Common Framework for ICT in Transport Logistics

Status of the framework development

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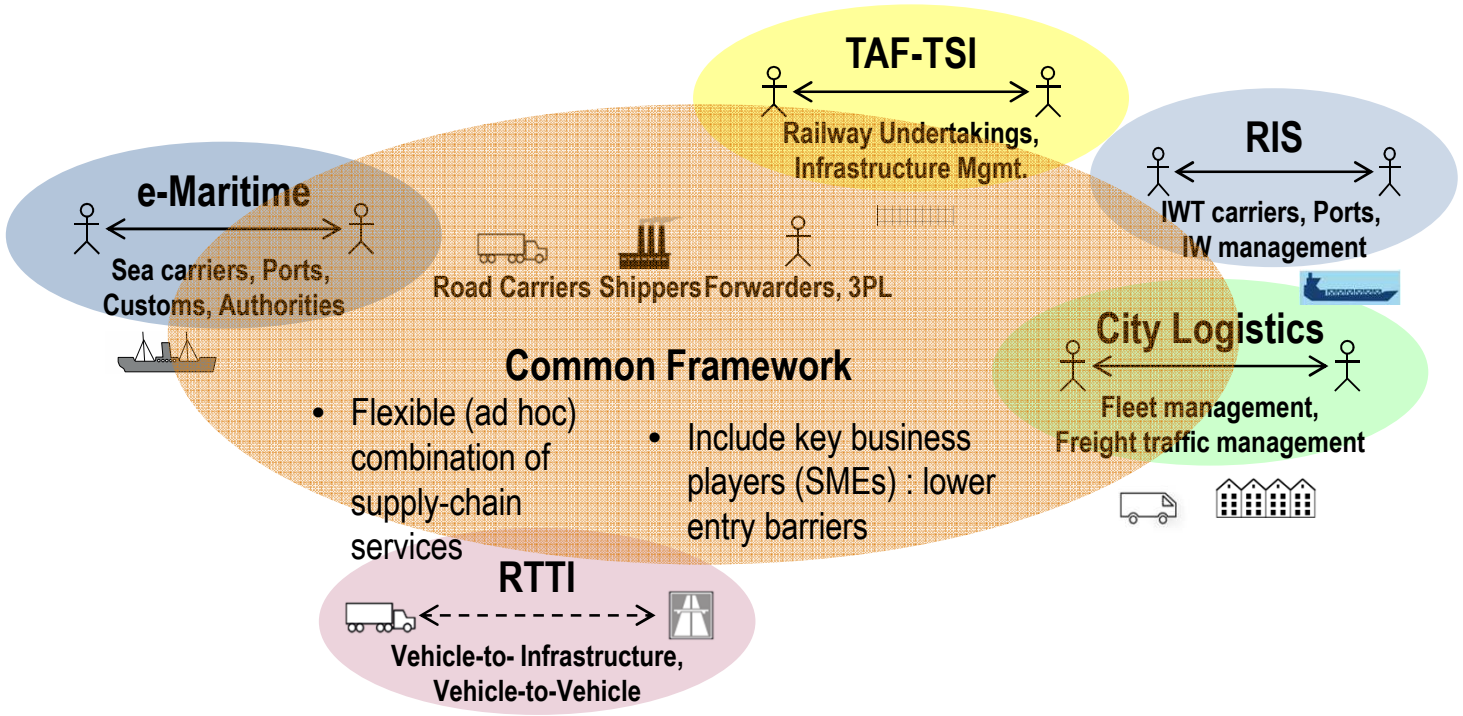
DiSCwise and COMCIS coordinator

