Building the Port of the Future, Together

Open Data Backbone enabling Digital Supply Chain through Co-Creation

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NxtPort’s initiative in the Port of Antwerp demonstrates the trend toward data pooling and monetization through an information governance scheme. It aims to reduce operational costs for the participants and provide real-time information on performance, whether vessels or container movement flows. NxtPort could be seen as the new digital breed of a port community system.
NxtPort’s Vision
To make our ports and the related transport & logistics chain better, safer, more efficient and more profitable...

& Mission
...by unlocking the potential of sharing, combining and applying existing DATA among the port’s & logistic players.
NxtPort’s Golden Principles

- Everybody is welcome as data user.
- NxtPort platform is low entry barrier (cost+) – benefits or “value at stake” the industry.
- Data providers always stay owner of decide in what context their data can
- Strict divide between data layer and layer. NxtPort runs the data platform, creation is left to “the market”.
- Data users “share” profit as and value is created on the data.
AN OPEN PROJECT
BY & FOR THE COMMUNITY
w/ LOW ENTRY BARRIER

DATA PLATFORM
MARKETPLACE
w/ STRONG DATA GOVERNANCE

enabling
CO-CREATED
DIGITAL SUPPLY CHAIN SOLUTIONS

MARKETPLACE
OF AVAILABLE API’s AND APP’s

CO-CREATED SOLUTIONS (APP’s)
targeting # actors & cargo types

API ENABLING DATA BACKBONE WITH SOLID SHARING LOGIC

Private Company X (1-N)
Customs
Other Authorities
NxtPort data Assets ... beyond EDI/message communication.
Get connected, contribute and make use of ...

Harmonized datasets

Combined datahubs

Interactivedatalabs

Library
extensive range of data sources

Pitstop
a coordinated file

‘Waze’
Anonymised overview 4 dynamic behavior
Data Governance: Protection @ multiple levels

- Clearly defined data subset and clearly defined information key to access data or access logic

- Data Exchange (Connectivity)
- Data Sets (Harmonisation/Enrichment)
- Data Hubs (Chaining/Process Orchestration)
- Data Labs (Learning/Prediction)

Common Data Sharing Backbone

Audit trail: which data, who, when
Data Monetisation

# DATA TYPES
- Master
- Transactional
- Binary
- IoT
- Streaming
- External API’s
- Blockchain

# DATA FORMATS
- EDIFACT
- XML
- JSON
- XLS
- TXT
- ...

# SECURE COMMUNIC. METHODS
- HTTPS Post/Get
- REST API
- AS2
- FTPs/sFTP

Audit trail: which data, who, when

DATA FEE

TRANSACTION FEE + DATA FEE

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NxtPort enabling multiple communities / community suite

Port Communities

- **importchain**
  - Import and export of containers (& roro)

- **bulkchain**
  - Solution for the sub community of breakbulk (& drybulk)

- **liquidchain**
  - Solution for the sub community of liquid bulk

- **HinterlandLink**
  - Platforms for barge, train and truck

- **GovernmentLink**
  - Port community systems, maritime and customs single window

- **ISV**
  - Data sets
  - Data hubs
  - Data labs

- **Private Company X**
  - (1-N)

- **Port Authority**

- **Customs**

- **Other Authorities**

- **Government**

- **Federated Identity & Authorisation Management**

**COMMON DATA BACKBONE**
- Secure storage / data governance / API integration / basic forms / federated User mgt / access to PCS/Government SW....

**Datasets**

- Revenue model fee per container

**Datahubs**

- Revenue model fee per ton

**Datalabs**

- Revenue model fee per portcall

- Port community systems

- Maritime and customs single window

- Revenue model fee per subscription

- Revenue model fee per subscription

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API’s and Solutions

- VesselStay powered by NxtPort
- PortCall powered by NxtPort
- Location API powered by NxtPort
- Ocean Schedules powered by NxtPort
- Liquidchain. PortCall Powered by NxtPort
- BargeBuddy Powered by NxtPort
- VisuRIS Powered by NxtPort
- NMoT by NxtPort
- Truck Pre-announcement by NxtPort
- Terminal events by NxtPort
- CCRM by NxtPort
- Green Lights by NxtPort
- VGM reuse by NxtPort
- VGM – Tarre Db powered by NxtPort
- Arrival@Exit by NxtPort
- Export Manifest powered by NxtPort
- bulkchain by NxtPort
- Liquid.eECD powered by NxtPort

In Production
- Coming soon
- Analysis - Development

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NxtPort CO-CREATION / ECO SYSTEM

Through matchmaking and providing a common access point to all relevant data & apps, NxtPort is easily made interoperable with other initiatives/community systems to further increase community value.

- Academic World
- Think-tanks
- Consultants
- Technology Community
- Incubators

Government

Logistics Community (direct & via associations)

Co-Envision
Co-Build
Co-Market

Technology Partner Program
Online Community
Community Events

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<tr>
<th>Better Supply Chain Visibility / More transparency</th>
<th>Improved safety and security</th>
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<tbody>
<tr>
<td>Capacity /Network optimisation</td>
<td>Compliance to local and international standards</td>
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<tr>
<td>More efficiency / speed</td>
<td>Single connection to the entire supply chain</td>
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<tr>
<td>Reduced costs and less administration / paper</td>
<td>Secured access to sensitive information</td>
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<tr>
<td>Optimised choice of transport services / Modal Shift</td>
<td>Automated data flows / Interoperability</td>
</tr>
<tr>
<td>Improved environmental sustainability, less CO2</td>
<td>New business opportunities</td>
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Connecting to the NxtPort platform leads to...