



**HM Revenue
& Customs**

CORE and MMT: Data Pipelines and Cross Border Messaging

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Geneva

Consistently Optimised Resilient Secure Global Supply-Chains

The image is a conceptual graphic. In the center is a large, realistic Earth globe showing continents and clouds. A smaller, similar globe is positioned in front of the larger one, slightly to the left. Overlaid on the center of the image is the word 'CORE' in large, blue, 3D block letters. The 'O' in 'CORE' is replaced by the smaller globe. The background is a dark blue space filled with stars. A complex network of white nodes connected by thin blue and yellow lines spreads across the entire scene, resembling a global supply chain or data network. A small, grey, cratered sphere, likely representing the Moon, is visible in the upper right quadrant of the background.

CORE

What is CORE?



- European Union funded supply chain security and visibility research and delivery of innovative solutions. Over 70 Consortium Partners from public and private sector.
- CORE will start by consolidating solutions developed in previous EU research projects such as ITAIDE, Integrity, SmartCM and Cassandra.
- Move to implementation driven operational research and development to discover gaps and practical problems.
- Ultimately develop capabilities and solutions that could deliver sizable and sustainable progress in supply chain security across all EU Member States and on a global scale.

CORE will demonstrate:

- Secure supply chains whilst maintaining or improving business performance;
- A sustainable, secure Global Supply Chain Network as a catalyst to bring about institutional and business change and technical solutions;
- Supply Chain compliance and trade facilitation requirements of business communities, specifically shippers, forwarders, terminal operators, carriers and financial stakeholders;
- How customs, law enforcement authorities and other national and international agencies can increase effectiveness of security and trade compliance with decreased administrative burden.

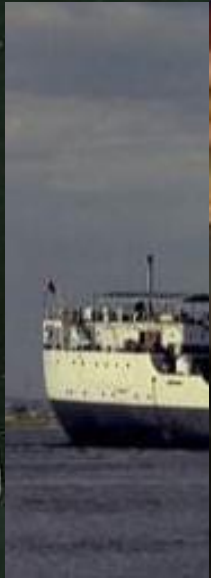
Consistently Optimised Resilient Secure Global Supply-Chains



**Work Package 10: UK supply chain
visibility through Port of Felixstowe using
the Destin8 Port Community System**

Work Package 10: Objectives – UK and Felixstowe Centric

- Improve supply chain visibility for shippers, buyers and sellers, border agencies and logistics service providers;
- Improve security and risk management for public and private sector supply chain actors;
- Improve the quality of data and supply chain management;
- Facilitate the identification of costs and efficiencies;
- Improve the use of automated systems;
- Improve co-ordinated border management; and
- Participating exporter to send data to the exporting and importing Customs administration through the data pipeline when the container has finished loading, doors closed, seal on, ready to ship.



