

# Second GLN Workshop – It ALL starts with knowing WHERE

Why managing Logistics needs reliable Location Data

Moderator: GS1



Virtual Meeting -  
5<sup>th</sup> August 2021



# We are recording this session

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- If you are not comfortable with that, refrain from speaking.
- The Chat is also recorded and visible to all on the call (no private Chat). Use chat at your discretion.
- Type your questions into the Chat.  
We will respond to questions towards the end of the session.
- Any questions we cannot respond to during the session we will provide responses to after the session.



# Welcome & Agenda

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- Schedule for this workshop
- Why does Logistics need Reliable Location Data  
**It ALL starts with knowing WHERE** Jaco Voorspuij
- Global Location Data Platform & Demonstration  
**Reliable Location Master Data; key to safe and efficient port operation** Kevin Kruijthoff
- Creating an ecosystem of system around reliable location data  
(based on GLN) Jaco Voorspuij
- Questions, Answers and discussion
- Closing

# Poll question

Do you experience any of the challenges below when looking for information on locations? (Choose all that apply)

- I cannot find the relevant information I need;
- The information is outdated/incorrect;
- The information is not from the location manager (so unreliable);
- I get conflicting information from multiple sources (what is correct);
- Other (please specify)

<https://feedback.gs1-germany.de/umfrage/1356614/3O24T5>



# Transportation needs location information EVERYWHERE in their processes

Priority in data sets:

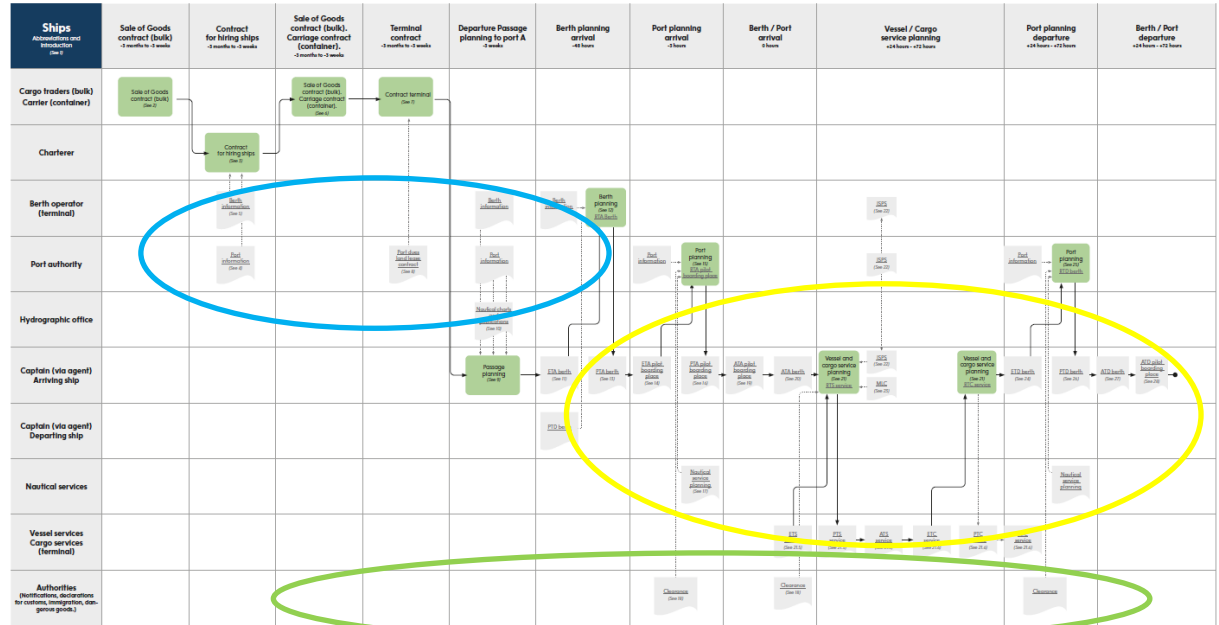
- 1) **Nautical data**
- 2) **Administrative data**
- 3) **Operational data**

Knowing WHERE is critical for all data sets

GS1 GLN may be used in ALL data sets

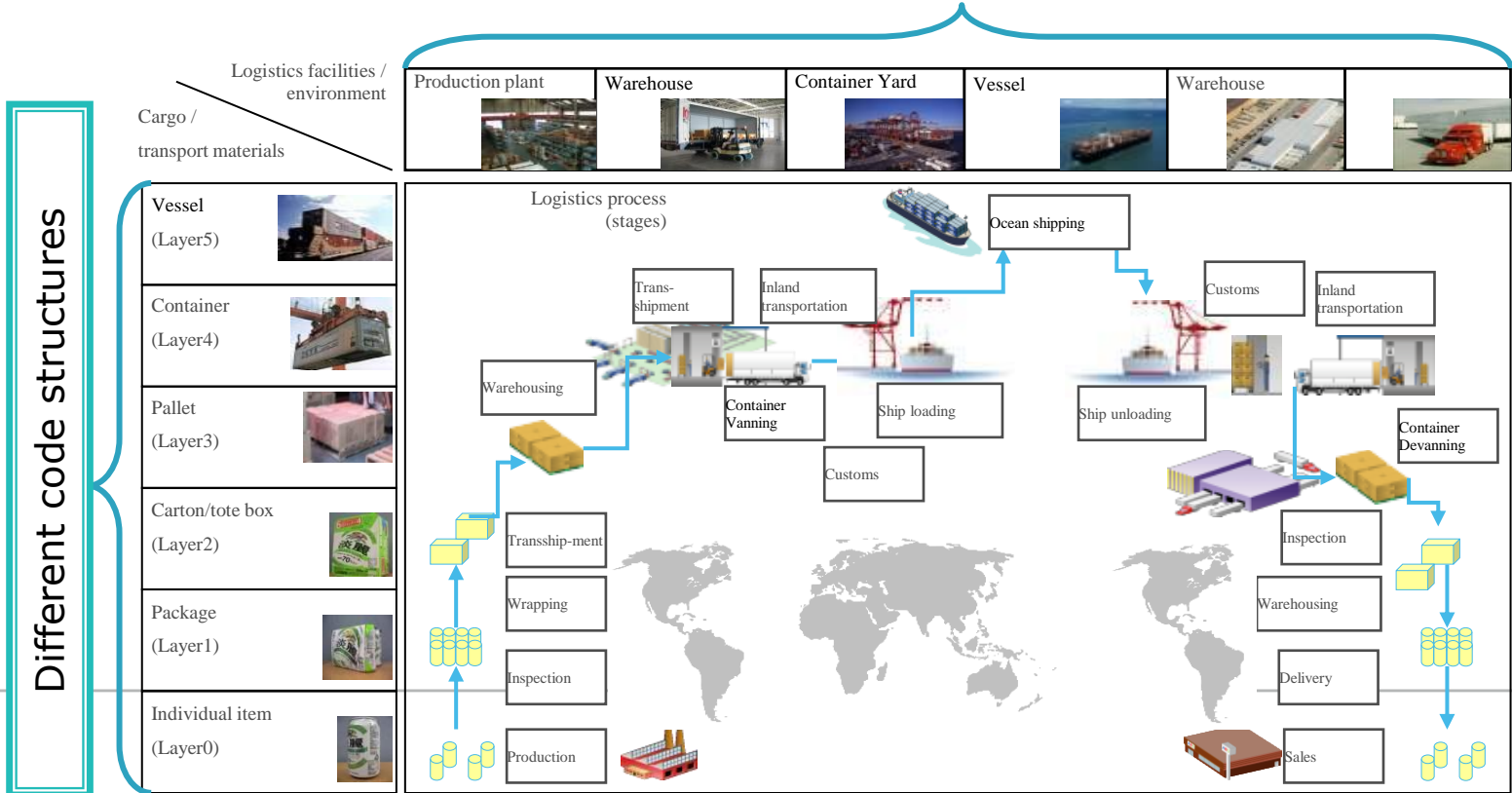


**Port Call Optimization**  
Lower costs, cleaner environment, more reliability and safety for shipping, terminals and ports.



