Maritime traffic notification service NEMO

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SIILI

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NEMO

GOAL

CONCEPT CREATION

VISION CONCEPT

GLOBAL BENCHMARKS



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GOAL



FINTRAFFIC X SIILI

- NEMO Maritime Single Window
- Nautilus Small passenger ship notification service
- Harmonization of the collection of maritime transport statistics
- New SafeSeaNet implementation
- Value-added services



NEMO



WE ARE NOT ONLY BUILDING THE MEMBER STATE SPECIFIC "SINGLE WINDOW" SYSTEM



BUT ALSO AIMING FOR SIGNIFICANT BENEFITS THROUGHOUT THE LOGISTICS CHAIN

WE ARE BUILDING A VISION CONCEPT TO SHAPE THE FUTURE IN 10 YEARS



NEMO – DATA PLATFORM FOR MARITIME TRAFFIC INFORMATION



productivity

isä - ja lisäarvopalvelut nahdollistava alustaratkaisu ml olmannen osapuolen palvelut



CONCEPT CREATION

Fintraffic SIILI.



















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Schedule

VISION CONCEPT

Nemo **Vision concept**

Shaping the future for the next 10 years, the vision concept portrays a maritime traffic data platform combining public and commercial data in a way that benefits all stakeholders within the maritime ecosystem.

Vision story

The story is set in the future illustrating the different stages of the port visit, while stating the benefits and added value for each stakeholder.

Data flow

The data model maps the stakeholder roles and tasks in the vision story as well as the data flow and data utilization throughout the ecosystem.

UI/UX proto

The conceptual, interactive prototype demonstrates the possible user experience of the future.

nemo

Blueprint

The blueprint provides a systemic visual overview of the vision story and data flow.

0. Introduction

In 2030, maritime logistics will utilize real-time information sharing and process automation through digitalization. The data of trade agreements and charter agreements is exported to Nemo, which is the maritime traffic data platform. Aronen and Harding are able to follow the movements of the cargo from Nemo.

nemo

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2.0 Dynamic timeline

Nemo has created a dynamic timeline for the ship through machine learning. It shows the preliminary stages, times and actors of the port visit as a combination of realized events and forecasts of future events.

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nemo

e of operations is 21:00

Dynamic timeline

3.0 Port shared situational picture

At the Port of Helsinki, Sami examines all ships from a port shared situational picture, which allows the operators of the port to plan together the services of arrival and departure.

The port shared situational picture consists of the following information:

- Port traffic information: pilotage, tug services & port area icebreaking, harbour master info
- Activities of the port operator
- Detailed information about the berths

nemo

General snapshot of the port area

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3.1 Recommended arrival time

Nemo recommends the optimal arrival time for the ship, which enables Just In Time Arrival. Based on this, at the port, Sami gives a proposal for the berth location and arrival time, which is confirmed by Captain Andre. Information about the arrival time and berth location is transmitted via Nemo to various actors.

6. Sending a notification of arrival

The ship's agent, Havu, receives a personalized notification of missing port call information based on the ETA, e.g. 6 hours before the 24-hour deadline. The agent's confirmation of the transport of dangerous goods is missing.

Havu validates the port call data collected in Nemo. Data editing and validation is easy. The system guides the user to fill in the data according to obligations and regulations. It's easy to send the arrival notification in time.

7. Port services

The fuel supplier, maintenance and waste management follow the arrival of the ship through the port shared situational picture and are able to optimize their own operations based on that.

Suppliers can use Nemo as a communication channel, informing the ship about the estimated time and duration of e.g. bunkering or waste management.

9.0 Virtual Arrival

The charter contract permits that the ship can create a Virtual Arrival, which defines and maintains a pre-agreed order of arrivals with the port, even if there are changes on the way. The ship can slow down, save fuel as well as the environment and utilize Just In Time Arrival without fearing sanctions.

10. Virtual agent

The ship's agent, Havu, has confirmed to Nemo that the ATA can come directly from the automooring system. Havu has pre-completed the Customs declarations that Nemo sends automatically in the middle of the night based on ATA. Captain Andre gives Nemo a Notice of Readiness, Havu can confirm it later and Nemo will pass the information on.

11. Cargo flow optimization

Operators utilize the port's shared situational picture and the ship's dynamic timeline to optimize port visit functions.

The port operator can inform other actors about the status of the operation on the ship's timeline,. This speeds up the procedures affecting the ship's departure, which shortens turnaround times and thereby increases productivity.

15. Increasing productivity

Nemo has reduced the need for manual updates as well as extra backup work. Information is available in real time, thus enabling optimized operations and smooth handling of exceptional. Due to good planning, the turnaround times of ships in the port have shortened, which has made the operation of the port more efficient and increased the productivity of the organizations operating there.

\rightarrow zoom in

INITIATIVES AND PLANS TO IMPROVE SUPPLY CHAIN AND INFORMATION SHARING IN THE US AND AUSTRALIA

Port of Los Angeles and US are investing in unregulated data-focused collaboration and digitalization to improve supply chain

"White House wants freight information to FLOW (Freight Logistics Optimization Works)"

DATA ECOSYSTEM

 \checkmark

 \checkmark

 \checkmark

- Industry stakeholder dialogue
- Continued data-focused collaboration \checkmark
 - Freight Logistics Optimization Works (FLOW) program
 - Continue to improve supply chain digitalization

SUSTAINABILITY

- Sustainability initiatives
- Emission reduction goals

New South Wales is also investing in unregulated data-focused collaboration and digitalization to improve supply chain

"New South Wales Port Authority creates new data-sharing platform which is part of a broader project to create a data sharing platform, called OnePort. "

DATA ECOSYSTEM

- Transparency of port operations enabling enhanced efficiency planning
- Reduced data duplication \checkmark
- Simplified interactions with Port Authority \checkmark
- Improved port planning and process \checkmark optimisation across the port chain.

Emission reduction goals

Sustainability initiatives

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