



*Global Supply Chain Visibility
for Manufacturing &
Distribution*

2022

- Introduction
- Tracking & Booking Federative Services
- Innovative, Federative & Customs Services
- References
- Ongoing developments

Lack of dialogue

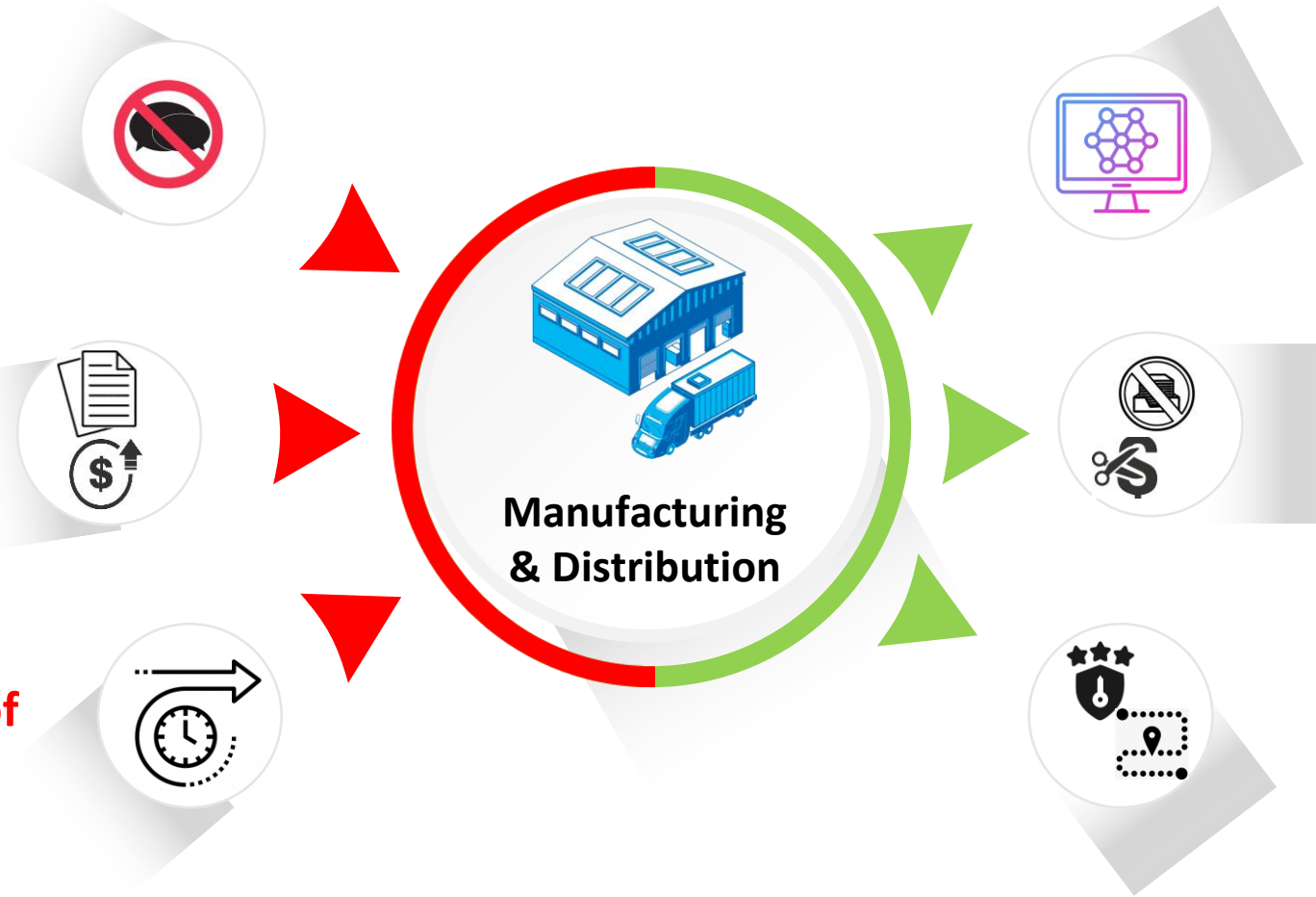
between the actors
involved into the process

High cost & paper document

related to the
operative and customs
activities

Efficiency reduction of the logistic process

in terms of activities
performance and long waiting
times



Complete visibility & control of supply chain

thanks to the
implementation of a Digital
Platform and IoT devices
integration

Operative, customs costs reduction & paperless

thanks to the digitalisation of
documental flows and the
improvement of the logistic process
in terms of service quality and
security level

Increase of efficiency through a complete cargo and e-document T&T

and improvement of service quality
and security level

*Circle Group's products and software solutions are compliant with the requirements of the European GDPR.



