

The data gateway to Europe



The Netherlands is building a neutral data infrastructure provision, enabling companies to develop pull based services. Public authorities focus on port accessibility with JIT profitability, eGovernment facilitation and seamless hinterland activity.

Brigit Gijsbers, Sjoerd Boot, Robbert Janssen, Leopold Jonkman and Luc Scheidel

Brussels, 30 november 2023

Connecting the dots



Scarcity in physical space and capacity on infrastructure.

Economic important logistics sector, nearly 10% GNP.

Leading position in EU supply chains: 25% of EU products.

Higher demands on digital trading:

- Provability
- Resilience
- Safety and security
- Prevention of undermining

Higher data availability is **KEY** for choosing right modality.

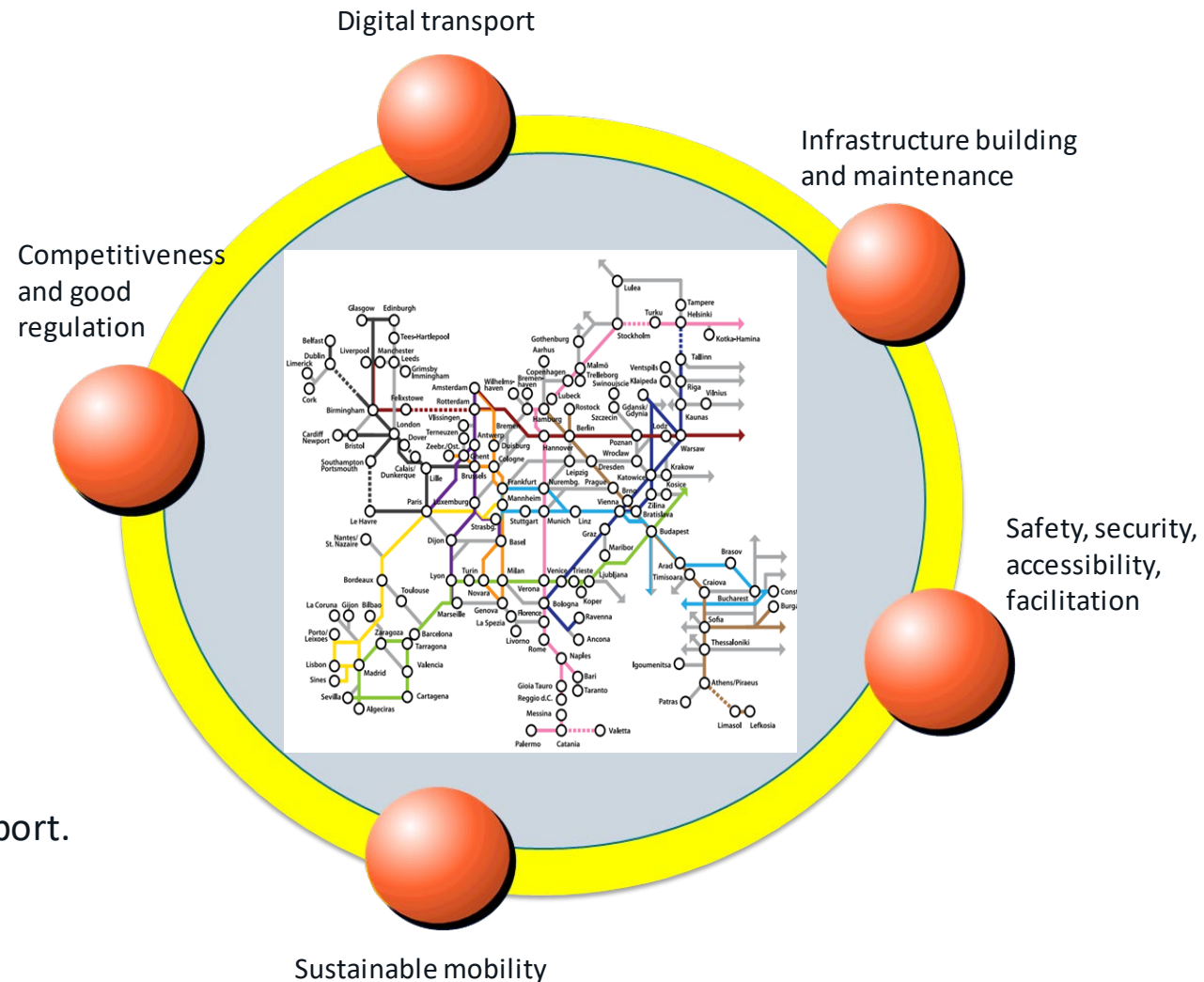
And that, in complex, global, multimodal supply chains.

