

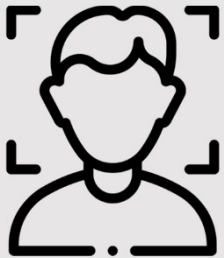
# Trade - Adapting to present and future challenges

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# COVID-19 HAS CHANGED BUSINESSES GLOBALLY

Lockdowns and supply-chain breakdowns have introduced **new challenges** for all countries' businesses

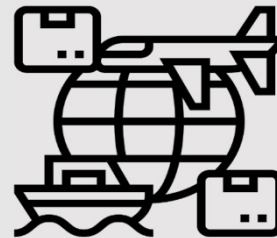
Can we be sure of who we are trading with if we cannot meet them?



Can we still send invoices overseas and make payment?



Can we continue selling products and make deliveries to overseas clients?



What about physical trade documentation for bank loans and trade financing?



# WHOLE-OF-GOVERNMENT (WOG) EFFORT





# THE NEED FOR A DIALOGUE BETWEEN COUNTRIES

## Capturing Different Needs



With the global digitalization of businesses and products, trade, and the economy at large, is evolving.



New technologies transforming trade & supply chains



Data flows underpin the digital economy



Increased pervasiveness of eCommerce

## Synchronised Rules



- WTO JSI plays important role in developing international rules to deal new developments and challenges in trade from digitalisation
- Push to facilitate cross border paperless trade
- Areas for JSI to consider: connecting National Single Windows, harmonizing data standards for trade documents, recognizing electronic trade documentation e.g. Bills of lading



# What is working in Singapore?





## SINGAPORE'S NETWORKED TRADE PLATFORM

- Singapore pioneered the submission of electronic trade documentation to Customs with **TradeNet** our national single window launched in 1989
- **National Trade Platform** launched in 2018 and is shifting from a traditional national single window for regulatory transactions, to a one-stop interface, allowing traders to interact with business partners, stakeholders and regulators on trade related transactions
- This helps companies raise productivity, boost competitiveness, and uncover new opportunities
- ***A key challenge remains – how to enable cross border transaction and submission of trade documents ?***



# What is next?

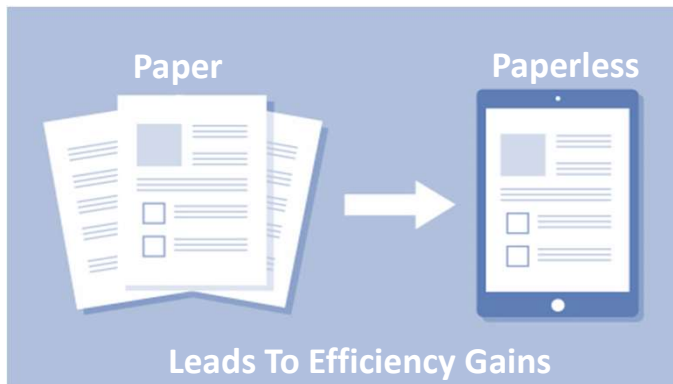


# MOVING BEYOND WITH TRADETRUST: B2B AND B2G INTEROPERABILITY WITH LEGALLY-BACKED TITLE TRANSFER

## Inefficient Processes

### Trade Digitalisation

TradeTrust provides an easy way to convert hardcopy trade documents into digitally-signed assets that are compliant to MLETR requirements



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

## Fragmented Systems

### Trusted Interoperability

TradeTrust is designed to support the following:

1. Working in harmony with the paper-based process by facilitating the seamless transition from paper to digital and vice versa along different parties of the value chain to cater to different degree of digital readiness
2. Working in harmony with different blockchain technologies like Hyperledger, Quorum and R3 Corda by connecting them to a common public blockchain