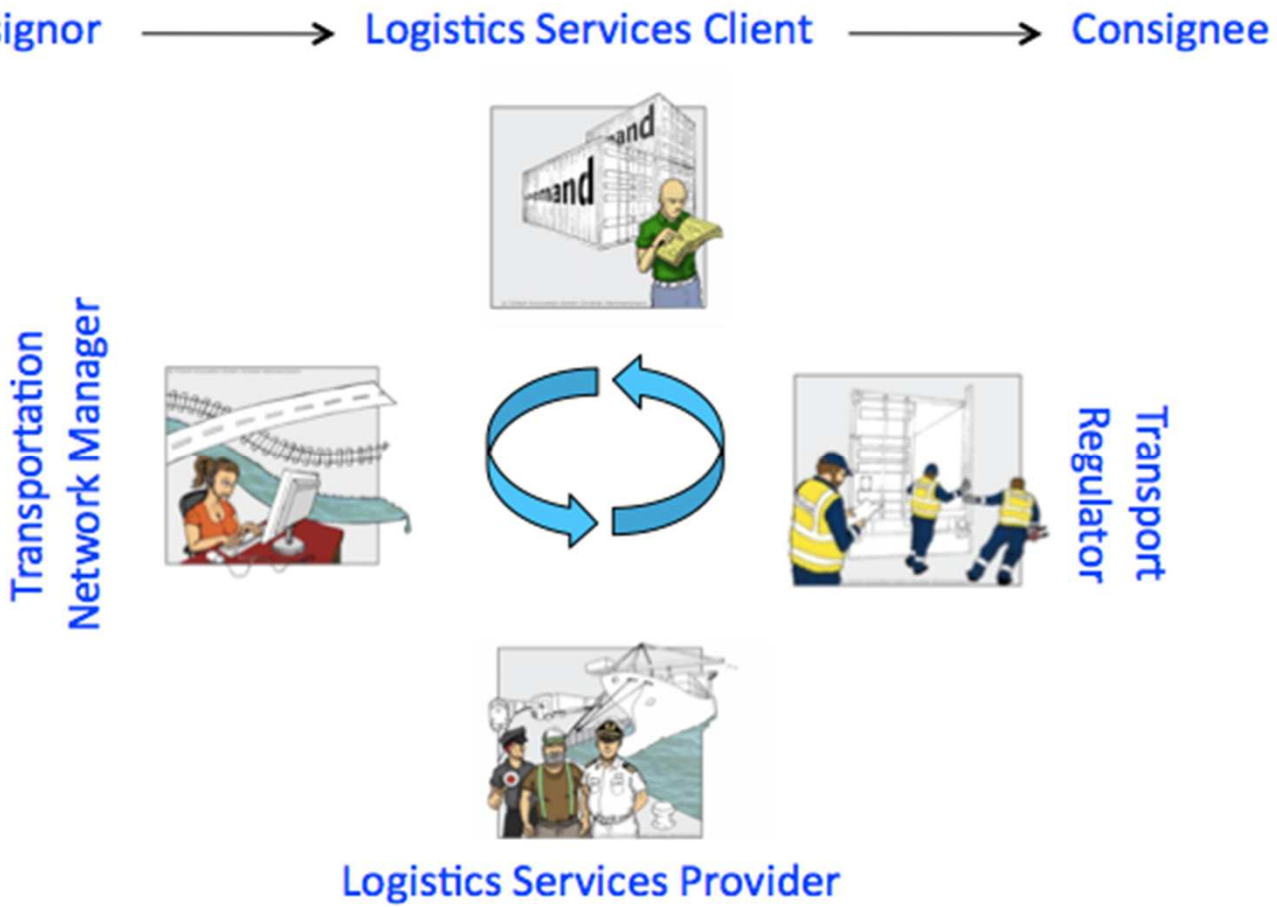
Contents

- Initial integration into the Common Framework
- Standardization: UBL2.1, GS1 LIM, UN/CEFACT
- Continued integration: PEPPOL, WCO, consolidation
- Continued integration: Traditional EDI messages in port communities
- Continued integration: eBSN pilot projects
- Need for Common Framework