# Challenges for knowing WHERE goods are

## Different code structures



# Ambiguous where: Lack of unique ID

An opening for miscommunication

Charterer

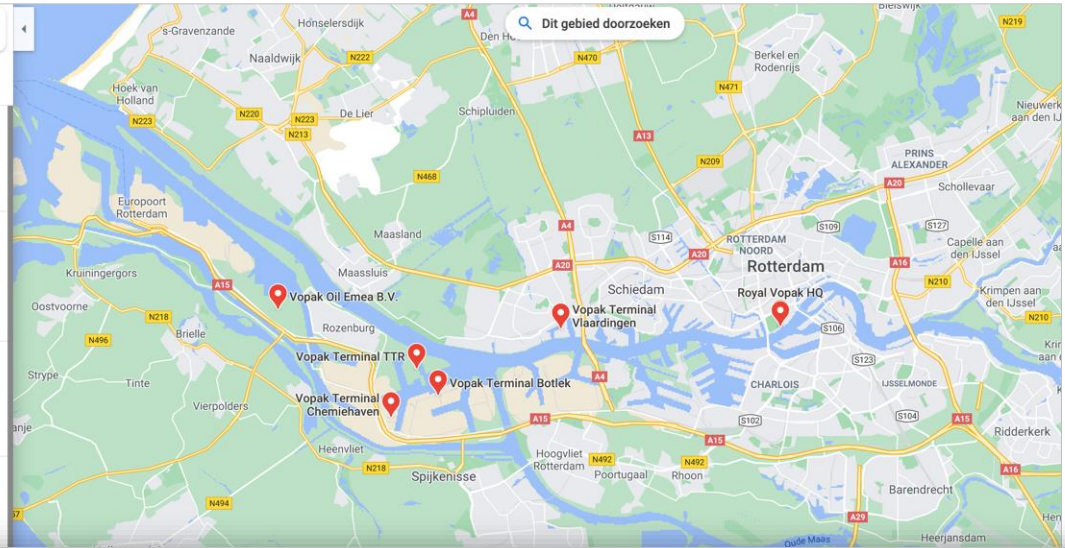
You need to go to  
Vopak Rotterdam

Vessel  
captain

Which Vopak in  
Rotterdam?

Search results for 'vopak rotterdam' showing multiple locations:

- Royal Vopak HQ (4.3 stars, 40 reviews)
- Vopak Terminal Vlaardingen (3.8 stars, 172 reviews)
- Vopak Terminal Botlek (3.8 stars, 228 reviews)
- Koninklijke Vopak N.V. (no reviews)
- Vopak Terminal TTR (4.0 stars, 32 reviews)
- Vopak Terminal Chemiehaven (3.8 stars, 44 reviews)

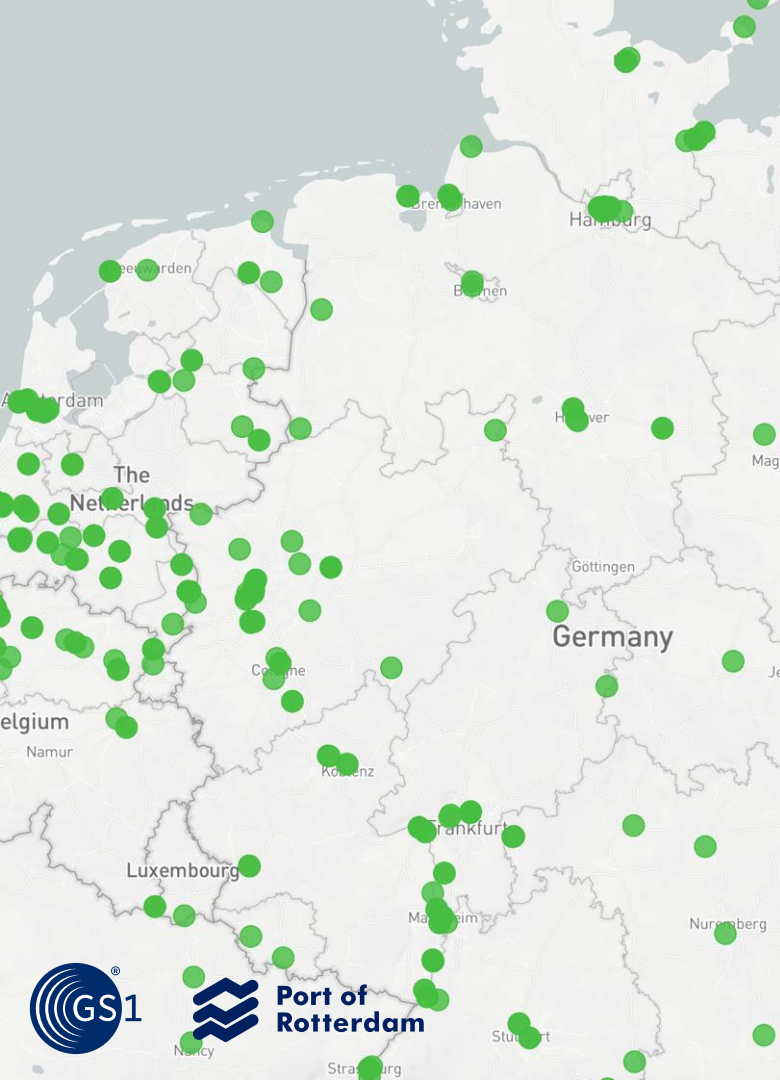


## Some more examples from the operation

- Where is the berth?
- How can I find relevant master data independent of which port I am visiting or trade I am in?
- On which data can I perform a berth-to-berth compatibility check for a vessel?
- Which gates belong to which facility?

# Our Challenge

## Connecting the right dots



### Harmonization

Harmonizing entries from numerous sources is a tedious and error-prone task.

Relevant information is needed at the commercial level as well as at the operational level.



### Warehouses next

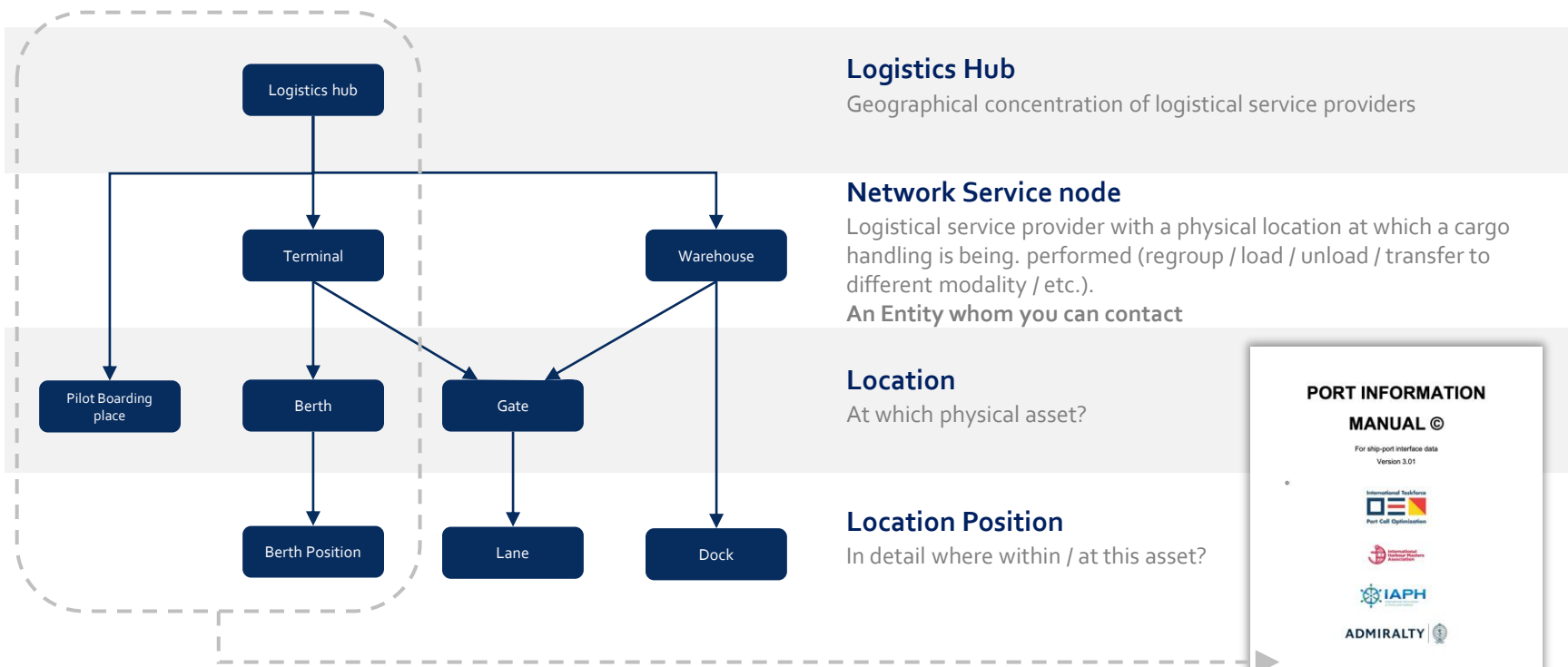
Once standardized GLN usage and distribution for locational master data is facilitated, we can extend our navigation services with additional levels of precision and allow for system-to-system integration.





