TRADELENS

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EL COMERCIO INTERNACIONAL ES INEFICIENTE, COMPLEJO, INSEGURO Y COSTOSO

Data trapped in organizational silos

Information is held in paper and various digital formats across dozens of service providers along the supply chain, requiring complex, cumbersome, and costly peer-to-peer messaging. The result is inconsistent information across organizational boundaries, latency in obtaining shipment visibility, and blind spots that hinder the efficient flow of goods.

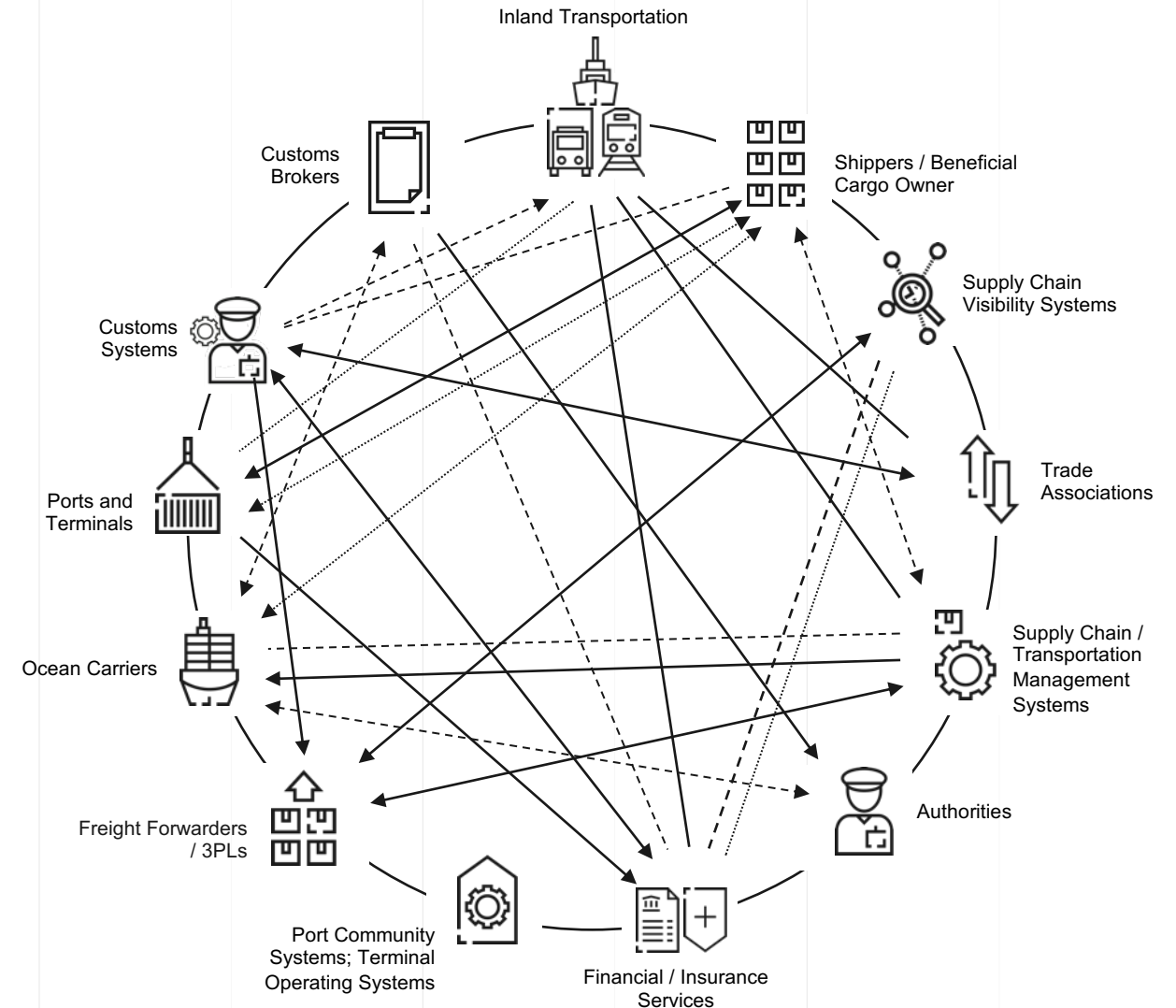**Manual, time-consuming, paper-based processes**

The collection and processing of up-to-date data, as well as inefficient trade document exchange, requires manual checks and frequent follow-ups and results in errors, delays and high compliance costs. Late filings are common due to missing information.