1972

2014

18,000 TEU (average 9 tonnes) 48 hours



1,312 feet Deadweight 165,000 tonnes



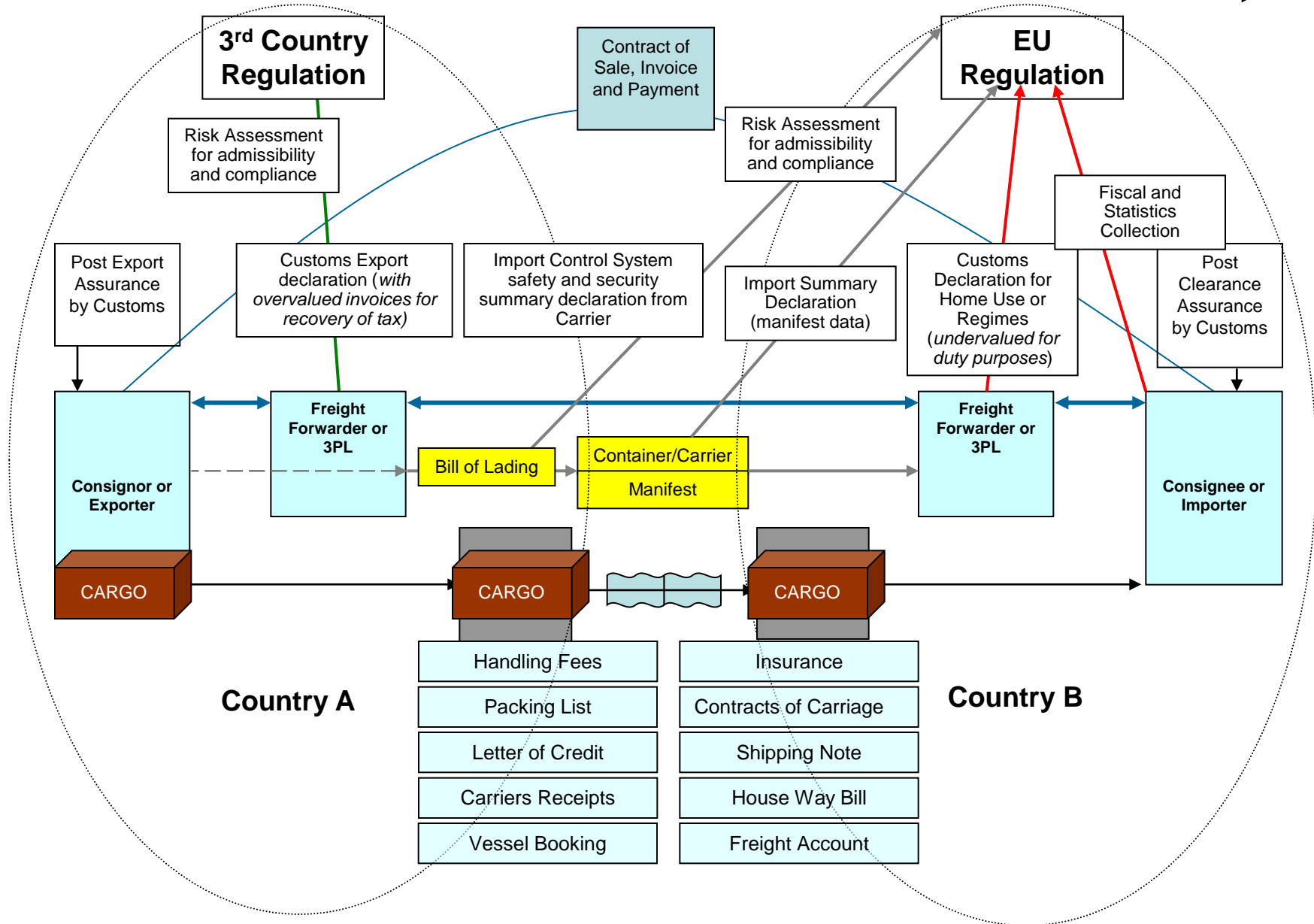
5,000 tonnes 5 days

507 feet Deadweight 5,000 tonnes

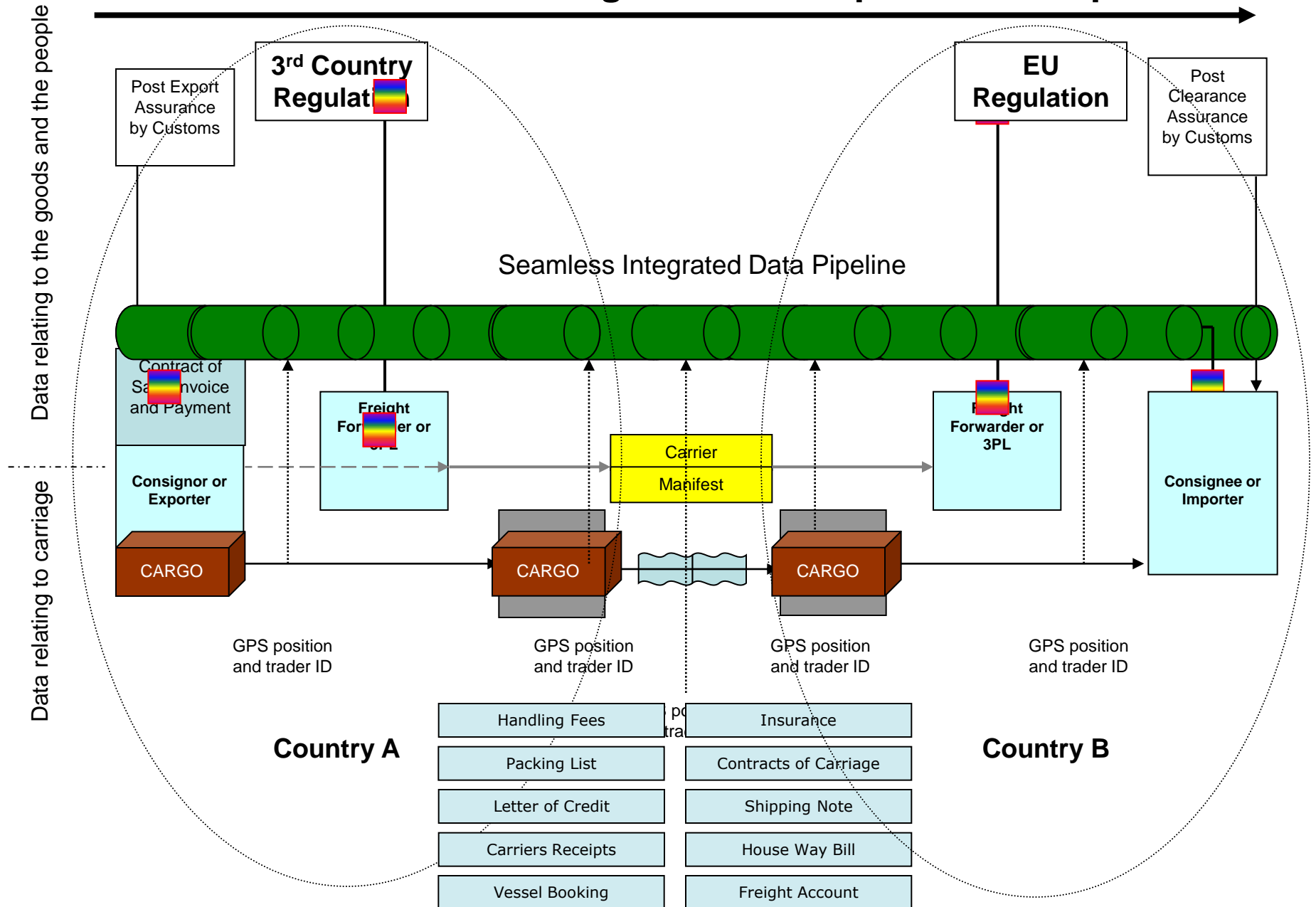
The need for innovation

- Data inaccuracy in the UK costs as much as £1.4 billion per year – 1 per cent of total revenue. (Cranfield)
- 15% of consignments received in the UK are in error.
- 60% import sea cargo manifests not fit for risk assessment purposes.
- Global maritime fraud = US\$31 billion. Letter of credit and bills of lading = \$20 billion.
- Over 90% of surveyed companies indicated that Supply Chain Visibility was currently a high or medium priority.
- Supply chains are complex - visibility is masked.
- Safety, security, legal compliance and commercial risks.