# WHAT IS TRADETRUST?

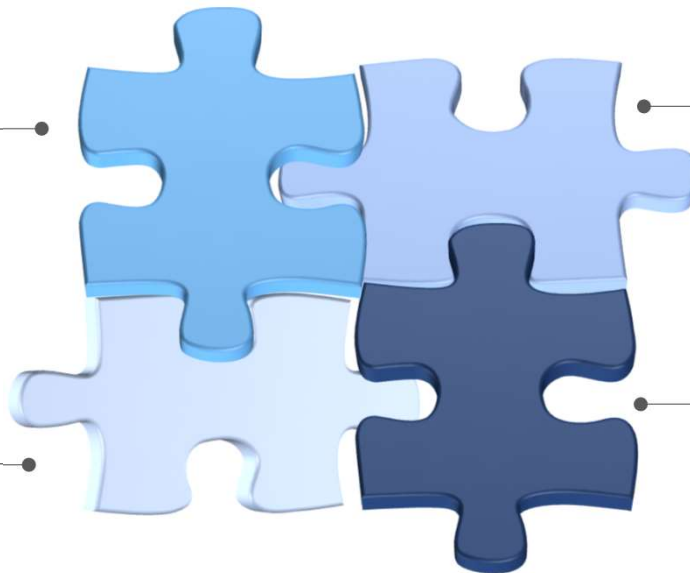
**TradeTrust** is a **digital utility** that comprises a set of **globally-accepted standards and frameworks** that connects governments and businesses to a **public blockchain** to enable **trusted interoperability and exchanges** of electronic trade documents across digital platforms

## 4 Key Components of TradeTrust



### 1. Legal Harmonisation

*Provide legal validity for electronic negotiable documents through compliance to MLETR*



### 2. Standards Development

*Develop international standards that TradeTrust complies to*



### 3. Accreditation Structure

*Certify technical solutions meet the requirements of the law*

### 4. Software Components

*A set of open-source software code that can easily integrate backend solutions to the TradeTrust network*





# 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*



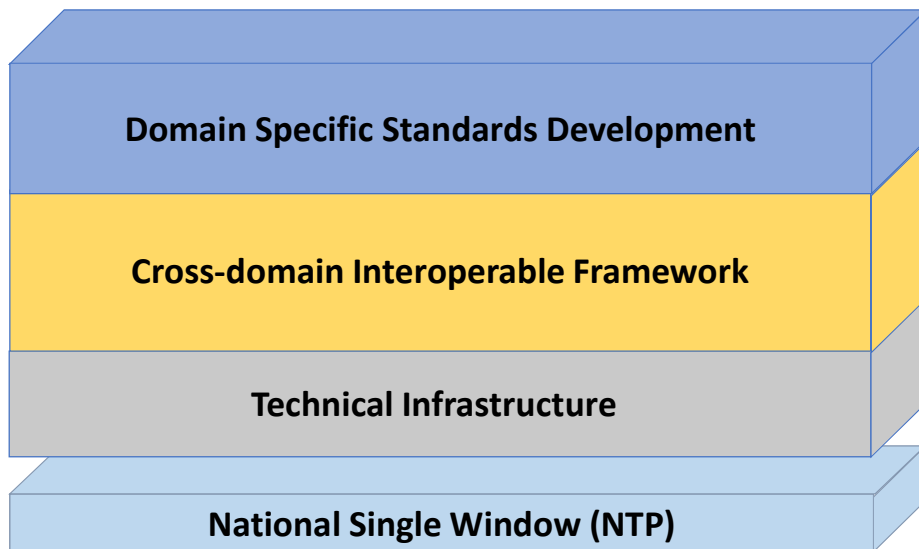
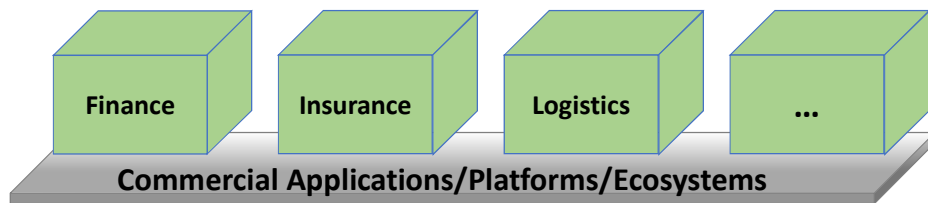
## MLETR-Compliant

*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*

# THE TRADETRUST FRAMEWORK

A set of Governance & Legal Frameworks, Protocol Standards, and Infrastructure to facilitate exchange of trusted digital documents



## 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

### Cross-border Recognition



### Standards Devt

### 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.
- To be published as open source for ease of industry adoption and for further enhancements by the open source community
- To contribute as reference implementation to standards bodies to support standards development and accelerate TradeTrust usage