Clearance takes too long and is often subject to fraud

Risk assessments by customs authorities lack sufficient and trusted information resulting in high inspection rates, added prevention measures against fraud and forgery, and delayed customs clearance.

High costs and poor customer service

These challenges have significant downstream repercussions. The inability to forecast and plan effectively, address supply chain disruptions in real-time, and share trusted information across the supply chain leads to excessive safety stock inventory, high administrative costs, operational challenges, and ultimately poor customer service.

Inland Transportation

Customs Brokers

Shippers / Beneficial Cargo Owner

Customs Systems

Supply Chain Visibility Systems

Ports and Terminals

Trade Associations

Ocean Carriers

Supply Chain / Transportation Management Systems

Authorities

Freight Forwarders / 3PLs

Port Community Systems; Terminal Operating Systems

Financial / Insurance Services

PLATAFORMA TRADELENS
Digitalizando la cadena de suministro global

Connects the ecosystem
Brings together all parties in the supply chain - including traders, freight forwarders, inland transportation, ports and terminals, ocean carriers, customs and other government authorities, and others - onto a Blockchain-based platform with a secure permission and identity framework
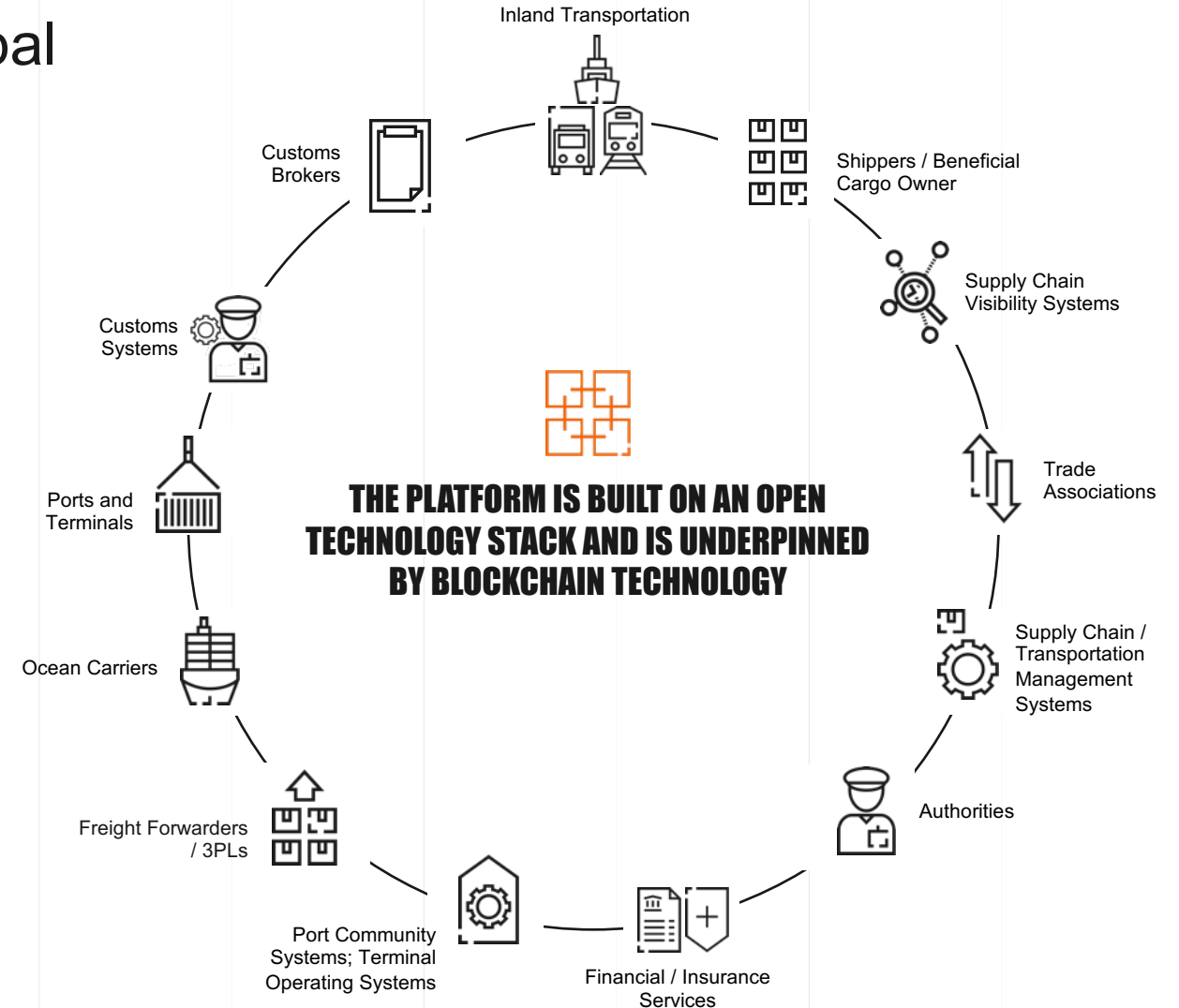
Drives true information sharing
Provides for the seamless, secure sharing of real-time, actionable supply chain information across all parties to a trade - encompassing shipping milestones, cargo details, trade documents, the structured data embedded in trade documents, customs filings, sensor readings, and more

