



Trade Digitalisation - TradeTrust

Trade & Connectivity Cluster
Sectoral Transformation Group
INFOCOMM MEDIA DEVELOPMENT AUTHORITY

Roles of IMDA

DIGITAL CHAMPION



Drive digitalisation across industries

Supporting a digitally enabled workforce

INDUSTRY DEVELOPER



Develop the digital tech and media industries as an engine of growth for Singapore

Foster a data ecosystem for the digital economy

ENABLER



Master-planner for connectivity, digital infrastructure & standards

Prepare tech & media manpower, and segments of society to be digitally-ready

REGULATOR & PROTECTOR

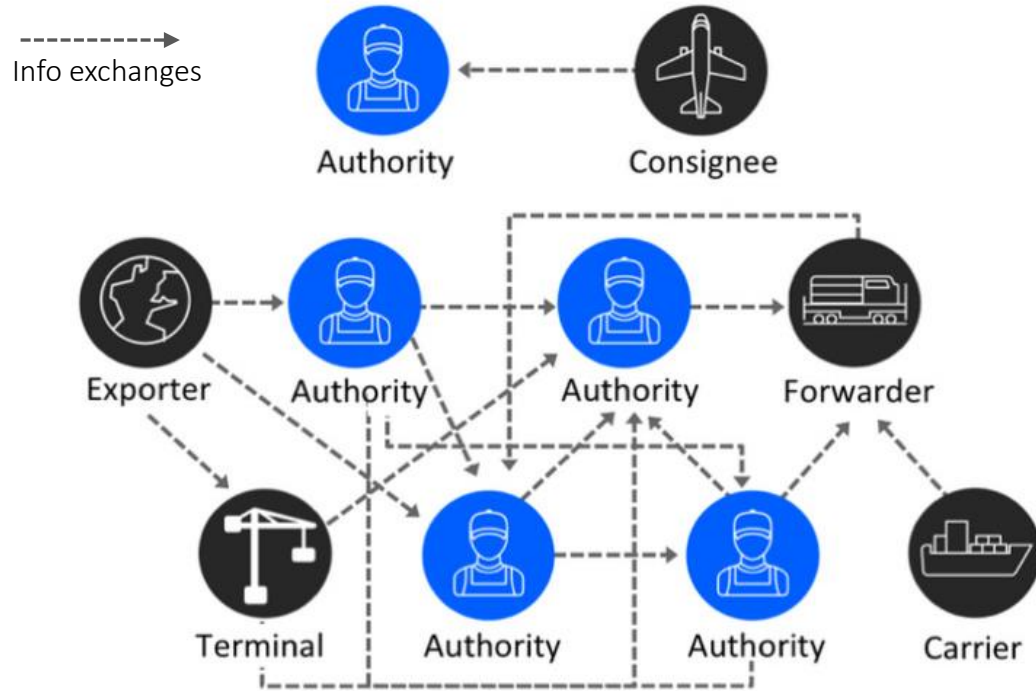


Ensure resilient telecom & broadcast networks

Govern market conduct and protect consumer interest through infocomm, media, postal and data protection regulation

Difficulties with Paper in Cross-Border Trade

Current State



Just 1 shipment involves

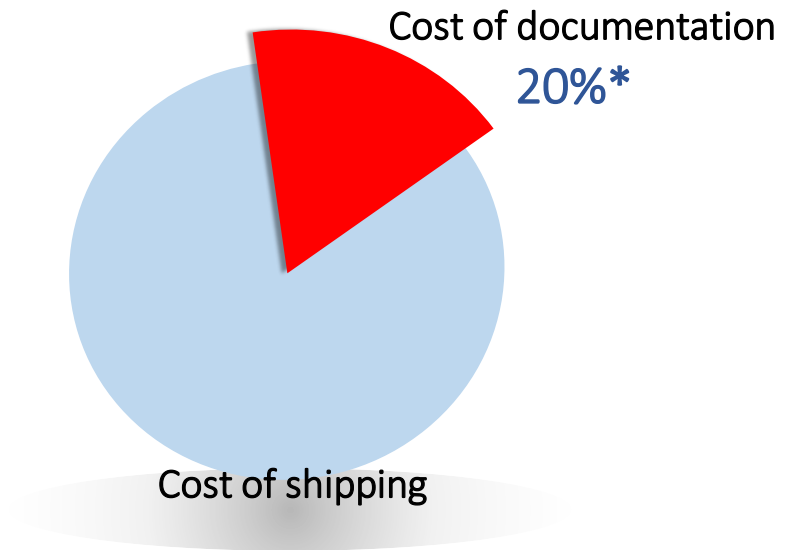
- Many parties across different sectors
- Many exchanges of information
- Many silo systems

