

NEW TECHNOLOGIES FOR THE FUTURE OF CUSTOMS; BLOCKCHAIN AND DATA ANALYTICS

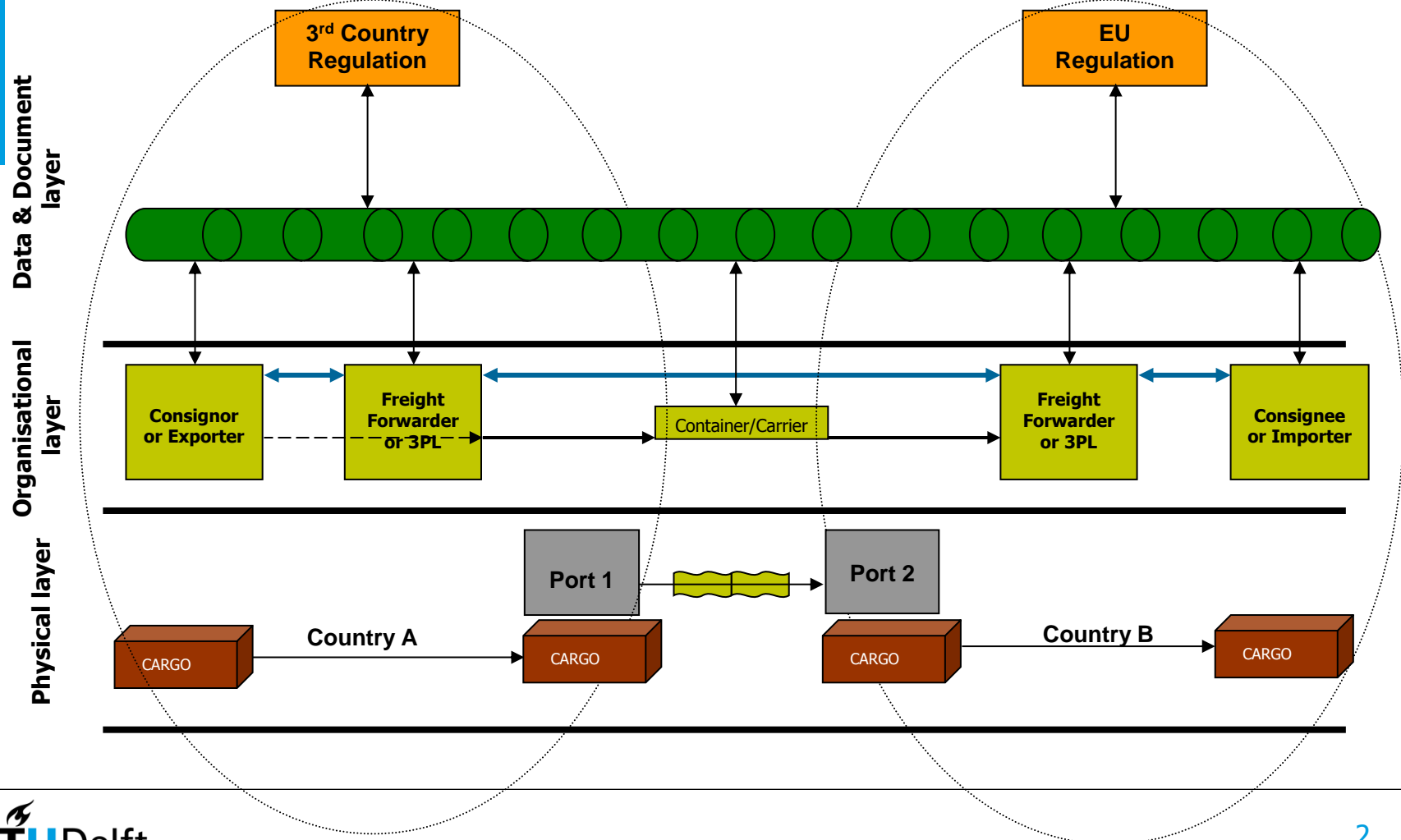
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Data Pipeline (Frank Heijmann, David Hesketh)

“Internet for Logistics” developed in EU research projects e.g. CORE, CASSANDRA, INTEGRITY, ITAIDE