# TRADETRUST TECHNOLOGY STACK

**Application Layer**  
Commercial implementations of TradeTrust.



**Services Layer**  
TradeTrust services that support the commercial applications and connection to other technologies.



**Blockchain Layer**  
Network participation requirement .

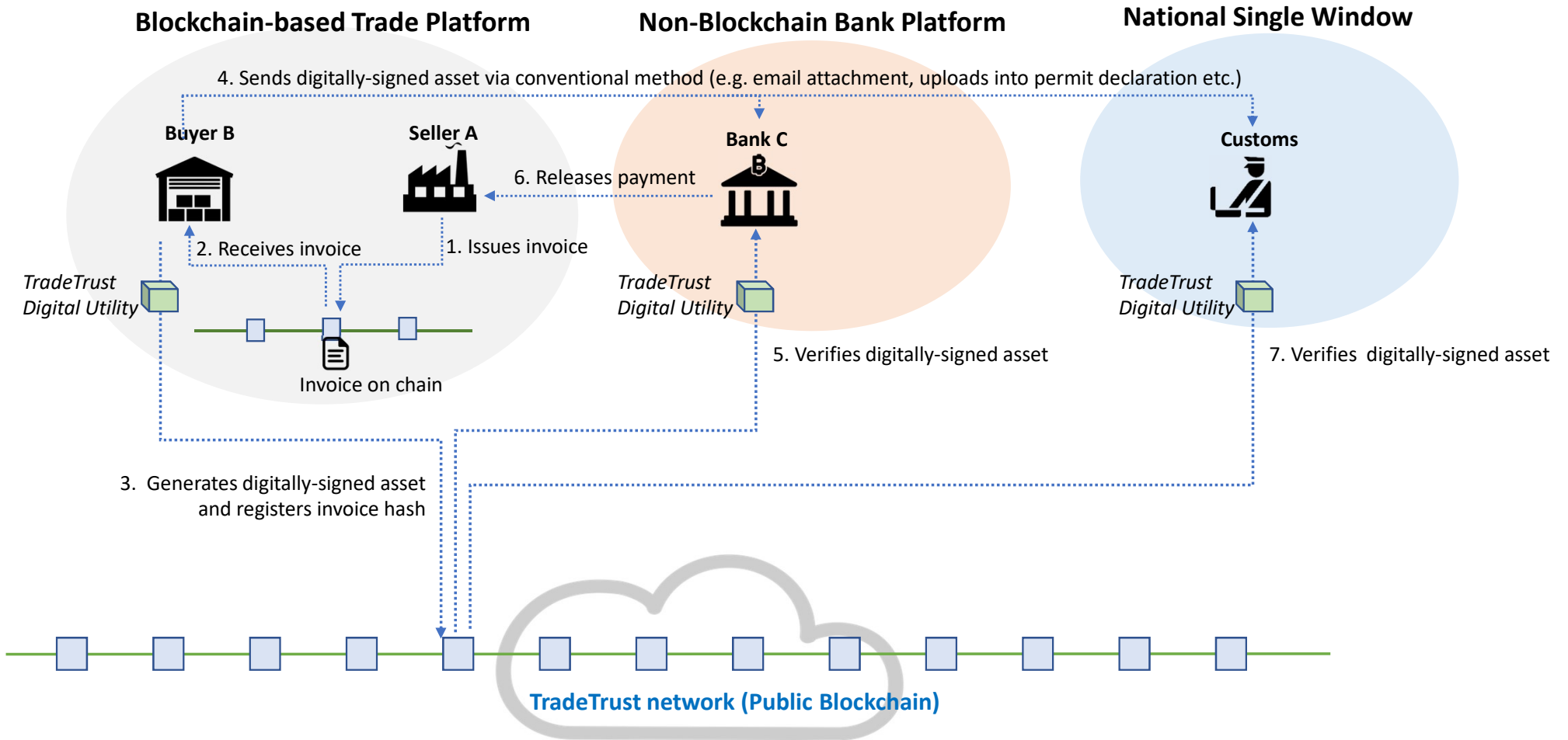


**Legal Harmonisation & Standards Development**  
To legally recognise cross-border digital trade documents and document exchange through standards.