Current Customs and International Trade Systems



CORE Seamless Integrated Data Pipeline Concept



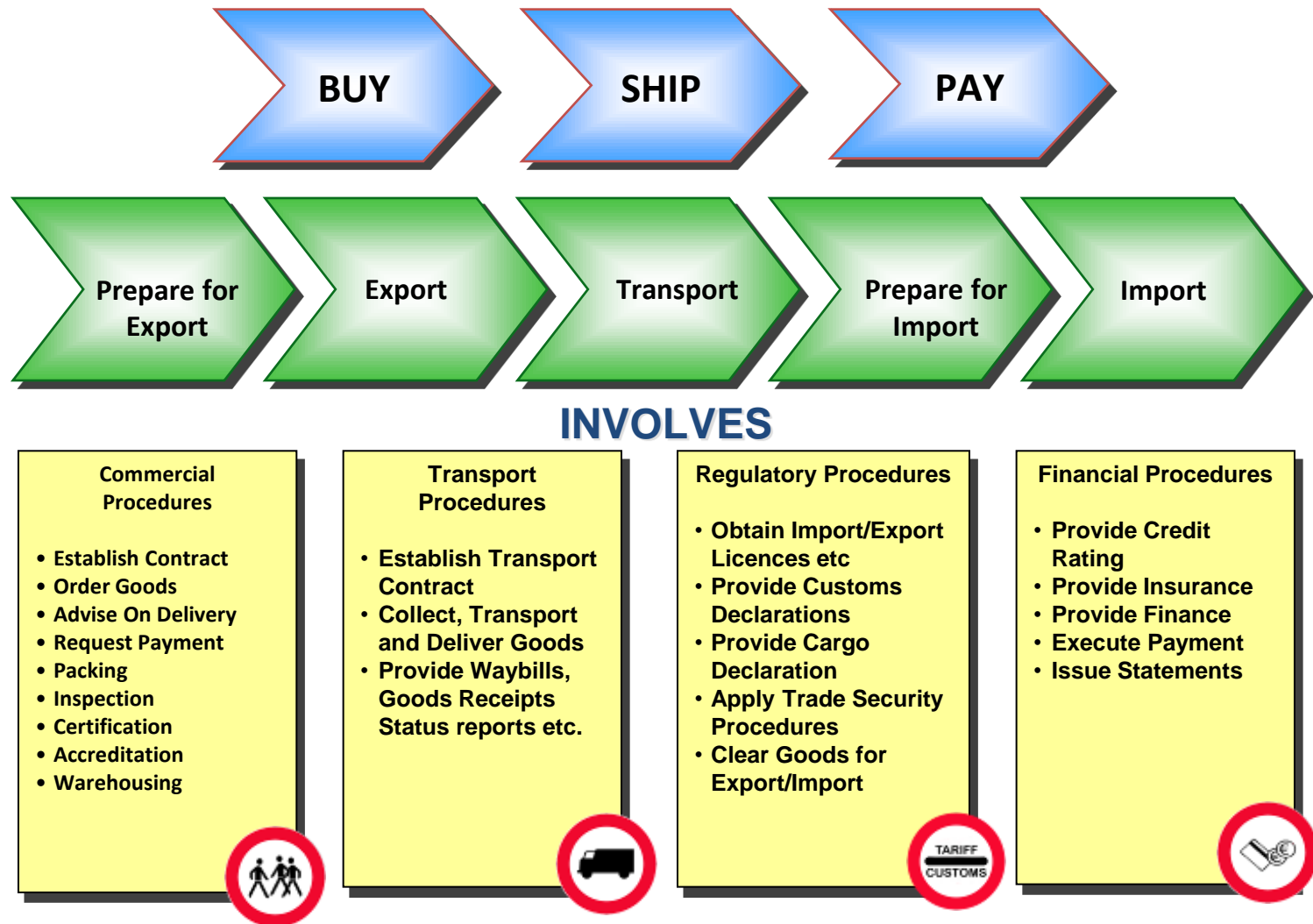
UNiserve
your **global** business

conex
i-way TO CUSTOMS

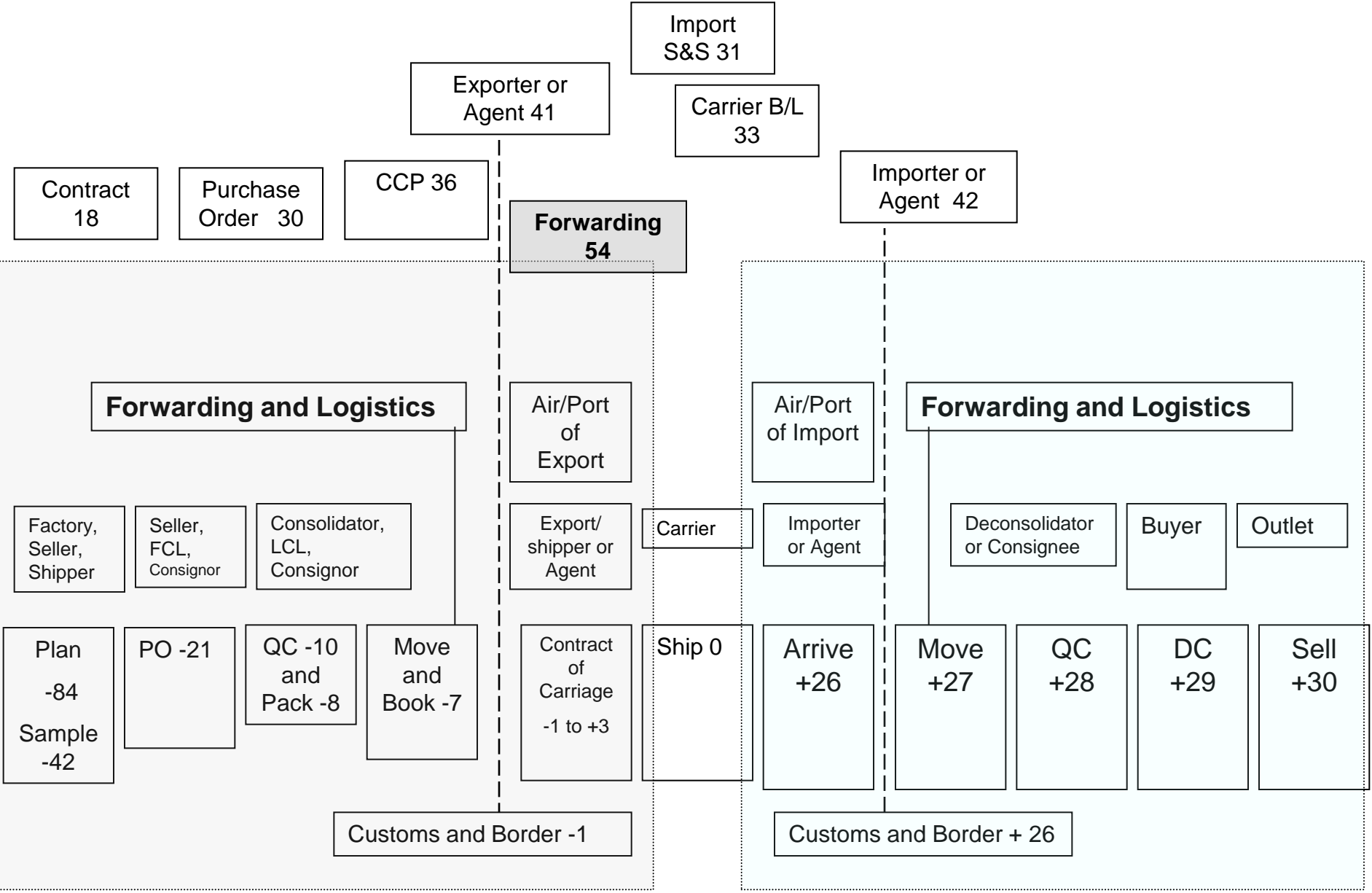


DESCARTES™

UN/CEFACT Buy-Ship-Pay Model

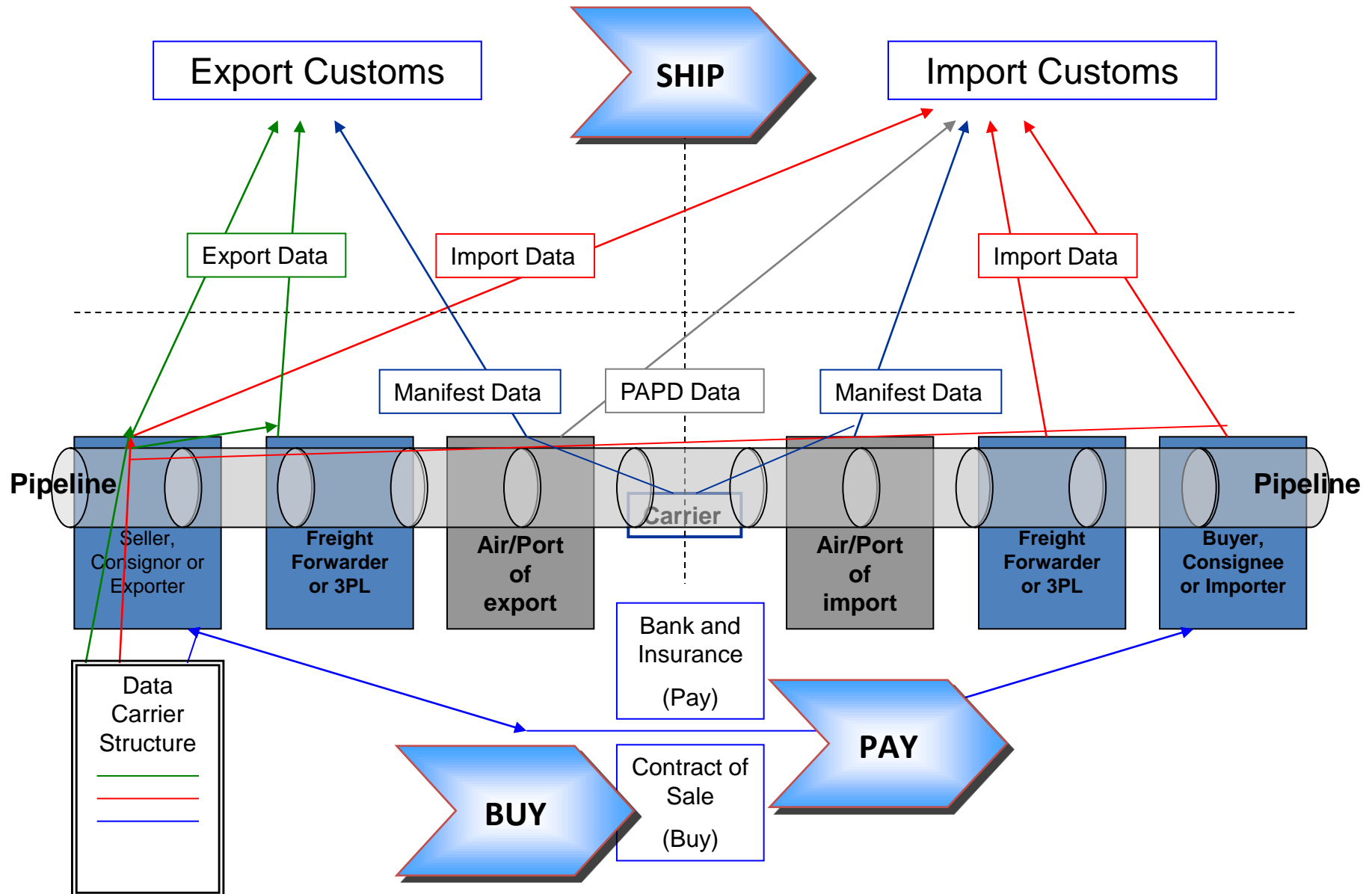


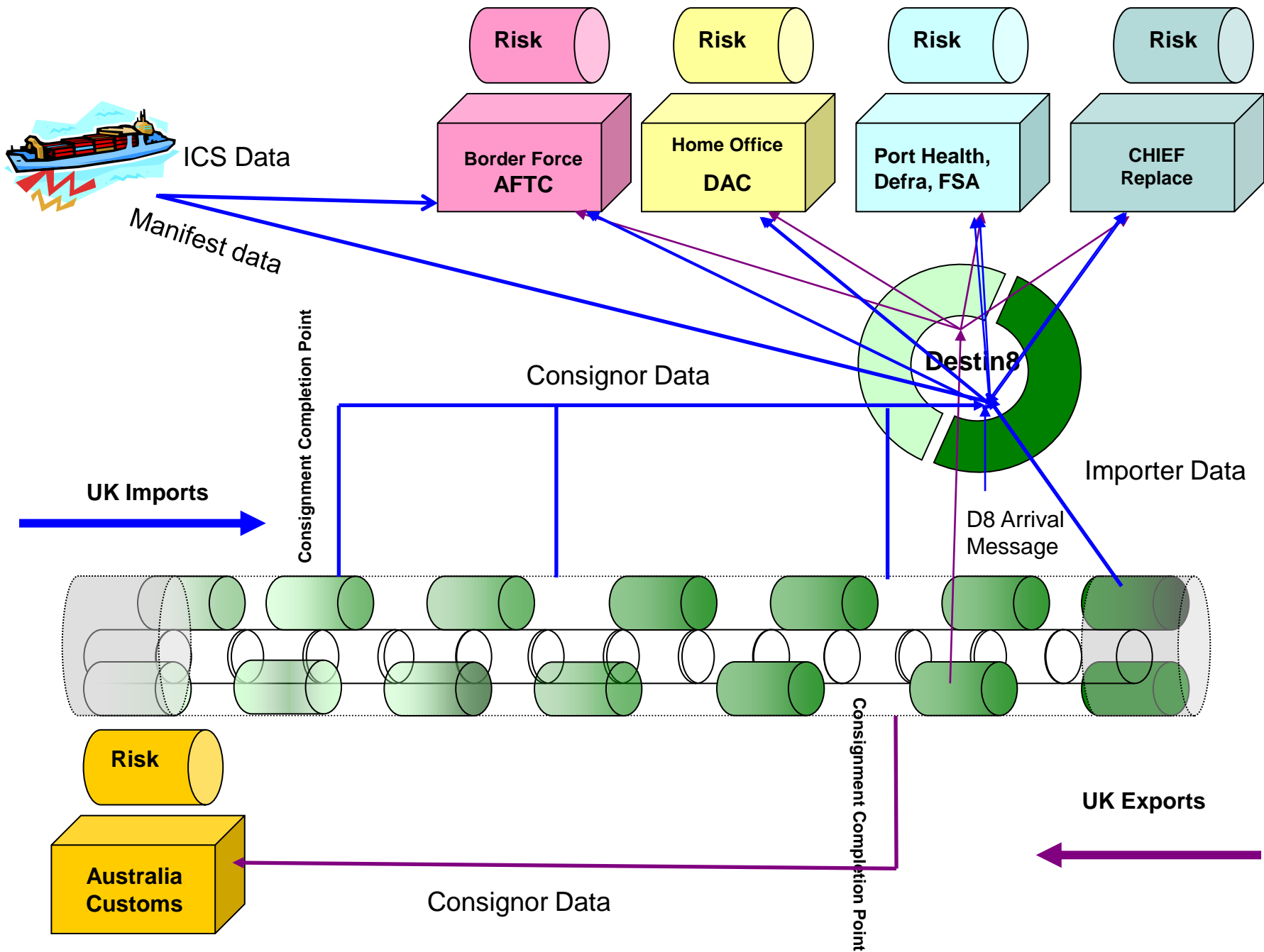
Total data items from Annex 37 and Annex 30A and Manifest = 87



- Capture purchase order and (compare with) consignment/packing list/container manifest at the consignment completion point – first suitable point – driven by buyer for assurance and compliance