Global Supply Chain Visibility Suite Components

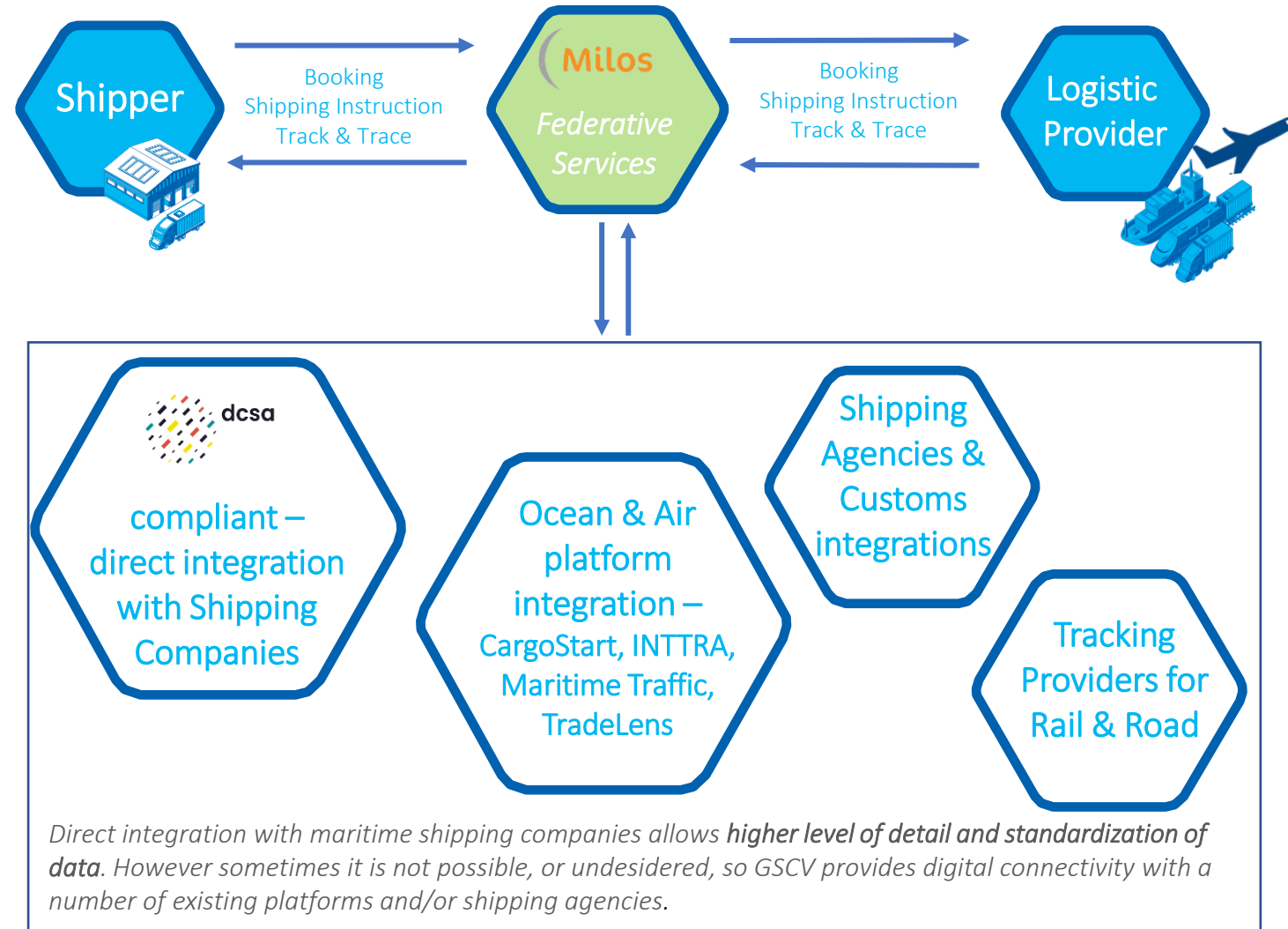
Booking Info & Data	Track & Trace Platforms (i.e. TFP – TAP)	ERP Connector & KPI Dashboard	IoT devices & Blockchain	International Fast & Secure Trade Lane	Customs Innovative Procedures
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KEY	SUCCESS	METRIC
100%	- 60% / 90%	- 20% / 30%
Paper reduction	Dwell time reduction	Direct cost reduction / TEU

Tracking, Booking Info & Data Services

Benefits:

- ✓ **INTEGRATION:** immediate and simplified access to services offered by different carriers / shipping companies such as fully digital Track & Trace of containers and/or booking
- ✓ **REDUCTION OF COST & COMPLEXITY:** less manual errors, fewer calls thanks to the digitalisation of the information flow
- ✓ **PROACTIVE APPROACH:** you can reduce unnecessary downtimes, demurrage costs and achieve better organization of your warehouse. Focus on exceptions and react fast
- ✓ **PROCESS AUTOMATION:** thanks to integration with shippers' ERP systems, it is possible to automate some business processes, like proof of delivery, invoicing, allocation of costs
- ✓ **KPI & ANALYTICS:** visibility can help to gain insights on aspects such as shipping costs, CO2 emissions, quality of service, carrier performances, carrier quality report, etc.