With a tsunami of data to be managed by customs.

This asks an integrated approach: government as one.

Digital Transport Strategy: full digitalization of multimodal transport.

FEDeRATED is essential for connecting the dots.



The Dutch approach



Base Data Infrastructure BDI, a scheme, our operational framework:

100% aligned with FEDeRATED principles and features.

100% phased approach: scalability and adoption is **KEY**

100% aligned with 'EU mobility data space' development.

100% transition management. Our tasks: guidance, governance, stimulate 'the new', challenge the dysfunctional, create structures and capacities.

At least 50% cofinanced by private parties.

Digital Infrastructure Logistics programme

BDI use cases.



A 5-minute demo of

DEFLog

Federated access to logistics data services

FEDeRATED Final Event – Brussels | 30 November 2023

DEFLog

Data exchange platform

Background information

OpenTripModel

<https://deflog.nl>

<https://www.deflog.org>

<https://www.opentripmodel.org>



www.nrc.nl/nieuws/2023/11/15/navigatie-apps-kunnen-volgend-jaar-waarschuwingen-bij-schoolzones-geve

nrc Abonneren Podcasts Digitale krant

Navigatie-apps kunnen volgend jaar waarschuwingen bij schoolzones geven

Verkeersveiligheid Automobilisten zeiden na een proef langzamer te rijden wanneer ze een melding kregen dat ze een schoolzone inreden. Reden voor de overheid om data over scholen met meer navigatie-apps te delen.

Tjarda van der Spek, Rein Wieringa • 15 november 2023 • Leestijd 1 minuut • Luisteren 02:44



In the news 2 weeks back:
Starting next year, warnings for **Schoolzones** will be given in navigation apps

Try it out for yourself!