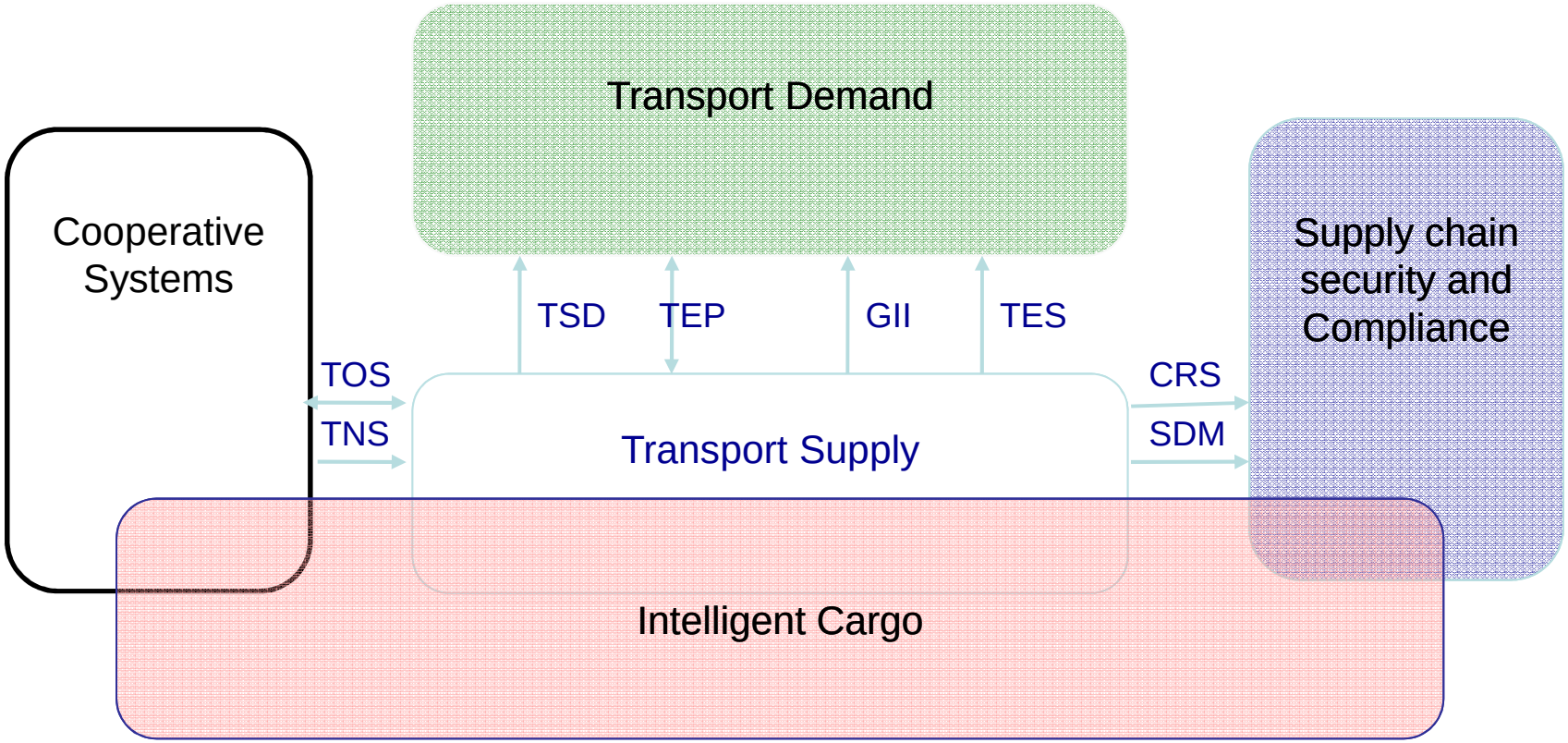
Common Framework: Initial integration



CF concepts: Roles



CF concepts: Domains



Transportation Network Manager

Logistics Services Client

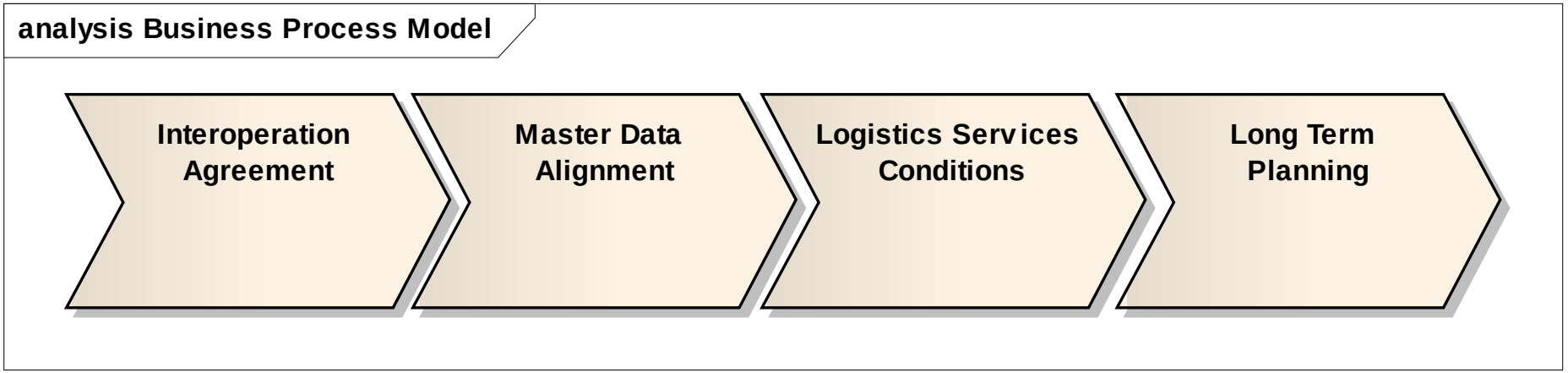
Logistics Services Provider

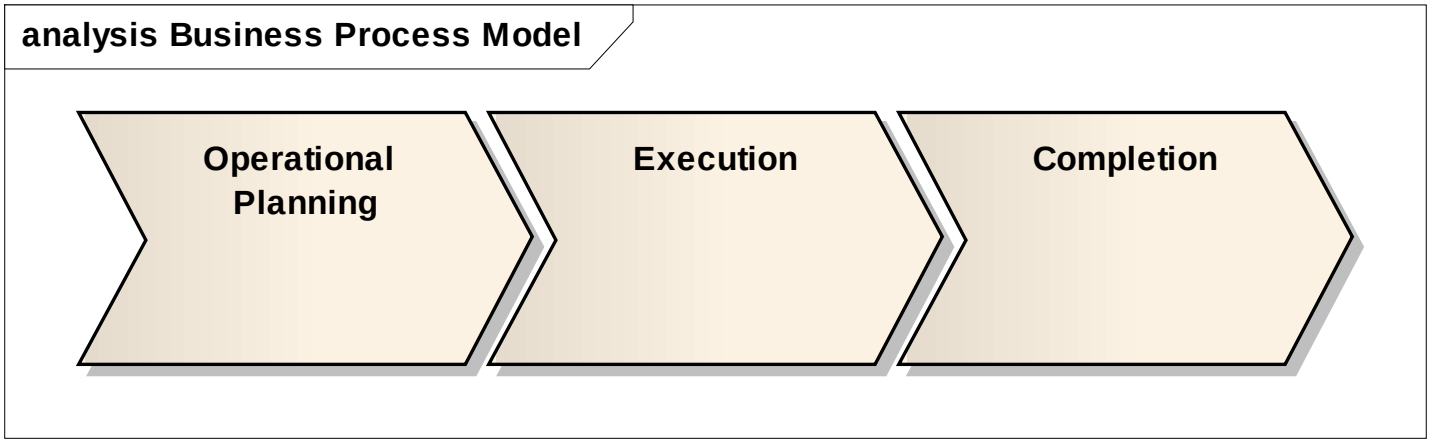
Transport Regulator

CF concepts: Messages

TSD	Transport Service Description – a standard description of transport services suitable for automatic detection
TEP	Transport Execution Plan – describing all the information needed related to the execution of a transport service.
GII	Goods Item Itinerary – providing information about the movement of the goods (possibly through a chain of services)
TES	Transport Execution Status – providing information about the progress of the transport and of the cargo condition
TOS	Transport Operation Status – assisting in establishing the best possible arrival time estimates
SDM	Security Data Message – providing information about the security of a sealed load unit.
CRS	Common Regulatory Schema – providing a unified way of informing authorities about transport such that compliance may be verified.
TNS	Transportation Network Status – nor suggested as a new standard, but a pointer to messages providing such information for the different transport modes.