Inefficient

- Manual handling
- Vulnerable to fraud

Fragmented Systems

- Costly connections
- No interoperability

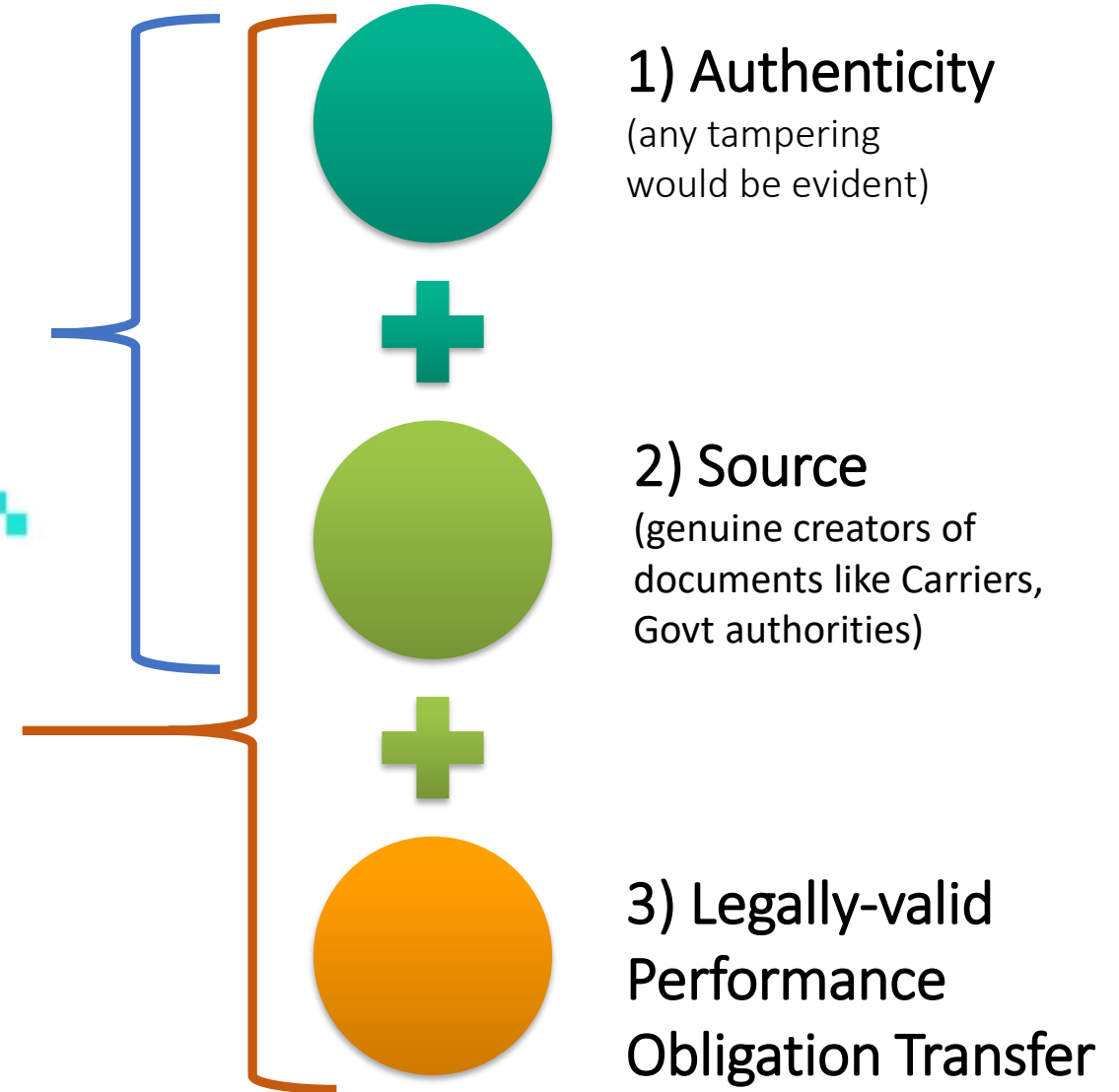
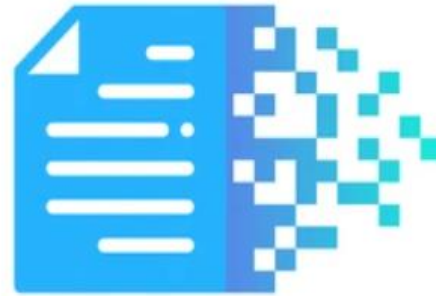