# Hierarchical Relations

Linking locations to entities



# Hierarchical Routing

Relevant detail at each step: A real life example



# Hierarchical Routing

Relevant detail at each step: [The shipment need](#)

From: DC Ipswich

To: DC Venlo



## Legend

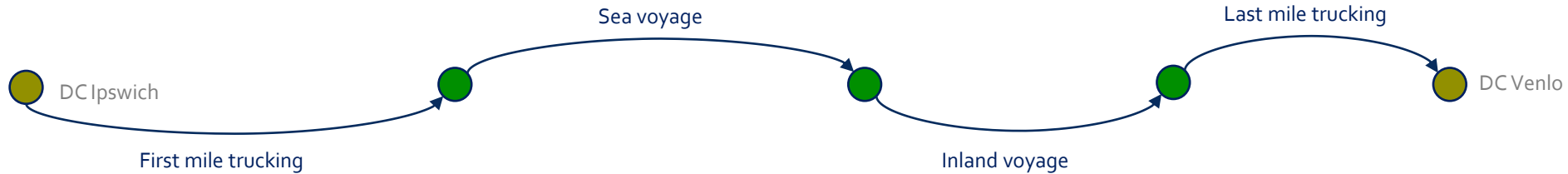
- Logistics Hub
- Terminal
- Pilot Boarding Place
- Warehouse
- Gate
- Berth
- Berth Position

# Hierarchical Routing

Relevant detail at each step: **Expected transport movements**

From: DC Ipswich

To: DC Venlo



## Legend

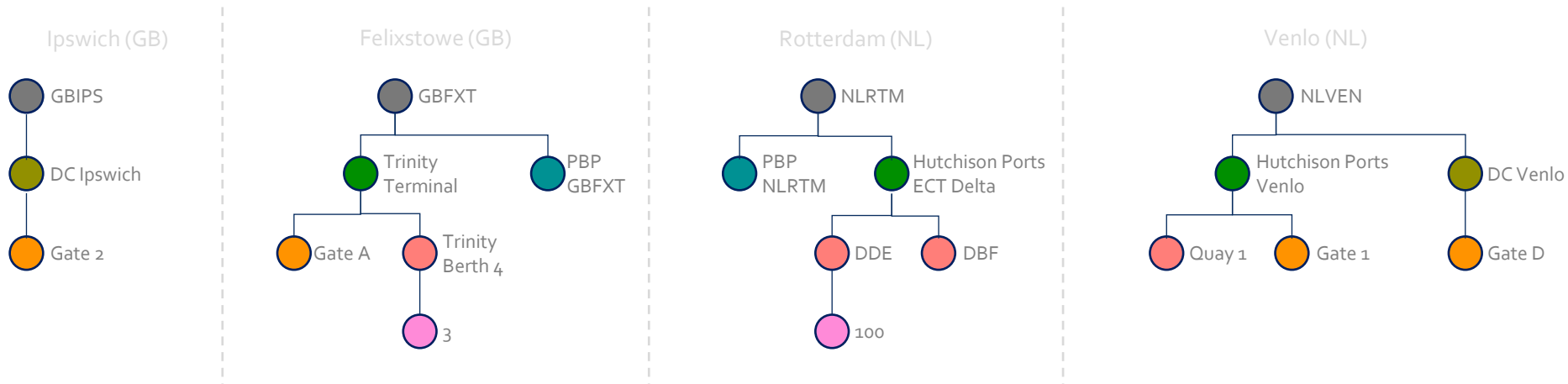
- Logistics Hub
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# Hierarchical Routing

Relevant detail for each transport movement: [Node network overview](#)

