**Opening Remarks for Workshop: Submarine Cables for Ocean/Climate Monitoring and Disaster Warning: Science, Engineering, Business and Law**

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* Ladies and Gentlemen, in the name of the International Telecommunication Union (ITU), the Intergovernmental Oceanographic Commission of UNESCO and the World Meteorological Organization (WMO) I would like to welcome you to this final workshop of the ITU Green Standards Week: *Submarine Cables for Ocean and Climate Monitoring and Disaster Warning: Science, Engineering, Business and Law.*
* Since the 1850s more than a million kilometers of submarine communications cables have been laid on the ocean floor, covering a significant part of the globe, and responsible for the routing of over 95 per cent of all data and voice traffic.
* Alongside its communication function some types of this cable network, equipped with sensors, could also measure temperature, ocean currents, salinity/conductivity, pressure, cable voltage, seismic and hydroacoustic activities in the oceans they run through, and thereby greatly contribute to climate science, oceanography and disaster warning.
* Science suggests that long-term real-time undersea monitoring is critical since most of the climate system’s heat and greenhouse gases are stored in the oceans.
* A truly global ocean observing network could be realized by equipping the world’s submarine communications cables with sensors.
* ITU published a Technology Watch Report in November 2010, authored by Dr John You, a marine scientist at the University of Sydney in Australia.
* As a consequence the issue became a study item in ITU-T Study Group 5 “Environment and climate change” (Question 23)
* The issue addresses two resolutions of ITU’s Plenipotentiary Conference, ITU’s highest decision making body:
  + Resolution 136 on “The use of telecommunications/information and communication technologies for monitoring and management in emergency and disaster situations for early warning, prevention, mitigation and relief” and
  + Resolution 182 on “Information and Communication Technologies (ICTs), climate change and the protection of the environment”
* Through these resolutions, ITU Member States are raising the awareness of policymakers to the critical role of ICTs in addressing climate change and disaster warning.
* The steering committee for this workshop consists of representatives from international organizations and world renowned experts from the science, engineering, business and law communities. A big thank you to all of you who have helped prepare for this workshop which is part of the ITU Green Standards Week in Rome.
* 4 workshop sessions address multiple dimensions of the issue:
  + Session 1: The Science - Tools to Monitor Oceans and Climate Variables
  + Session 2: The Technology - the State of the Art of Submarine Cables and Repeaters Technologies
  + Session 3: The Business - Economic Models, Cost Effectiveness and Trade-off Analysis
  + Session 4: The Law - Legal Implications
* The fifth session, for the first time ever, will be held tomorrow afternoon in the form of a World Café, which is a collaborative meeting model allowing for more interpersonal communication with a view to making collective knowledge and insight visible and actionable. My colleague Saba will explain this concept in more detail later today.
* Ladies and Gentlemen, I wish you a successful workshop, and hope we all can learn more about the challenges and opportunities of using of submarine communications cables for seafloor monitoring of ocean, climate and natural disasters.
* I would now like to welcome our keynote speaker, Dr John You, from the University of Sydney.