**Maersk and IBM's Paper Trail Research in 2014*

End-Result: TradeTrust Functions

Normal Documents

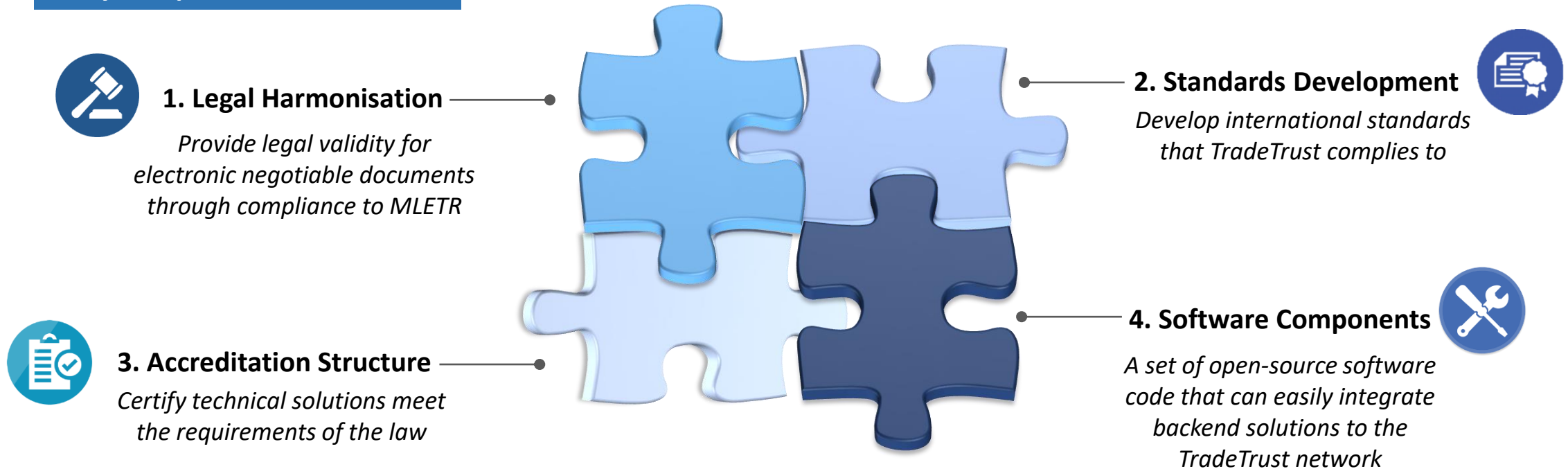
Transferable Documents
(e.g. Bills of Lading)



What is TradeTrust?

TradeTrust is a framework that comprises **globally-accepted standards** that connect governments and businesses to a **public blockchain** to enable **trusted interoperability** of electronic trade documents **across digital platforms**. AND it is offered as a **(digital) utility**.