DEFLog

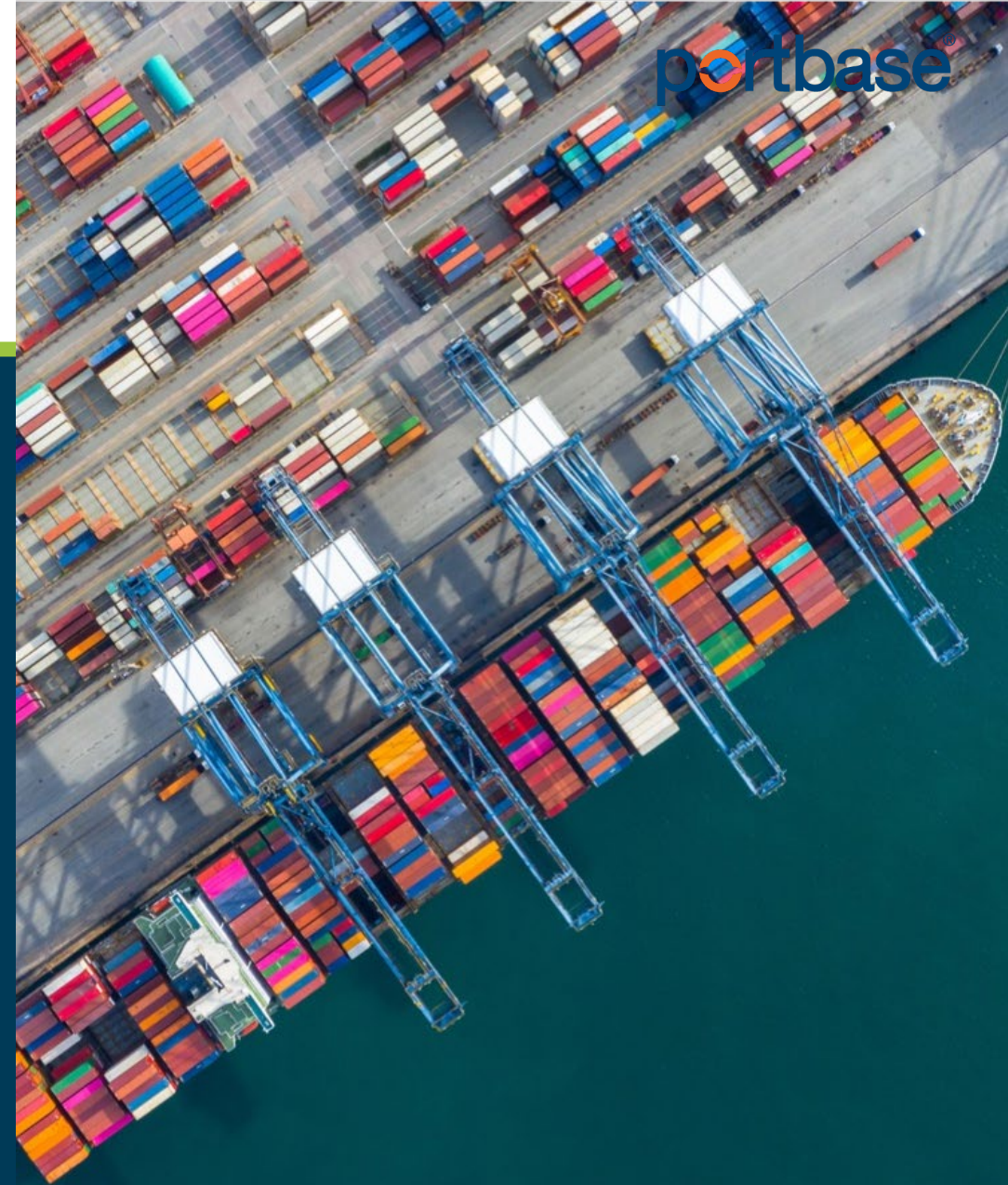


OpenTripModel



Applying BDI in the maritime community

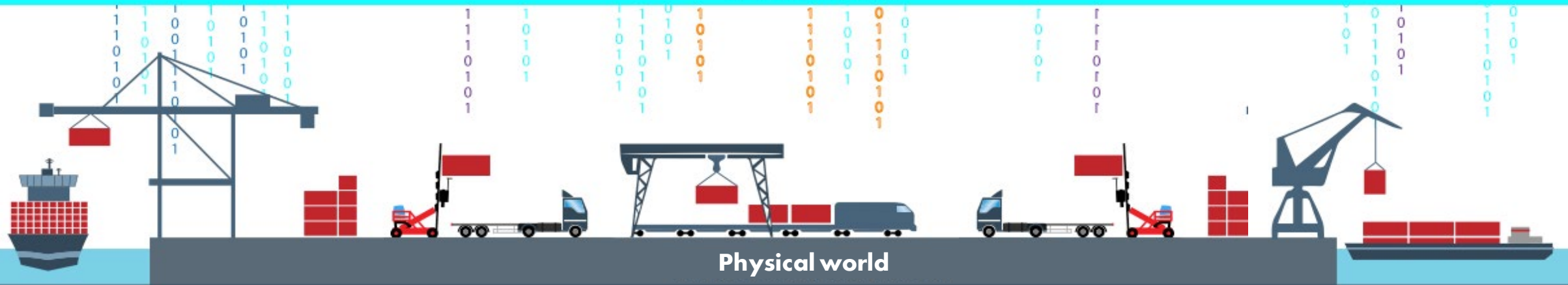
Leopold Jonkman



