

Künstliche Intelligenz

für Navigation und Routenplanung in der Schifffahrt

Der „Human Factor“



Programm

10.00 Begrüßung

10.15 Einführung

10.35 Keynote „Künstliche Intelligenz und die Gesellschaft: Der Mensch im Mittelpunkt“

11.10 Pause

11.40 Projekt-Pitches

- Kapitän, Nautiker oder Remote Operator: Wie sich ein Berufsfeld neu erfinden muss
- Project VerifAI
- The future of urban waterways - innovative solutions for infrastructure, waste management and transport
- Optimised route planning and navigation through autonomous water maintenance

12.30 Diskussionsrunde „Interaktion Mensch-Maschine“

13.00 Netzwerken mit kleinem Imbiss

13.30 Ende der Veranstaltung

Begrüßung

Matthias Groote, Landrat des Landkreises Leer

Begrüßung

Katja Baumann, MARIKO GmbH

Marianne Jager, FME

EDIH NN

Digital Transformation of the Manufacturing Industry in Northern Netherlands towards Autonomous Systems

Sectors

Built Environment

Utilities

Mobility

Smart Manufacturing

Smart Agri

Life Science & Health

Partners



EDIH NN – DIGITAL-2021-EDIH-01
PROJECT: 101083001



European Digital
Innovation Hub
Northern Netherlands



European Digital
Innovation Hub
Northern Netherlands



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BOOST

Digitalzh

KLIKOPMORGEN.nl
EDIH Zuid-Nederland

Einführung

Theun Prins, YP Your Partner
Pieter Dibbits, Kroes Marine Projects

Projektziel

Entwicklung autonomer Fahren im deutsch-niederländischen Wattenmeer

Untersuchung von Perspektiven & Erprobung von konkreten Anforderungen für den Einsatz von (teil)autonomen Fahren

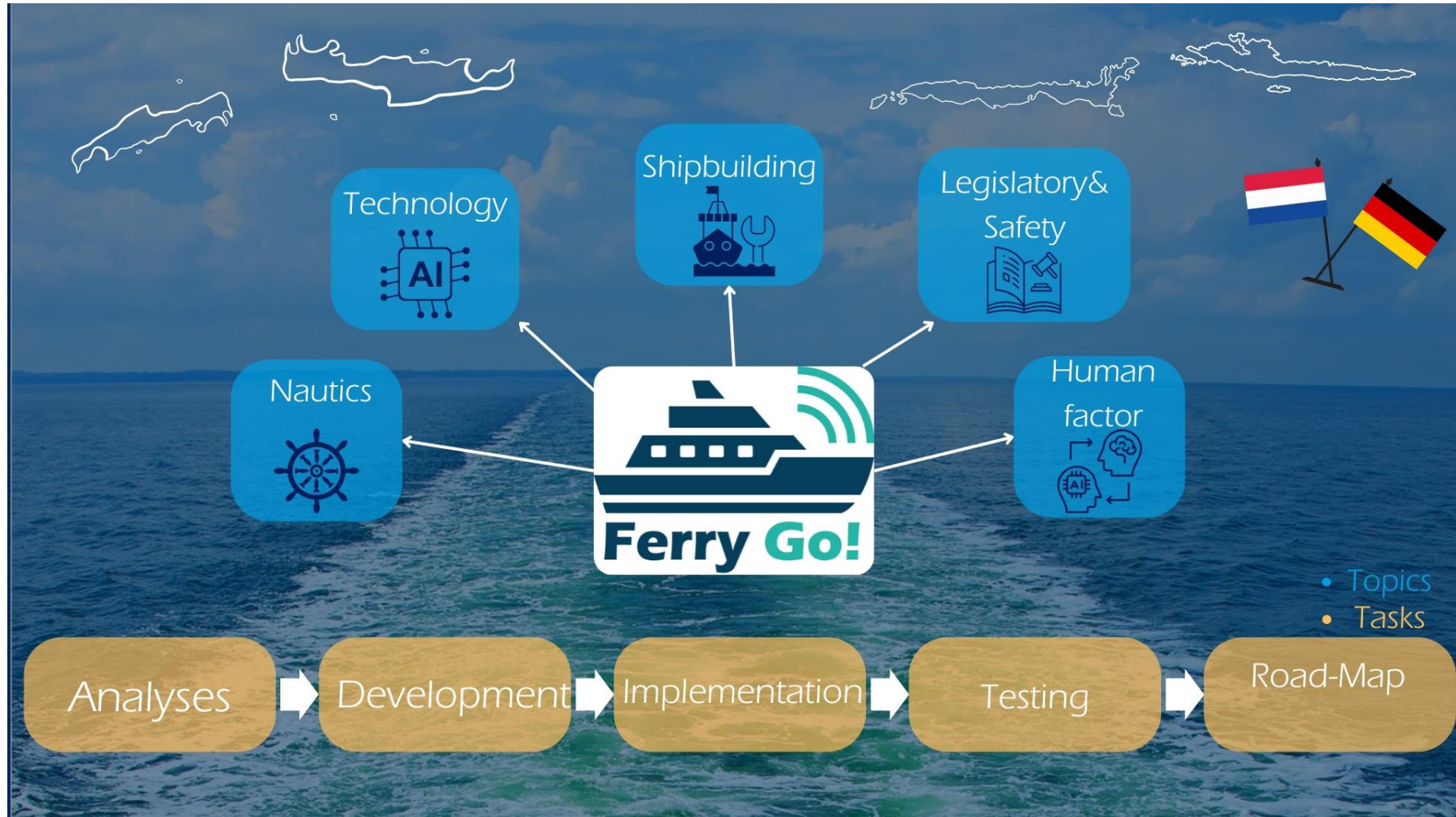




Ferry Go! Partner



Ferry Go! Überblick





Hintergrund Your Partner BV, Drachten (NL)

Software development specialized on IIoT applications for critical infrastructure, water treatment, climate control, power distribution, logistics and more.

