Multi-stakeholder Forum on Science, Technology and Innovation for the SDGs

New York, 15-16 May 2017

Concept Note for <u>session 2 (e)</u> on

<u>*Key priorities for engaging STI to conserve and sustainably use the oceans, seas and marine resources for sustainable development (SDG 14)*</u>

Trusteeship Council Room, UN Headquarters New York, 15 May 2017, 15:00 - 16:30 am

1. Background

Science, technology and innovation are relevant to all the targets of Sustainable Development Goal (SDG) 14 to "*conserve and sustainably use the oceans, seas and marine resources for sustainable development*". In particular, SDG target 14.a aims to "*Increase scientific knowledge, develop research capacity and transfer marine technology…*".

It is recognized that multiple anthropogenic impacts on the marine ecosystems can be already seen and measured. However, the interaction of different stressors, in particular ocean warming, acidification, deoxygenation, pollution and overfishing, and the thresholds when changes are becoming irreversible, are less known.

The ocean is a sink for pollution produced by human activities, with land-based activities generating 80 per cent of marine pollution. Beyond addressing pollution and its impacts, it is critical to prevent pollution generation, through concepts such as the circular economy and 3Rs. This includes wastewater treatment in coastal areas and adequate management of solid waste. The session can examine progress towards using technology across production and supply chains to limit ocean pollution, and explore solutions to overcoming institutional and societal barriers in this respect.

Technology can help improving outcomes for many of the SDG14 targets. According to the IOC Criteria and Guidelines on Transfer of Marine Technology (CGTMT), there is a need to establish operational mechanisms for marine technological and scientific cooperation among UN entities, Member States, and regional environmental, scientific, and fisheries organizations. In the CGTMT, marine technology refers to instruments, equipment, vessels, processes and methodologies required to produce and use knowledge to improve the study and understanding of the nature and resources of the ocean and coastal areas.

For example, technology can help improve global and regional observations, explore possible carbon storage technologies, develop new cost efficient research equipment, improve fishing technologies, reduce by-catch, enhance monitoring and surveillance of fishing activities, improve pollution prevention and clean-up, and broader the application marine spatial planning. The forum could examine examples of recent technological breakthroughs in relation to these issues.

Oceans represent a potential for building strong, innovative and resilient economies ("blue economy"), especially for Small Island Developing States (SIDS). Therefore, it is critical to identify context-specific options for ocean-based economic activities and to incorporate them into coherent science and technology roadmaps that support national development strategies.

Specific efforts targeted to SIDS are needed, in order to strengthen their national, sub-regional and regional enabling environment through STI policy frameworks and institutional mechanisms that not only deploy modern marine STI but also mainstream traditional marine technologies for the socio-economic and inclusive development of SIDS.

The session can also look at promising examples of national efforts and successful transfer of marine technologies to developing countries. Despite the importance of maritime technology transfer and its references in UNCLOS and other international documents, little reliable data exist in on this important issue.

2. Objectives

The session aims to discuss existing gaps and opportunities for STI related to oceans, maritime resources and human systems that depend on them. It may stimulate a high-level reflexion on how technology can impact the interlinkages between oceans and other SDG issues, such as food security, industrialization and climate change. It could also highlight technologies that show potential for reducing the impacts of climate change and ocean acidification, as well as for reducing pollution generation across the production system and for preventing marine pollution. The session will also discuss options for platforms for facilitating marine technology transfer, as well as the potential of science and technology roadmaps for ocean-based economies in SIDS and coastal LDCs and practical steps for their elaboration.

3. Format

The session will be organized in the form of a panel discussion on key priorities to conserve and sustainably use the oceans, seas and marine resources for sustainable development. The moderator will introduce the theme (3 min), and up to three panellists addressing the topic with 7-minute remarks. Thereafter, the floor will be open for a series of 3 min remarks, followed by a moderated discussion and remarks from the other participants.

4. Questions for discussion

The discussion will be guided by the following questions:

- What are recent technological breakthroughs to make progress towards SDG14, including with respect to marine pollution, monitoring of IUU fishing, reducing by-catch, ocean acidification observing and marine conservation? How to promote access to these technologies?
- How can marine science and ocean-based technology be mobilized to build strong, innovative and resilient ocean-based economies in Small Island Developing States? How to create science and technology roadmaps with sustainable development strategies in these countries?
- What are your top three recommendations for action by the United Nations system, governments, businesses, scientists, civil society, and others?