

# POC, Pilot and Production

**How to accelerate the broader use of emerging technologies in international supply chains**



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UNESCAP Capacity Building Workshop: Implementing  
Cross-border Paperless Trade and Emerging Technologies

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# About Digital Standards Initiative (DSI)

## Mission

The ICC Digital Standards Initiative (DSI) aims to accelerate the development of **a globally harmonized, digitized trade environment**, as a key enabler of dynamic, sustainable, inclusive growth.

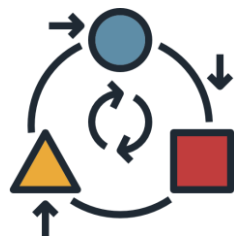
We engage the **public sector** to progress regulatory and institutional reform, and mobilize the **private sector** to align on standards and to adopt and scale digital trade and supply chain processes.

## Governance

Our Governance Board sets the strategic direction, objectives, and engagement structure of the initiative annually and comprises the following organizations:



## Principles & Practices



**Adapt & Apply**



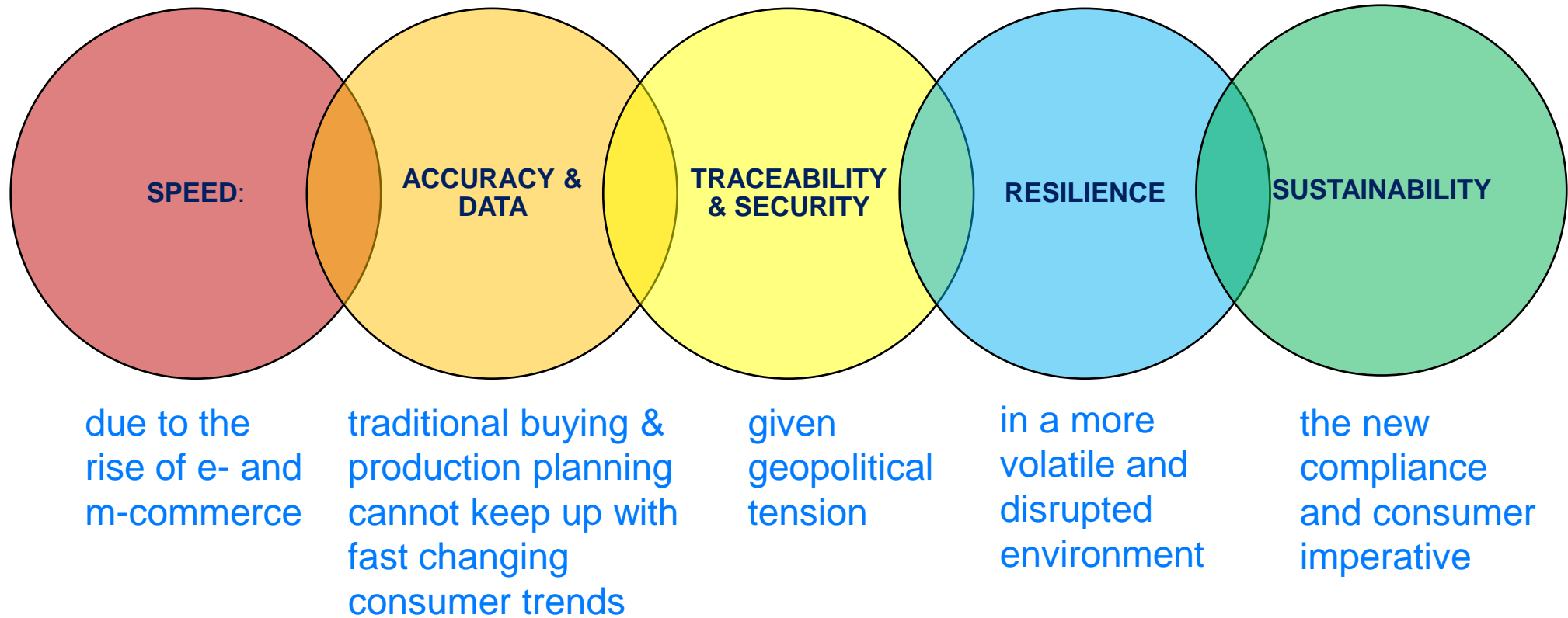
**Convene & Collaborate**



**Transparency & Accessibility**

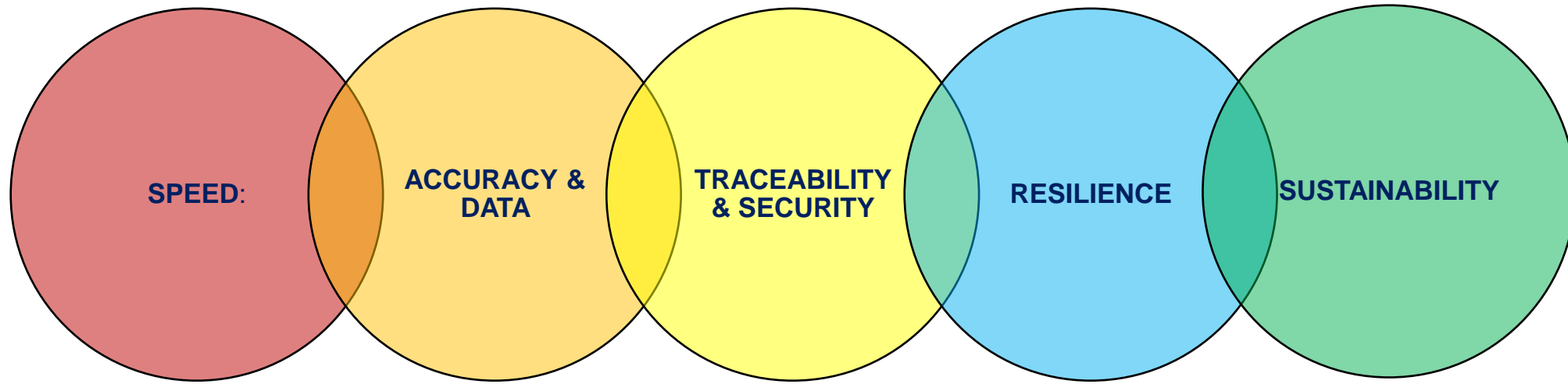
# Global Trade Post-Covid

*Or... what is keeping supply chain managers and traders up at night?*



# Global Trade Post-Covid

*Or... why digitalization is a key ingredient to solving key supply chain issues?*



- Automation and robotics, virtual design & development
- Digitalize processes to speed decision making based on data

- Data driven buying and forecasting, w/ machine learning to predict patterns over time
- Connecting supply chain end to end using data

- Tech and cloud to give visibility and ensure traceability and security

- Digital platforms to connect supply chain partners seamlessly and ensure sharing of relevant information and response in a disruption

- New technologies to drive enviro efficiencies and enable traceability
- Digitalization to automate data collection and improvement, and ensure auditability

# Global Trade Post-Covid

Despite great advances in digital technologies, storage, and data security, most trade and supply chain data continue to be processed via paper forms (physical or pdf). A single shipment may require over 50 pieces of paper exchanged between over 30 parties.