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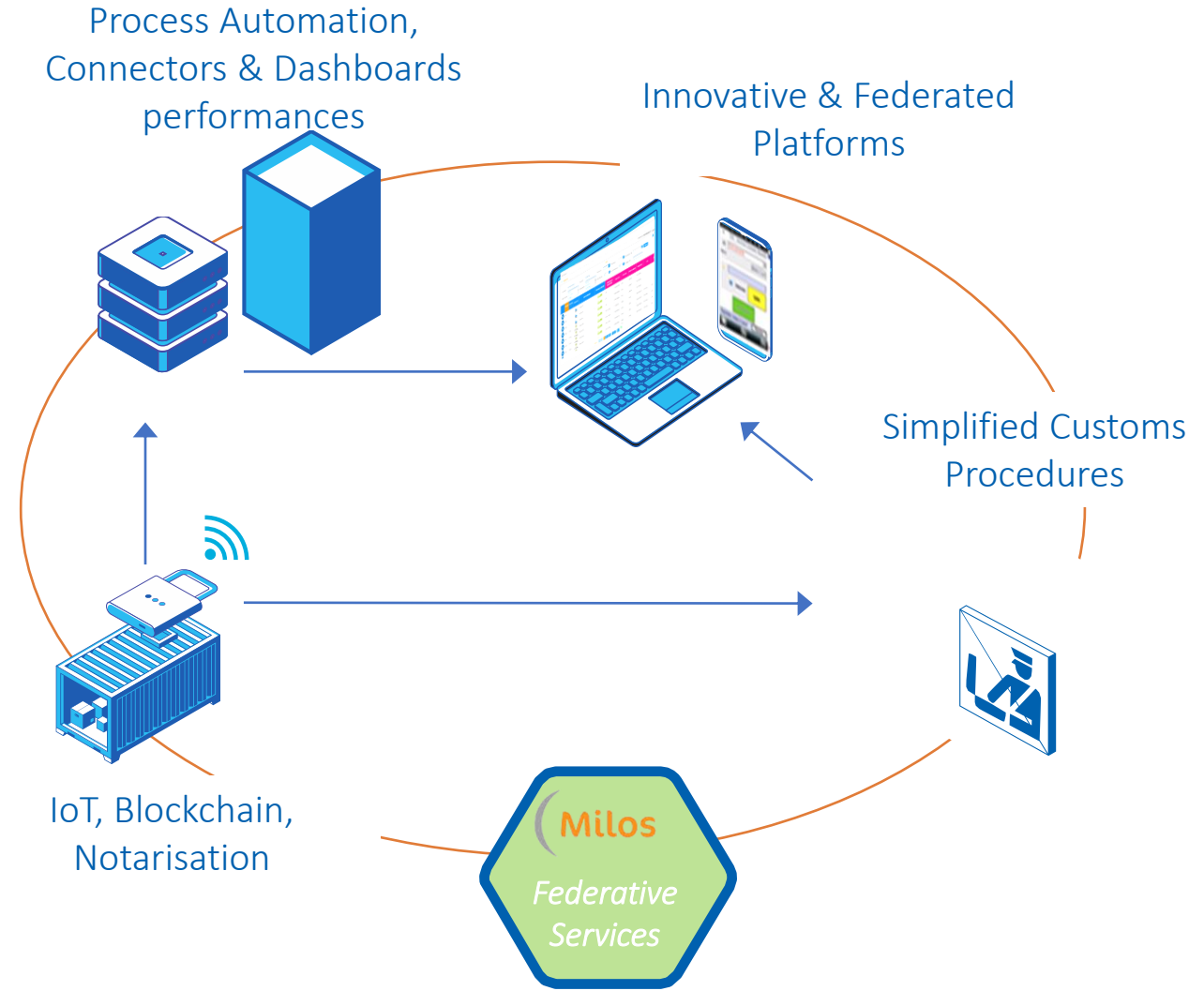
Milos® Federative & Customs Services (Customs Registers, e-Manifest etc.) is a **set of tools and services** enabling easy and up-to-date interoperability among different actors of the logistic chain and customs processes.

These services allow to share **customs information** between the parties involved in the import/export process, guaranteeing **data security** and **reliability**.

