



# AISS 26

Autonomous Inland  
& Short Sea Shipping

## Autonomous Inland and Short Sea Shipping Conference

### AISS 2026

24<sup>th</sup> to 25<sup>th</sup> March 2026

### Conference Program

Competence Centre for Autonomous Inland and Short Sea  
Shipping

Venue:

XPONENTIAL EUROPE  
exhibition and conference

Messe Düsseldorf, Germany

Supported by



XPONENTIAL<sup>™</sup>  
EUROPE



Messe  
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## Tuesday, 24<sup>th</sup> March 2026

12:30 **Welcome and Registration**

13:00 **Opening**

Bettar Ould el Moctar, University of Duisburg-Essen, Germany

*Chair: Rupert Henn*

13:10 **Keynote Lecture: TBD**

**TBD**

**TBD**

13:40 Evert Bulcke

**1.000 ships equipped with TGAIn, 5 key learnings on inland shipping automation**

Tresco Group, Belgium

14:00 **I. Filip**<sup>1</sup>, A. Llorente<sup>1</sup>, R. Herrmann<sup>2</sup>

**Navigation and mapping with distributed mmWave radars in inland waterways**

<sup>1</sup>DLR, German Aerospace Center, <sup>2</sup>BTU Brandenburg University of Technology, Germany

14:20 Alexander Puzicha

**Autonomous marine VHF radio for future inland navigation**

TUD, TU Dortmund University, Germany

14:40 Panayiotis Siokouros

**Defining the operational envelope of autonomous inland waterway vessels for monitoring deviations from safe system behaviour**

NTUA, National Technical University of Athens, Greece

**15:00 Coffee break**

*Chair: Alexander Puzicha*

15:30 **B. Boyer**, C. Dalozé, M. Hirtz

**Automation and remote operation on the Rhine and European Union waterways-**

**Vision of the Central Commission for the navigation of the Rhine and ongoing regulatory and standardisation works**

CCNR, Central Commission for the Navigation of the Rhine, Germany

15:50 Friederike Sturm

**Protecting innovation in autonomous inland shipping**

dompatent, Cologne, Germany

16:10 **M. I. Hasbullah**, Prof. G. Theotokatos

**Risk modelling of human-machine interactions in remote controlled ship**

University of Strathclyde, Glasgow, UK

16:30 I. Bačkalov<sup>1</sup>, M. S. K. Illuri<sup>1</sup>, M. Schönberger<sup>2</sup>, S. Schweig<sup>1</sup>, D. Seernani<sup>2</sup>, **M. Tenzer**<sup>1</sup>

**Opportunities for human factors research in inland navigation**

<sup>1</sup>DST, Development Centre for Ship Technology and Transport Systems, Duisburg, <sup>2</sup>iMotions, 10178 Berlin, Germany

16:50 **Summary of the day**

18:30 **Conference Dinner – Brauerei Kürzer**

Kurze Straße 18-20, 40213 Düsseldorf

## Wednesday, 25<sup>th</sup> March 2026

### 11:00 **Opening**

*Chair: Cyril Alias*

- 11:05 Cyril Alias  
**EU-projects in the field of autonomous and remote-controlled shipping**  
DST, Development Centre for Ship Technology and Transport Systems, Duisburg, Germany

### 13:00 **Lunch**

*Chair: Jens Neugebauer*

- 14:00 H. Dierksmeier; **Cyril Alias**; M. Seifert; M. Budde  
**Determining potential manifestations of the changing technical set-up of inland ports with respect to automated inland waterway transport**  
DST, Development Centre for Ship Technology and Transport Systems, Duisburg, Germany
- 14:20 Renan Guedes Maidana  
**Framework for multiple crane automation in container handling operations**  
SINTEF Ocean, Norway
- 14:40 Ghazaleh Kia  
**Enhancing dependability in inland remote operation systems**  
Seafar, Antwerp, Belgium
- 15:00 **S. Kleinert**, D. Höhn  
**A what-if simulation to support vessel traffic services in their decision-making process**  
DLR, German Aerospace Center, Germany

### 15:20 **Coffee break**

*Chair: Christopher Schulte*

- 15:50 **H. Uyanik**, A. Belles, D. Medina  
**Enhancing precise navigation for inland waterways with factor graph optimization**  
DLR, German Aerospace Center, Germany
- 16:10 **T. Feierfeil**; C. Schanz; K. Kauppert  
**Fuel monitoring and assistance on reducing fuel consumption with live-data**  
Ingenieurbüro Kauppert, Karlsruhe, Germany
- 16:30 Mahmoud Amer  
**Generation and evaluation of synthetic ground truth data for deep learning-based inland waterway sign detection and classification**  
University of Duisburg-Essen, Germany
- 16:50 Victor Bolbot  
**Physics-based digital twin development of an AL ship model**  
Aalto University, Espoo, Finland
- 17:10 Jaroslaw Piwonski  
**ADDIX NavBox – A ROS-based autonomous navigation framework**  
ADDIX Internet Services GmbH, Kiel, Germany
- 17:30 **Closing AISS**  
Heike Vallery

## **XPONENTIAL Europe Conference – Maritime Session** **Thursday, 26<sup>th</sup> March 2026**

*Chair: Mohan Illuri*

- 13:00 Iolande Viricel  
**The automated ship: A ship like any other?**  
IDIT, Institute of International Transport Law, France
- 13:30 **B. Wilbers**; D. Wium; F. Roelofsen  
**Project APPES – Automated Plug & Play Estuary Ship**  
MULTI.engineering, Benelux Countries
- 14:00 Srinath Mallikarjunan  
**Achieving LBL–level accuracy with GNSS-corrected surface buoys:  
The aquagrid underwater positioning system**  
Unmanned Dynamics, Vilnius, Lithuania
- 14:30 Bjørg Mathisen Døving  
**Pioneering the future with reach remote – Norway’s first 24m uncrewed ROV vessels**  
Reach Subsea, Norway
- 15:00 **N. Karandikar**, S. Wang, K. Knutsen  
**Towards dependable maritime knowledge graphs:  
Leveraging ISO 19848 for semantic interoperability**  
DNV AS, Norway
- 15:30 Prof. G. Theotokatos; **M. I. Hasbullah**  
**Virtual reality-based immersive education training for safe operations of next-  
generation zero-emission vessels**  
University of Strathclyde, Glasgow, UK
- 16:00 **S. Wang**, N. Karandikar, K. Knutsen  
**From complexity to confidence: Ensuring reliability of AI-enabled maritime software**  
DNV AS, Norway

### **Closing**

Link to AISS Website  
<https://aiss-conf.com/>