CF concepts: Processes





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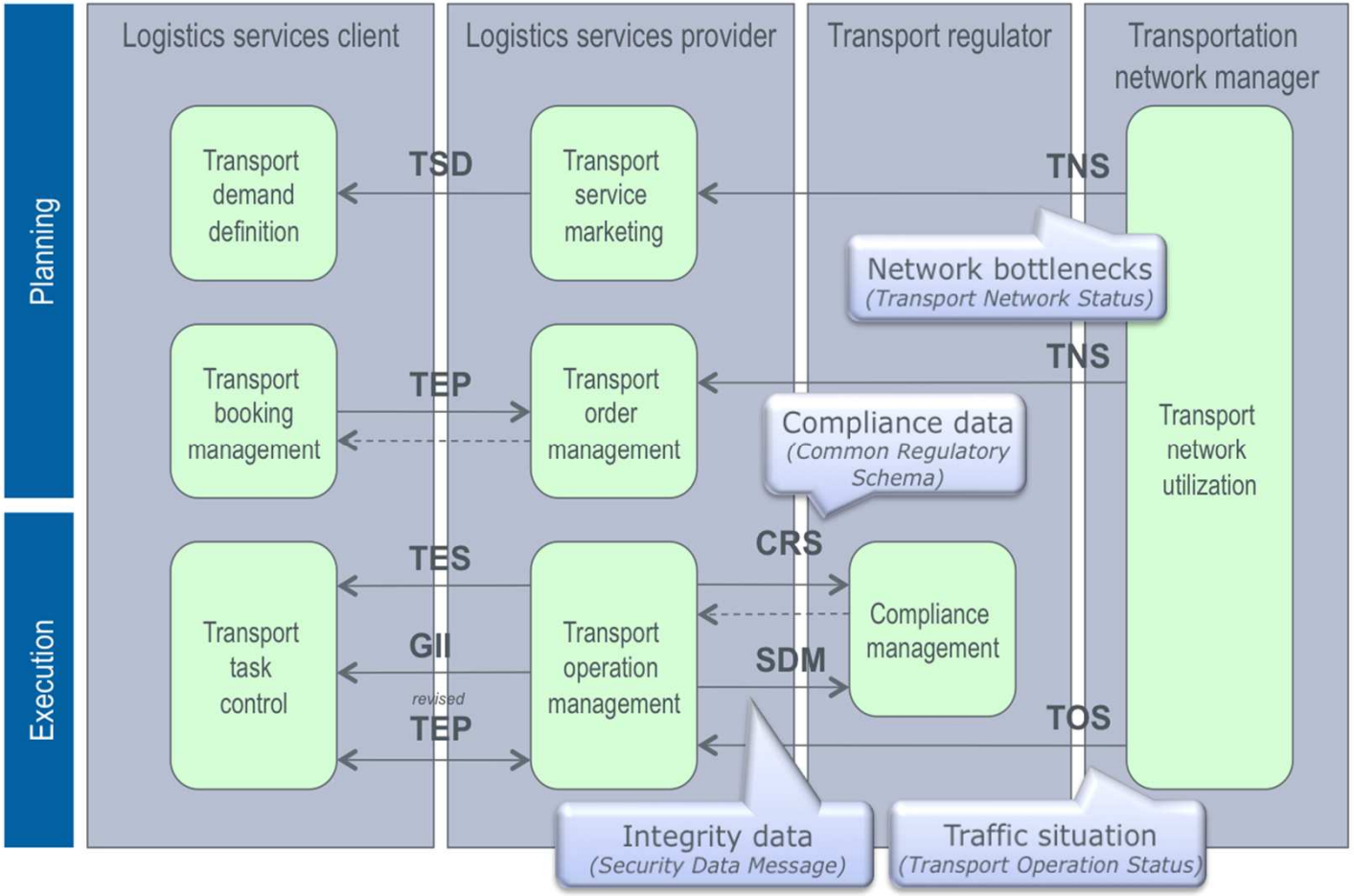
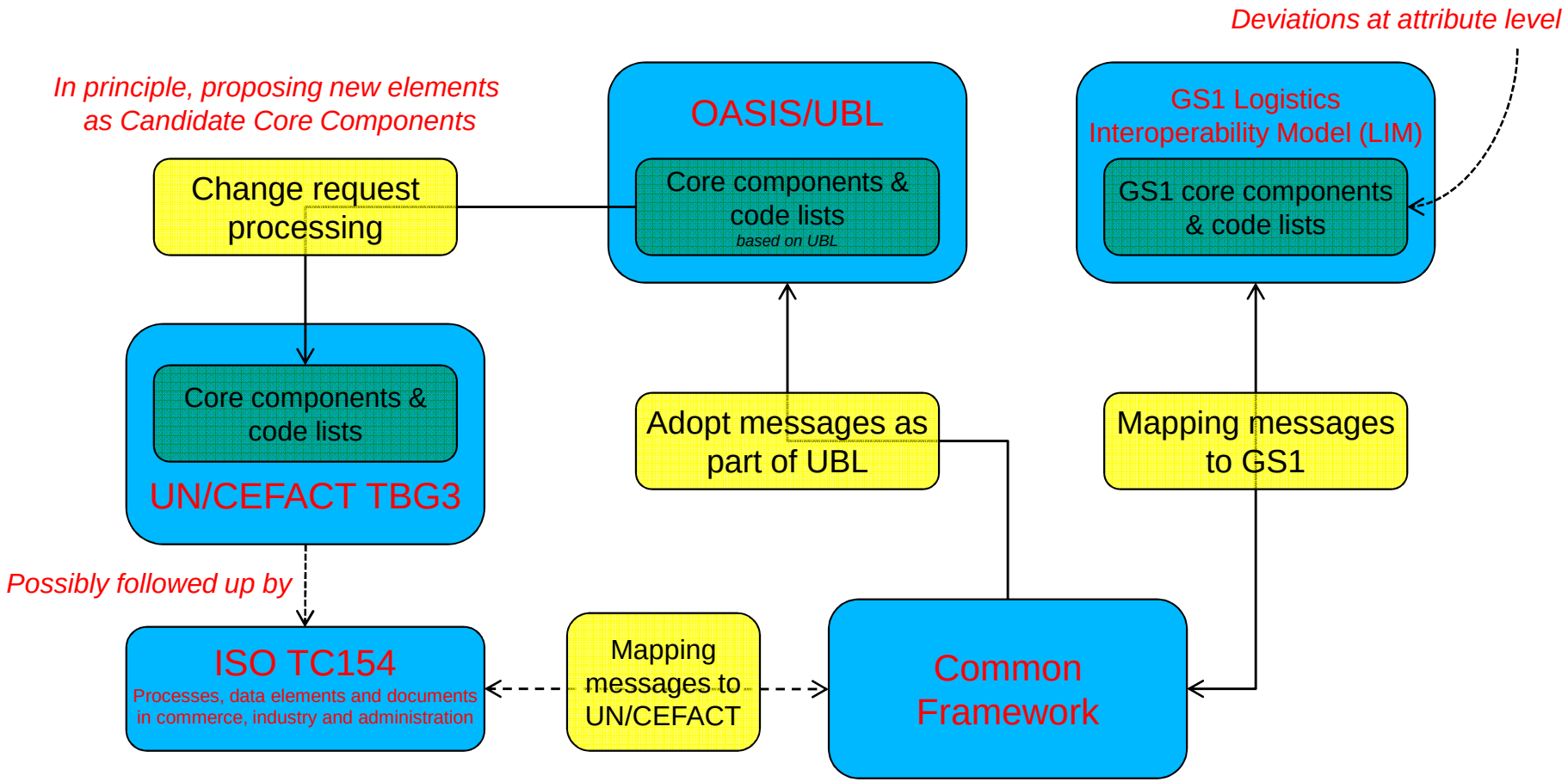


