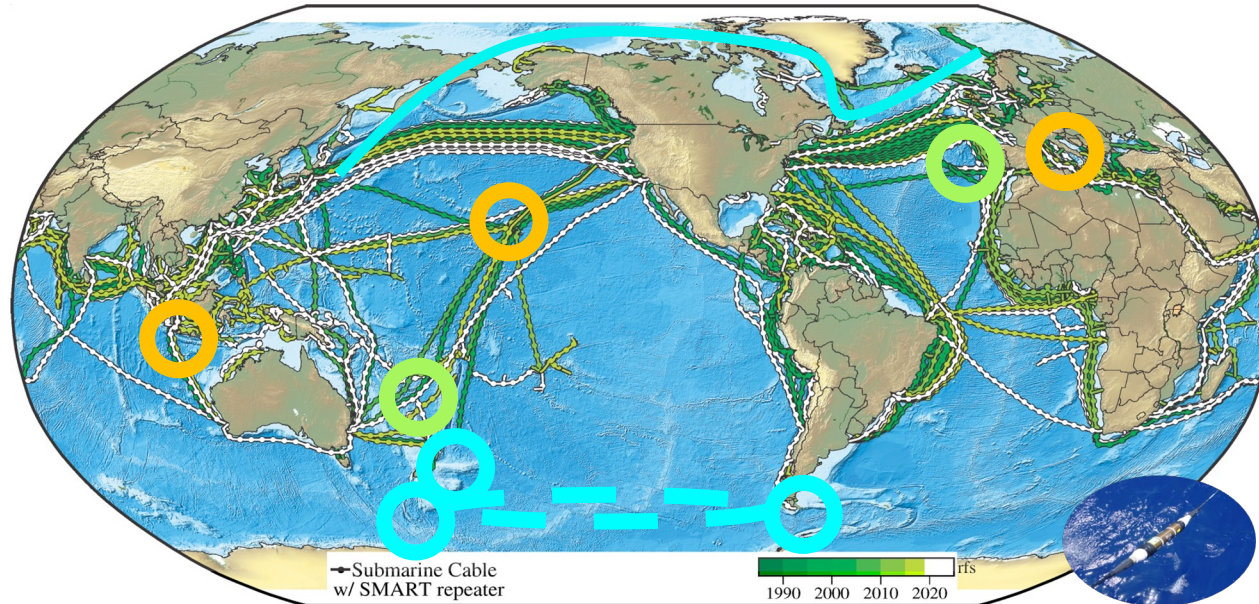
Sensors:

- **Temperature**
- **Pressure**
- **Seismic Acceleration**

Key points:

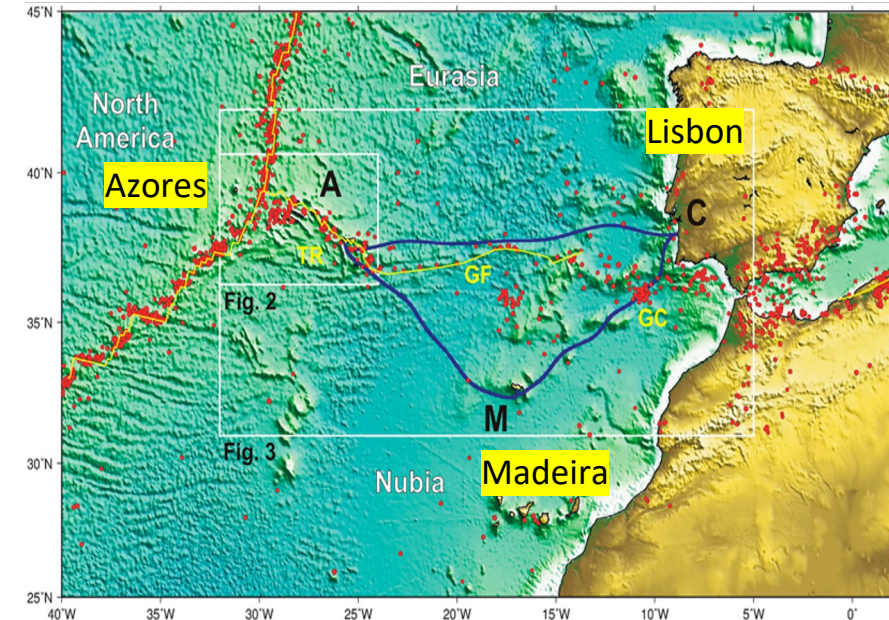
- **Located every 70 km**
- **Essential Ocean Variables of the Global Ocean Observing System**

Create a Planetary sensor, power, Internet network



Global climate, ocean, sea level, earthquake, tsunami

Portugal SMART Atlantic CAM

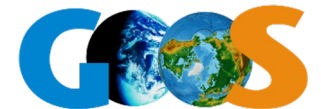


- 3700 km, 50 SMART repeaters, €154M
- RFP 2023, Ready For Service 2025
- 25+ year life, reliable, low lifetime cost
- Leverage \$5B/y industry, 170 y experience

- ITU/WMO/UNESCO IOC Joint Task Force SMART Cables
- United Nations: Project of the UN Decade of Ocean Science, affiliated with GOOS Co-Design and IOC Tsunami Programmes
- Work with UN Agencies:
 - ITU: Telecommunication Development and Standardization Bureaux, G.SMART Study Group, ITU Climate and DRR Resolutions
 - UNESCO IOC: Tsunami Unit and GOOS
 - WMO: Tsunami and GOOS units, Data Management



**2021
2030** United Nations Decade
of Ocean Science
for Sustainable Development



- Created in 2012 with over 200 active members with several committees: science and society, engineering, business development, legal, **data management**, and publicity, awareness, and marketing.
- Main Goal: promotion of use of Smart Cables worldwide – emerging → mature
- Action plan: propose new national regulation to create attractive business opportunity for Smart Cables projects:
 - ✓ Taxes & regulatory charges exemption/reduction
 - ✓ Landing Permits/Licenses Fast track procedure
 - ✓ Data Sharing interstate cooperation process (scientific communities and Int. Org.)
 - ✓ Additional cable protection
- Issue of recommendations or good practices/guidelines.

- SMART – a fruitful marriage with telecom – connectivity, climate, DRR – three for the price of one – saves resources on all fronts
- Promote SMART Cables use as a business opportunity – Blue Economy:
 - Work to adapt national regulations – e. g., reduce tax, permitting constraints
 - SMART Cables acts to catalyze improvement of the cable industry financing market and aid funds allocation.
- Work with ITU, WMO, IOC, Governments, Industry to effect change
 - UN Sustainable Development Goals
 - UN Decade of Ocean Science for Sustainable Development
- **UN agencies are crucial supporters of SMART Cables, now and into the future.**



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Thanks



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of Ocean Science
for Sustainable Development



GORDON AND BETTY
MOORE
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ITU/WMO/UNESCO IOC
Joint Task Force SMART Cables

SMARTCables.org