Fosters collaboration and trust
Enables the digitization and automation of the cross-organization business processes integral to global trade, including import and export clearance, with Blockchain ensuring secure, auditable, and non-repudiable transactions

Spurs innovation
Lays the foundation for ongoing improvement and innovation through an open, non-proprietary API, the use of standards and promotion of interoperability, and the launch of an Applications Marketplace that parties can use to build and deploy TradeLens-powered applications for themselves, their partners, and their customers

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THE PLATFORM IS BUILT ON AN OPEN TECHNOLOGY STACK AND IS UNDERPINNED BY BLOCKCHAIN TECHNOLOGY

Digitalización del comercio global

¿Qué?

Flujo seguro de la documentación necesaria para mejorar el comercio internacional

Visibilidad de un registro compartido

¿Cómo?

Incrementa la velocidad y la transparencia de las transacciones con información en tiempo real al estado de los contenedores
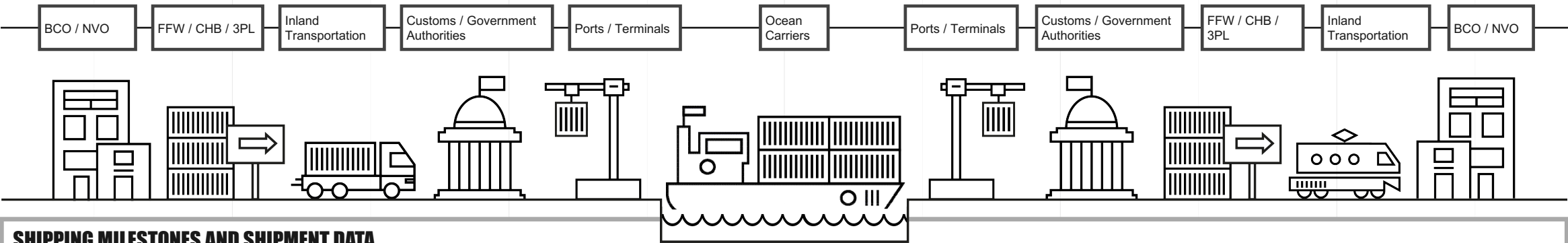
¿Beneficios?

Reduce coste y aumenta la eficiencia del comercio al eliminar el papel.

IBM Services | Offering Management

En enero de 2018, IBM y Maersk anuncian un acuerdo para mejorar el comercio internacional y digitalizar las cadenas de suministro

Objetivos y premisas

- Desarrollar una plataforma de estandares abiertos sobre tecnología basada en blockchain

- Mayor transparencia en el transporte de bienes a nivel global

- Beneficio para todos los participantes

- Estandarización de las Comunicaciones, mejora de transparencia y reducción de ineficiencias.
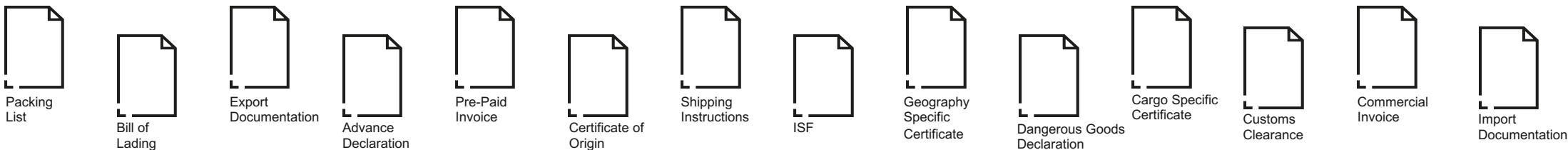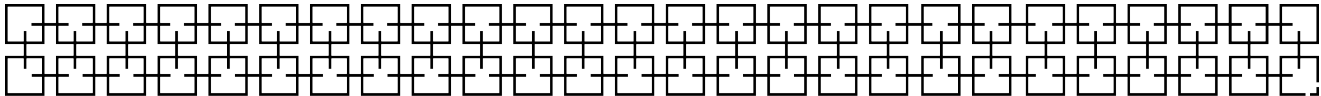
BCO / NVO	FFW / CHB / 3PL	Inland Transportation	Customs / Government Authorities	Ports / Terminals	Ocean Carriers	Ports / Terminals	Customs / Government Authorities	FFW / CHB / 3PL	Inland Transportation	BCO / NVO