Ongoing standardization



Current status of CF within UBL 2.1

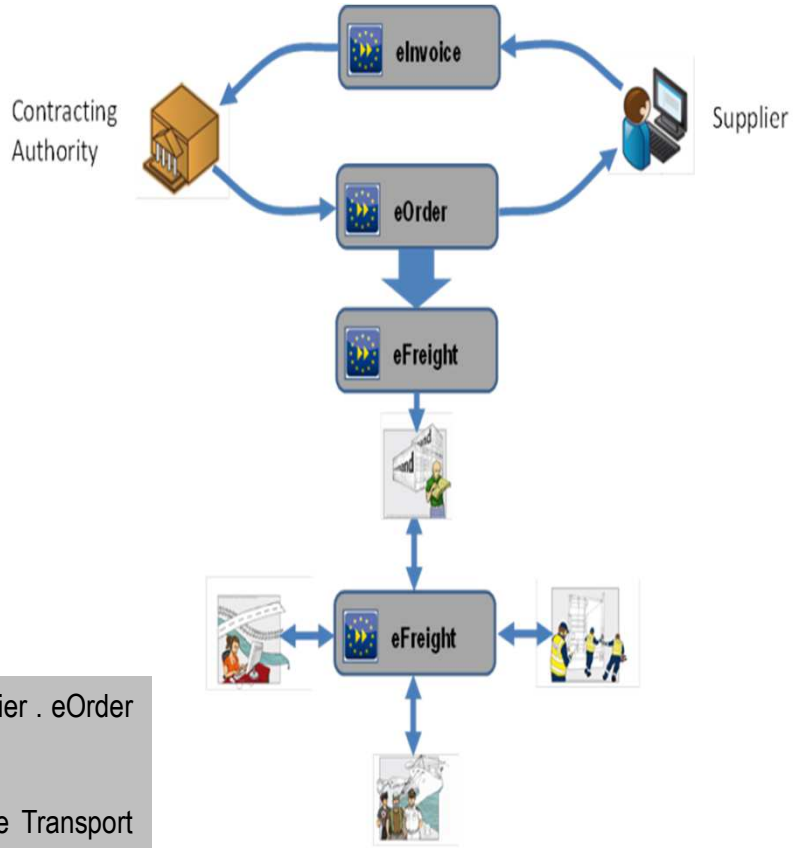
- Second public review until Sept 24th; the review is an open review where anyone may post comments
- Currently the issues list counts 30+ comments
- This release includes all the framework information packages (TEP, TES, GII, TPS and TSD)
- Most likely there will be a third public review as well, but probably only a 14 day review
- Expected final release of UBL 2.1 is Jan/Feb 2012

- URIs: The prose specification document and related files are available here:
  - PDF: http://docs.oasis-open.org/ubl/prd2-UBL-2.1/UBL-2.1.pdf
  - HTML: http://docs.oasis-open.org/ubl/prd2-UBL-2.1/UBL-2.1.html
  - Editable source: http://docs.oasis-open.org/ubl/prd2-UBL-2.1/UBL-2.1.xml

Continued integration

PEPPOL vs Common Framework

- The articulation between PEPPOL and the Common Framework has been initiated through the e-Freight project
- The e-invoicing and e-ordering components of PEPPOL are complementary to the Planning, Execution and Completion Components of the Common Framework
- The two initiatives will develop a common demonstrator that will show how activities within procurement logistics can be combined electronically



- eCatalogue could be used for presenting offered products from a supplier . eOrder could be used for ordering these catalogued products.
- eInvoice can be used to invoice the ordered products.
- Another relevant component for the Common Framework may be the Transport Infrastructure (eDelivery mechanism)

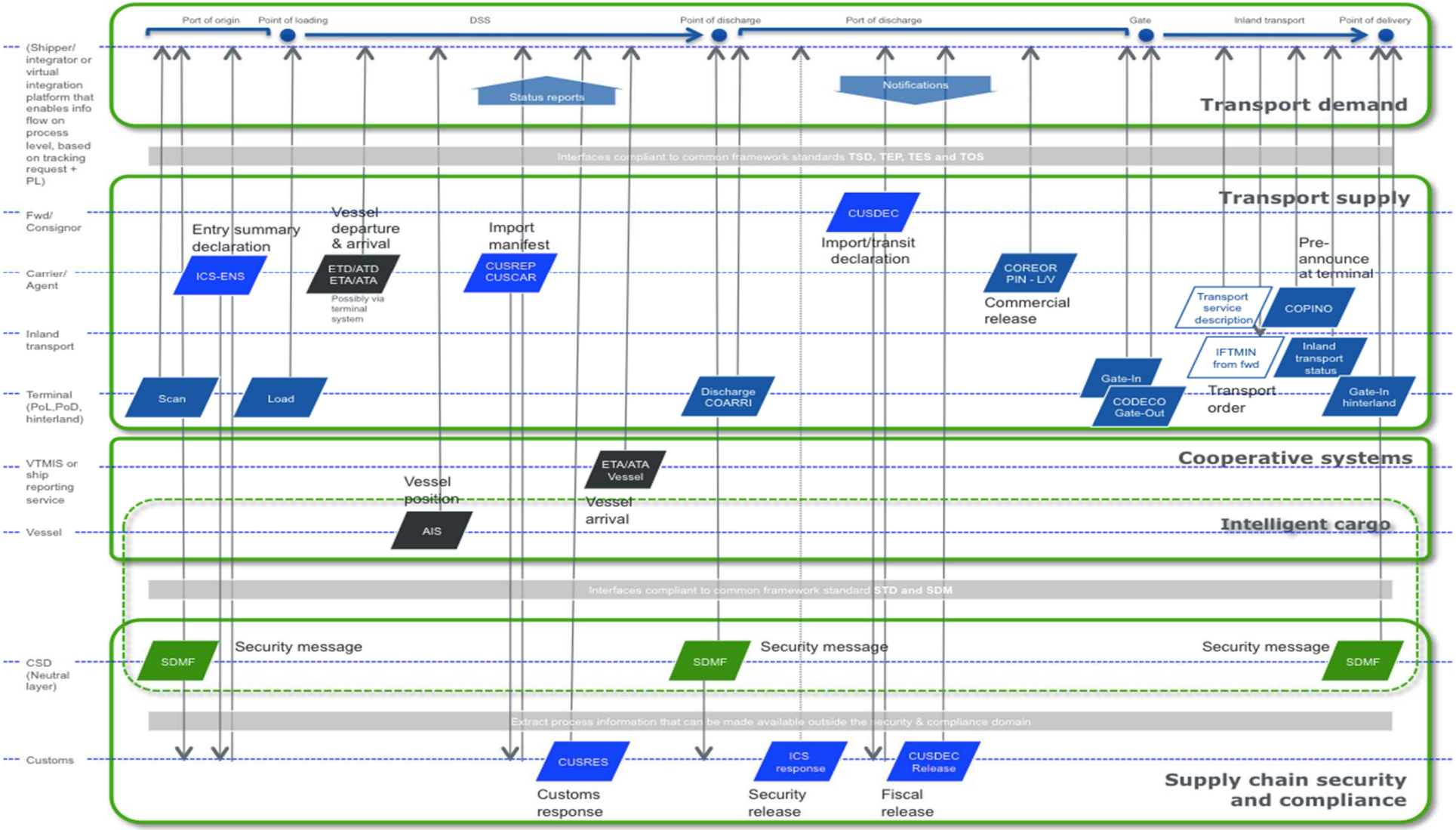
DiSCwise: WCO & consolidation

- The WCO Customs Data Model (WCO CDM) consists of a set of harmonized data sets which provide identified business requirements for each of its various (customs) procedures for use by Customs and its trade partners. For each required data element the data sets provide a detailed set of information (metadata). The WCO data sets have been aligned with the United Nations Trade Data Elements Directory (UN/TDED) as far as possible. The DiSCwise Flemish pilot validates the use of the Common Framework in customs clearance.