- Seller/consignor and pipeline data provides assurance to buyer/consignee that their order has been met and is in transit
- Capture Annex 30A and Annex 37 data – 87 pieces of data
- UN/CEFACT Core Components, Business Requirements and BSP – 110 pieces of data (new UN international standard)
- Apply data model to pipelines and capture data in new standard format – add to export dec, PAPD, arrival message and import dec (for now)
- Four data sending points – consignment completion, 2 days after sailing, 1 day before arrival (with transit ports), unstuffing
- Send to Destin8 then on to BF, HO, Port Health and possibly CRP

Data pipeline fit with WCO and UN/CEFACT Buy-Ship- Pay





CORE WP10 Next Steps: February to April 2015

- CORE Pipeline **XML message** based on the UN/CEFACT Core-Component Library, WCO Data Model and UCC Data Model;
- **Message Implementation Guide:** Data element name, Semantic definition, Data element format (/representation), GOVCBR Mapping ID (which will be the link to the WCO Data Model), Waypoint references;
- **Mapping** of internal pipelines against the XML/UML;
- Maritime Cargo Processing will check if the XML provided can be received and ensure **Customs, Port Health and Border Force can receive and use data.**
- Warrant group will create an **on-line website** where information can be shared and discussions can be generated;
- 23 Pilot **XML Data Files sent from data pipelines to Port Community System** – waiting to send to Customs and Border Force.



In progress



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