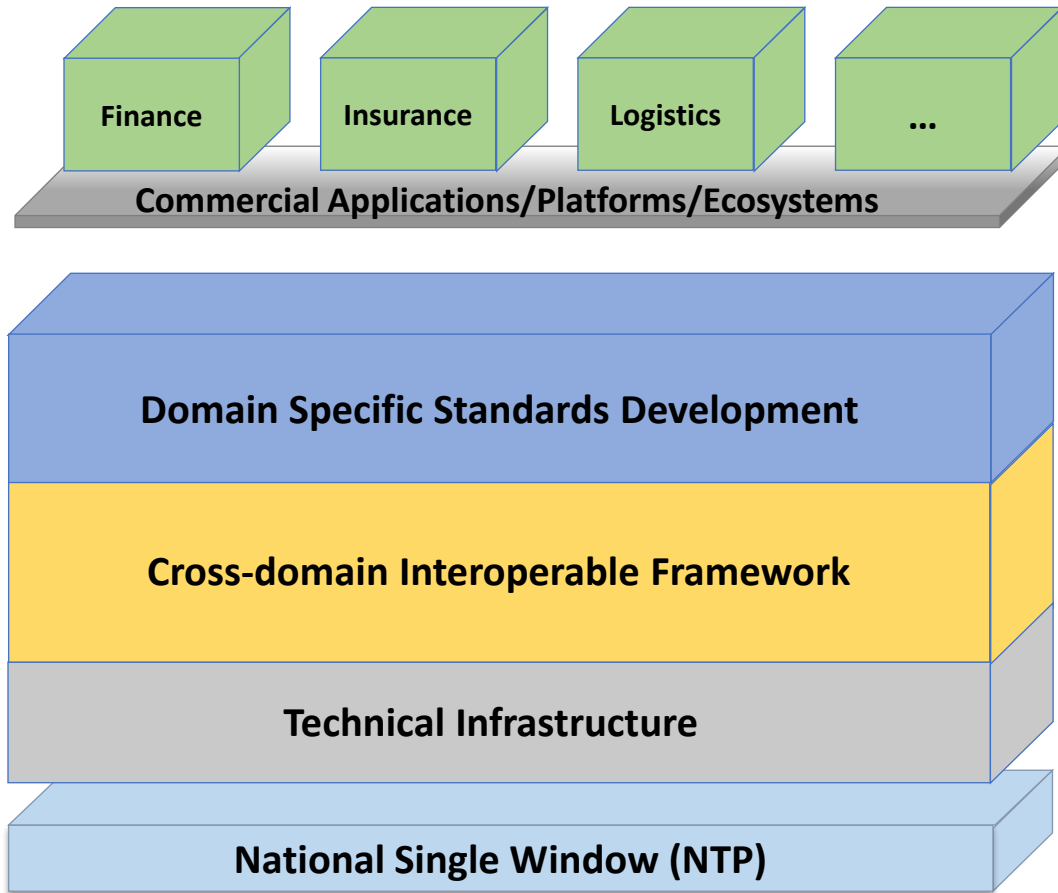
4 Key Components of TradeTrust



MLETR = Model Law on Electronic Transferable Records published by United Nations Commission on International Trade Law in Sept 2017

The TradeTrust Framework

TradeTrust is NOT a platform. It SUPPORTS Platforms and Systems to achieve the 3 functionalities ACROSS Platforms and Systems. The technical methods are implemented in open-source software that has been contributed to the community



Business-led

- Digital Ecosystems Co-Development
- Enterprise Adoption & Digitalisation

Govt-led

TradeTrust Framework

(Standards, Semantics, Legal)

- To legally recognise cross-border digital documents (e.g. eBL, eCO, invoice, etc) through bilateral G2G recognition
- To enable system interoperability of trusted digital documents exchange through standards



TradeTrust Digital Infrastructure

- Blockchain gateway that allows business apps to consume blockchain services through standardized APIs, achieving decoupling that eases the burden on them of enhancement and maintenance while blockchain technologies evolve.
- Published as open source for ease of industry adoption and for further enhancements by the open source community
- To be contributed as reference implementation to standards bodies to support standards development and accelerate TradeTrust usage

TradeTrust Design Principles



Public and Permissionless

No central governance authority



Data Off-Chain

Preserves data confidentiality



Payload Agnostic

*No data format or
standard restriction*



Open-Source

*Full transparency for
faster adoption*



MLETR-Compliant

*Meet the requirements of the law
(for electronic negotiable documents)*

MLETR = Model Law on Electronic Transferable Records published by United Nations Commission on International Trade Law in Sept 2017

TradeTrust Framework is accessible to all

Application Layer



Basic UI



Sample
implementations
via PoCs



Finance



Insurance



Logistics



Platforms



Ecosystems

...

Commercial Applications/Platforms/Ecosystems



Payload
Agnostic
Documents



Document
Verification



MLETR
Compliant
Title Transfer



Distributed
file store



Seamless Exchange
Paper ⇄ Paperless



Identity
Resolver
(Verifiable Claim)



Smart
Contracts



Connectors



API

...

Blockchain Layer



ethereum



HYPERLEDGER



Quorum



Sidechain

...

