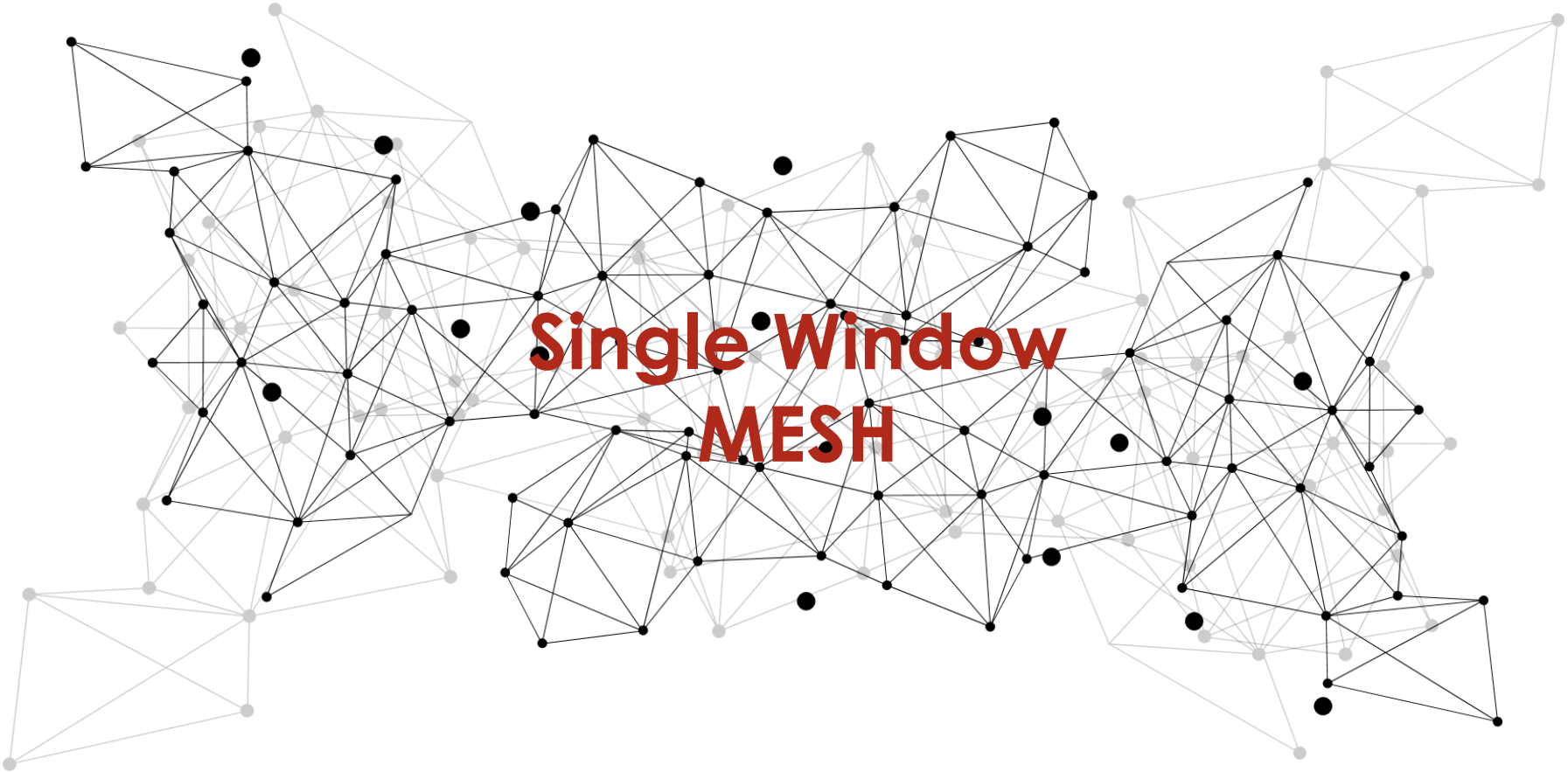
CrimsonLogic

Single Window Mesh



Single Window Models – A Recap

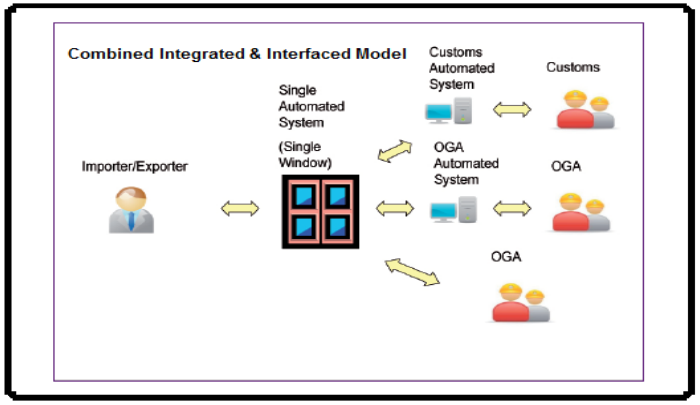
*"A Single Window is a **facility** that allows parties involved in trade and transport to **lodge standardized information and documents with a single entry point** **to** **fulfill all import, export, and transit-related regulatory requirements**.*

If information is electronic, then individual data elements should only be submitted once".

UNECE Recommendation 33

***"A network of cooperating facilities** bound by **agreed collaboration mechanisms** in which government and trade have **seamless access** to **services and information** to fulfil their legitimate roles."*

WCO



Source: Adaptation from UNECE Publication

Evolution of Single Windows

Step 1
The Isolated Organisation

Objective:
Automate internal processes

Technology:
Internal LAN

Step 2
The Connected Organisation

Objective:
Connect with port agents for critical business processes
- Many to one connectivity
- To exchange messages

Technologies:
- Ethernet Connection
- WAN

Step 3
The Community System

Objective:
Linking all trading parties within the community to exchange messages/data electronically through a single connectivity
- Regulatory declarations
- Manifests

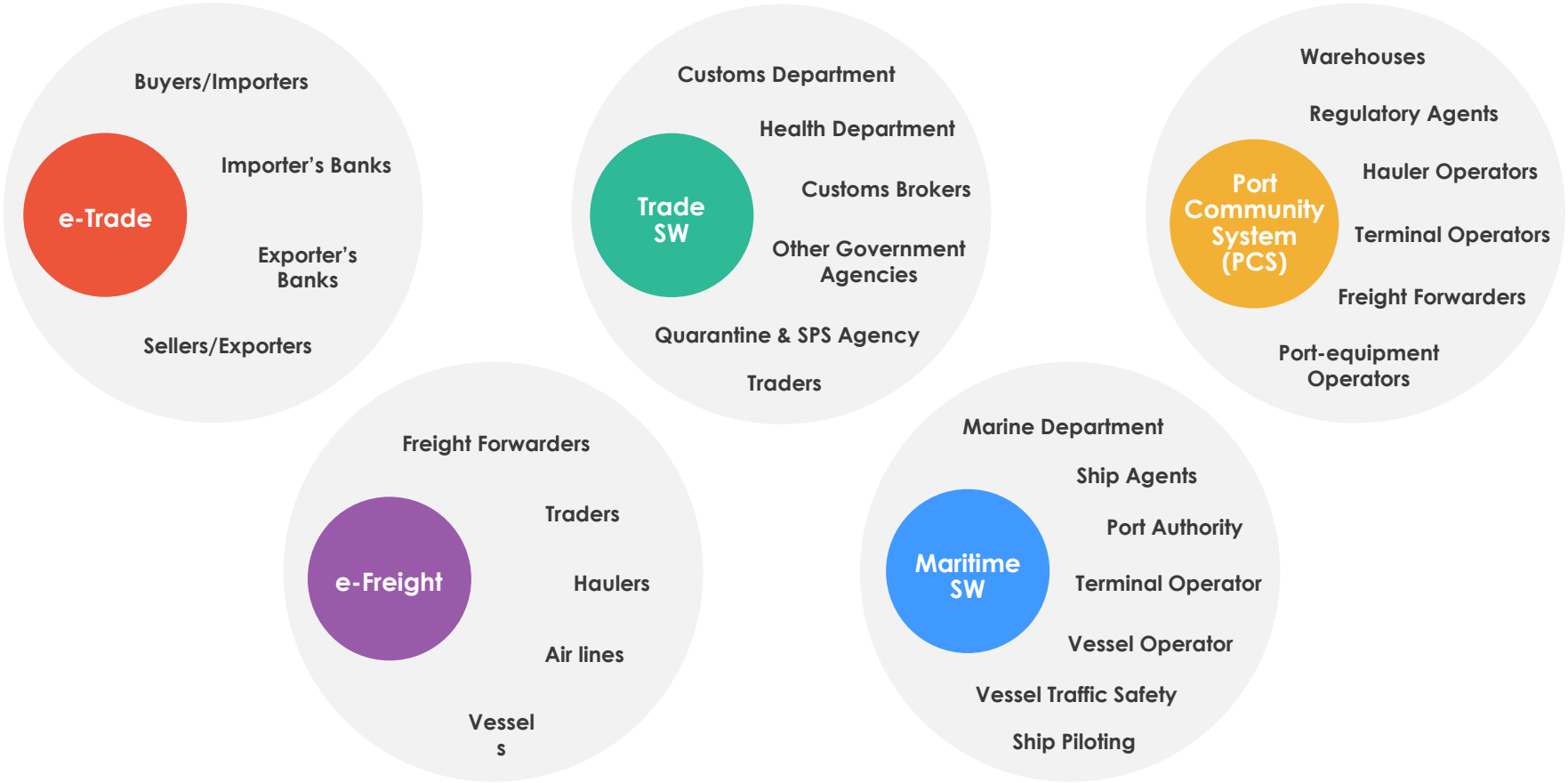
Technologies:
- Community Portal
- Integration with web technology
- use of message standards