BDI use cases

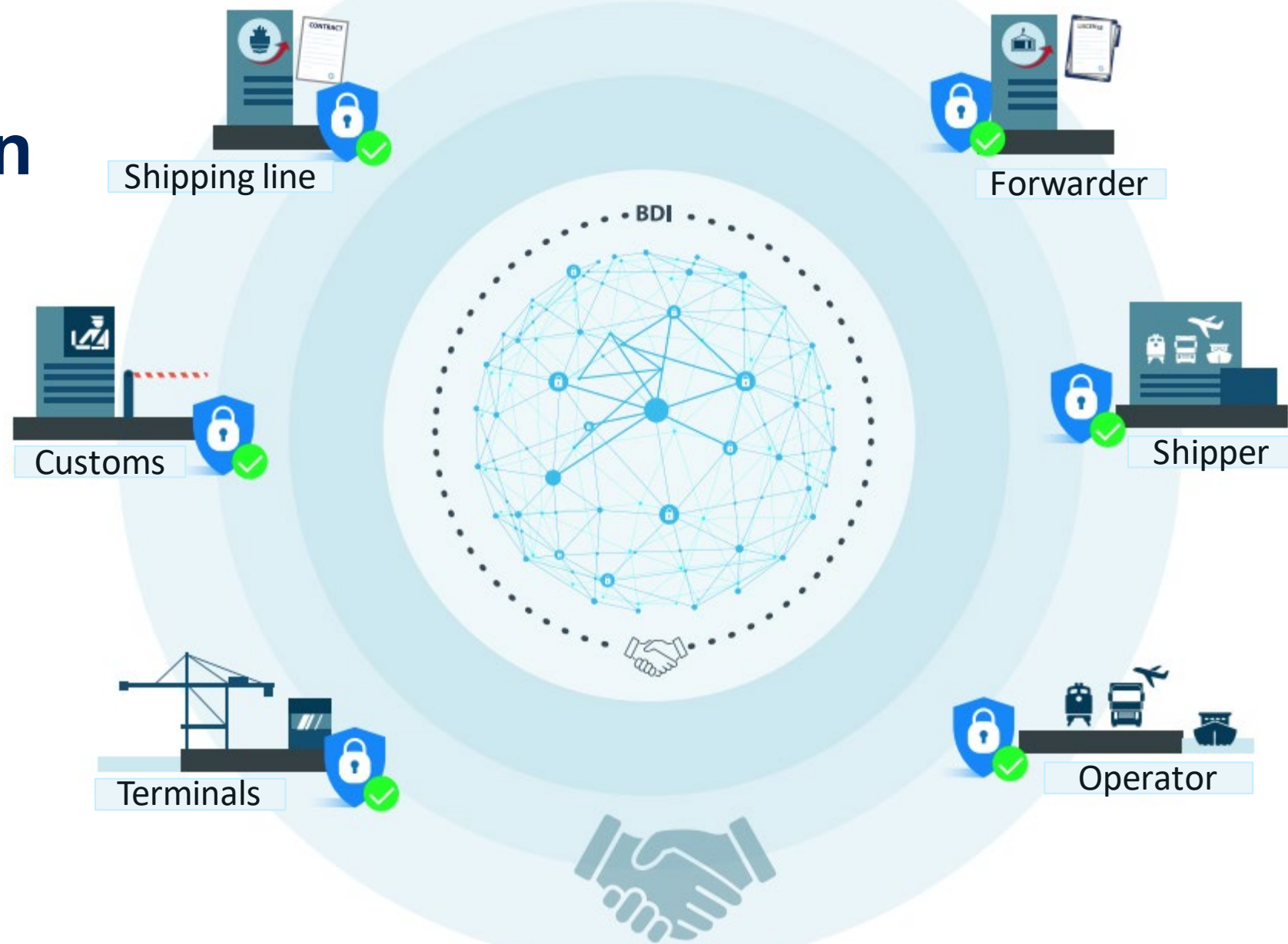


DIGITAL TWINS

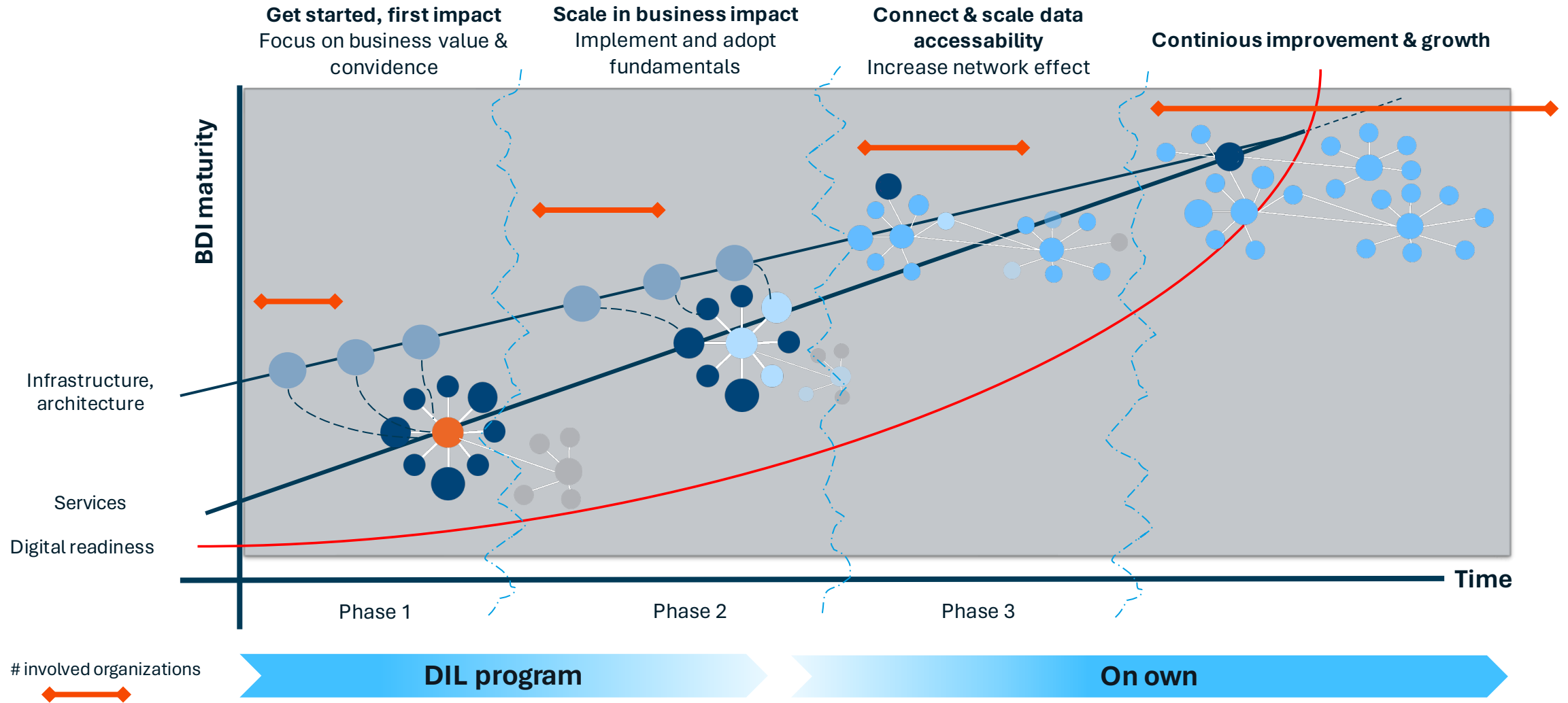


Physical world

Use case: Secure Chain



BDI maturity - growth