SHIPPING MILESTONES AND SHIPMENT DATA

- Start transport equipment tracking
- Gate-out of empty container from depot
- Estimated gate-in of empty container at stuffing site
- Gate-in of empty container at stuffing site
- Container stuffing completed at inland location
- VGM submitted
- Container sealed
- Gate out of full container from stuffing site
- Planned gate in of full container at export terminal
- Gate in full at terminal export
- Planned vessel departure from export terminal
- Full container loaded on vessel
- Export documentation cleared
- Actual vessel departure at export terminal
- Temperature update
- Planned vessel arrival at import terminal
- Estimated vessel arrival at import terminal
- Import documentation cleared
- Actual vessel arrival at import terminal
- Full container discharged from vessel at import terminal
- Container selected for inspection
- Planned gate out of full container at import terminal
- Customs release
- Gate out of full container from import terminal
- Estimated gate in of full container at inland location
- Gate in of full container at inland location
- Seal removed
- Stripping completed of container inland location
- Empty container ready for pick-up
- Actual gate out of empty container from inland location
- Actual gate in of empty container at depot
- Transport equipment tracking ended

Not exhaustive list of milestones managed by platform

STRUCTURED AND UNSTRUCTURED DOCUMENTS

- Packing List
- Bill of Lading
- Export Documentation
- Advance Declaration
- Pre-Paid Invoice
- Certificate of Origin
- Shipping Instructions
- ISF
- Geography Specific Certificate
- Dangerous Goods Declaration
- Cargo Specific Certificate
- Customs Clearance
- Commercial Invoice
- Import Documentation

Not exhaustive list of documents managed by platform

TRADELENS BLOCKCHAIN BUSINESS NETWORK

TRADELENS PLATFORM

CURRENT NETWORK STATUS – AS OF APRIL 2019

Shipping Events

+ 500M per year   + 10M per week

◉ **Live**: The Network Member is connected to the Platform and providing data

◎ **In Process**: The Network Member engaged and/or integration is in process

Some members engaged under Early Adopter Program and/or trial agreements

Ocean Carriers

Ocean Carrier / Short Sea	Status
Maersk Line	◉
Safmarine	◉
Sealand	◉
Hamburg-Sud	◎
Pacific International Lines	◎
KMTC	◎
Seaboard	◎
Namsung	◎
Boluda Lines	◎

Ports and Terminals

Terminal Location	Operator	Status
Algeciras, Spain	Port of Algeciras	◎
Algeciras, Spain	APM Terminals	◉
Apapa, Nigeria	APM Terminals	◉
Auckland, New Zealand	PortConnect	◉
Avonmouth, UK	MCP	◉
Bahrain	APM Terminals	◉
Barcelona, Spain	Port of Barcelona	◎
Bilbao, Spain	Port of Bilbao	◎
Brisbane, Australia	Patrick Terminals	◉
Buenos Aires, Argentina	APM Terminals	◉
Busan, South Korea	Port of Busan	◎
Callao, Peru	APM Terminals	◉
Cotonou, Benin	APM Terminals	◉
Elizabeth, NJ, USA	APM Terminals	◎
Felixstowe, UK	MCP	◉
Fremantle, Australia	Patrick Terminals	◉
Gothenburg, Sweden	APM Terminals	◉
Grangemouth, UK	MCP	◉
Gunsan, South Korea	KL-NET	◉
Halifax, Canada	Halterm Canada	◉