- The DiSCwise Polish pilot validates the use of the Common Framework in consolidation of cargo flow within the Polish ECR (Efficient Consumer Response) working group. The Common Framework allows for a low-cost implementation for consolidation approaches involving SME shippers, forwarders and transport operators.

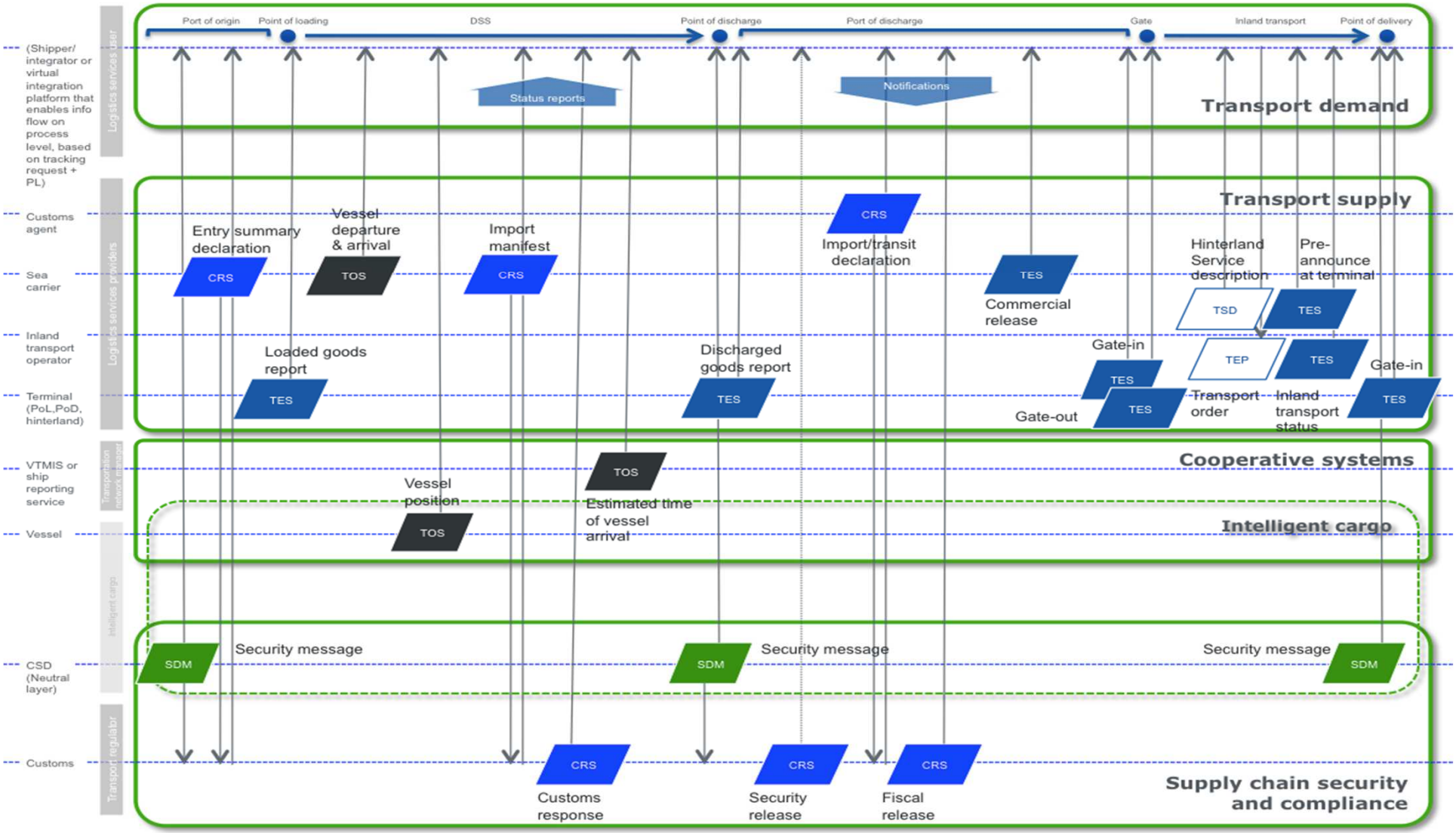
Continued integration

Common Framework vs EDI messages



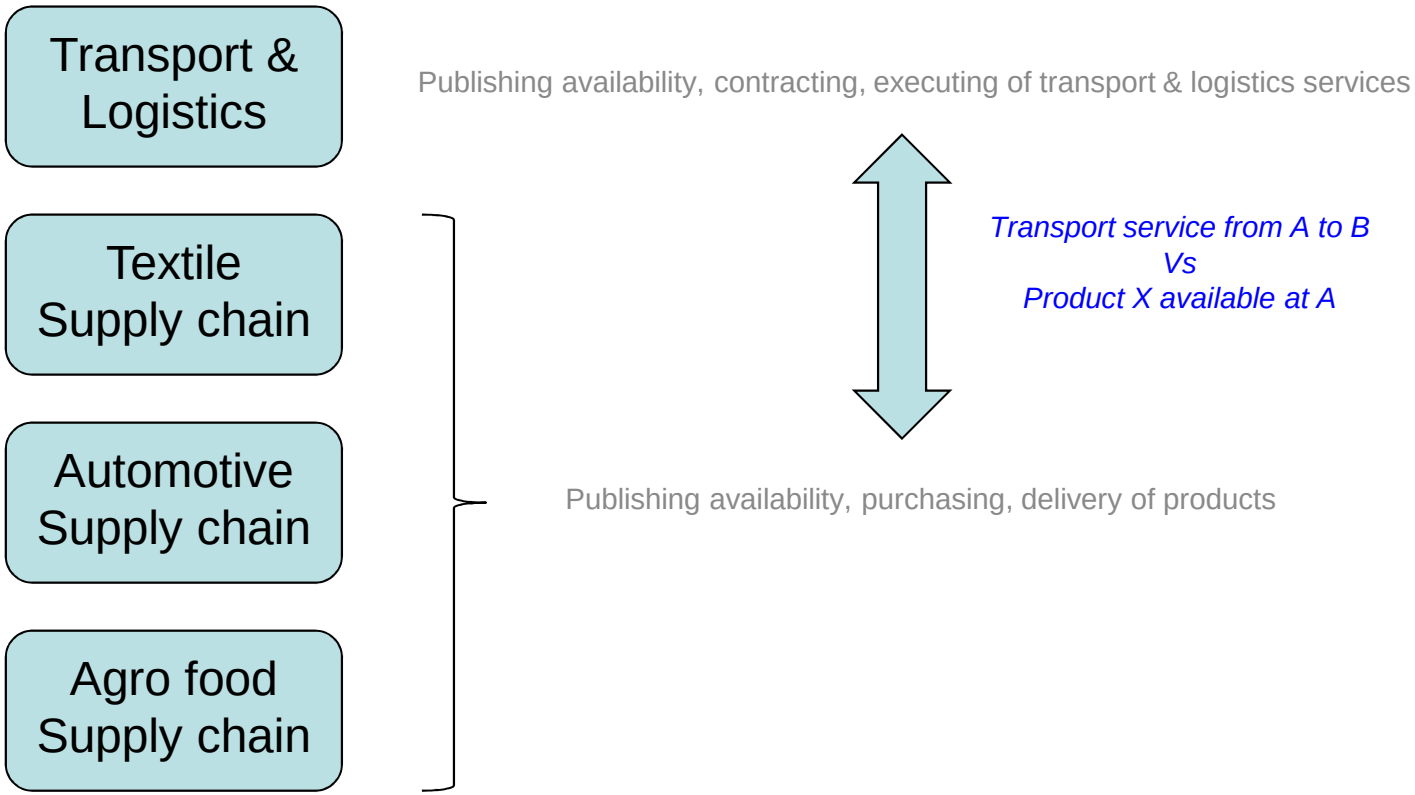
Continued integration

Common Framework vs EDI messages



Common Framework vs eBSN pilots