Schiphol Cargo



Schiphol

▷ Welcome to Amsterdam Airport

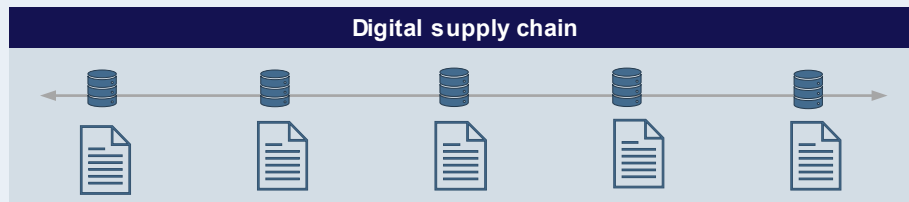
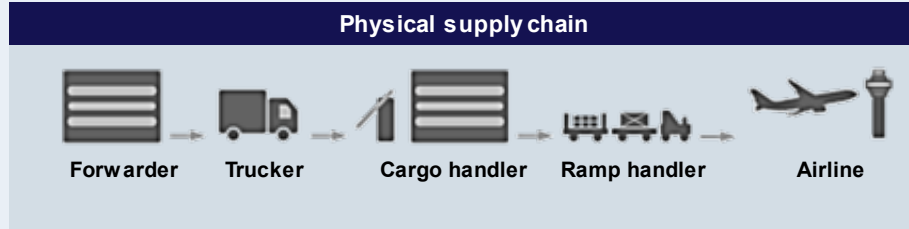
▷ Luc Scheidel

