e-NAV13 Input

Agenda item 19.3

Task Number -

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Working Group 7 – Testbeds

Proposed formation and Terms of Reference

# Summary

This document outlines the terms of reference for a proposed new working group (Working Group 7) of the e-NAV Committee. The working group would deal with e-Navigation testbeds[[1]](#footnote-1).

# DEFINing testbeds

The term testbed is used across many disciplines to describe a development or test environment that is shielded from the hazard of a live (or production) environment.

In the context of e-Navigation, a testbed is used to demonstrate/evaluate a proof of concept of one or more of the e-Navigation solutions.

# Background

If e-Navigation solutions are to have global application, it is vital that future implementation of the outcomes of testbeds are harmonized.

At the 58th session of the IMO Sub-Committee on the Safety of Navigation (NAV 58), the Sub-Committee agreed to the further development of guidelines for the harmonization of testbeds.

In recent years, testbeds have been set up for e-Navigation applications in the Baltic Sea (EfficienSea) and North Sea (ACCSEAS). Other projects providing testbeds are the Mona Lisa project and the Marine Electronic Highway in the Straits of Malacca and Singapore.

The implementation of e-Navigation will be phased and iterative. Therefore, it is important that outcomes or lessons learnt from test-bed projects be considered in the context of the main elements of the IMO Strategy Implementation Plan (i.e. user needs, architecture, gap analysis and cost-benefit and risk analyses).

# ROLE

## Working Group 7 would be part of the IALA e-Navigation Committee. It would be responsible for gathering summary information on testbeds globally, evaluating outcomes (in particular ‘lessons learnt’) and sharing the outcomes with the IALA membership. An associated role would be to provide expert advice (by way of guidance) to the IALA membership on test bed matters.

## The group will also provide a forum for e-NAV Committee members to discuss issues of common interest and concern in relation to test beds.

* 1. **Operation**

The working group will meet twice a year, under the aegis of the e-Navigation Committee.

* 1. **Members**

Membership would comprise e-NAV Committee members, with an interest (or expertise in) testbeds.

# Deliverables

1. Guidance on harmonisation of testbeds. Contents could include:
   1. Planning of testbeds.
   2. Developing of test systems.
   3. Conducting actual sea trials / tests.
2. Develop systematic reporting structures (to increase comparability of testbed results and allowing detection of the best candidates for implementation).
3. Develop and maintain a ‘shopping list’ of e-Navigation solutions that will benefit from testbeds.
4. Develop and maintain a wish list of issues or concepts that testbeds should address – e.g. usability of navigational equipment.
5. Ensure that a testbed portal is available (e-navigation.net at present) and promote it as the repository for testbed results and requirements.'

# Action requested of the Committee

The Committee is requested to consider the formation of a new Testbed Working Group (WG7), review the proposed terms of reference, and if agreed by the Chairman / Vice Chairman, request the IALA Secretary-General to agree the proposed WG’s formation.

1. A testbed (also commonly spelled as test bed in research publications) is a platform for experimentation of large development projects. Testbeds allow for rigorous, transparent and replicable testing of scientific theories, computational tools, and new technologies.

   *Reference: http://en.wikipedia.org/wiki/Testbed* [↑](#footnote-ref-1)