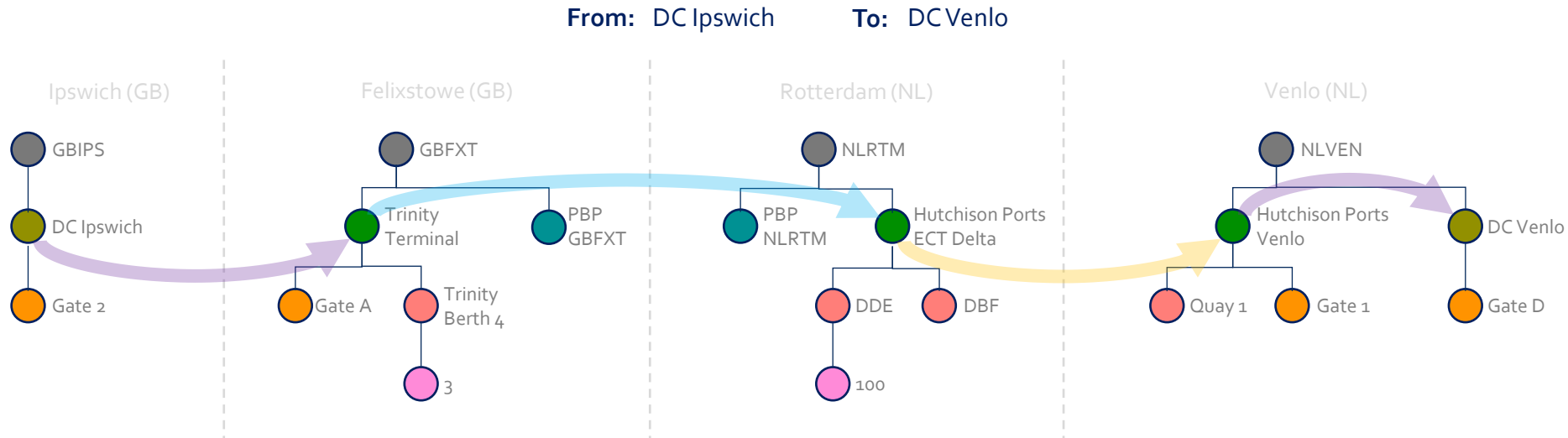
From: DC Ipswich

To: DC Venlo



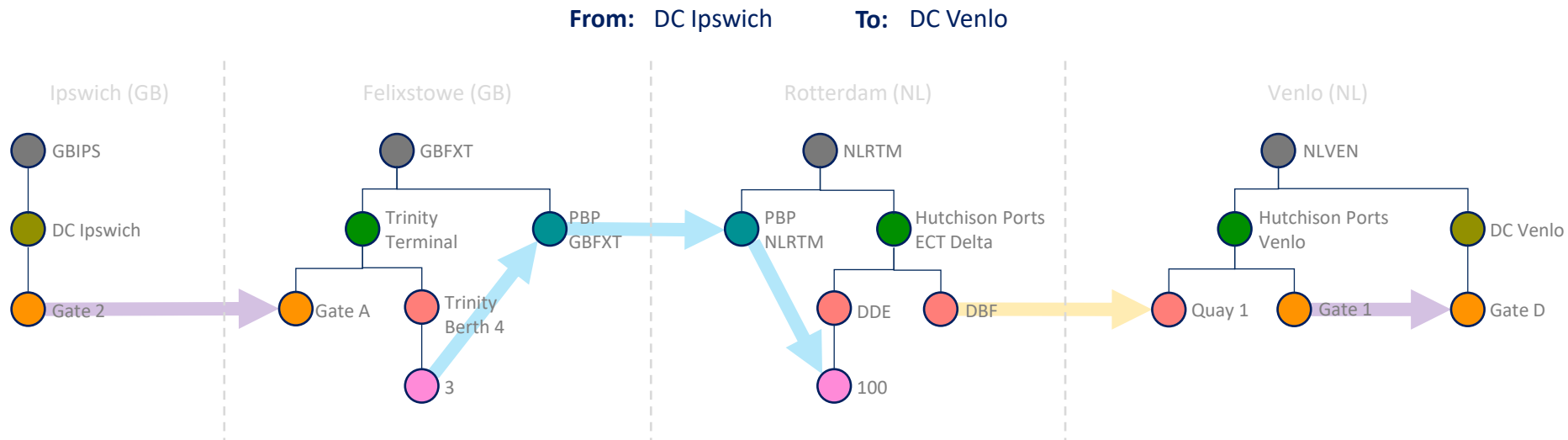
# Hierarchical Routing

Relevant detail for each transport movement: **The Transport Booking flow**



# Hierarchical Routing

Relevant detail at each step: **The logistical execution flow**



# In summary

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- **Unambiguous Location identification** is needed  
Location Names only lead to confusion
- **Consistent hierarchical relations** must be available for different levels of granularity required for the different stages in the lifecycle of the shipment.



# It ALL starts with knowing WHERE UNAMBIGUOUSLY

- GS1 GLN offer unambiguous identification to stakeholders in Value Chains and Transport & Logistics Networks.
- ID Keys without access to reliable data does not add value
- The T&L User Community **NEEDS** databases and services that enable access to reliable, trusted, up-to-date information linked to Locations.
- Stakeholders like Ports, Shipping lines, freight forwarders, cargo owners etc. need it sooner rather than later.
- Their **first priority** however is to be able to **easily assign GLN** to the relevant locations (and link the **most relevant data** to them).

GS1 are working with ITPCO and Port of Rotterdam to  
**develop a Global Solution to find and access reliable Location Data**



# Vision – Global Location Data Platform

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## Full hierarchy of locations easily mapped using GLN

- Stakeholders may use approach anywhere in their Supply Chain
  - (Warehouse) campus, buildings, dock-doors
  - Inland terminals (Barge or Rail)
- **All sectors** can apply the same hierarchical approach
- Accurate / reliable geographical location information
- Navigational assistants can always “find the right place”.

**At last we can be sure about WHERE**



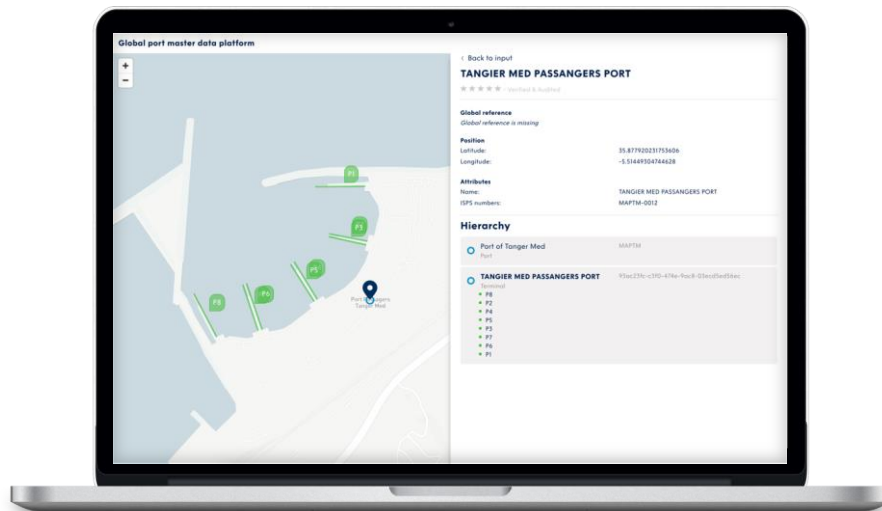
# Global Location Data Platform

Reliable Location Master Data;  
the key to safe and efficient port operation.

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Kevin Kruijthoff; Director of Product & Technology, Port of Rotterdam  
5<sup>th</sup> August 2021; FENIX second GLN workshop, online





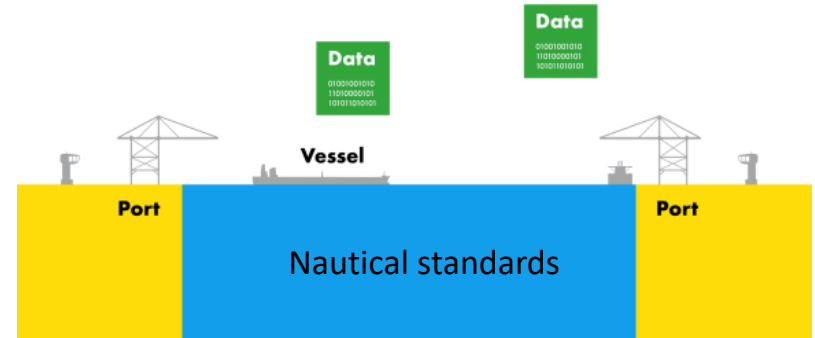
# Global Location Data Platform

The neutral and not-for-profit **global platform** for capturing, storing and distributing standardized **logistical master data**.  
Directly enabling the logistics sector in **unambiguous communication** and referencing.

# Why is quality and availability of ship-port interface data important?

## Movement of the **vessel**

- Realising safe and sustainable berth to berth navigation:  
where is my berth,  
when is my berth available?
- Important for shipping and terminals



## Movement of the vessel's **cargo**

- Realising sustainable end-to-end supply chain:  
*where are my goods,*  
when are my goods available for hinterland transport?
- **Important for shippers**



# Ambiguous where: Operation

An opening for miscommunication

Charterer

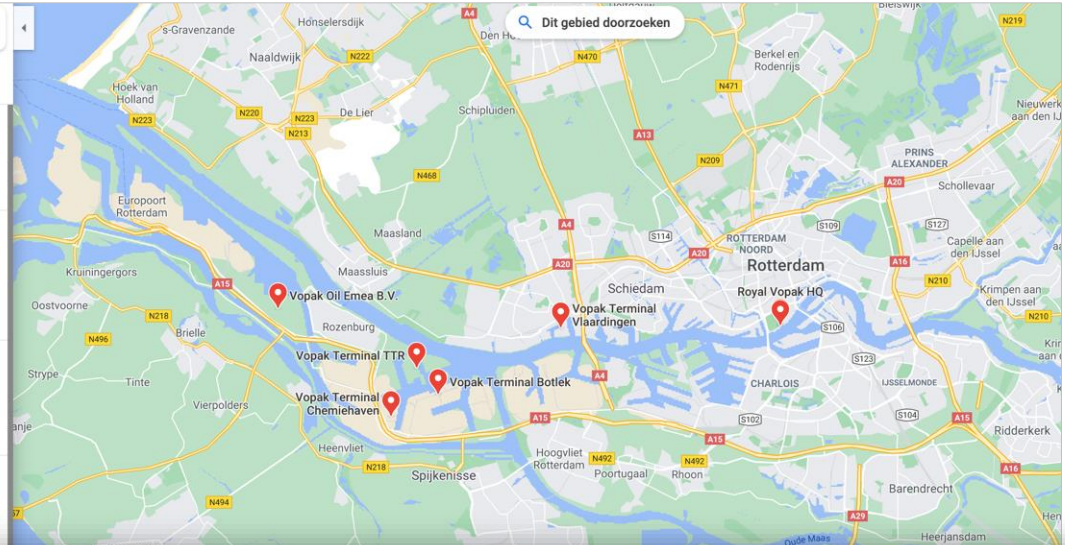
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Vessel  
captain