Proud member of the Northern High Tech Innovation cluster (www.icdrachten.nl)

Proud technology sponsor of the Solarboat Racing Team (www.whisperpowersolarteam.nl)





Aufgaben Your Partner BV, Drachten (NL)

- Scrubbing the edges of high speed data processing to enable realtime control
- Research the status quo of AI and discovering it's usability
- Growing into the maritime sector which is currently undergoing a massive transaction in digitalization
- Contributing in bringing the world forward





Input Your Partner BV, Drachten (NL)

Hard skills

- Data acquisition
- Data preprocessing
- Data security (ISO 27001 certified)
- Overall system performance

Soft skills

- Eager high tech brain power
- Front runners enthusiasm





Deutschland – Nederland

Ferry Go!

"Alarm fatigue"

"Alarm fatigue"



"Alarm/information fatigue"

Using AI or algorithms to:

- Reduce the number of alarms
- Prioritize alarms
- Automate repeating actions
- Simplify alarms

Objectives

- Reduce risks
- Improve performance





"Alarm/information fatigue"

Challenges today

- Where to start?
- Ignore?
- Suppress?
- How to regain control?



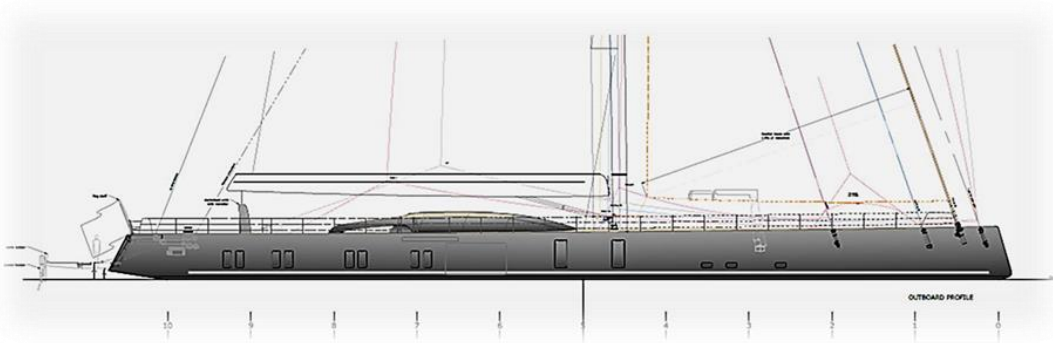
"Alarm/information fatigue"

QUESTIONS / DISCUSSION



Hintergrund Kroes Marine Projects

- Marine Engineering
- Construction
- Project Management
- Refit & Conversion
- Consultancy





Aufgaben Kroes Marine Projects

- Share collected knowledge on autonomous sailing
- Help (re-)design the vessels of the future
- Translate new IT concepts to Marine applications
- Lower the threshold for owners to venture into a new era
- Explain the concepts in layman's terms to all stakeholders





Aufgaben Kroes Marine Projects

- Create a comprehensive overview of the current Waddenzee fleet and their characteristics
- Investigate the T(echnology) R(eady) L(evel) of available technology, specifically for use on the Waddenzee
- Integrate the required technology into a feasible sketch-design
- Liaison during the project for known knowledge providers





Deutschland – Nederland

Ferry Go!

"Information mismatch"

"Information mismatch"




This here is my sector.

"Information mismatch"

Status Quo

- Language barriers can disturb comms
- Misunderstandings lead to accidents
- Information processing is slow



We are sinking!
We're sinking!

"Information mismatch"

AI-assisted

- No more language barriers, translations are instant
- Information processing much faster
- Importance "flagging" automated
- Suppression of irrelevant "noise"

CHALLENGES

- Very specific programming
- Peer-checks between systems
- Input validity testing



Deutschland – Nederland

Ferry Go!

"Information mismatch"

QUESTIONS / DISCUSSION

Human factor

Input vom DLR

- Human factor in autonomous shipping
- Cooperation between humans and ki
- Remote Operation Center (ROC)
- Interaction with ai
- Analyse stakeholders (other ship personnel, passengers)



Herausforderungen und Perspektiven?

Wo liegen für YP Your Partner und Kroes Marine Projects die Herausforderungen Kontext des "Human factors" und wie können wir (im Projekt) diesen Herausforderungen begegnen?

Welche Perspektiven ergeben sich?

Keynote

„Künstliche Intelligenz und die Gesellschaft: Der Mensch im Mittelpunkt“

Mazen Salous, OFFIS



Projekt-Pitch

**Kapitän, Nautiker oder Remote Operator:
Wie sich ein Berufsfeld neu erfinden muss**

Clemens Plawenn-Salvini, Hochschule Emden/Leer

Projekt-Pitch

Project VerifAI

Martin Portier, BSH

Projekt-Pitch

The future of urban waterways - innovative solutions for infrastructure, waste management and transport

Ynse Deinema, Roboat

Projekt-Pitch

**Optimised route planning and navigation
through autonomous water maintenance**

Leon Sterk, Harkboot

Diskussion „Interaktion Mensch-Maschine“



Ferry Go! wird gefördert durch:



Ministerie van Economische Zaken
en Klimaat



provincie
 groningen

provinsje fryslân
provincie fryslân 



Niedersächsisches Ministerium
für Bundes- und Europaangelegenheiten
und Regionale Entwicklung



Interreg



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