Terminal Location	Operator	Status
Hong Kong	Modern Terminals	◉
Houston, TX USA	Port of Houston	◉
Hull, UK	MCP	◉
Immingham, UK	MCP	◉
Itajai, Brazil	APM Terminals	◉
Incheon, South Korea	KL-NET	◉
Izmir, Turkey	APM Terminals	◉
Kwangyang, South Korea	KL-NET	◉
Lazaro, Mexico	APM Terminals	◉
Liverpool, UK	MCP	◉
Los Angeles, CA, USA	APM Terminals	◉
Maasvlakte II, Netherlands	APM Terminals	◉
Manila, Philippines	ICTSI	◎
Melbourne, Australia	Patrick Terminals	◉
Montreal, Canada	MGTP	◉
Mobile, AL USA	APM Terminals	◉
Mumbai, Brazil	APM Terminals	◎
Napier, NZ	Napier Port Authority	◉
Newcastle, UK	MCP	◉

Terminal Location	Operator	Status
Onne, Nigeria	APM Terminals	◉
Philadelphia, PA USA	Packer Terminals	◉
Pipavav, India	APM Terminals	◉
Pecem, Brazil	APM Terminals	◉
Pyeongtaek, South Korea	KL-NET	◉
Poti, Georgia	APM Terminals	◉
Pohang, South Korea	KL-NET	◉
Pusan, South Korea	KL-NET	◉
Santos, Brazil	APM Terminals	◎
Sydney, Australia	Patrick Terminals	◉
Singapore, Singapore	PSA	◉
Tangier, Morocco	APM Terminals	◉
Tauranga, NZ	PortConnect	◉
Teesport, UK	MCP	◉
Ulsan, South Korea	KL-NET	◉
Valparaiso, Chile	TSP	◉
Valencia, Spain	Port of Valencia	◉
Visakhapatnam, India	JM Baxi	◎
Xiamen, China	Port of Xiamen	◎

Government Authorities

Authority	Status
Australia Home Affairs	◎
Bahrain Customs	◎
Canada Customs	◎
Dutch Customs	◎
Ghana / GCNET	◎
Saudi Arabia Customs	◎
Peru Customs	◎
Singapore Customs	◎
Turkey Customs	◎

Inland Transportation

Transportation Provider	Status
Ancotrans	◉
CN Rail	◎
IMCC	◉

EVENTOS EN TRADELENS

SHIPMENT PLANNING

Event	Source
Start Consignment Tracking	Carrier, 3PL
Consignment Reference Added	Shipper, 3PL
Party Added to Consignment	Carrier, 3PL
Start Transport Equipment Tracking	Carrier
New Transport Equipment Added to Consignment	Carrier
Transport Equipment Number Updated	Carrier
Shipper Updated	Shipper, 3PL
Consignee Updated	Shipper, 3PL
Cargo Type Updated	Shipper, 3PL
Shipping Instructions Submitted	Shipper, 3PL

ORIGIN INTERMODAL

Event	Source
Packing List Available	Shipper, 3PL
Planned Gate Out	Carrier
Actual Gate Out	Terminal, Trucker
Estimated Loaded on Truck	Carrier, Shipper, 3PL
Actual Load on Truck	Carrier, Trucker, 3PL
Planned Gate In	Carrier
Estimated Gate In	3PL, Trucker, Terminal
Actual Gate In	3PL, Trucker, Terminal
Estimated Discharge from Truck	3PL, Trucker, Terminal
Actual Discharge from Truck	3PL, Trucker, Terminal
Estimated Stuffing Start	3PL, Shipper
Actual Stuffing Started	3PL, Shipper
Estimated Container Stuffed	3PL, Shipper
Actual Container Stuffed	3PL, Shipper
Full Transport Equipment Sealed	Shipper
Estimated Loading on Rail / Barge	3PL, Rail
Actual Load on Rail / Barge	Rail, Barge
Planned Rail / Barge Departure	3PL, Rail, Barge
Actual Rail / Barge Departure	Rail, Barge
Estimated Discharge from Rail / Barge	Rail, Barge
Actual Discharge from Rail / Barge	Rail, Barge

EXPORT COMPLIANCE

Event	Source
Export Documentation Submitted	Customs broker
Export Documentation Approved	Customs
Customs Release	Customs
Dangerous Goods Declaration Submitted	Shipper
Dangerous Goods Request Approved	Carrier
VGM Submitted	Shipper, 3PL
Geography Specific Certificate Submitted	3PL
Geography Specific Certificate Approved	Customs

