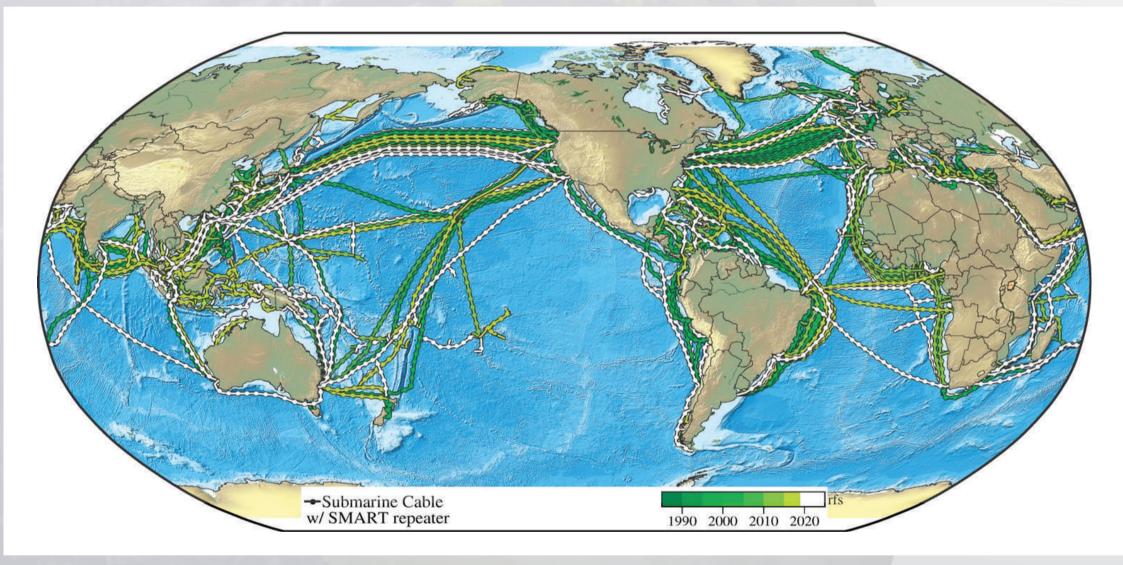


OBSERVING THE OCEAN AND EARTH WITH SMART SUBSEA CABLES



HIS

SMART Subsea Cables will integrate environmental sensors into commercial submarine telecommunications cables supporting global scale observations for climate, ocean circulation, sea level monitoring, structure of the Earth, and tsunami and earthquake early warning and disaster risk reduction. SMART cables will be one of the transformative technologies deployed for the 2021-2030 UN Decade for Ocean Science for Sustainable Development. We provide an overview of SMART Cables, describe projects at various stages spanning the Arctic to the Antarctic, and address challenges of international coordination, funding, legal, permitting, and security issues. (SMART = Science Monitoring And Reliable Telecommunications) Current and planned submarine cables span the oceans, crossing through zones of oceanographic and seismic interest. As they are replaced over their 10-25 year refresh cycle, SMART capabilities can be added to gradually obtain high data rate real time global coverage. Sensors are hosted in the repeaters every ~100 km (inset).





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https://videoconf-colibri.zoom.us/j/89018419156

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