Schiphol Cargo network

Land Network



Air Network



Focus Areas

Connectivity

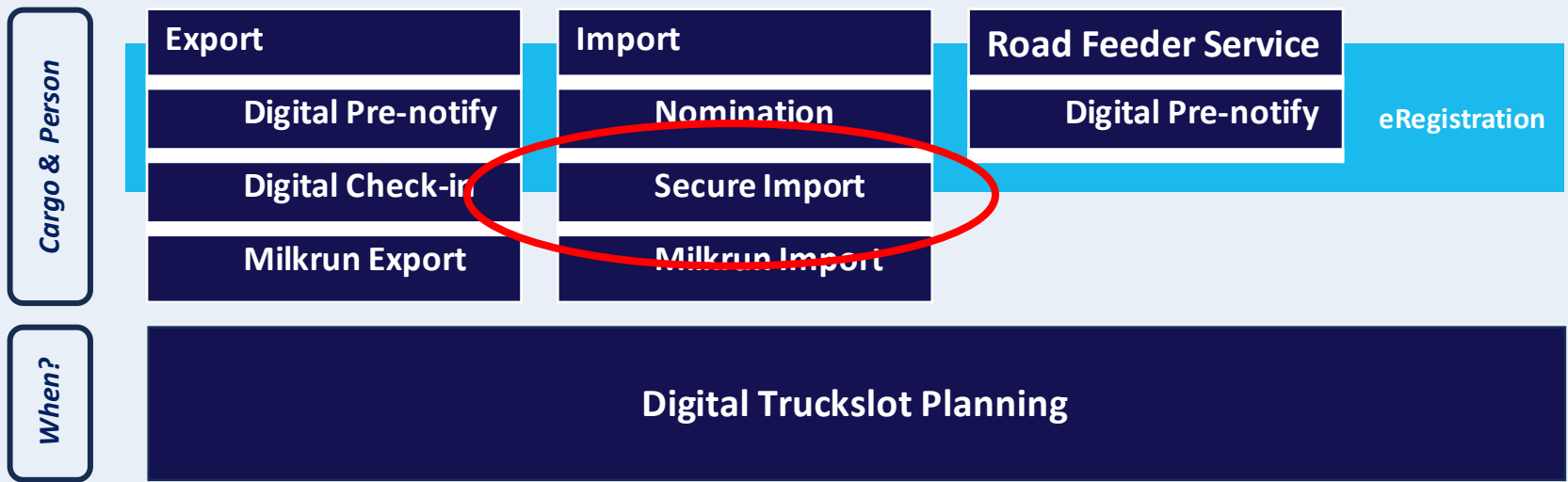
Seamless Cargo Processes

Sustainable Cargo Hub

Safe & Secure Operations



Smart Cargo Mainport Program



Import Process



1

Cargo Handler

4



3



2

5



6



7

- 1 – Arrival, unloading, storage.
- 2 – Forwarder orders pick-up by transporter.
- 3 – Truck driver reports at gate.
- 4 – Documentation is checked at warehouse.
- 5 – Goods are handed over.
- 6 – Truck leaves.
- 7 – Goods are delivered at consignee.

Issues

- At step 3 identity of driver is verified, at step 4 documentation of cargo is verified. No cross link what cargo will be picked up by which driver and truck.
- Hand over of cargo on paper: unclear writing and no digital tracing.

Solution

- Zero-Trust API to book a pickup in advance.
- Event-broker to publish events to relevant parties.
- Secure eVisit key to connect data in separate domains between different stakeholders (freight forwarders, trucking companies and ground handlers).
- On top of that separation between information domains for cargo (at Cargonaut) and driver identities (at SmartLoxs).

Challenges

- Not all relevant components based on federated architecture were ready. Eg. External Event broker, API gateway.
- Combining multiple ontologies (eg BDI/FEDeRATED and IATA).
- No experience with publish/subscribe according to federated architecture.
- Parties do not have an agreed standard on data sharing.

Now it begins....



Main challenge: adoption of BDI and federative data sharing in complex, worldwide, multimodal supply chains.

This means: convincing existing and new partners to digitize your business. Application of BDI and the FEDerATED principles.

By: business cases. In clear cooperation. Surrounded by an organizational and EU framework.

Necessary for governments to guide developments. To give confidence and trust for future investments.

Let DTLF be the castle to guide, to stimulate 'the new', to create structures and the framework. We will challenge the disfunctional.

You can count on us.