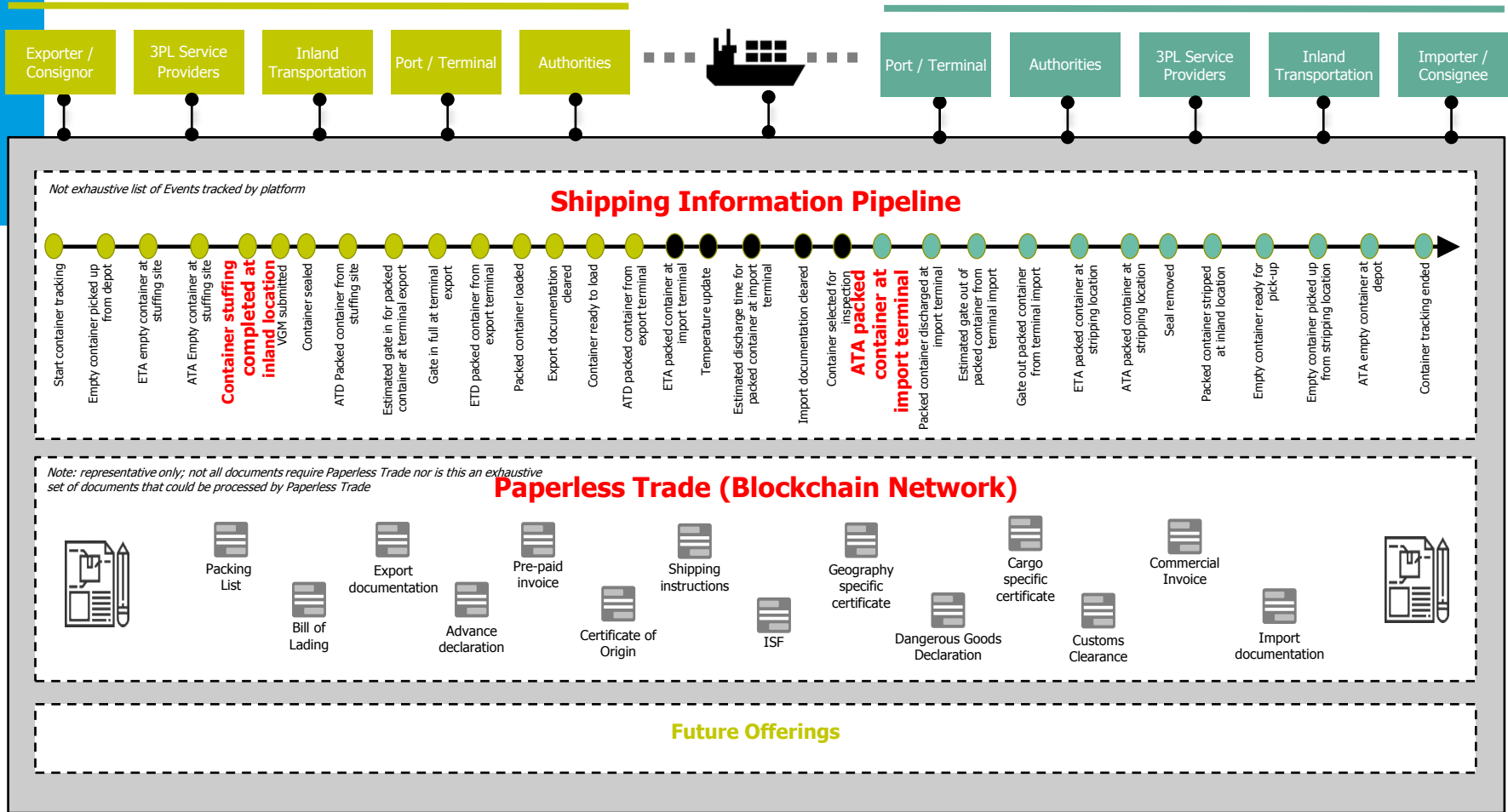
Customs IT innovation

- **“Get Data from the Source”**; Customs should use more trade data to cross-validate accuracy of import/export declarations
 - Examples: invoice, purchase order, packing list
- Companies are **willing** and **able** to share their trade data via IT platforms with customs
 - if it provides them trade facilitation
 - Most companies use enterprise information systems (e.g. ERP)
- Trade data is available in **IT systems of companies**
 - Can be accessed by customs via IT platforms;
 - Government; e.g. port community systems, single windows
 - Trade: e.g. INTTRA, Descartes, GT-Nexus, SAP, IBM
- Examples of **next generation IT innovations** for customs
 - Blockchain
 - Data analytics

TRADELENS Blockchain IT platform developed by MAERSK and IBM in CORE project

Export

Import



Benefits of Blockchain for Customs

- Blockchain platform is very suitable for sharing logistic events and documents among all parties in supply chains
 - Immutable: data cannot be changed
 - Secure: data cannot be read by competitors without authorization, but always accessible for customs
- Customs can use blockchain platform as data pipeline solution to collect extra business documents to detect fraud with customs declarations; examples
 - Electronic Pro-forma invoice
 - Electronic Packing list
 - Electronic certificates (e.g. origin, phytosanitary, veterinarian)
- Tradelens is now piloted with customs from Netherlands, Australia, Peru, Saudi Arabia

Benefits of Data Analytics for Customs

- Example: Check price on import declaration of e-commerce goods
 - by automated search of price of goods on e-commerce web sites (thousands!)
- Develop **Data Analytics** to do automated search of e-commerce web sites
 - Compute average price from these web sites
 - Support tool for customs targeting officer
 - Developed in EU research project PROFILE
- Blockchain and data analytics are piloted in the new **Customs Real-time Information** (CRIS) of Dutch Customs
 - This IT innovation can be developed by all countries in the world