The integration with the latest services provided by national Customs (consistent with EU e-Customs 2025 Plan) makes the most advanced tools available to Shippers, Freight Forwarders, Carriers and MTOs.

Benefits:

- ✓ Overall **control of data** and information
- ✓ Improvement of **service quality and security level**
- ✓ **Security and operative costs reduction**
- ✓ **Transit and dwell time reduction**
- ✓ **Environmental positive impacts**



The Transport Federative Platform is a software-based equipped with a dashboard for the **active monitoring** of the units and **interoperable** with the operator's IT systems.

The solution includes the provision of a specific **Mobile APP**, provided to the operator and the drivers of the road transport company, which allows the operational management of the orders received and the sharing of related events (arrival, loading, unloading, delivery, ancillary operations, any accidents) as well as the uploading of documentary information or images.

The system created is characterized by **application to application interoperability** (thanks to specific ad-hoc connectors).

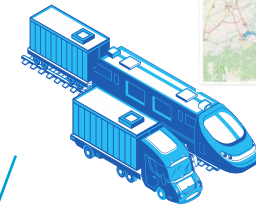
Furthermore, in the event that the Trucking Company does not equip itself with the **Mobile APP**, the software system is made interoperable with the Company's IT system, in order to allow the latter to transmit the events associated with the trip and the position of the UTI.

Interoperabilities of Transport Federative Platform

IOT MODULES & PLATFORMS

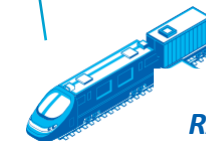
- *Passive tag/eSeals IoT*
- *Active tag/eSeals*
- *Zenatek IoT Tracking specialised hardware*

TRACK & TRACE PLATFORMS



CUSTOMS

- *Customs Corridors (i.e Italian Fast Corridor)*

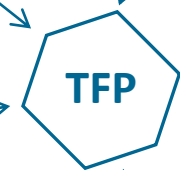
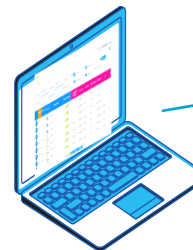


PIC INFRASTRUCTURE RAIL MANAGEMENT PLATFORM

- *Infrastructure Companies (i.e RFI – Italy)*

CORRIDOR MANAGEMENT PLATFORM

- *Rail*
- *Intermodal*
- *International*

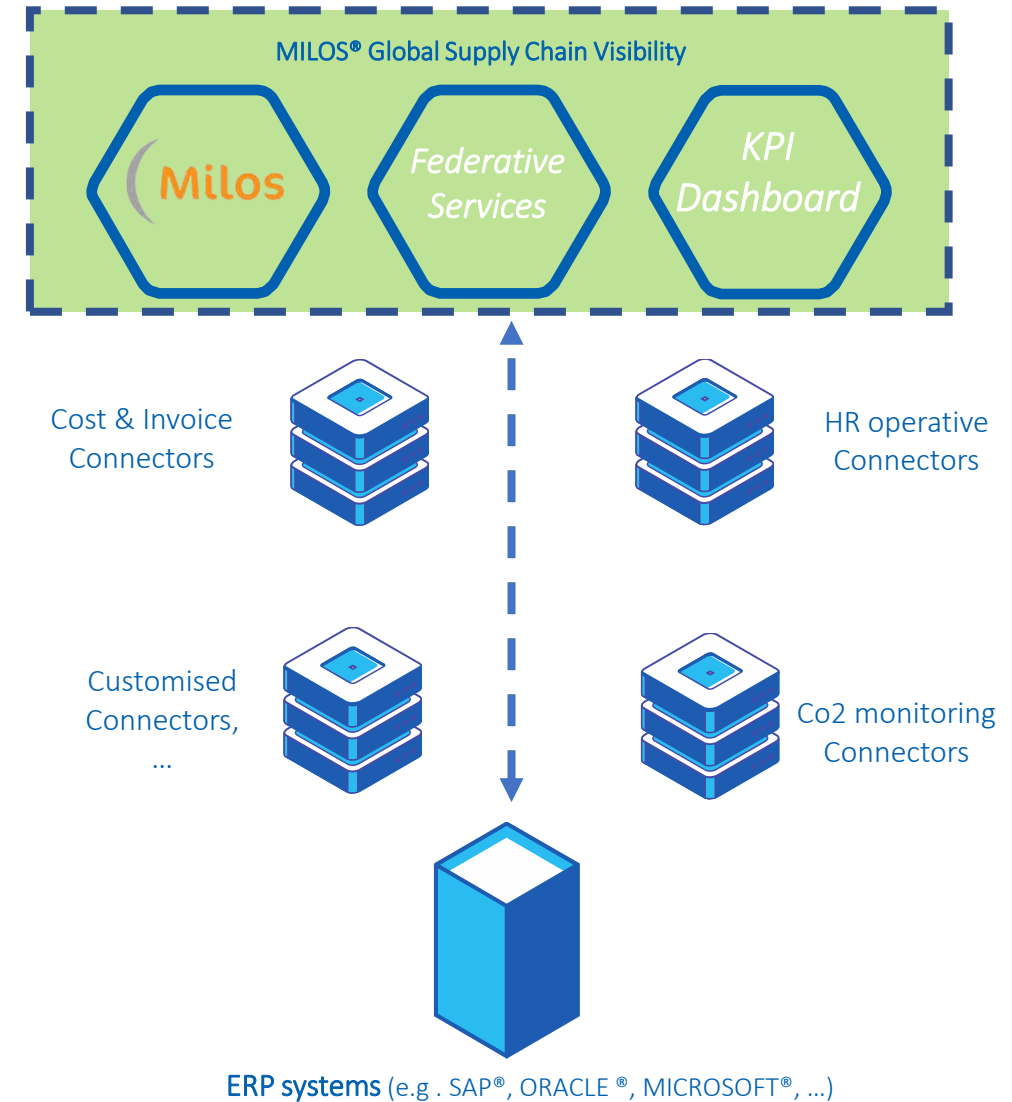


Thanks to integration with shippers' ERP systems, Milos® Global Supply Chain Visibility allows the development of **specific dashboards for analytics & reporting** and ensures **process automation**.

Benefits:

- ✓ Cost savings
- ✓ Workflow visibility
- ✓ Reporting/analytics/comparisons
- ✓ Regulatory compliance & data security
- ✓ Risk management
- ✓ Scalability
- ✓ Flexibility
- ✓ Customisation

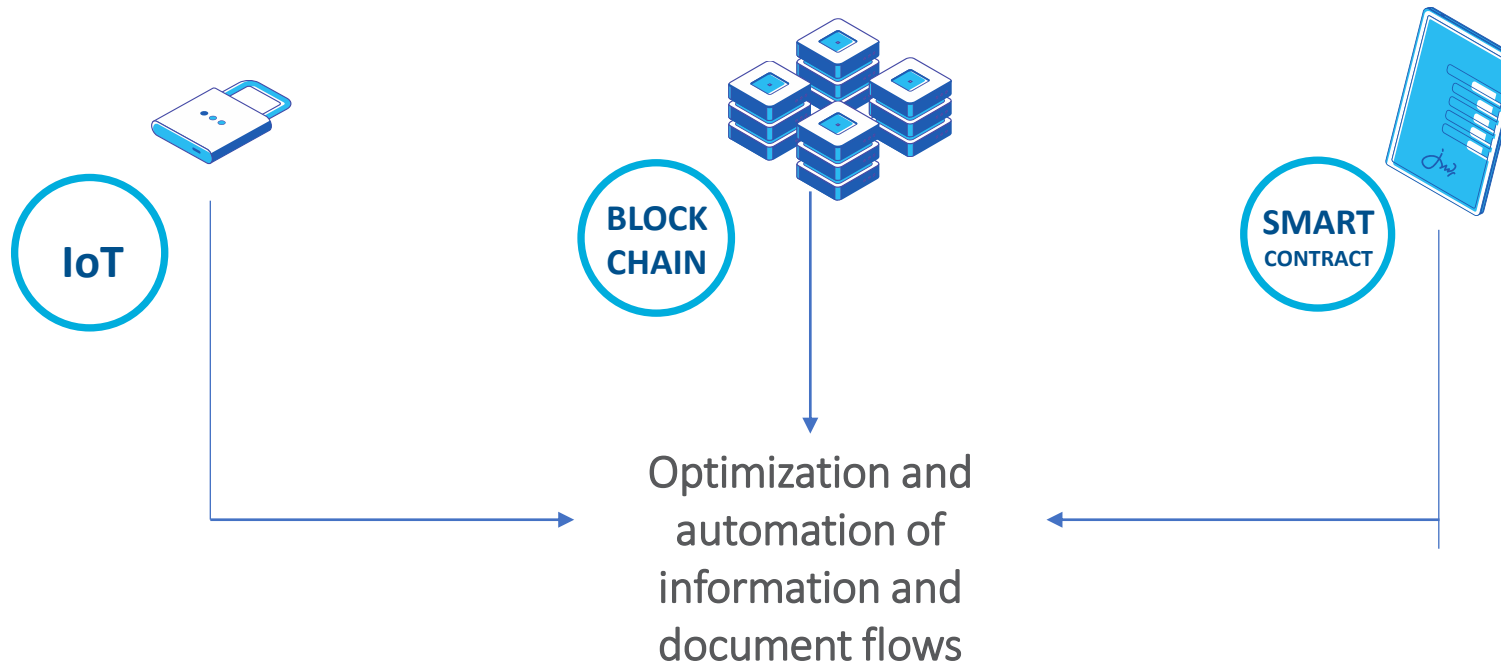
Process Automation & KPI Analytics



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Innovative technologies for integrated & connected logistics

The **Internet of things (IoT)** is the network of physical devices, vehicles, home appliances, and other items embedded with electronics, software, sensors, actuators, and network connectivity which enable these objects to connect and exchange data. The combined use of smart devices, **IoT** and digital tools such as **Blockchain Platforms** and **Smart Contracts** has the purpose of dematerialize the transport procedures and relative contracts leaving traces of all operations and events occurring within the Logistics Chain.



MILOS IOT & Blockchain is a solution designed to integrate these innovative solutions

The Challenge

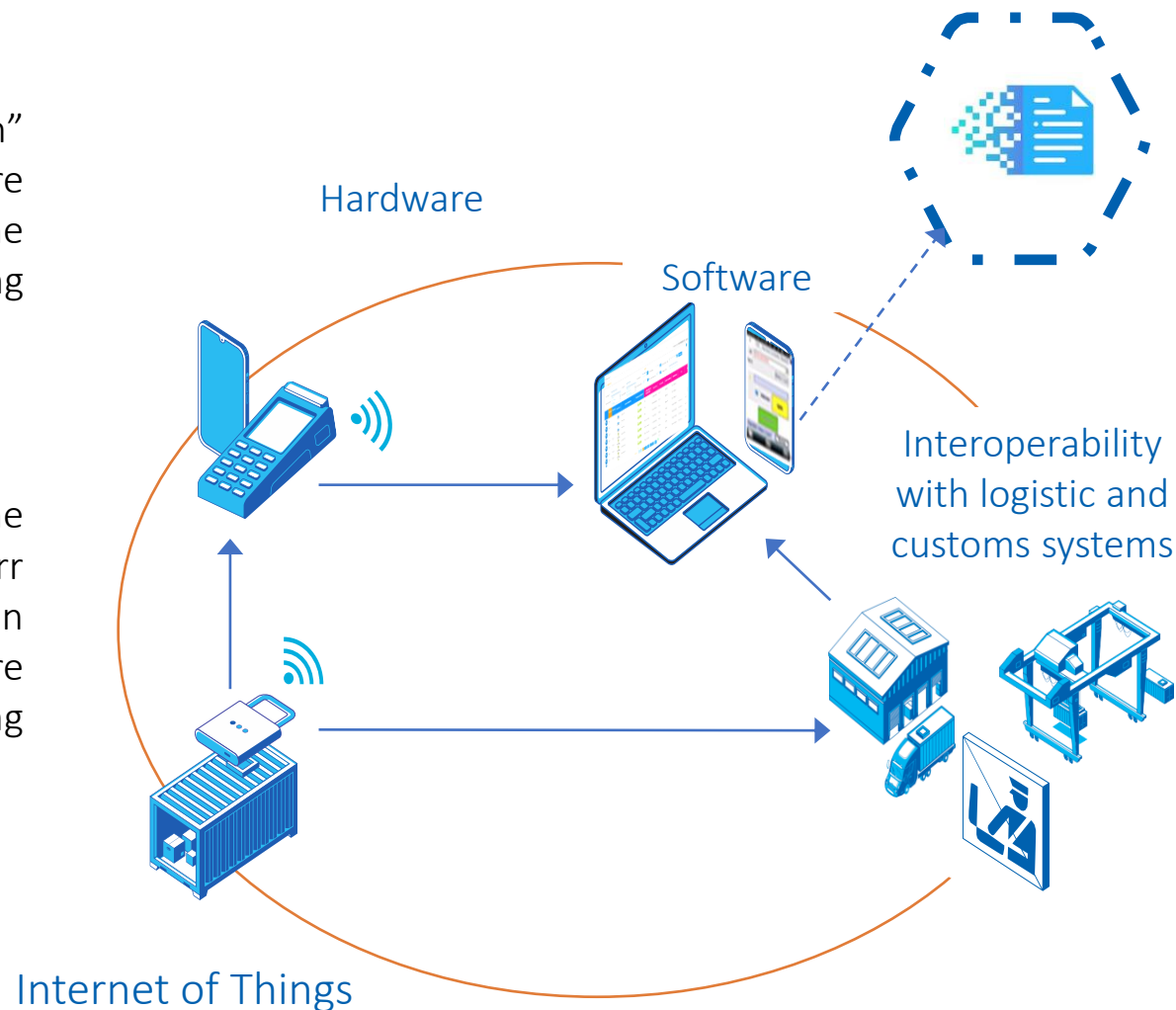
The objective is to support the process of “validation and certification” of documents with a customs and security value throughout the entire logistic process, following the industry needs concerning also the Customs 2020 - 2025 evolutive procedures. This aim is achievable using “notarisation” and new technologies based on distributed registers.

Solution

The **Notarisation & Blockchain applied to eCustoms** is the solution for the complete management of documentary flows in “ONCE” approach for the subsequent phases of customs verification. It is integrated within Milos® Global Supply Chain Visibility Suite which allows the entire handling process to be coordinated among private players and along the international chains (maritime, port and intermodal logistics)

Pilot Project

- Interchange Notarisation
- International Fast & Secure Trade Lane (with IoT)
- Rail Cargo document / CIM notarisation (with Blockchain)



The concept of **Custom Corridors** (*Fast Corridor in Italy*) was born to decrease the costs relate the import / export cycle converging towards the complete traceability of the goods forwarded in the multimodal logistics chain.

The containers are moved between ports and places of destination (always under the control of customs agency offices) where are complete the custom clearance procedures.

Benefits:

- ✓ Decrease the permanence of goods in ports, berth and storage area, reduction of port congestion and idle time at entry port
- ✓ Improved safety, through a continuous monitoring of cargo movements
- ✓ Digitalisation of logistics processes to integrate customs operations with internal procedure
- ✓ Reduction of supply-chain environmental footprint

Customs innovative procedures

Customs Corridor Flow



Italian Customs Corridor KPIs

- ✓ 20 corridors opened
- ✓ + 2 500 km covered
- ✓ + 16 400 containers handled 2021

Pilot projects on International Fast & Secure Trade Lane

International Corridors Italy Vs Morocco – Turkey - Egypt

Circle Group is working on the development of International Fast & Secure Trade Lane projects, **End to End solution** aiming at **optimising** maritime, logistic and transport processes, **simplifying** and **integrating** information flows thanks to the use of **Internet of Things** and at **standardising** and **digitalising** documental flows

Benefits:

- ✓ Full visibility of goods, reduction of manual errors and speed boost for shared documentation thanks to the digitalisation of information flows between actors involved in the process
- ✓ Security guarantees thanks to the integration of new technologies and digital tools to create information flows with control of operations and events occurring
- ✓ Exploitation of simplified customs procedures by exchanging information with and between customs administrations
- ✓ Automation, speed up of operations and reduction of containers break-ins thanks to the implementation of IoT devices



Photos of pilots projects



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Ikea has a logistics hub in Piacenza (Italy), from which goods arrive from all over the world: these goods are destined for stores not only in Italy, but also in North Med and Middle East. The problem was that the process of customs clearance of goods coming from Extra EU countries started when the container was discharged at the port and this heavily affected the arrival's time of goods at the logistics hub of Piacenza.

Solution: The implementation of the suite **“Global Supply Chain Visibility”** the development of specific connectors, the system of IKEA dialogues directly with port, custom and logistic actors, in order to have:

- ✓ Real time visibility of logistic and shipments information on a single dashboard (status, positioning of goods/containers)
- ✓ Integration with Customs information (Authorities Import and Export) and Port Security information
- ✓ Digitalisation of custom procedures both in import and export
- ✓ Full digital platform able to share end-to-end data and documents from various stakeholders
- ✓ “Certified Information” arising from the use of IoT devices