Which Vopak in  
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Search results for 'vopak rotterdam':

- Royal Vopak HQ**  
4.3 ★★★★★ (40)  
Opslagbedrijf · Westerlaan 10  
Open tot 17:00 · 010 400 2911
- Vopak Terminal Vlaardingen**  
3.8 ★★★★★ (172)  
Opslagbedrijf · Kon. Wilhelminahaven Zuidoostzijde 1  
010 460 8899
- Vopak Terminal Botlek**  
3.8 ★★★★★ (228)  
Chemische fabriek · Welplaatweg 115  
010 472 9799
- Koninklijke Vopak N.V.**  
Opslagbedrijf · Westerlaan 19
- Vopak Terminal TTR**  
4.0 ★★★★★ (32)  
Chemische fabriek · Torontostraat 19  
0181 270 800
- Vopak Terminal Chemiehaven**  
3.8 ★★★★★ (44)



## Some more examples from the operation

- Where is the berth?
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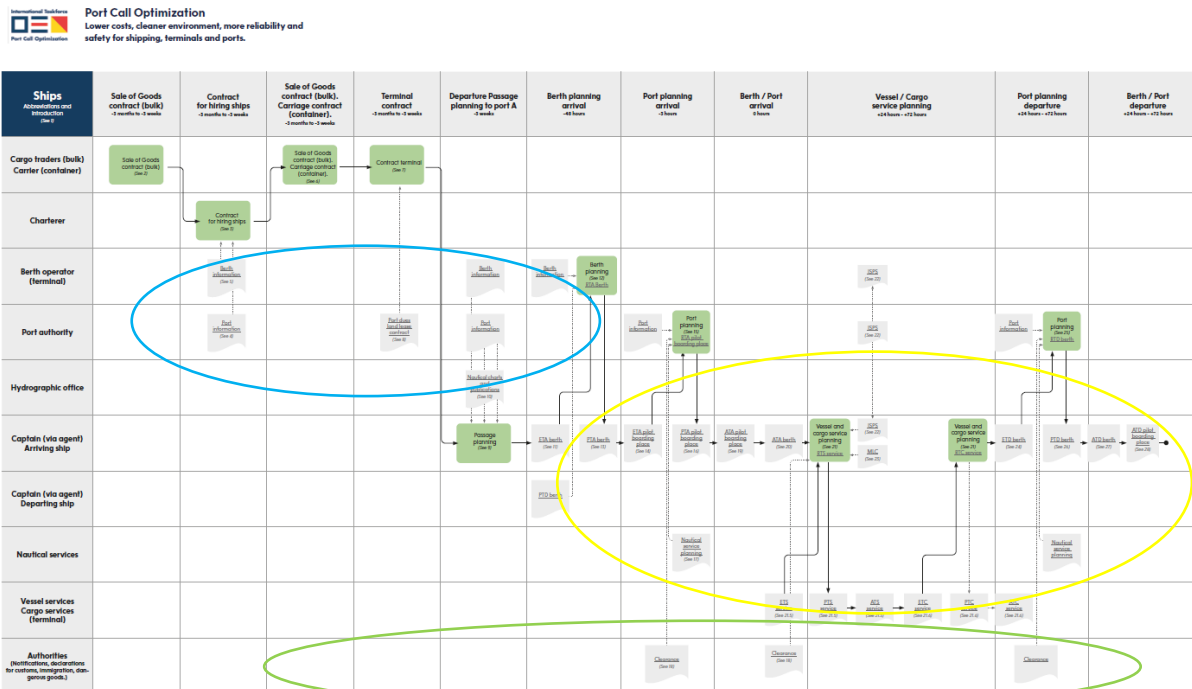
# Address most pressing challenges first: agree on minimum scope of data

Priority in data sets:

- 1) **Nautical data**
- 2) **Administrative data**
- 3) **Operational data**

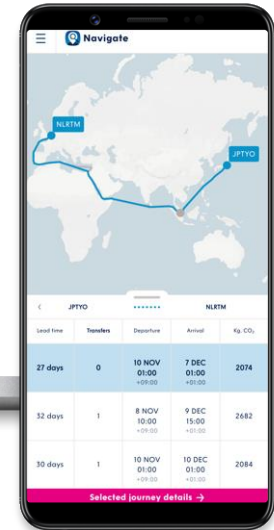
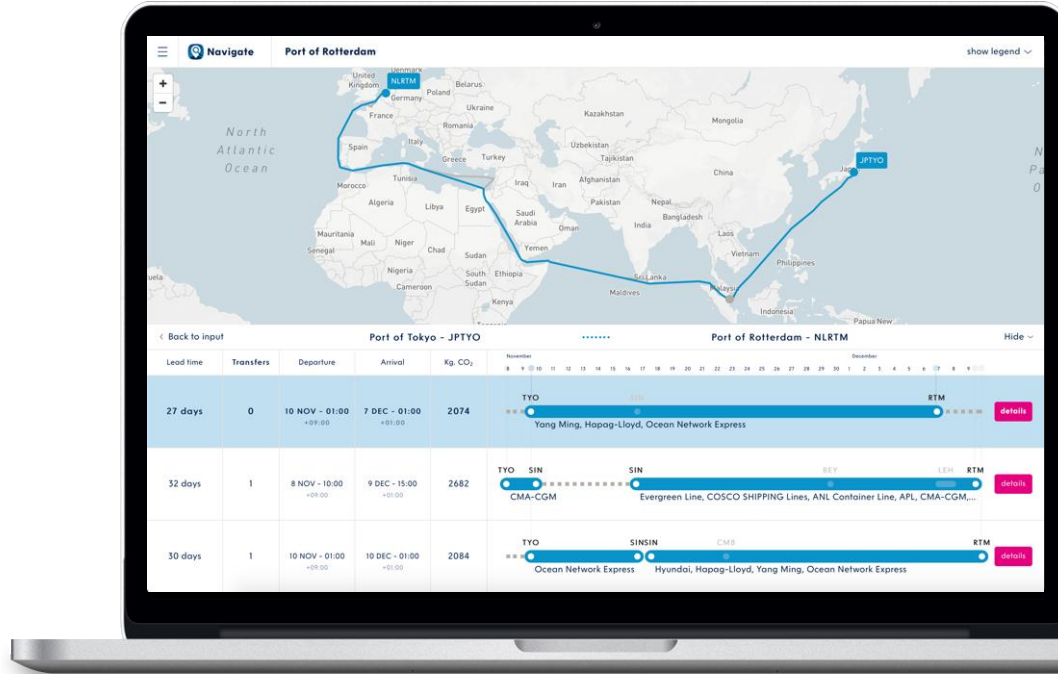
Knowing **WHERE** is critical for all data sets

