Input paper: [[1]](#footnote-1) ENG9-5.3

Input paper for the following Committee(s): check as appropriate Purpose of paper:

**□** ARM **X** ENG **□** PAP **□** Input

**□** ENAV **□** VTS **X** Information

Agenda item [[2]](#footnote-2) (from agenda) 5.3 (15 min presentation in plenary)

Workplan Task Number2 Not applicable

Working Group Not applicable

Author(s) / Submitter(s) Glenn Nolan, EuroGOOS AISBL

Building Ocean Observing Capacity Using AtoN Platforms

# Introduction

The Framework for Ocean Observing (2012) has specified the Essential Ocean Variables that should be measured to build a Global Ocean Observing System that delivers a wide range of societal benefits to users. These include parameters such as temperature, salinity, waves, currents and a wide array of biological and biogeochemical variables that are required to underpin decision support and policy making in all countries. Gathering oceanographic data can be an expensive proposition using technologies such as moored buoys, autonomous gliders and ship-based techniques. While considerable progress has been made with low-cost technologies that would allow developing countries establish an oceanographic measurement capability, ocean observing remains beyond the means of many countries that need to monitor their seas and oceans. The Intergovernmental Oceanographic Data Exchange (IODE) of IOC UNESCO identifies six main areas to address capacity building and transfer of marine technology; human capacity, physical infrastructure, strengthened regional mechanisms, ocean research policies, visibility and awareness and sustained resource mobilisation. EuroGOOS/GOOS would like to explore the possibility of utilising navigation platforms to build ocean observing capacity through the IALA global network.

# DIscussion

The current network of fixed marine platforms collecting some or all of the Essential Ocean Variables comprises approximately 500 platforms. Meanwhile, IALA members operate and maintain tens of thousands of Aids to Navigation (AtoN) platforms at the global scale that have the potential to make concurrent oceanographic measurements. There is also a regular review mechanism within IALA to assess the current fit for purpose and optimal location for AtoN. Irish Lights have implemented metocean data collection on several AtoN in recent years showing that valuable meteorological and oceanographic data can be collected and transmitted from AtoN to both maritime users to improve their situational awareness as they navigate safely and to weather forecasting agencies with a view to improving forecasts (through assimilation of the data into weather forecast models). The implementation has shown that the impact on the navigation platform’s power budget and core operations is not compromised significantly by collecting this additional metocean information. EuroGOOS/GOOS would like to discuss the practicalities surrounding a potential wider roll-out of metocean data collection from IALA AtoN with particular emphasis on building capacity in developing nations.

# Action requested

The ENG Committee is invited to note this information and take action as found appropriate.

1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-1)
2. Input papers should be assigned to a work task as listed in the Committee work plan which is available in input papers. Leave open if uncertain but consider how the paper is to be processed if not relevant to a work task [↑](#footnote-ref-2)