This data in these forms must be manually extracted, validated and entered into IT systems, most of which are not connected to each other.

The process is:

- prone to errors, discrepancies and fraud
- time consuming and labor intensive
- environmentally inefficient

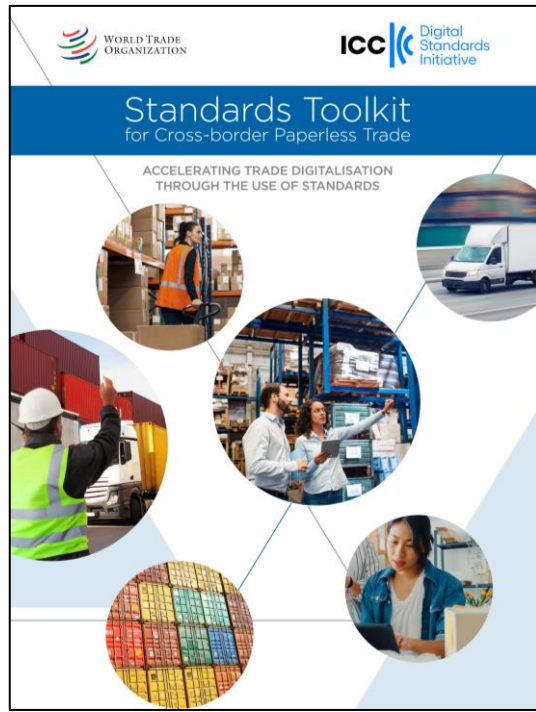
Source: ESCAP-WTO-UNCITRAL Cross-Border Paperless Trade toolkit ; McKinsey, [“The Multi-billion dollar paper jam”](#)

Type of document	Examples
<b>Trade administration documents</b>	
Product-related documents	Proof of origin documentation Universal certificate of origin Health certificate for live animal products Export/import sanitary and phytosanitary certificate CITES certificate for endangered species Certificate of inspection for organic products Dangerous goods documentation
Movement of products (export, import, transit)	Import/export declaration Export/import licence for controlled/dual-use goods, for agricultural products and any other products subject to a licence regime Safety and security declaration ATA Carnet (transit) TIR (transit) Union Transit Common Transit
Duties and excise documents	Binding tariff information Advance tariff ruling Excise guarantee Administrative documents used in the Excise Movement Control System
<b>Commercial documents</b>	
Finance and payment	Letters of credit Commercial invoices Order forms Insurance policy documents Payment confirmations
Transport and logistics	Weight/packing list Export cargo shipping instruction Standard shipping note CIM consignment note Road consignment (CMR) note Sea cargo manifest Air cargo manifest Airway bills Seaway bills
Documents of title (including the right to delivery of goods or payments of sums of money) which are usually used in finance, payment, transport and logistics	Bills of lading Bills of exchange Promissory notes Ship's delivery order Marine insurance policy Cargo insurance certificate Warehouse receipts

# What - Data standards to facilitate interoperability

**Standards are key to reduce friction, costs and complexity**

Global standards and protocols are needed to drive inter-operability among various platforms, reduce fragmentation and improve end-to-end integration of supply chain participants.