- Ongoing action: Investigate synergy between DiSCwise and other eBSN pilots



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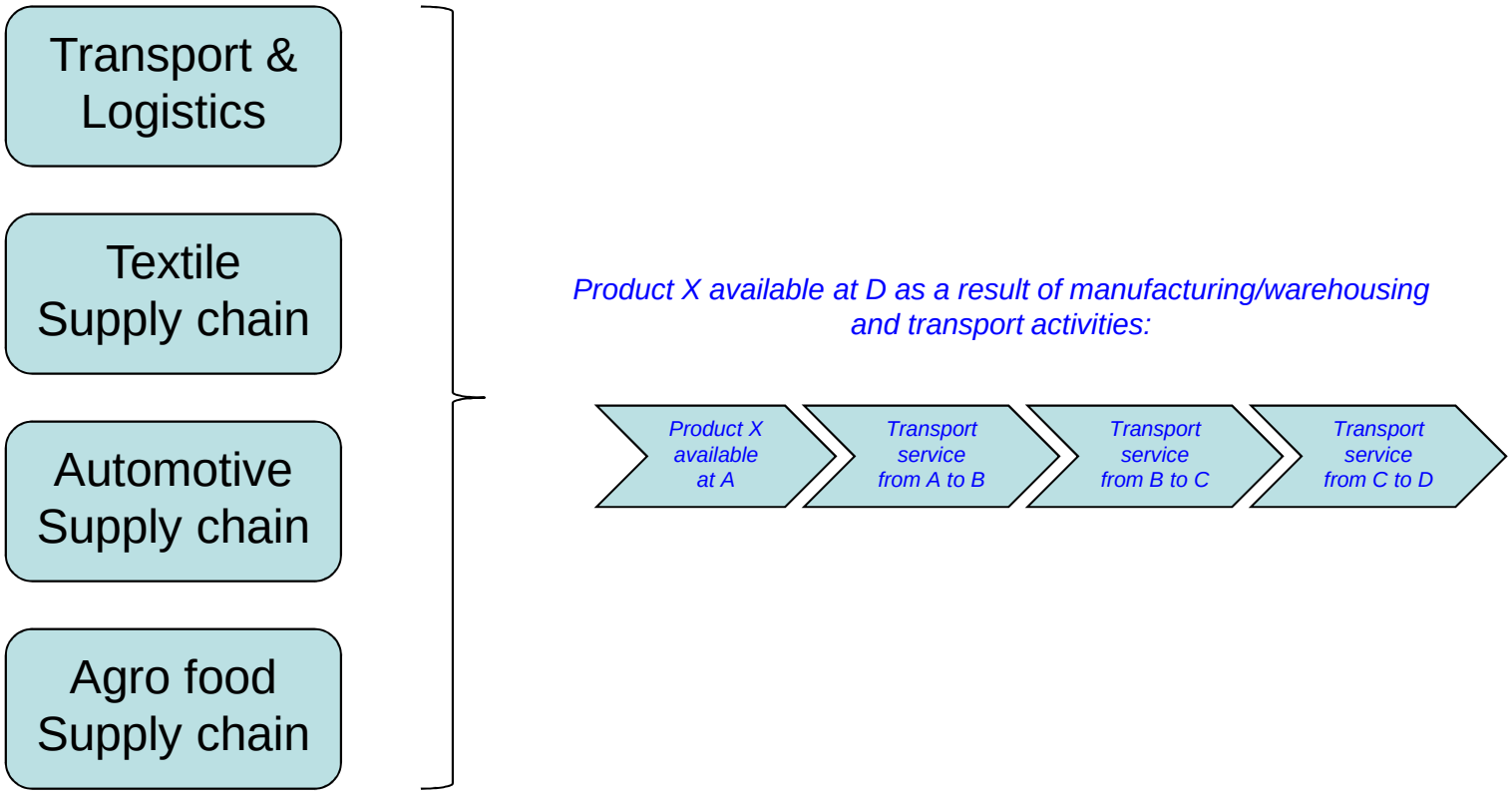


Benefits: Long term versus short term

Long term benefits based on improvement of reliability:

Savings potential is in the magnitude of +/- 300 Euros per imported container of *value 100.000 Euro*.

Most of these (70-80%) are financial gains as a result of reduced pipeline & safety stocks, directly depending on the average container value. This reduces working capital requirements *gradually*, as improved reliability is *proven step-by-step*.