Step 4
National Single Window

Objective :
Increase efficiency in the trade facilitation value chain by exchanging messages/data electronically through a single connectivity and promoting the reusability of data; a paperless and error-free process environment
- Increased connectivity and integration with all trading parties
- Foster integration by connecting sea port land operations
- Improving cooperation between port community stakeholders

Technologies:
- Webservices
- Use of message standards

Emergence of Multiple Single Windows



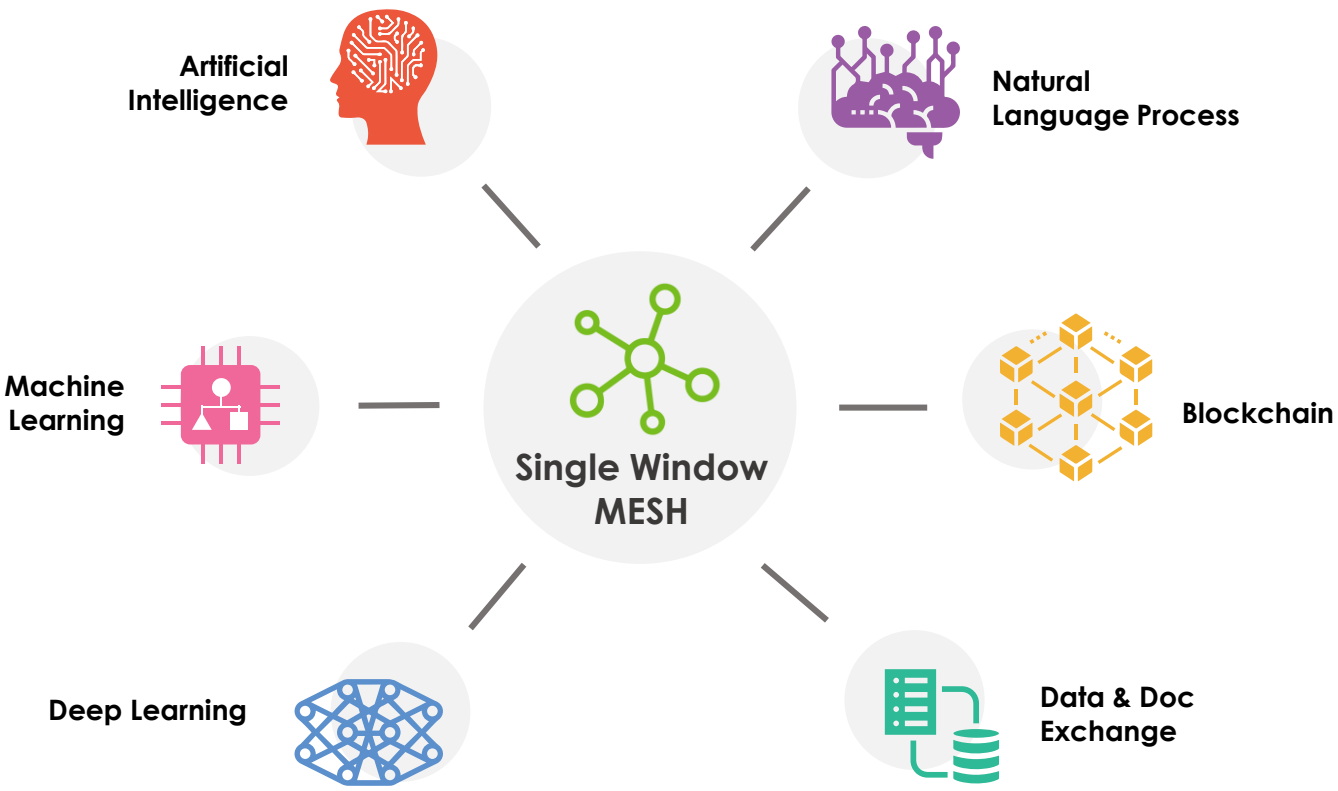
Source: Adaptation from UNECE Publication

Challenges

- Traders are forced to submit data across ***multiple*** systems (Regulatory Transport Related SW, Port-related SW or B2B transport/Logistics SW systems or EXIM's ERPs, etc.).
- Traders spend significant time in ***collating*** *data* to fill regulatory forms.
- Human ***errors*** in filing forms.
- ***Standardizing*** and ***complying*** to integrate with other systems is often challenging and time-consuming.
- Users are ***overloaded*** with information on the supply chain and Trade compliance requirements and procedures or there is no clear authoritative source of information.

Single Window MESH

"Powered by AI, RPA and deep learning algorithm to dynamically aggregate and co-relate data collected from structured and unstructured sources across the entire trade eco-system"