GS1 GLN may be used in **ALL** data sets



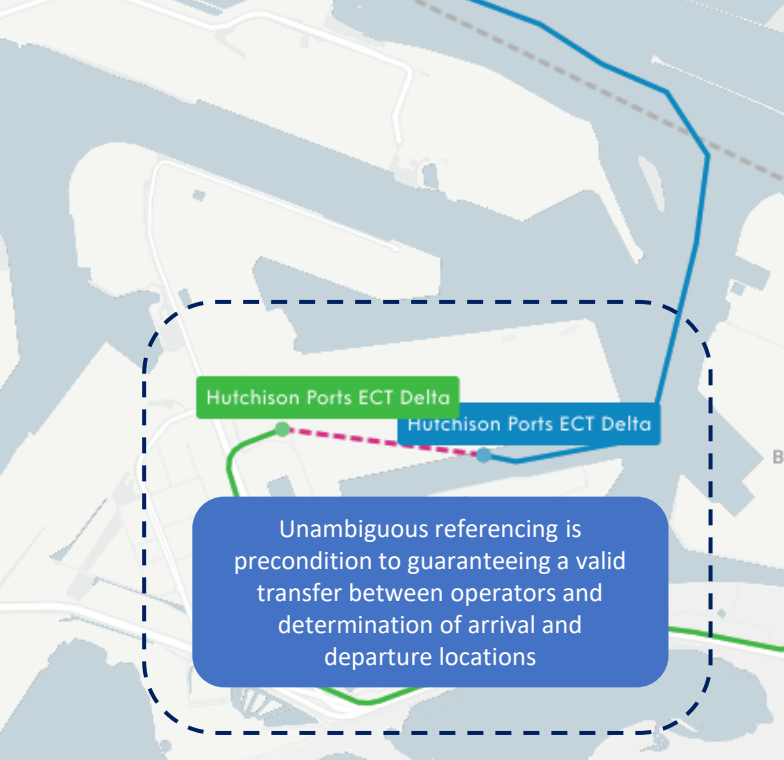
# Ambiguous where: Supply chain design

Navigate Rotterdam



Second GLN workshop – It ALL start with knowing WHERE, 5th August 2021, online





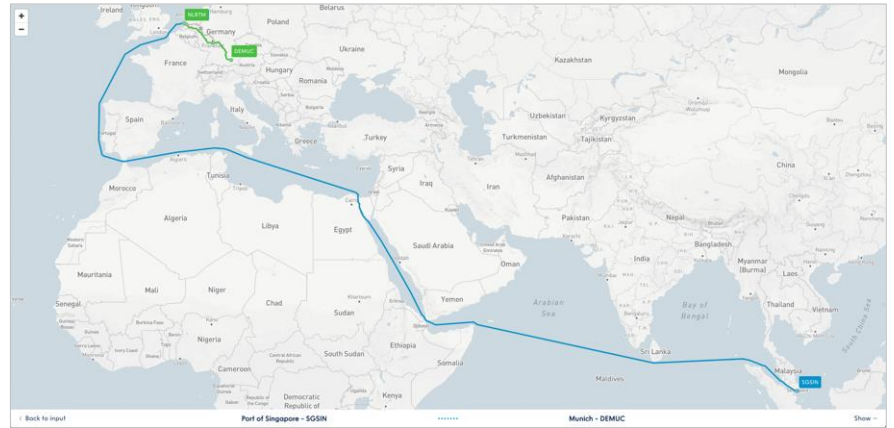
Singapore - SGSIN

November 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



# Our Mission

Connecting the dots



## Intermodal

Leveraging deep-sea, short-sea, rail, barge and truck options.

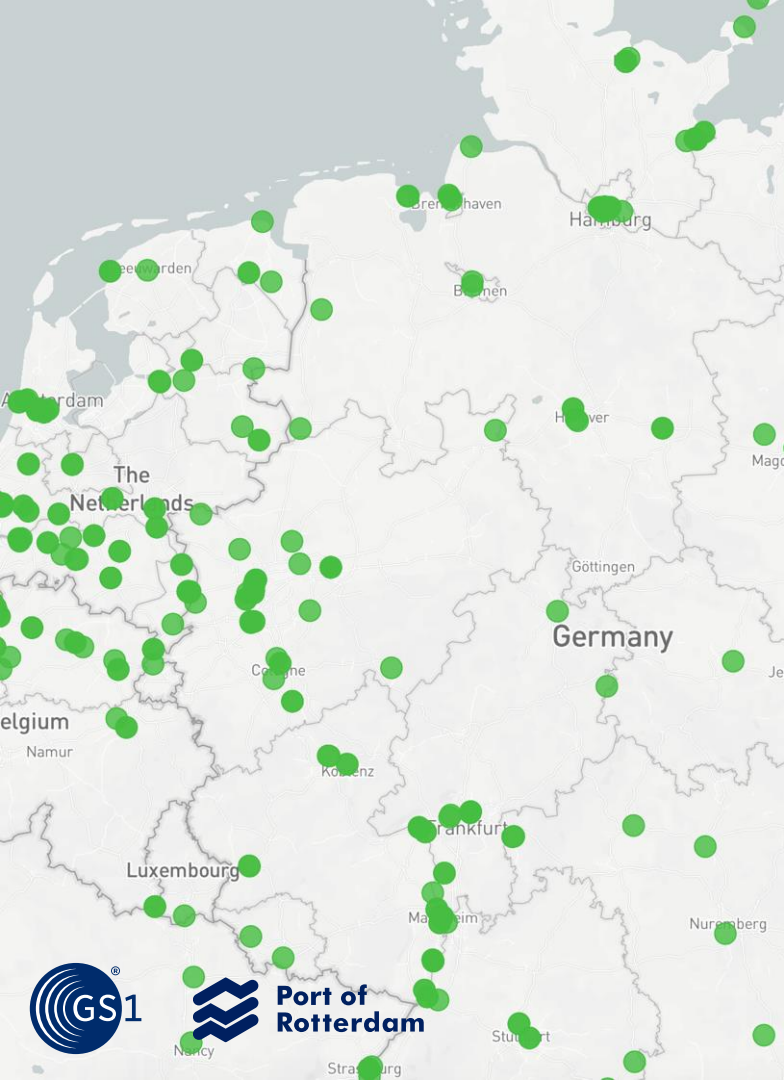
We Showcase the connection options between ocean and inland voyages to supply our users their most sustainable options.



## Terminals connect

Terminals act as nodes in the logistical network. They are central hubs at which schedules arrive or depart.

Reliable unambiguous data for identification and referencing is crucial.



# Our Challenge

How to determine the dots



## Harmonization

Harmonizing entries from numerous sources is a tedious and error-prone task.

Relevant information is needed at the commercial level as well as at the operational level.