This applies mostly to the **shipper** or **beneficial cargo owner (BCO)**. If realized by the logistics integrator, he *may* be able to sell his services with a premium to shipper or BCO.

This requires true visibility, i.e. not only knowing where the load unit is, but also the **impact on the end-to-end logistics process**.

Allowable costs

Short term benefits are in the magnitude of +/- 5 Euros per container as a result of efficiency gains for individual transport & logistics service providers around the sea/hinterland interface:

Less waiting times
Less container moves
Shorter stay in port

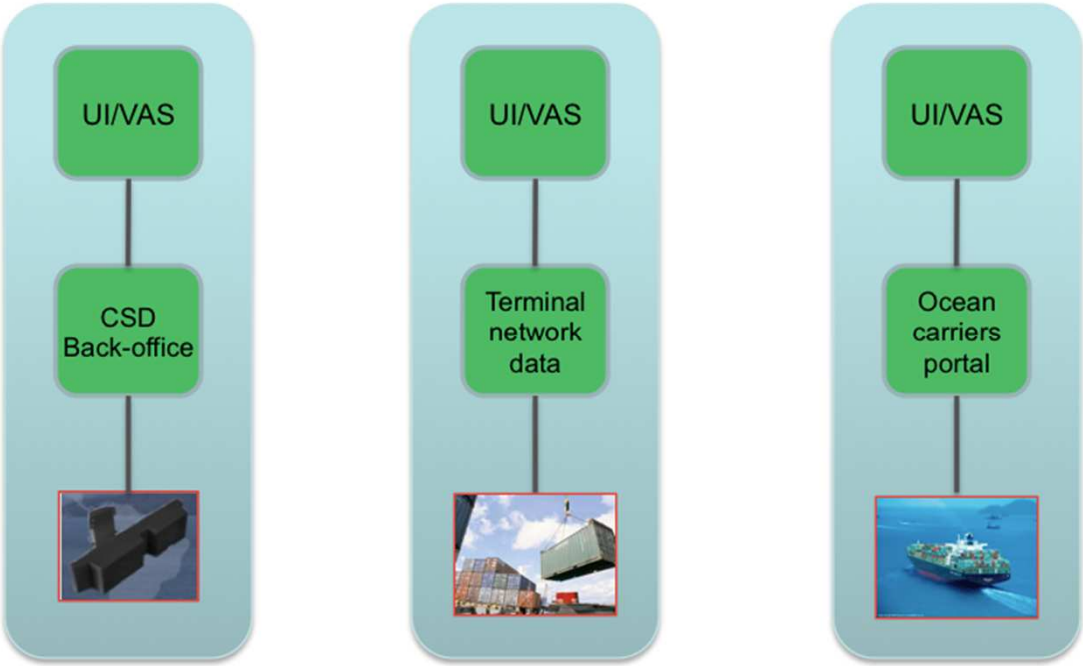
Best applicable to containers of less average value (10.000 Euro)

These savings are very relevant to the terminal operators, which from their side can provide reliable actual terminal events, for sea and inland terminals.

Closed systems – No economies of scale

A **bundled offering of product components** that ensures inclusion of data & value added services, but impairs interoperability;
Providers of specialized product components are few;
The users needs to buy in into a specific ecosystem offered by the provider;

E.g.:
- CSD provider
- Terminal network
- INTTRA



Need for the common framework: Short & mid term

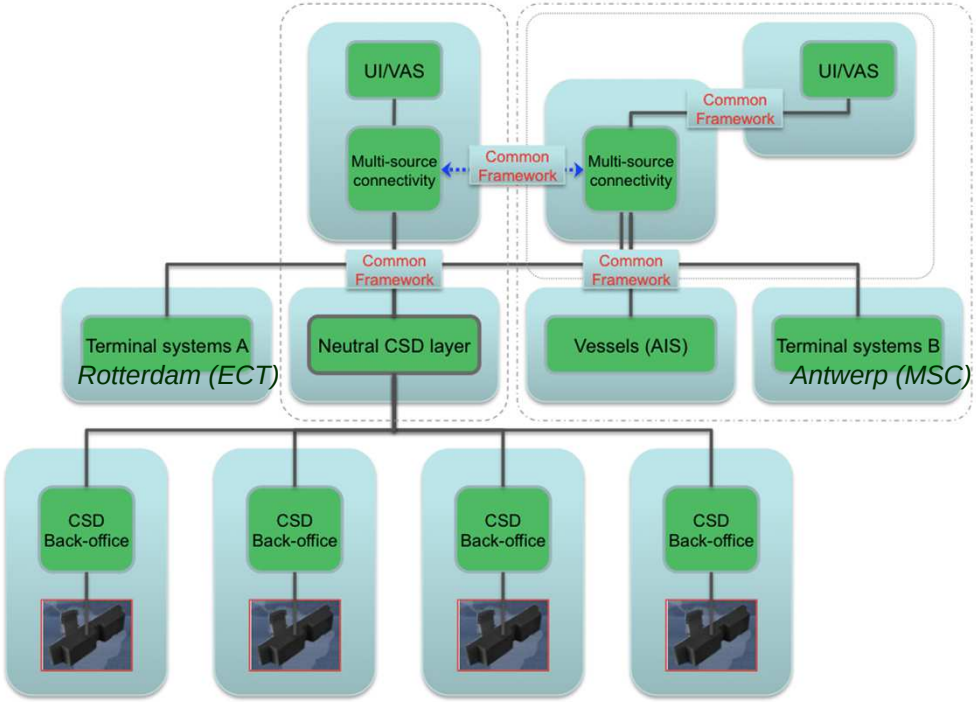
Interoperable & specialized components

An **interoperable market** in which value added services establish **coalitions** (and agreements) with multiple data source owners to provide rich consolidated information;

This enables **specialization** but at the same time ensures them of sufficient **distribution channels** to enable them to invest in further development of their specialized products;

As time goes by the interfaces between the individual product components will be more and more **standardized**, reducing switching costs and risk;

Sample implementation:



Need for the common framework: Long term

Dynamic coalitions – avoid lock-in

An **open and decentralized market** in which value added services (VAS) can be used to **discover** intelligent load and cargo units**,** data sources and applications, **configure** which to use for which client or shipment, **settle on the terms** of using them, and complete the cycle by enabling aggregated **billing** to the end-user;

Sample implementation: