Input paper: [[1]](#footnote-2) DTEC5-6.2.2.5

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

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

**X** DTEC **□** VTS **□** Information

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Technical Domain / Task Number 2 DTEC-7.1.2

Author(s) / Submitter(s) Task Group DTEC-7.1.2

Report from Task Group DTEC-7.1.2 Digitalization of Waterways intersessional work

# Summary

This document reports the results of the Task Group DTEC-7.1.2 intersessional work between DTEC4 and DTEC5 meetings and outlines the planned future work.

Between DTEC4 and DTEC5 Task Group:

* continued drafting the new Guideline on Digitalization of Waterways;
* held two online intersessional meetings where updates to the draft Guideline were reviewed and discussed;

Task Group plans to:

* send the draft Guideline to other technical committees for review and comments from DTEC5
* continue drafting the Guideline intersessionally between DTEC5 and DTEC6
* hold two intersessional online meetings
* 6th November 2025, inter-committee meeting
* 5th February 2026, Task Group meeting

## Related documents

A short summary of the related DTEC5 input documents originated from Task Group intersessional work is given below. The draft Guideline is submitted without track-changes. The intermediate versions with track changes can be found in [IALA File-Share](https://nextcloud.iala-aism.org/f/357751). The Draft Liaison note is proposed to be sent to other committees from DTEC5, informing them about the status of the work and giving them the possibility to review and comment the draft Guideline.

* DTEC5-6.n.n.1 Draft GXXXX on Digitalization of Waterways – from intersessional
* DTEC5-6.n.n.2 Draft Liaison note DTEC to all committees (and PAP) on Digitalization of Waterways Guideline

The Working paper forwarded from DTEC4 to DTEC5 below is for information and traceability only, the work will continue using the results from intersessional work.

• DTEC5-6.2.2.5.1 Draft IALA Guideline on Digitalization of waterways (DTEC4-15.5.6)

There may be also other input related to Task Group GTEC-7.2.1 submitted to DTEC5 from IALA Members or from other committees. These papers will be identified and reviewed during DTEC5.

# Background

During DTEC1 meeting, WG2 started to work on a new task: Develop guidance for IALA members on the digitalization of waterways. The target date for finalization of the new Guideline is DTEC6 (spring 2026). The main objectives of the new Guideline are:

* Define what is meant by digitalization of waterways;
* Provide guidance on identifying digital maturity of waterways;
* Review guidance on the use of simulation as a tool in waterway design and AtoN planning (IALA G1058 and G1097, noting this has been superseded by G1058 Ed 3.0);
* Identify best practice in development and use of digital twins;
* Provide guidance on the use of digital twins for fairways / aids to navigation provision;
* Identify uses of digital twins for planning, monitoring and maintenance;
* Identify options to share information on the fairway infrastructure and services in a digital format with users;
* Link with, for example, IMT-2030 and beyond for data exchange, AI/ML, S100;
* Identify opportunities to enhance sustainability through the use of technology / digital twins for fairways and AtoNs.

# Discussion

## Intersessional work

The Task Group held two intersessional online meetings between DTEC4 and DTEC5 where offline work to the draft Guideline was reviewed and discussed. The online meetings were announced via Committee Dashboard Calendar and additional notifications were sent by e-mail to the registered members of the Task Group mailing list.

The working papers discussed during the intersessional work can be found in IALA File-Share (Committees > ENAV-DTEC > Post DTEC4 Intersessional TGs > DTEC-7.1.2-Digitalization of Waterways).

## Task group members

The list of members registered to the Task Group DTEC-7.2.1 mailing list is the following:

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## Status of work

Task Group continued drafting the Guideline between DTEC4 and DTEC5 intersessionally. Major changes between DTEC4 WP output and the draft Guideline that is provided as input from intersessional work to the DTEC5 are the following:

* *Section 6 Consequential requirements* moved to *Subsection 2.5 Preconditions for Digitalization*
* *Section 5 Architectures for Digitalization of Waterways*
* Material related to other transport modes removed
* More material related to the Maritime Architecture Framework (MAF) added from NAVGUIDE 2018
* *Section 7.4 AV-Adapted and AV-Supportive AtoNs* removed
* Additional sentences about connectivity added to *Section 2.5.1*
* Additional sentences about cyber security added to *Sections 2.5.2* and *3.3.1*
* Sentences about simulation as tool for waterway planning added to *Section 3.1*
* *Section 3* restructured to provide best practice summary on the development of digital twins
* New text on PIANC digital services partly replacing old text added in *Section 4.3*
* New text on S-100 data products and services added in *Section 4.4*
* Comments and editorial changes/corrections from the Task group added throughout the draft

## Plan for future work

The Task Group plans to

* send the draft Guideline from DTEC5 to other committees for the second round of review and comments.
* hold two intersessional online meetings between DTEC5 and DTEC6. The first intersessional meeting will be an inter-committee meeting to receive direct feedback from other committees:
* 6th November 2025, inter-committee meeting
* 5th February 2026, Task Group meeting
* continue drafting the Guideline intersessionally between DTEC5 and DETC6 taking into account feedback received from other committees via the inter-committee meeting and liaison notes.
* provide a mature Guideline to DTEC6 to be reviewed and submitted to Council for approval.

# Action requested of the Committee

The Committee is requested to:

1. Note the status and planned future work of the Task DTEC-7.1.2 Digitalization of Waterways.
2. Review and discuss the draft Guideline on Digitalization of Waterways based on the results of intersessional work and any other input received.
3. Send a Liaison note to other committees asking to review and comment the draft Guideline and inform them about the intersessional online inter-committee meeting.

1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-2)
2. Leave open if uncertain [↑](#footnote-ref-3)