Single Window MESH - Key components

1

Automation & Data-driven Decision-making

2

Interoperability

3

360 Degrees Risk Management

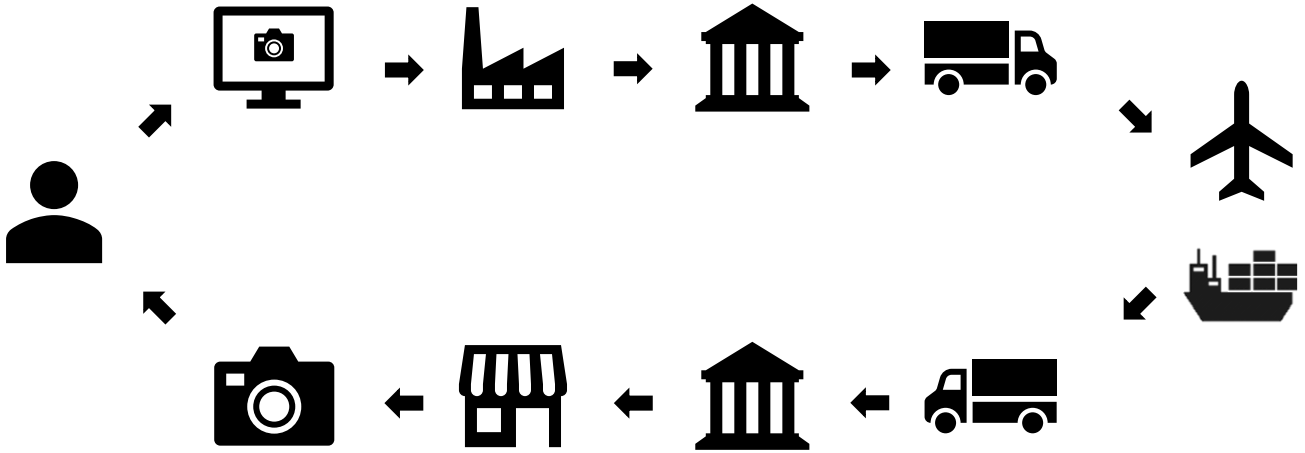
4

Real-time Customer Engagements

SMART SUPPLY CHAIN

Single Window MESH - APPLIED

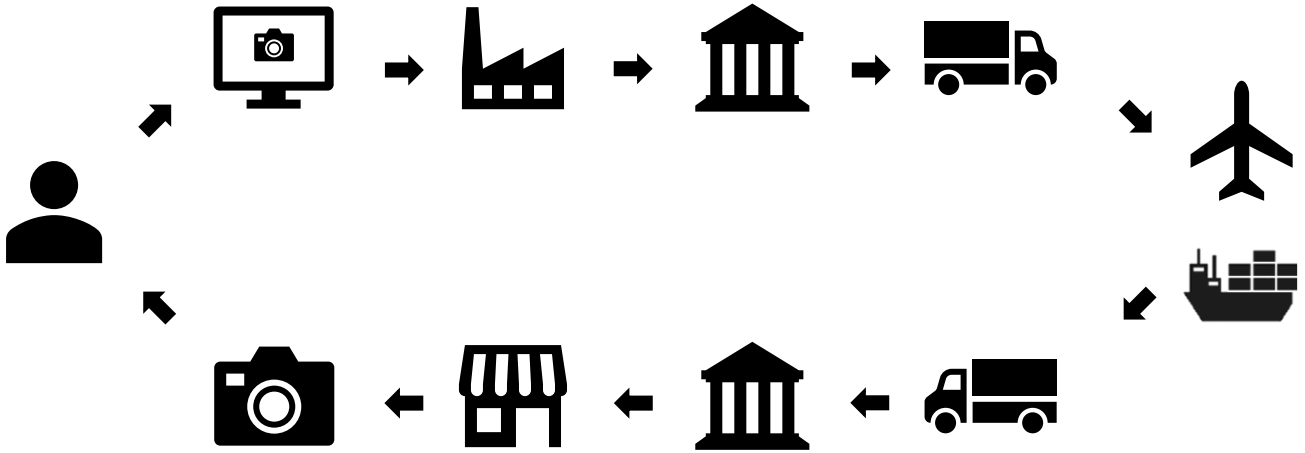
TRADITIONAL END-TO-END INFORMATION FLOW



FACTS:

Several Parties Involved

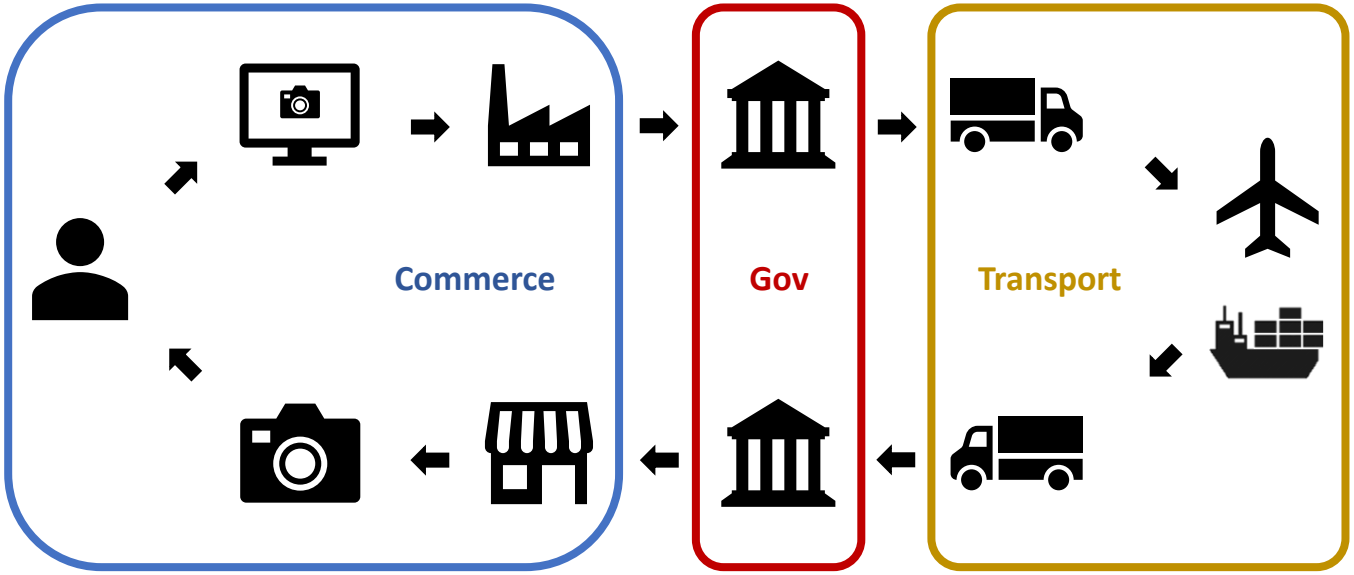
TRADITIONAL END-TO-END INFORMATION FLOW



FACTS:

- Several Parties Involved
- Multiple Points of Info transmission

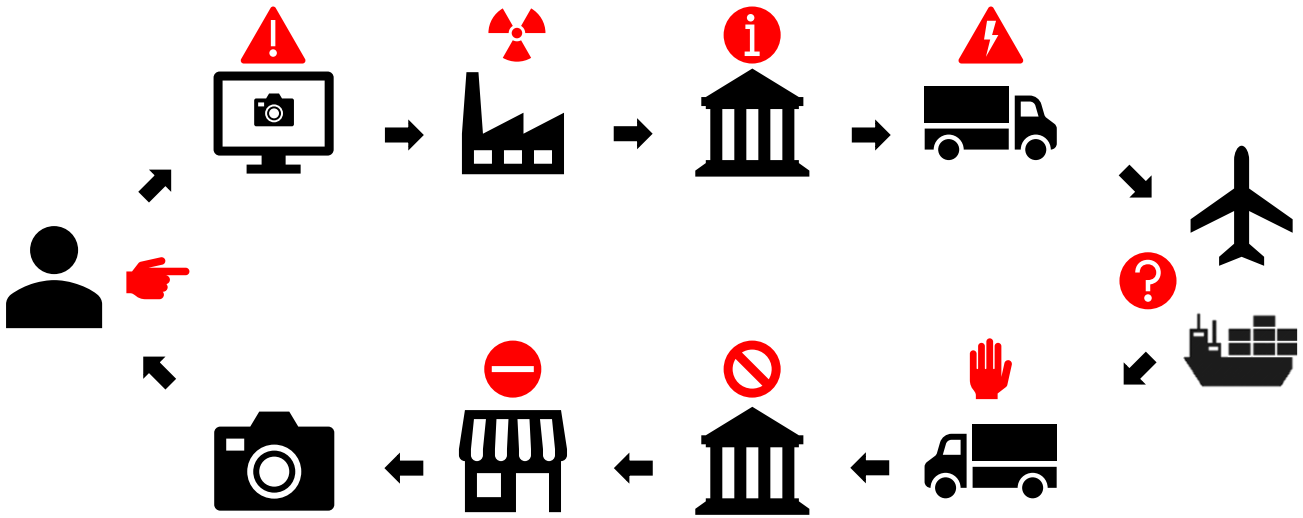
TRADITIONAL END-TO-END INFORMATION FLOW



FACTS:

- Several Parties Involved
- Multiple Points of Info transmission
- Different types of roles and responsibilities

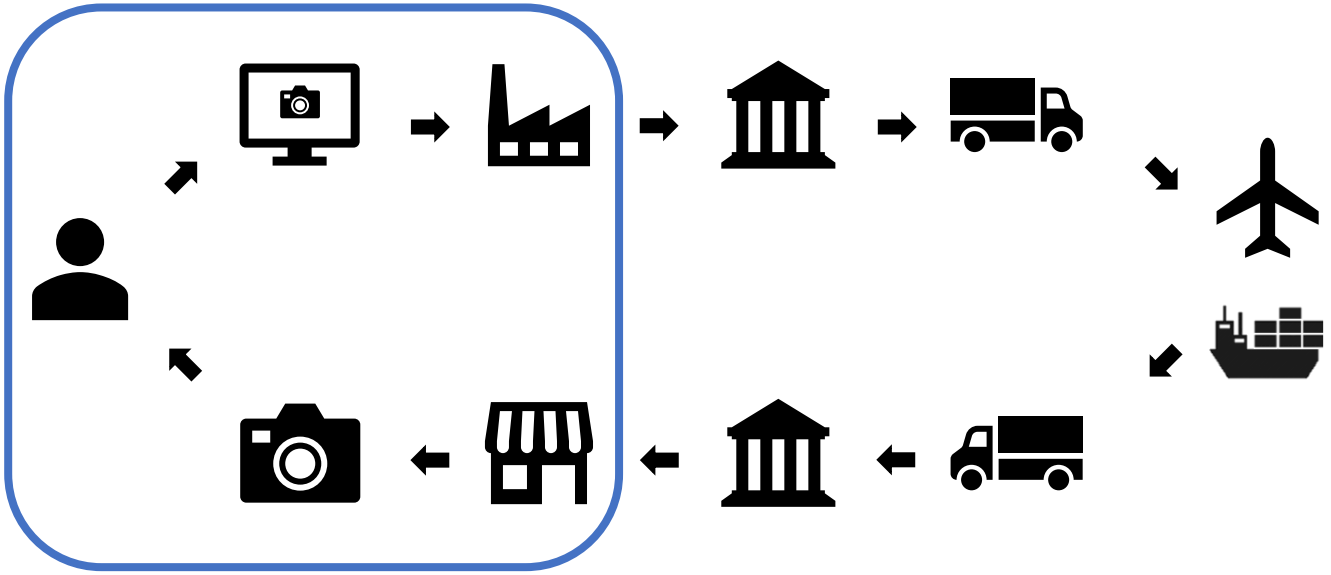
TRADITIONAL END-TO-END INFORMATION FLOW



FACTS:

- Several Parties Involved
- Multiple Points of Info transmission
- Different types of roles and responsibilities
- Lack of trust among the parties, thus requiring original docs

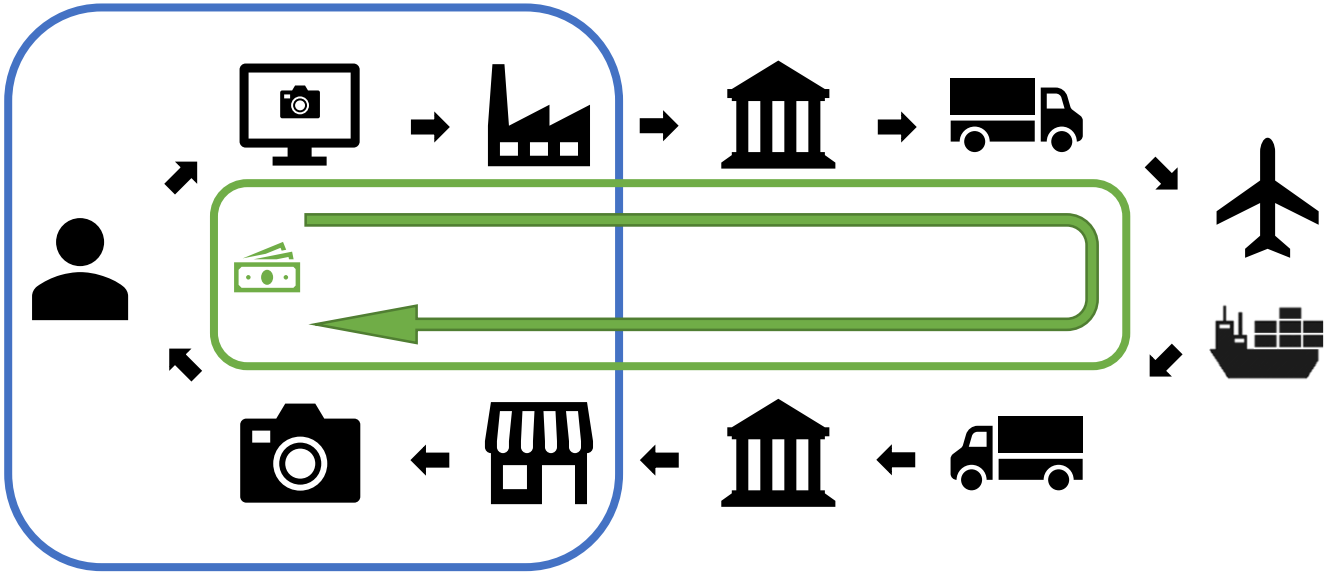
TRADITIONAL END-TO-END INFORMATION FLOW



NODES:

eCommerce Node – **C2C**

TRADITIONAL END-TO-END INFORMATION FLOW

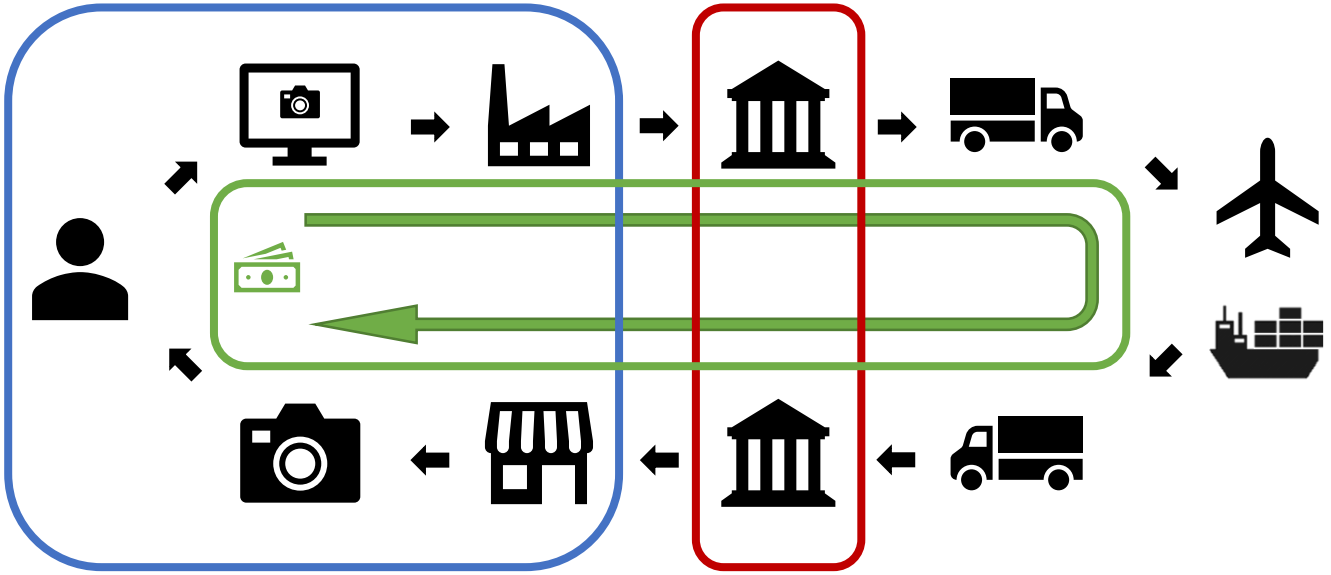


NODES:

eCommerce Node – **C2C**

Financial Node – **C2B2G**

TRADITIONAL END-TO-END INFORMATION FLOW



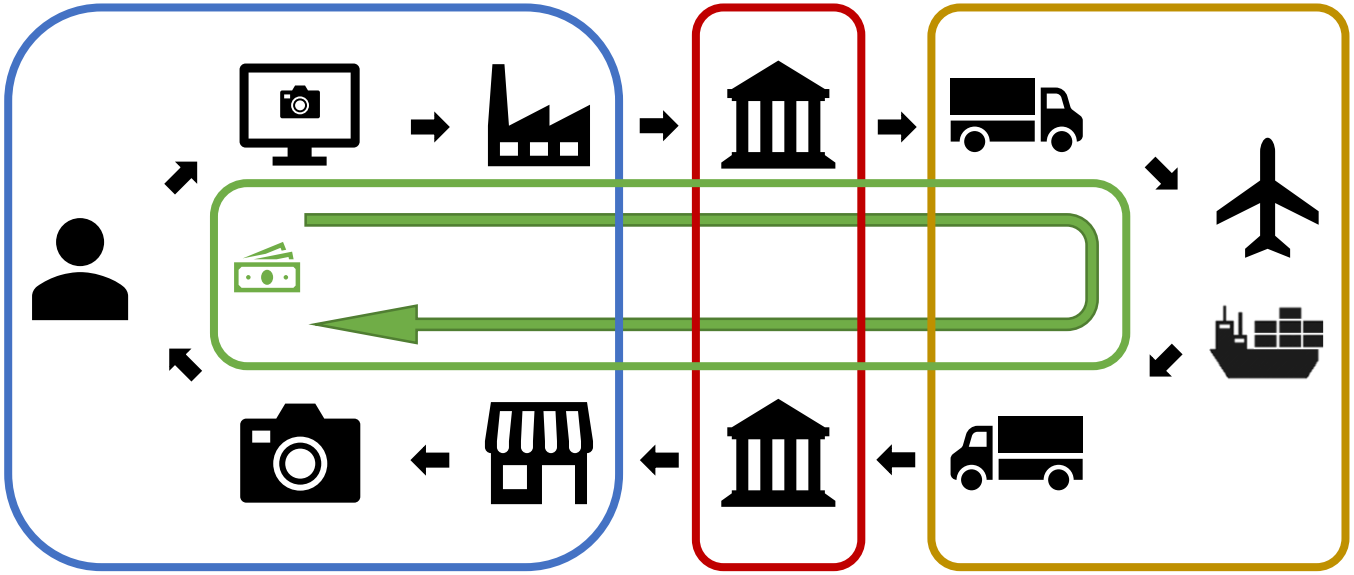
NODES:

eCommerce Node – **C2C**

Financial Node – **C2B2G**

Electronic Single Windows Node – **G2G**

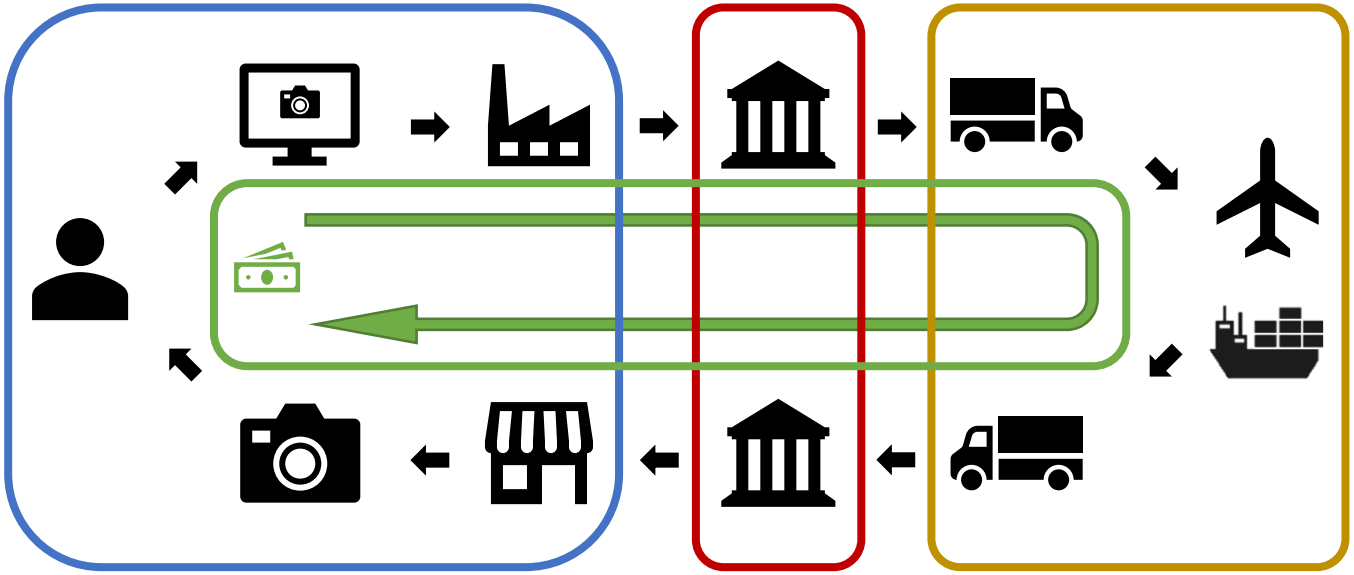
TRADITIONAL END-TO-END INFORMATION FLOW



NODES:

- eCommerce Node – **C2C**
- Financial Node – **C2B2G**
- Electronic Single Windows Node – **G2G**
- Cargo, Value Added and Transportation Node – **B2G**

TRADITIONAL END-TO-END INFORMATION FLOW



NEEDED:

eCommerce Node – **C2C** **Invoice**

Financial Node – **C2B2G** **Payment**

Electronic Single Windows Node – **G2G** **Customs Declaration**

Cargo, Value Added and Transportation Node – **B2G** **Cargo Manifest**

INNOVATIVE END-TO-END INFORMATION FLOW

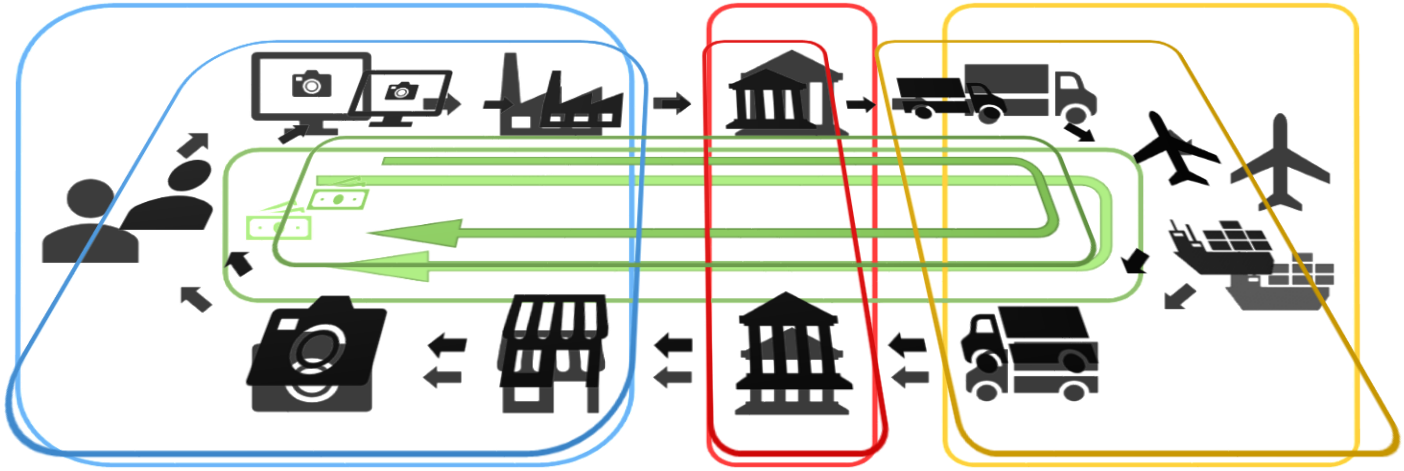
THE NODES

eCom
Invoice

Gateway
Payment

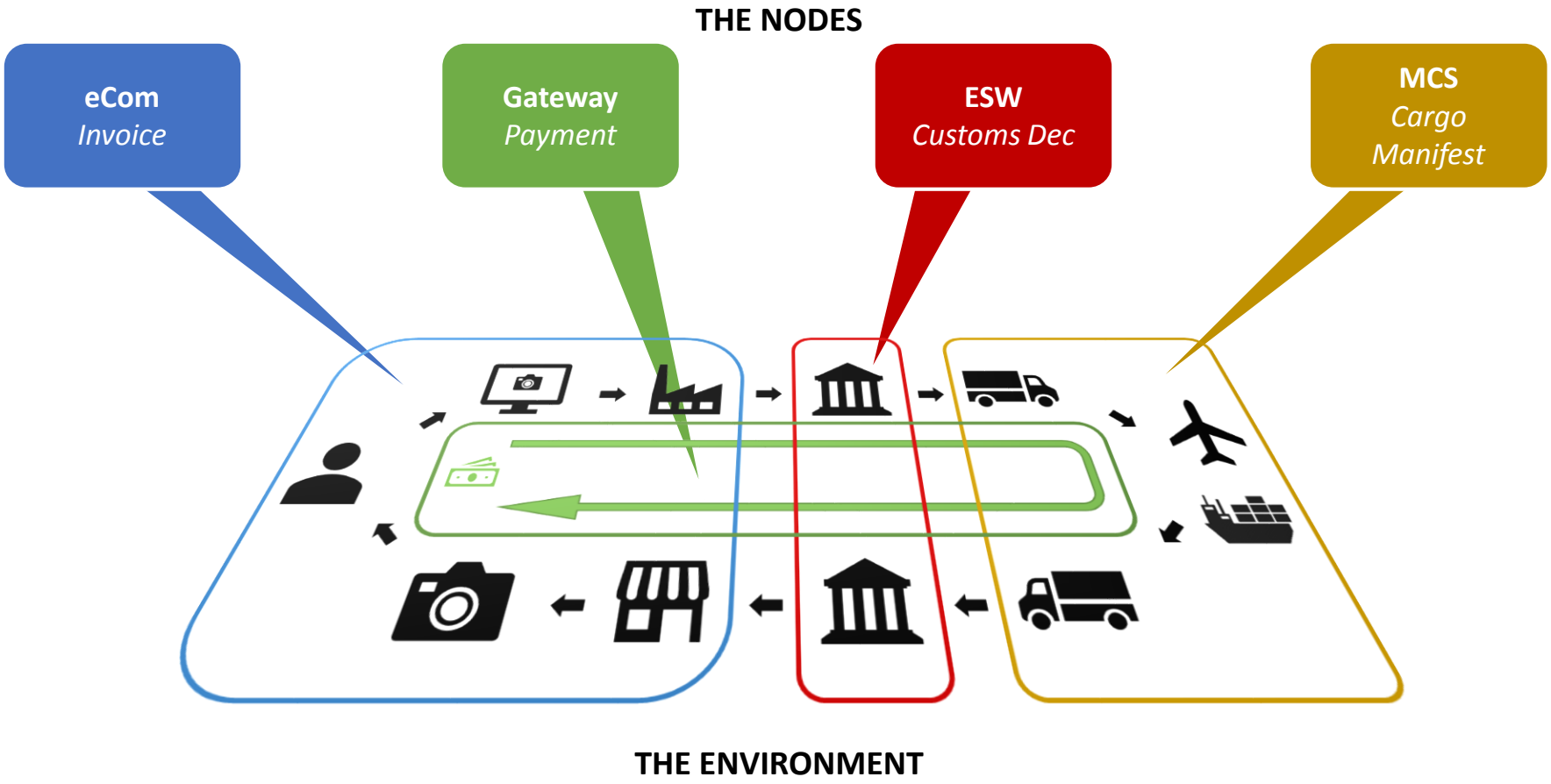
ESW
Customs Dec

MCS
Cargo Manifest



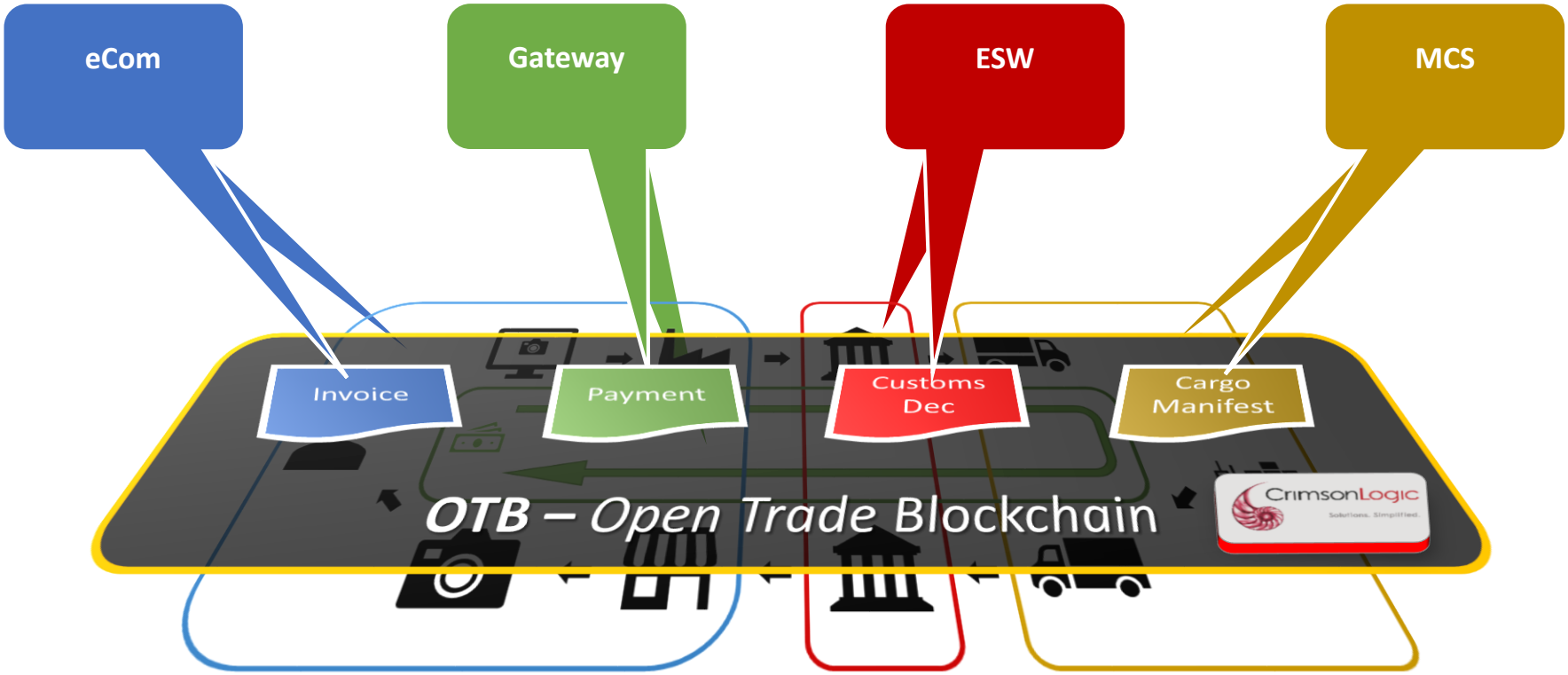
THE ENVIRONMENT

INNOVATIVE END-TO-END INFORMATION FLOW



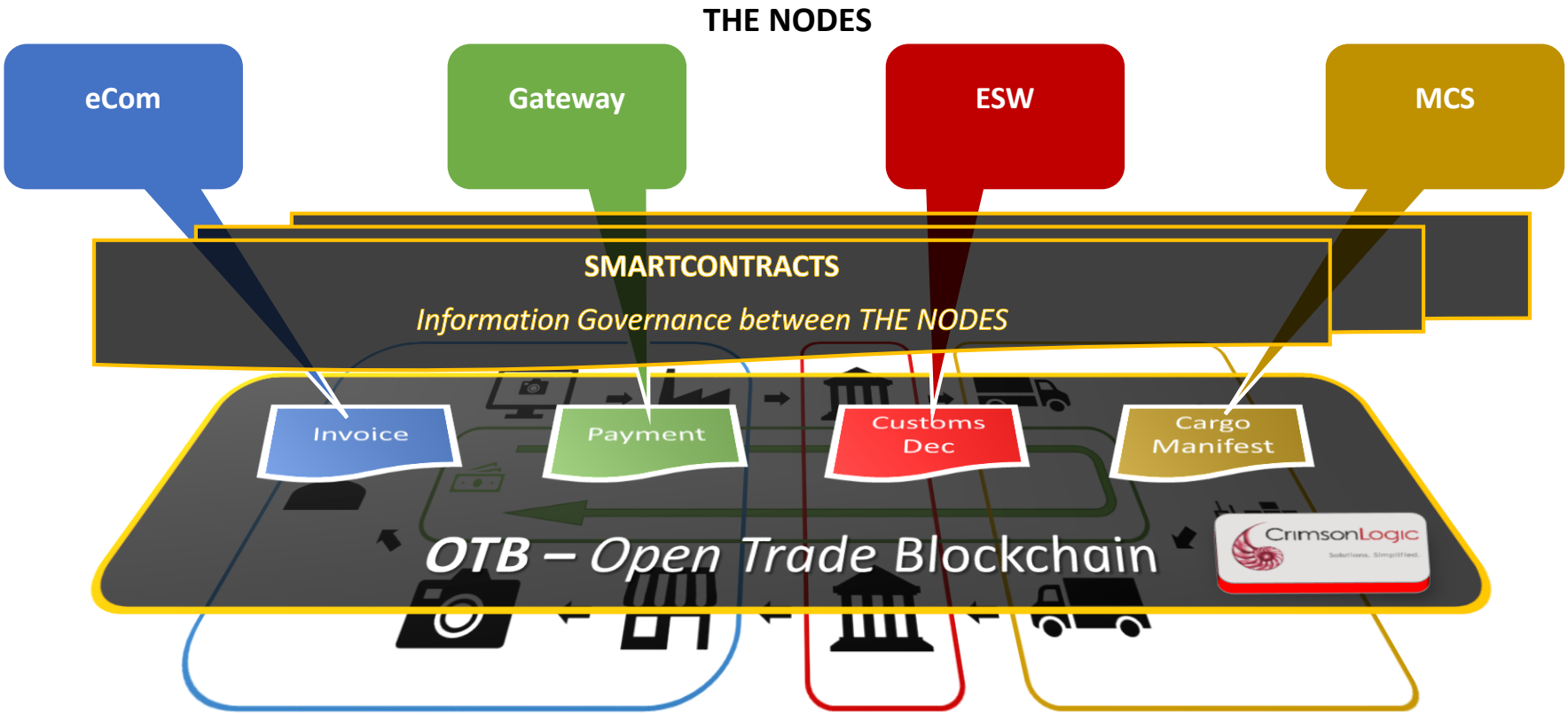
INNOVATIVE END-TO-END INFORMATION FLOW

THE NODES



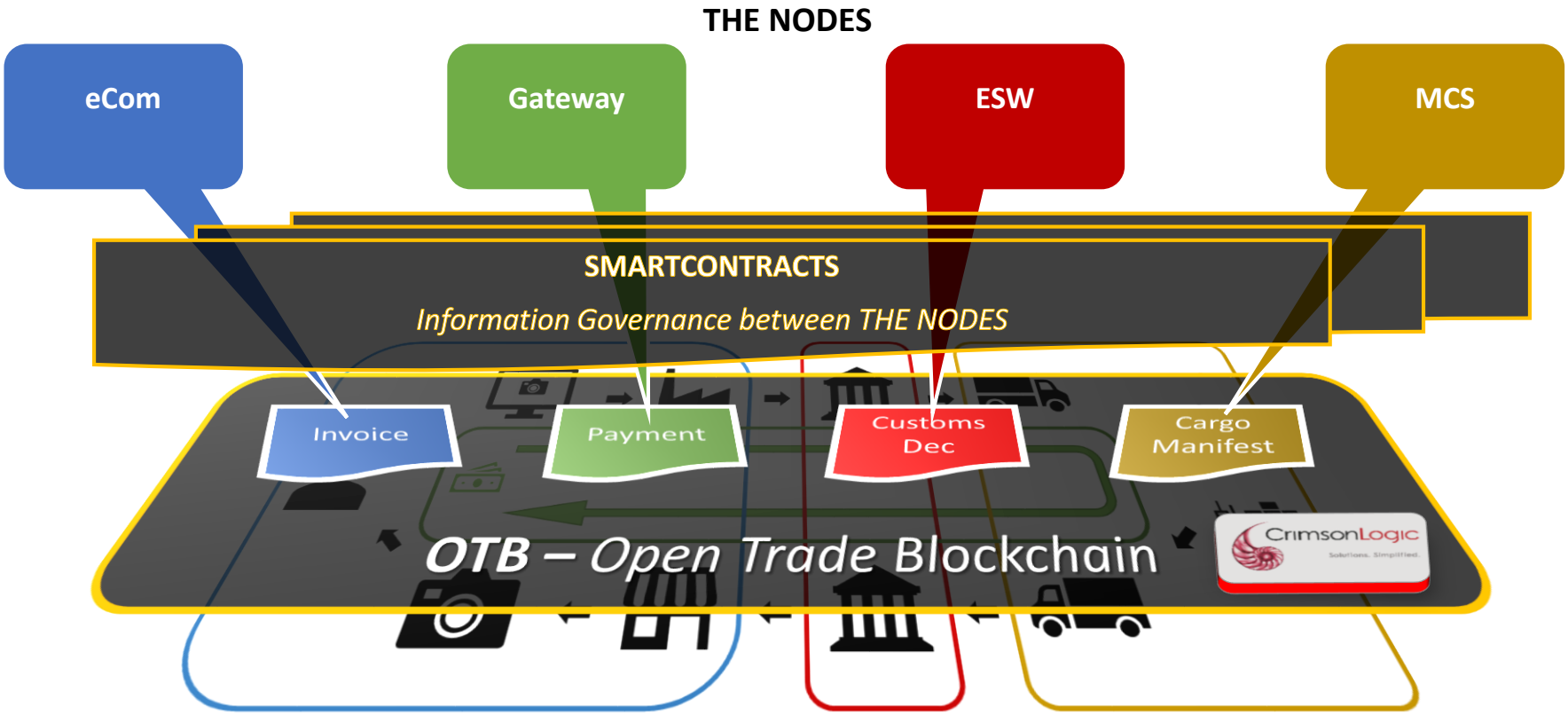
Key Docs Uploaded to OTB

INNOVATIVE END-TO-END INFORMATION FLOW



Smart Contracts (Governance of Information)

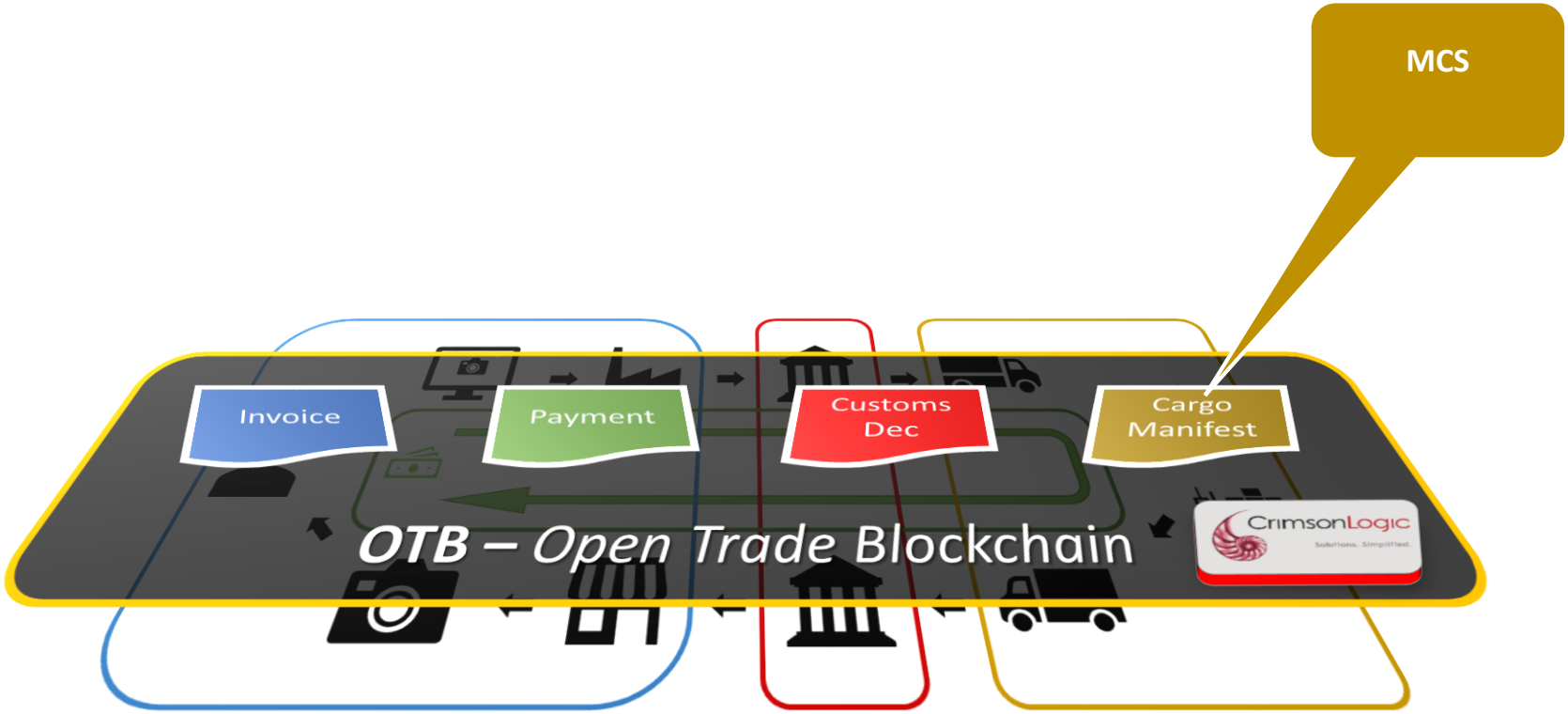
INNOVATIVE END-TO-END INFORMATION FLOW



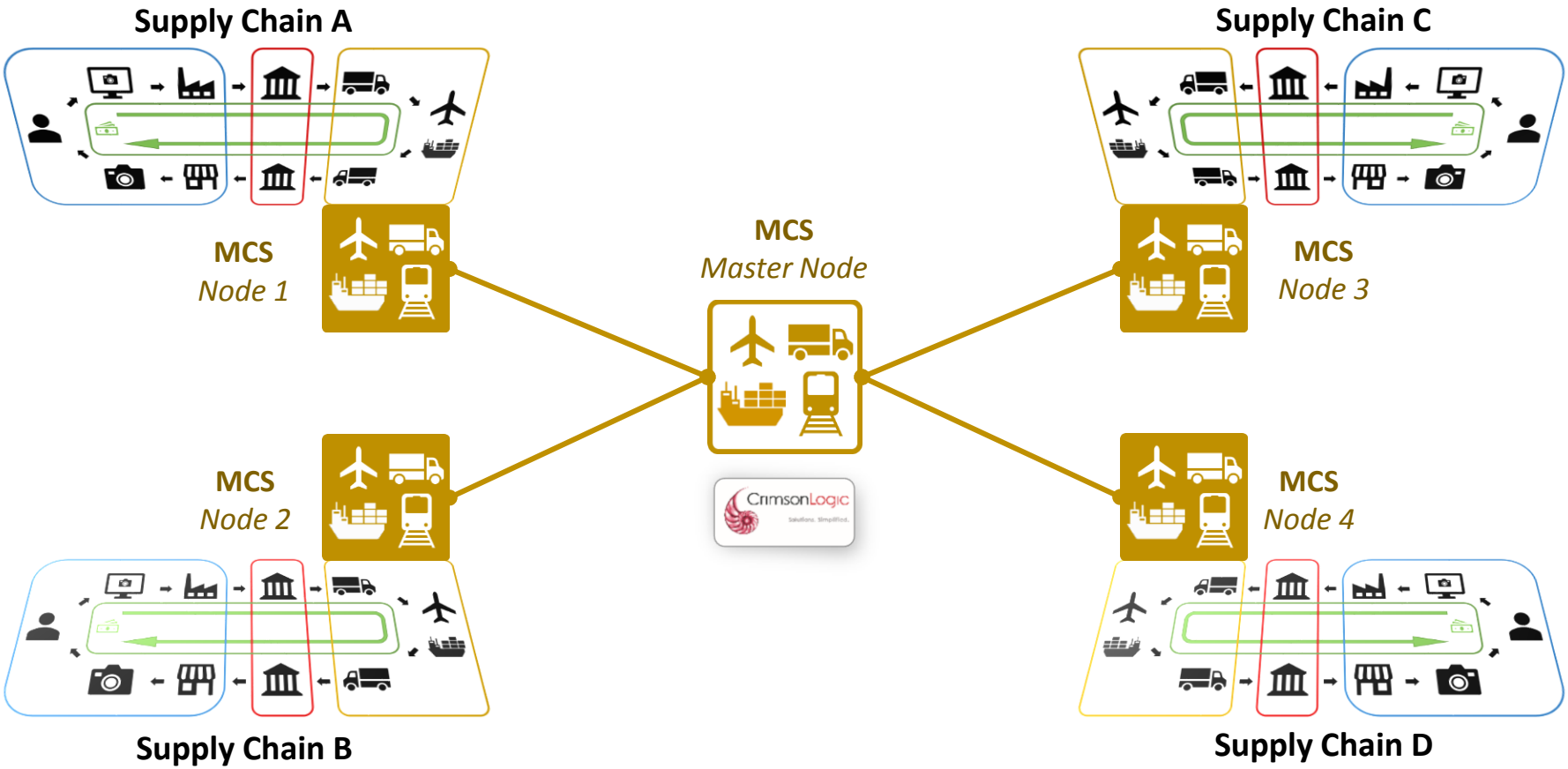
Smart Contracts (Governance of Information)

MULTIMODAL COMMUNITY SYSTEMS

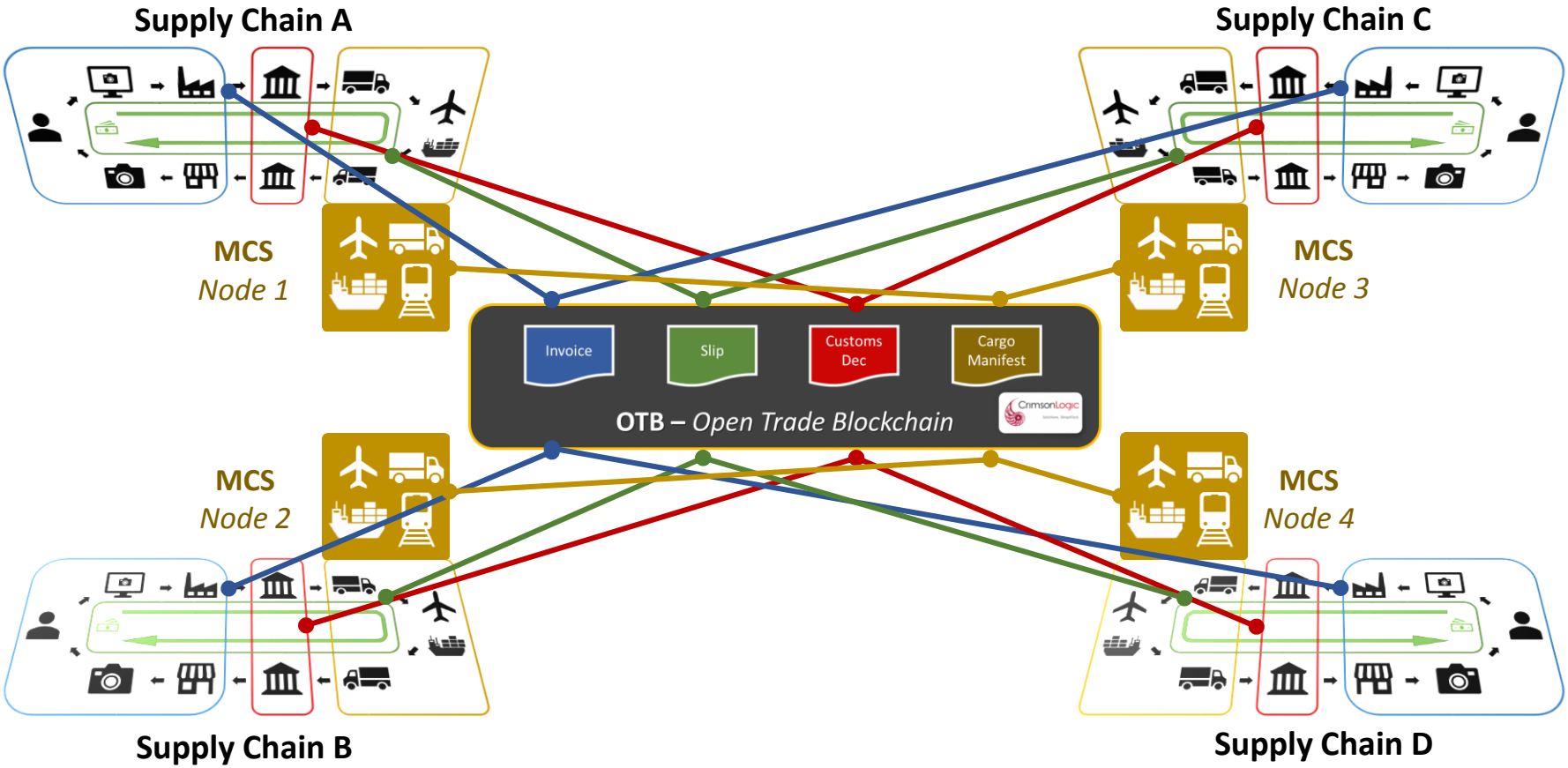
How it Works…



MULTIMODAL COMMUNITY SYSTEMS – *PCS* ***RELOADED***



MCS + OTB = *Smart Supply Chain* ***RELOADED***



Single Window MESH

To be Continue…