ORIGIN PORT

Event	Source
Planned Gate In	Carrier
Estimated Gate In	Terminal, 3PL, Trucker
Actual Gate In	3PL, Trucker, Terminal
Estimated Discharge from Truck	3PL, Trucker, Terminal
Actual Discharge from Truck	3PL, Trucker, Terminal
Estimated Rail / Barge Arrival	3PL, Rail, Barge
Actual Rail / Barge Arrival	Rail, Barge, Terminal
Estimated Discharge from Rail / Barge	Rail, Barge, Terminal
Actual Discharge from Rail / Barge	Rail, Barge, Terminal
Estimated Loading on Vessel	Terminal
Do Not Load	Carrier, Terminal, Customs
Actual Load on Vessel	Terminal, Carrier

OCEAN TRANSPORT

Event	Source
Planned Vessel Departure	Carrier
Estimated Vessel Departure	3PL, Carrier
Actual Vessel Departure	Terminal, Carrier
Planned Vessel Arrival	Carrier
Estimated Vessel Arrival	Carrier, 3PL
Actual Vessel Arrival	Carrier, Terminal
Estimated Loading on Vessel	Terminal, Carrier
Actual Load on Vessel	Terminal, Carrier
Bill of Lading Available	Carrier
Estimated Discharge from Vessel	Terminal, Carrier
Actual Discharged from Vessel	Terminal, Carrier
Shift-Cell	Terminal
Shift-Pier	Terminal

IMPORT COMPLIANCE

Event	Source
Advance Declaration Submitted	Carrier
Advance Declaration Approved	Customs
Import Documentation Submitted	3PL
Import Documentation Approved	Customs
Customs Release	Customs
Carrier Release	Carrier
Certificate of Origin Available	3PL
Cargo Specific Certificate Submitted	3PL
Cargo Specific Certificate Approved	Customs

DESTINATION PORT

Event	Source
Estimated Discharge from Vessel	Terminal
Actual Discharge from Vessel	Terminal
Full Container Not Selected for Inspection	Customs
Full Container Passed Inspection	Customs
Full Container Selected for Scan	Customs
Estimated Loading on Truck	Terminal
Actual Load on Truck	Terminal, Trucker, 3PL
Estimated Gate Out	Terminal, Trucker, 3PL
Actual Gate Out	Terminal, Trucker, 3PL
Estimated Loading on Rail / Barge	Terminal, Rail, Barge, 3PL
Actual Load on Rail / Barge	Terminal, Rail, Barge
Estimated Rail / Barge Departure	Terminal, Rail, Barge, 3PL
Actual Rail / Barge Departure	Terminal, Rail, Barge
Terminal Release	Terminal
Carrier Release	Carrier

DESTINATION INTERMODAL

Event	Source
Estimated Loading on Truck	Terminal, 3PL, Trucker
Actual Load on Truck	Terminal, 3PL, Trucker
Planned Gate Out	Carrier
Estimated Gate Out	Terminal, Trucker, 3PL
Actual Gate Out	Terminal, Trucker, 3PL
Estimated Gate In	Terminal, 3PL, Trucker
Actual Gate In	Terminal, 3PL, Trucker
Estimated Discharge from Truck	3PL, Trucker, Terminal
Actual Discharge from Truck	3PL, Trucker, Terminal
Actual Load on Rail / Barge	Rail, Barge
Estimated Rail / Barge Departure	3PL, Rail, Barge
Actual Rail / Barge Departure	Rail, Barge
Estimated Rail / Barge Arrival	3PL, Rail, Barge
Actual Rail / Barge Arrival	3PL, Rail, Barge
Estimated Discharge from Rail / Barge	Rail, Barge
Actual Discharge from Rail / Barge	Rail, Barge
Seal(s) Removed	Shipper, 3PL
Container Stripped	Shipper, 3PL
End Shipment Tracking	Shipper, 3PL

Full API Event documentation:
https://platform-sandbox.tradelens.com/documentation/swagger/

Not all events are represented at

DOCUMENTOS EN TRADELENS

- Trade documents are associated with shipments, containers and consignments in a distributed and shared repository. Eliminates endless file, folder and email searching for information.

- Version control, each time a document is edited/uploaded, a new version of the document is created and added to the repository. Eliminates multiple copies and inconsistency of latest version.

- Tradelens uses Blockchain to guarantee the immutability and traceability of documents. Eliminates lost documents and assists with dispute resolution.

- Self-service documents on demand. Network participants defined to a consignment can immediately access document information, never having to wait for the document to be sent again.