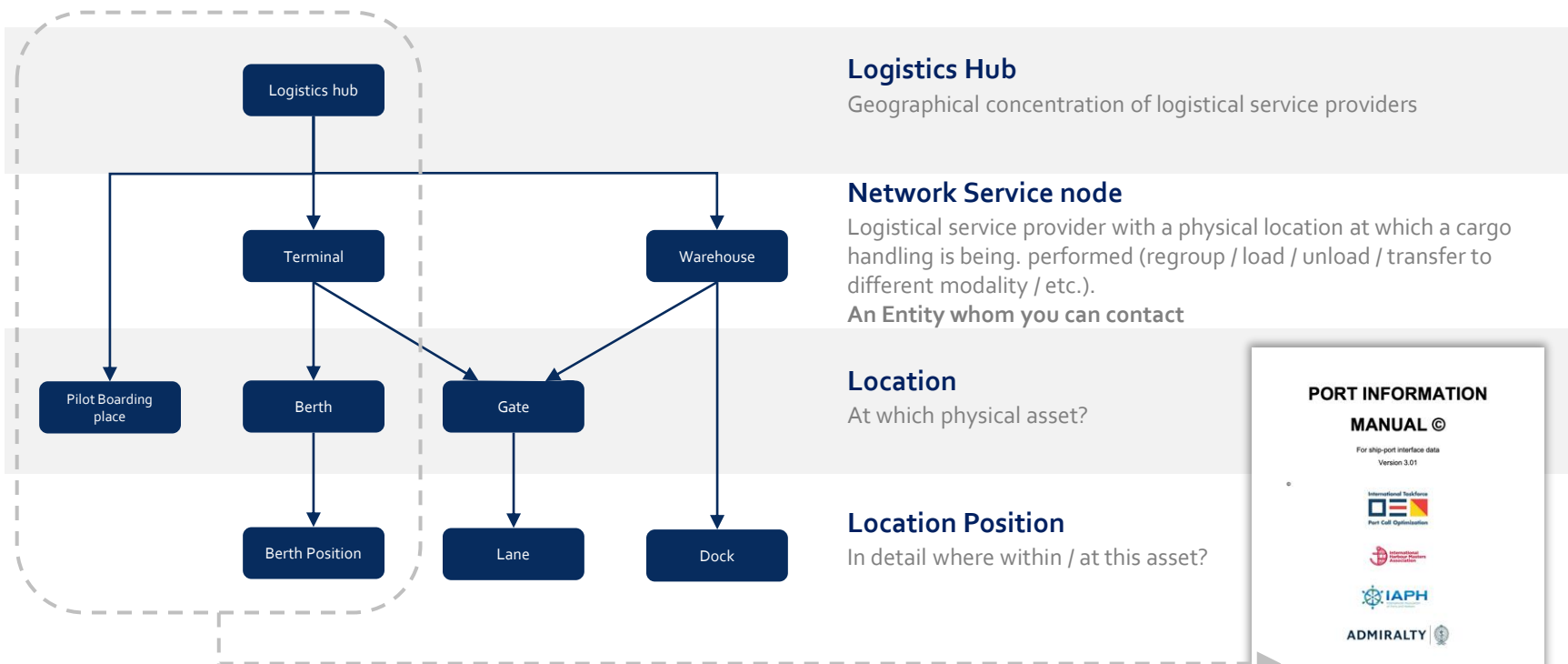


## Warehouses next

Once standardized GLN usage and distribution for locational master data is facilitated, we can extend our navigation services with additional levels of precision and allow for system-to-system integration.

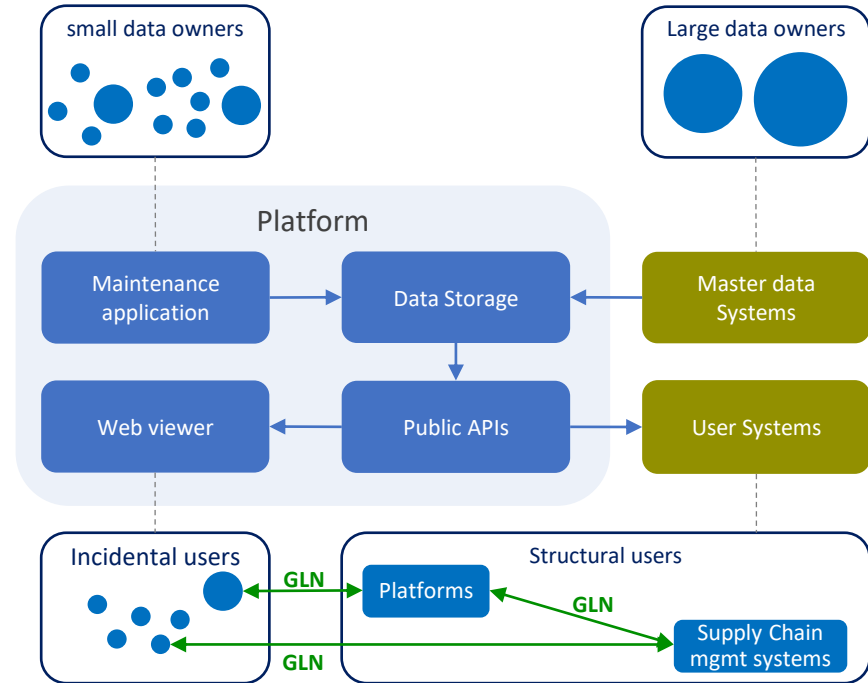
# Hierarchical Relations

Linking locations to entities



# Platform layout

Simple.



Port of  
Rotterdam

# Global Location Data Platform Demonstration

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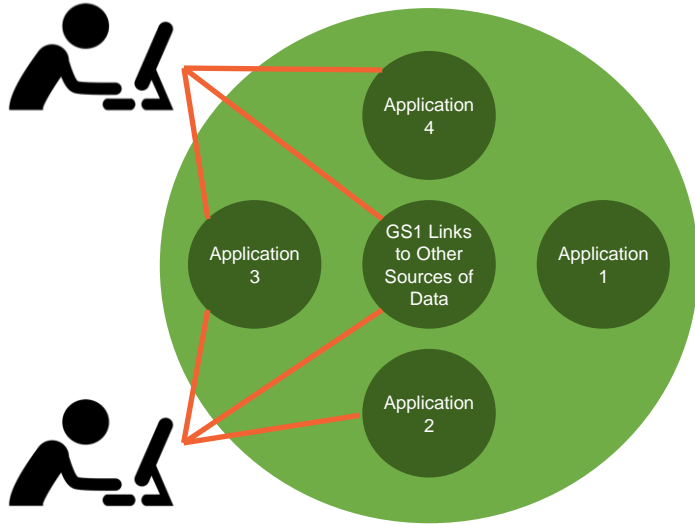
- Show hierarchy in viewer (highlighting GLN)
- Show adding a location
- Show using GLN to find a location in GLDP
- Highlight Links to Other Sources of Data (L2SD)
- Show jumping from GLN to another GLN-based service (based L2SD)  
Jump to Panalpina Auckland Airport location registered in  
the New Zealand Business Numbers service (GLN 9429038395642)

# Before moving to the Questions and Answers

- The functionality shown just now is “as-is”.
- Enhancements are currently being planned and built e.g.
  - If you already have a GLN, you can enter the GLN  
No need to assign a second GLN to the same location.
  - GLDP will be linked with other Solutions providing more information about the location based on the GS1 Digital Link standard.
- Next version of GLDP will be demonstrated at the [GS1 Industry & Standards Event](#) 13-16 September 2021.  
You are very welcome to join us then.

# Leveraging existing location databases

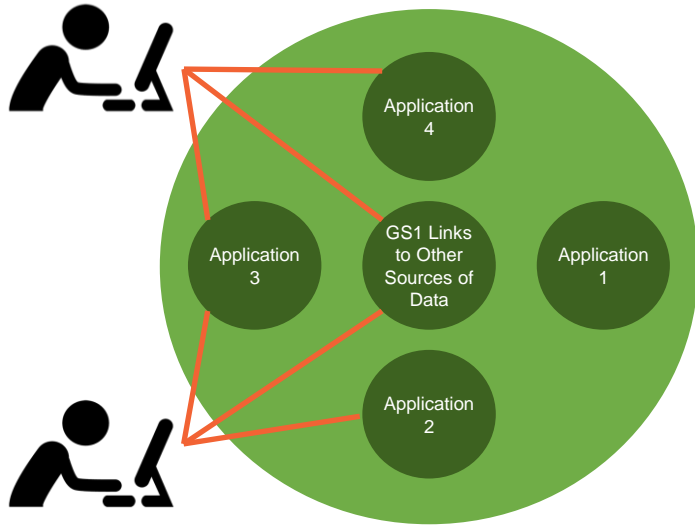
GLDP will often need to be linked with existing industry applications containing location data



- Industry Applications hold information essential to stakeholders
- Stakeholders invested in entering and maintaining data and data quality assurance
- Applications tend to use non-GS1 primary identifiers (not globally unambiguous causing interoperability issues)
- Applications may **ADD GLN** as unambiguous ID Key (searchable via API).
- Applications may register their Location records with GLN in GS1 Links to Other Sources of Data.
- **Anyone can now find the application and correct record based on GS1 GLN**

# Leveraging existing location databases

GLDP will often need to be linked with existing industry applications containing location data



The GS1 L2SD database will enable supply chains to easily **create** an **ecosystem of connected applications** that will greatly simplify data sharing and substantially improve the efficiency, effectiveness and safety of Transport & Logistics operations.

- Anyone can now find the application and correct record based on GS1 GLN





# Links to Route Planning and Optimization

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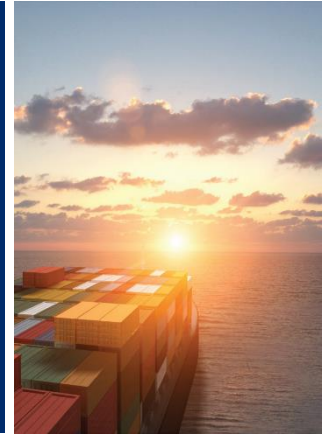
- **As part of the first FENIX GLN workshop, Florian highlighted the need for having accurate geo coordinates for locations**
- Locations will ALWAYS have geo coordinates
- They may NOT have (useful) addresses.
  - What3Words claims two thirds of the world's population does not have a useful address.
- Geo coordinates are always unambiguous
- You can directly link geo coordinates to a GLN even when you have no address
- **GLDP expects to have geo coordinates for all locations**
- **GLDP API may be used to access the GLN and retrieve the geo coordinates (as entered by the location/data owner)**



# Global Location Data Platform Vision

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Jaco Voorspuij, Senior Manager Transport & Logistics  
5<sup>th</sup> August 2021; FENIX second GLN workshop; online



# Vision – Global Location Data Platform

## Full hierarchy of locations easily mapped using GLN

- Stakeholders may use approach anywhere in their Supply Chain
  - (Warehouse) campus, buildings, dock-doors
  - Inland terminals (Barge or Rail)
- Accurate / reliable geographical location information
- Navigational assistants can always “find the right place”.

**At last we can be sure about WHERE**



# Our vision

## Facilitate cooperative logistics



### The platform will be

- Trade independent
- Modality independent
- Global
- Standardized
- Data ownership guaranteed via GLN
- Neutral and not for profit
- Open for all to use
- Easy lookup via open platform
- System to system integrations via API

### This will lead to

- Unambiguous communication
- A pure "where" in the EPCIS standard
- Eliminating the need for local master data harmonization efforts
- A platform for all logistical entities that act as a node in logistical chains to be found
- Globally scalable solutions from the start



Port of  
Rotterdam

# Questions & Discussions



# Poll question

Do you feel the approach presented here could reduce/eliminate any of the challenges below when looking for information on locations? (Choose all that apply)

- I cannot find the relevant information I need;
- The information is outdated/incorrect;
- The information is not from the location manager (so unreliable);
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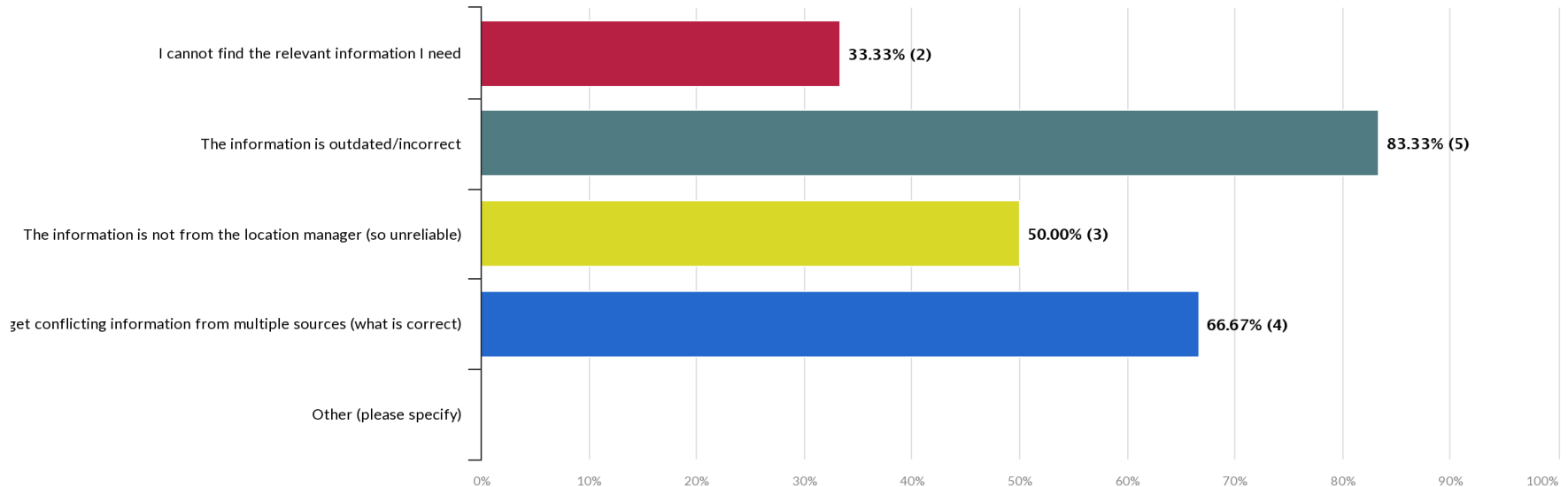


# Poll Results

## Question 1

Do you experience any of the challenges below when looking for information on locations?

Choose all that apply.

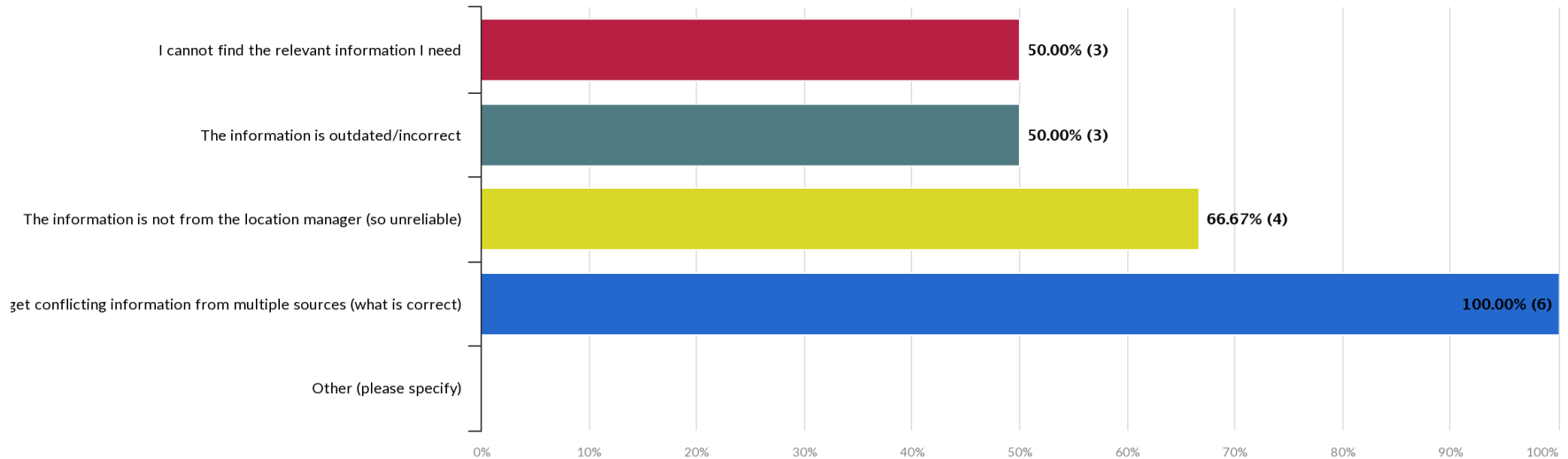


# Poll Results

## Question 2

Do you feel the approach presented here could reduce/eliminate any of the challenges below when looking for information on locations?

Choose all that apply





**Close**



# Get in Touch



Kevin Kruijthof

Director of Product & Technology  
[K.Kruijthoff@portofrotterdam.com](mailto:K.Kruijthoff@portofrotterdam.com)

<https://www.linkedin.com/in/kevinkruijthoff/>



Jaco Voorspuij

Product Manager Digital Services GS1  
[jaco.voorspuij@gs1.org](mailto:jaco.voorspuij@gs1.org)

+ 32 497 587 986

<https://www.linkedin.com/in/jacovoorspuij/>