Paper Transferable Instrument

Title ownership

BL Data

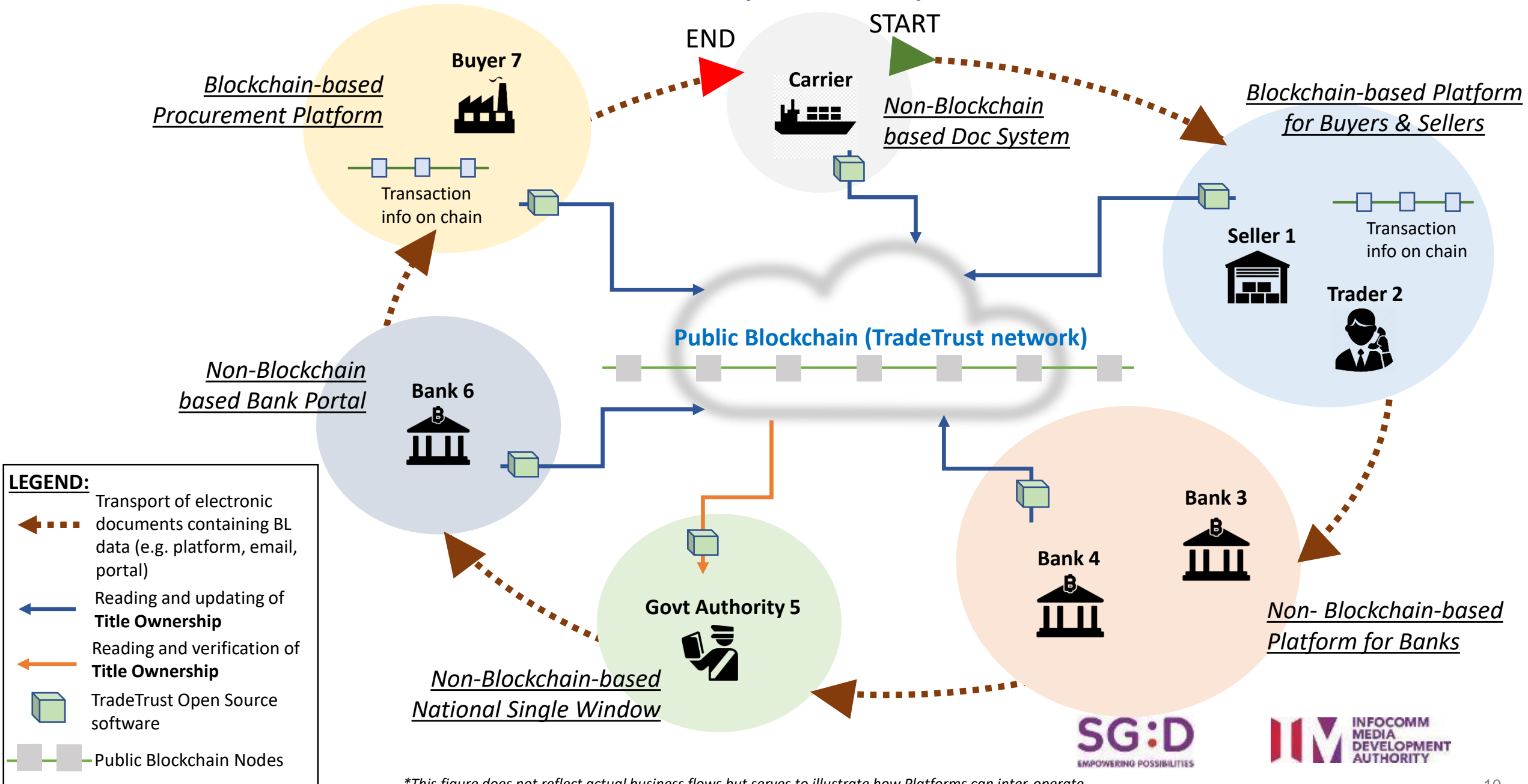
Electronic Transferable Record

1) TITLE ownership



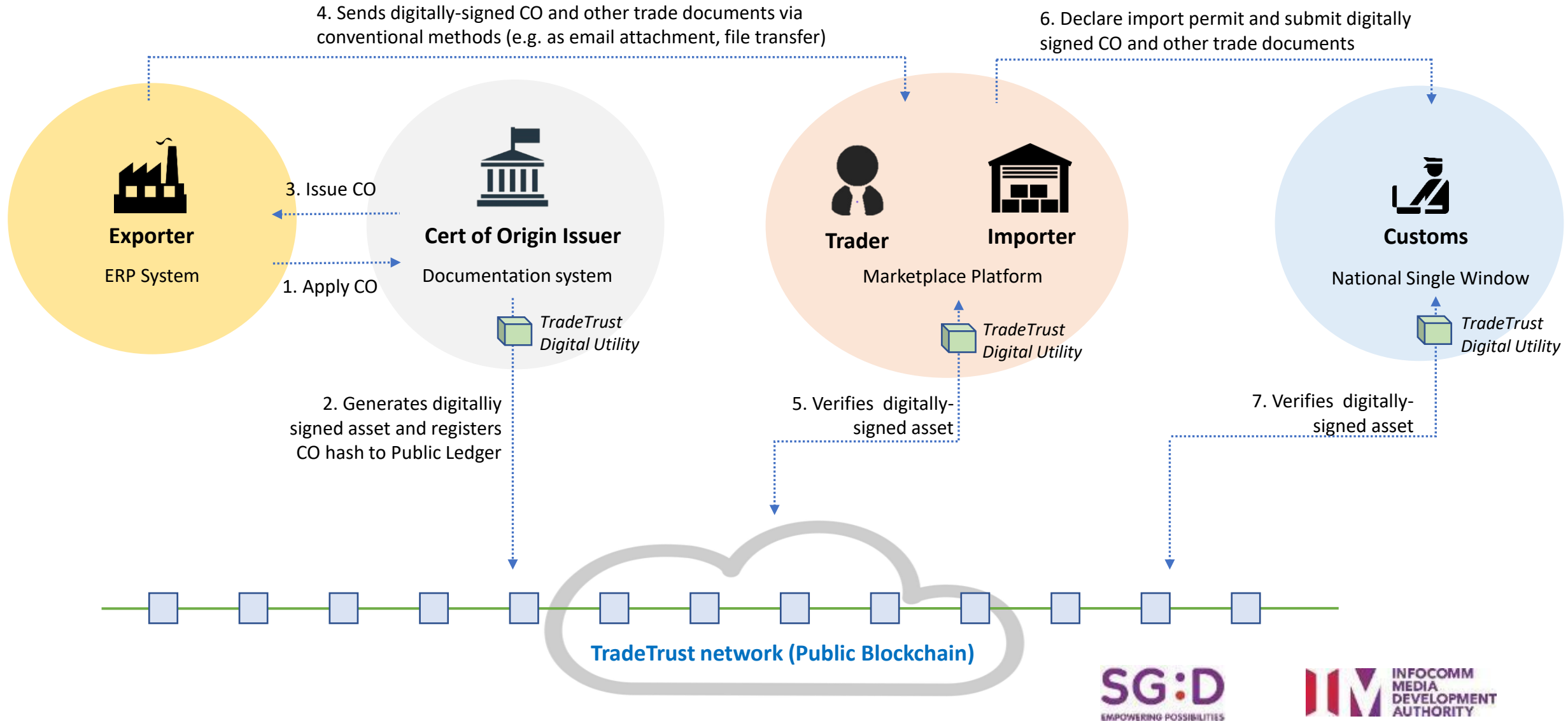
2) BL Data

Transferable Documents' interoperability



*This figure does not reflect actual business flows but serves to illustrate how Platforms can inter-operate

Normal Documents' Interoperability



Global Partnerships



Home » News & Speeches » ICC joins Singapore Government and major industry partners to launch TradeTrust

ICC joins Singapore Government and major industry partners to launch TradeTrust

News • Davos, 22/01/2020

Convening alongside the World Economic Forum Annual Meeting in Davos, the International Chamber of Commerce (ICC) has joined the Singapore Government and industry partners to accelerate the digitalisation of global trade and commerce.

SWIFT and Singapore's IMDA Join Forces to Drive Global Trade Digitalisation

TRADE, 5 OCTOBER 2020

Collaboration combines the reach, scale and reliability of SWIFT with IMDA's efforts on technology and legal frameworks to accelerate trade digitalisation



Singapore digital trade documentation framework to combine with global Swift network

FINANCIAL TIMES

Singapore charts its way to digital future for trade

Longer term, Singapore is working on a project called TradeTrust that aims to develop an “interoperability framework” for the exchange of digital trade documentation that would simplify and speed up procedures.