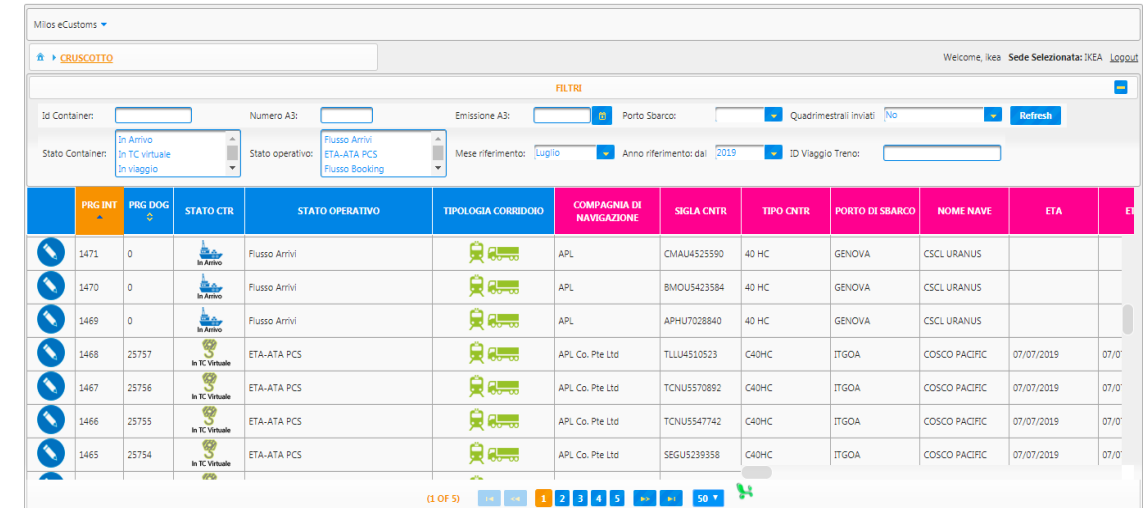


Main KPI's index – IKEA

- ✓ Direct cost reduction x teu: – 30%
- ✓ Paper reduction: - 100%
- ✓ Shipped container's volume: + 80% thanks to Fast Corridor

Main KPI's index – Supply Chain Involved:

- ✓ Transit time reduction port – dry port: + 35%
- ✓ Dwell time reduction: + 80%



PRG INT	PRG DOG	STATO CTR	STATO OPERATIVO	TIPOLOGIA CORRIDOIO	COMPAGNIA DI NAVIGAZIONE	SIGLA CNTR	TIPO CNTR	PORTO DI SBARCO	NOME NAVE	ETA	ET
1471	0	In Arrivo	Flusso Arrivi		APL	CMAU4525590	40 HC	GENOVA	CSC L URANUS		
1470	0	In Arrivo	Flusso Arrivi		APL	BMOU5423584	40 HC	GENOVA	CSC L URANUS		
1469	0	In Arrivo	Flusso Arrivi		APL	APHU7028840	40 HC	GENOVA	CSC L URANUS		
1468	25757	In TC Virtuale	ETA-ATA PCS		APL Co. Pte Ltd	TLLU4510523	C40HC	ITGOA	COSCO PACIRC	07/07/2019	07/0
1467	25756	In TC Virtuale	ETA-ATA PCS		APL Co. Pte Ltd	TCNU5570892	C40HC	ITGOA	COSCO PACIRC	07/07/2019	07/0
1466	25755	In TC Virtuale	ETA-ATA PCS		APL Co. Pte Ltd	TCNU5547742	C40HC	ITGOA	COSCO PACIRC	07/07/2019	07/0
1465	25754	In TC Virtuale	ETA-ATA PCS		APL Co. Pte Ltd	SEGU5239358	C40HC	ITGOA	COSCO PACIRC	07/07/2019	07/0

Figure: Ikea Dashboard

IMPLEMENTED SERVICES

- Track & Trace
(Transport Federative Platform)
- Simplified Customs Procedures
(Fast Corridor)



WorldWide



2014

- In November 2019 Circle was cited in the Supply Chain Vendor Guide of Gartner with the suite Milos® Global Supply Chain Visibility integrated with MasterSped. This will allow us to further enhance our presence on the market.



Supply Chain Operational Visibility Vendor Guide

Published: 7 November 2019 **ID:** G00387970

Analyst(s): Christian Titze, Bart De Muynck

This research provides a compendium of the operational visibility solutions categories and providers that Gartner covers. Supply chain technology leaders can use this research to help develop a comprehensive supply chain visibility technology portfolio strategy.



Circle (Milos)	www.circletouch.eu	Modular solution for the transport optimization of containers, trailers, cars and general cargo through the logistic intermodal chain; focus on automated port logistics and customs procedures
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- Thanks to the acquisition of the software house Progetto Adele, Circle Group has expanded the portfolio of solutions offered with a focus dedicated in particular to **Freight Forwarders**. The integration between the solutions, allows to offer customers **innovative products** in terms of **tracking, internet of things and intermodal transport**, which contribute to a **huge recovery of efficiency, cost reduction and performance increase**, as required by large international importers and exporters in view of supply chain visibility.



- Moreover, Circle Group has been committed for years to the challenge of **simplifying customs procedures** thanks to its services, which allow to completely **digitalize information and documental flows** for all the actors of the supply chain. In this way, the company accompanies its customers on a constant **path of innovation**, offering added value in terms of **quality of service, security and better customs management**. The goal is to create a supply chain that is increasingly usable, smart green, federative and that uses intermodal components able to reduce costs, pollution and energy consumption



- Thanks to the Joint Venture with the partner Log@Sea and Optimeasy, Circle Group is looking for develop an internal line of business specifically dedicated to the development of **optimization** tools for the port and logistics sectors as a whole and the benefits arising from the implementation of **Digital Twin**





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Thank you



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