- Unified permissions model based on international standards. Participants defined to the consignment will have access rights based on default permissions.
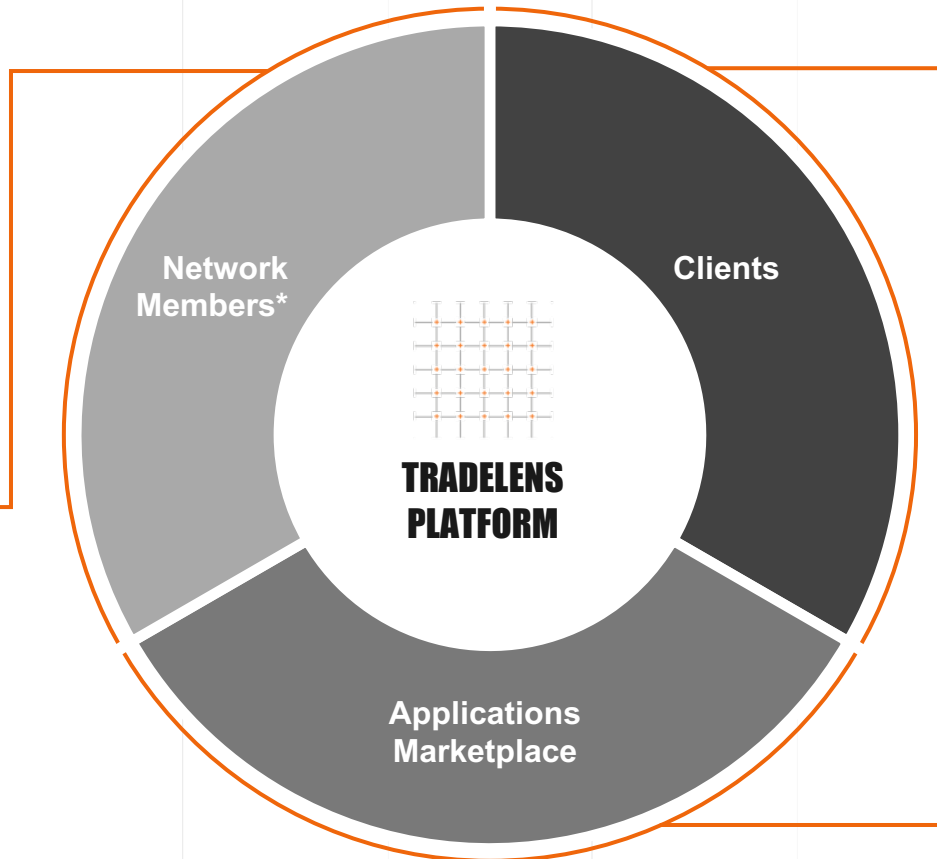
DOCUMENTS SUPPORTED AT GA

Sea Waybill
Commercial Invoice
Packing List
Booking Request
Booking Confirmation
Shipping Instructions
Export Declaration
Bill of Lading
Pro-Forma Invoice
Arrival Notice
Import Declaration
Health Certificate
Phytosanitary Certificate
Veterinary Certificate
Fumigation Certificate
Inspection Certificate
Certificate of Analysis
Certificate of Origin
Dangerous Goods Declaration

Documents in orange are supported as structured data; others to be added according to continuous delivery priorities and client requirements

EL ECOSISTEMA DE TRADELENS

Provide and gain access to end-to-end supply chain information

- ◉ Ocean carriers
- ◉ Ports and terminals
- ◉ Government authorities
- ◉ Inland transportation
- ◉ Freight forwarders / 3PLs
- ◉ 3rd party data providers

Network Members*

TRADELENS PLATFORM

Clients

Applications Marketplace

Primary consumers and beneficiaries of the platform

- ◉ Shippers (BCOs, retailers, manufacturers, etc.)
- ◉ Freight forwarders, customs brokers, 3PLs
- ◉ Financial institutions