## SECTION 1 Foundational Standards

## SECTION 2 Identifier Standards

## SECTION 3 Corporations and Micro-, Small- and Medium-Sized Enterprises

## SECTION 4 Carriers, Freight Forwarders and Logistics Operators

## SECTION 5 Customs Authorities and other Cross-border Regulatory Agencies

## SECTION 6 Interoperable Digitalisation Frameworks

- **ICC-WTO Standards Toolkit for Cross-Border Paperless Trade** provides an overview of existing international standards (e.g., industry eBL standard) as a practical tool to drive interoperability.
- Ongoing dialogues need to be facilitated between governments and industry to drive further convergence, identify potential gaps (including legislative gaps) and promote interoperability across alliance groups, industry forums, standards organizations, companies, and economies.

[Download WTO-ICC standards toolkit](#)

# Who - Make digital identity an essential public good

Arrive at faster, more informed decisions on whom to do business with

The ability to gain access to and exchange globally recognized digital corporate IDs is integral to establishing trust and transparency and part of an inclusive digital infrastructure for all.

*The Global Business Identifier (GBI) initiative aims to develop a single identifier solution that will: improve the U.S. government's ability to pinpoint high-risk shipments and facilitate legitimate trade; create a "common language" between government and industry; and improve data quality and efficiency for identification, enforcement, and risk assessment.*



## Data Universal Numbering System (DUNS)

9-digit numeric and non-indicative identifier that identifies unique business establishments with library of over 200 reference data elements. Over 300 million DUNS issued worldwide.



## Legal Entity Identifier (LEI)

20-digit, alphanumeric identifier with underlying reference data elements unique to a legal entity. Over 1.7 million LEIs issued worldwide.



## Global Location Number (GLN)

13-digit numeric identifier with varying sets of underlying reference data elements customizable to location, function, and operations. Over 2 million companies utilize GS1 company standards, and 100 million products carry GS1 barcodes.

- Corporate digital identity (ID) has the potential to reduce the risks and costs of doing business.
- U.S. Customs and Border Protection (CBP) is launching a Global Business Identifier (GBI) Evaluative Proof of Concept (EPoC) which aims to determine a single identifier solution that will uniquely discern main legal entity and ownership; specific business and global locations; and supply chain roles and functions.



# How - Focus on experimentation, learning by doing

## Smart use of pilots and regulatory sandboxes to uncover best practices

Emerging issues such as interoperability between platforms and data protection in cross-border data flows are best tackled through practical pilots and sandboxes to test hypotheses, gather learning points and develop policy guidance.

### Australia and Singapore's blockchain trial shows promising results for reducing transaction costs

18 August 2021

Australian Border Force (ABF), the Infocomm Media Development Authority of Singapore (IMDA), and Singapore Customs, along with industry participants, have concluded a blockchain trial to prove trade documents can be issued and verified digitally across two independent systems, reducing cross-border transaction costs.

The blockchain trial was initiated as part of the Australia-Singapore Digital Economy Agreement to make cross-border trade simpler between the two countries. The trial successfully tested the interoperability of two digital verification systems – the ABF's Intergovernmental Ledger (IGL) and IMDA's TradeTrust reference implementation.

The trial demonstrated Australia's capability in issuing high integrity digital trade documents that can be instantly authenticated, provenance traced, and digitally processed. QR-codes embedded with unique proofs are inserted into digital Certificates of Origin (COO), enabling immediate verification for authenticity and integrity of the document when scanned or machine-read.

### IMDA and PDPC launch Singapore first Privacy Enhancing Technologies Sandbox as they mark decade-long effort of strengthening public trust



Maritime and Port Authority of Singapore (MPA)

40,995 followers

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The **Maritime and Port Authority of Singapore (MPA)** launched a call-for-proposal to bring together industry players and solution providers to develop and pilot eBL solutions, leveraging recent technology and legislation developments.



# Vision of 70-80% of global trade digitalized within 5 years

All key supply chain and trade documents digitalized to consensus data sets, with clearance on trade platforms that facilitate data exchange and sharing of aggregate data.

## For Supply Chains

- **Speed, traceability & flexibility** with real time data flows and decisions
- **Sustainability** data tracked digitally for consumer choice and preferential financing
- **Lower overall transport and logistics costs** due to automated clearing, reduced errors and lower admin on shipments

## For Governments

- **Traceability & security of customs and trade** *without* the additional manpower demands
- **Decreased fraud** and tax non-compliance
- **Real time actions** on supply of key goods and services

## For SMEs

- **Growth thru global markets** with easier, more transparent trade standards and border procedures
- Access to **more finance** with data-driven credit scoring
- Compete on **level playing field** with more established corporates

*Trade as a growth driver :  
sustainable, secure, open and inclusive*



# Shape the future of global trade - join us!

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