Australia and Singapore to trial blockchain for cross-border trade

The trial will test digital verification platforms across both the ABF-developed Intergovernmental Ledger and IMDA's TradeTrust for electronic trade documents.



Succesfull Proof of Concept Electronic Bill

In October 2019, IMDA (Infocomm Media and Development Authority) and the Maritime and Port Authority of Singapore (MPA) co-hosted a 2-day workshop for the delegates from Blocklab, Port of Rotterdam's blockchain centre to work together on the requirements of title transfer capability in relation to eBLs for cross-border trade transactions.



DBS and Trafigura collaborate with IMDA to launch open-sourced blockchain trade platform

Cuts end-to-end trade document transit time by more than half from 45 to 20 days



Call To Action

1) Join us to co-create TradeTrust Proofs of Concept

If you're from:

- a) Shipping lines
- b) Shippers/Consignees
- c) Logistics Service Providers
- d) Financial Institutions providing Trade Financing Service
- e) Govt Authorities involved in cross-border matters

2) Incorporate TradeTrust code into your Applications

If you're from:

- a) Tech Companies
- b) Platform Providers

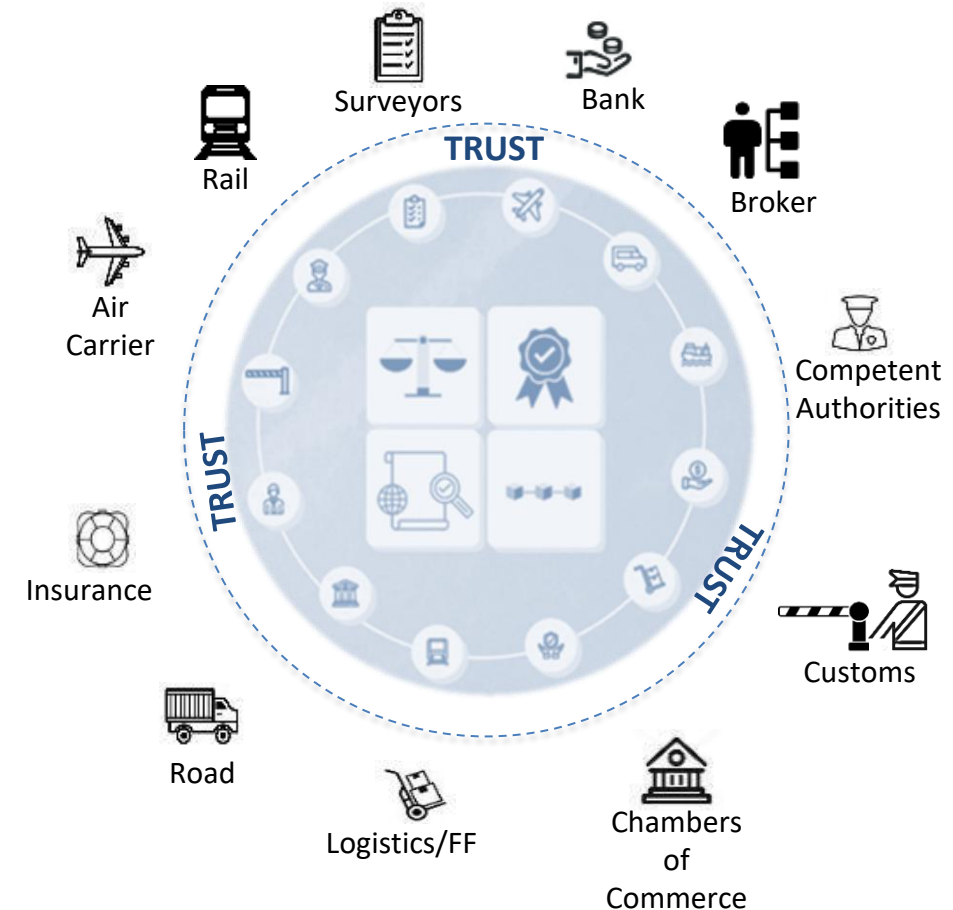
Useful URLs:

Reference Implementation Website: <https://tradetrust.io/>

Docs: <https://docs.tradetrust.io/>

Source code: <https://github.com/TradeTrust>

For more info, contact us at: **tradetrust@imda.gov.sg**





THANK YOU