Offer value added services to the ecosystem through a platform marketplace
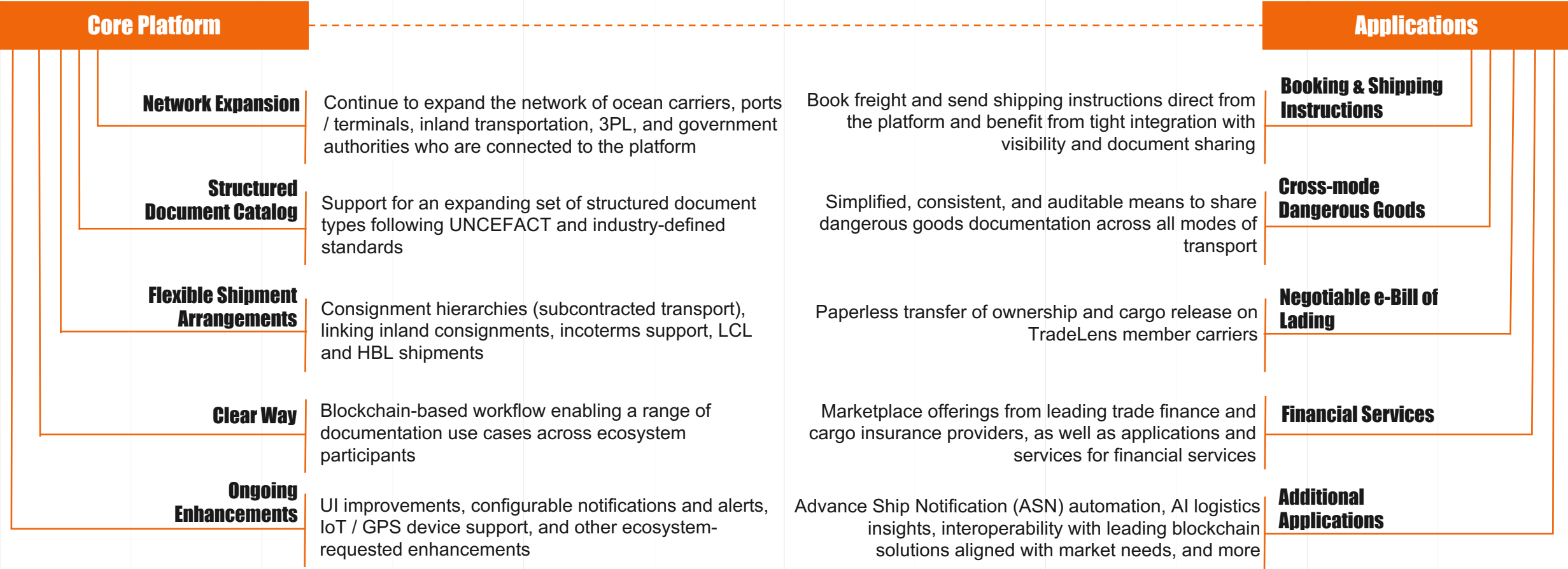
- ◉ TradeLens offerings
- ◉ Offerings from Network Members and Clients
- ◉ Offerings from third parties

* Others in transport and logistics ecosystem who are not Network Members also provide data to the platform, as requested by TradeLens Clients

TRADELENS FUTURE
1 – 2 YEAR OUTLOOK (SUBJECT TO CHANGE)

The TradeLens platform is developed using an Agile methodology and will continue to expand and improve over time. Our roadmaps are subject to change based on market feedback, input from participants, and validated learning.

Core Platform

Network Expansion
Continue to expand the network of ocean carriers, ports / terminals, inland transportation, 3PL, and government authorities who are connected to the platform

Structured Document Catalog
Support for an expanding set of structured document types following UNCEFACT and industry-defined standards

Flexible Shipment Arrangements
Consignment hierarchies (subcontracted transport), linking inland consignments, incoterms support, LCL and HBL shipments

Clear Way
Blockchain-based workflow enabling a range of documentation use cases across ecosystem participants

Ongoing Enhancements
UI improvements, configurable notifications and alerts, IoT / GPS device support, and other ecosystem-requested enhancements

Applications

Booking & Shipping Instructions
Book freight and send shipping instructions direct from the platform and benefit from tight integration with visibility and document sharing

Cross-mode Dangerous Goods
Simplified, consistent, and auditable means to share dangerous goods documentation across all modes of transport

Negotiable e-Bill of Lading
Paperless transfer of ownership and cargo release on TradeLens member carriers

Financial Services
Marketplace offerings from leading trade finance and cargo insurance providers, as well as applications and services for financial services

Additional Applications
Advance Ship Notification (ASN) automation, AI logistics insights, interoperability with leading blockchain solutions aligned with market needs, and more

Beneficios de Tradelens

Reducción de tiempo de Localización de contenedores /bienes

Información en tiempo real

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Mejora el Control de inventario

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Mejora en la transparencia de la información en toda la cadena integrando toda la información de origen a destino

Protección del valor de marca y o producto

Reducción del fraude

Mejora la flexibilidad ante cambios regulatorios

Reducción de disputas

MUCHAS GRACIAS

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TRAD+LENS