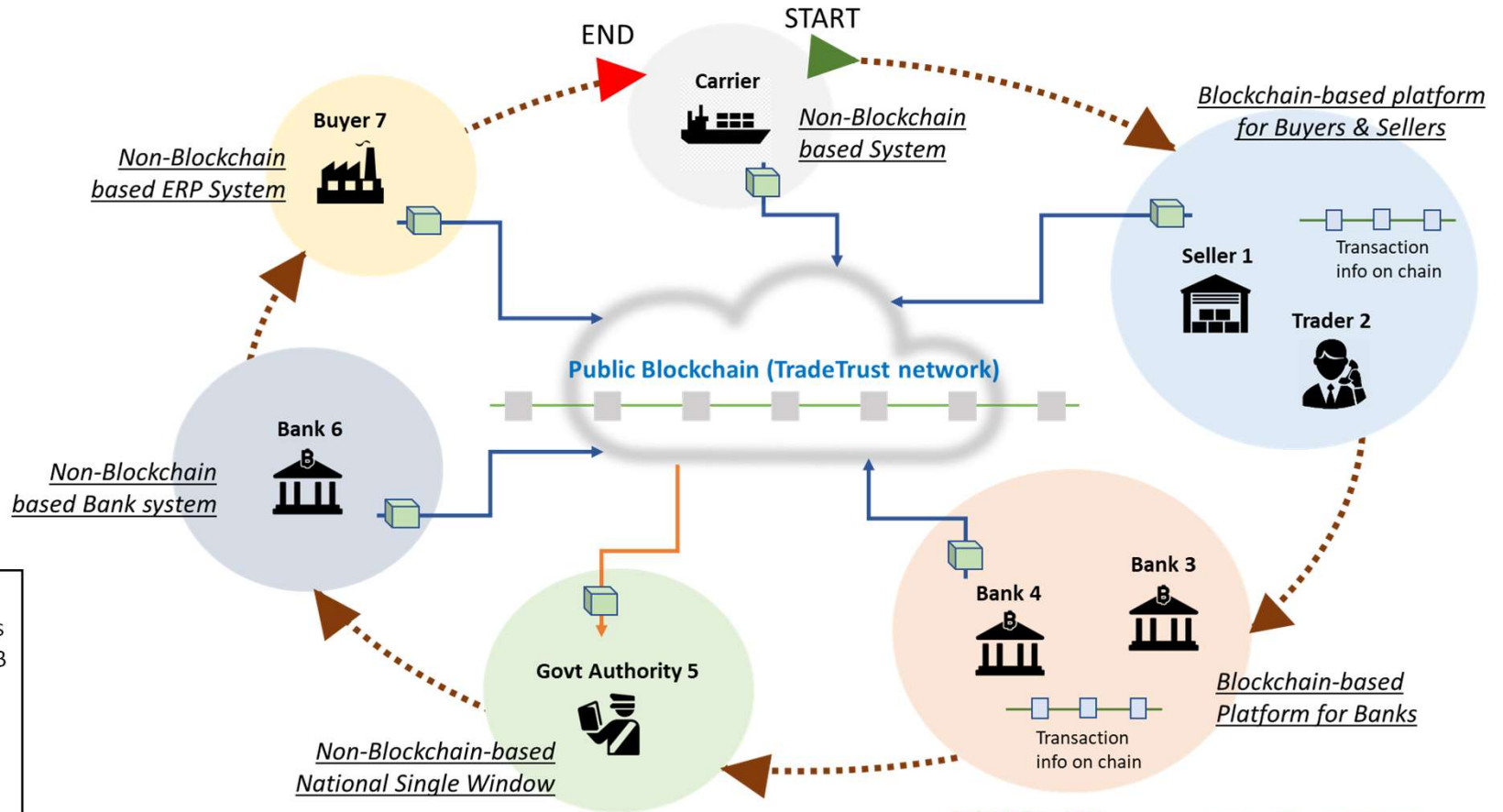
# An illustrative example of a potential inter-operability scenario



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

# Inter-operability of Digital Negotiable Instruments

## Example: Bill of Lading



**LEGEND:**

- Transport of electronic documents containing BL data (e.g. email, USB drive, portal etc.)
- Reading and updating of **Title Ownership**
- Reading and verification of **Title Ownership**
- TradeTrust Open Source software



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



# JAN 2020 MOI TO FURTHER DIGITALISATION IN TRADE



# GLOBAL CALL TO ACTION

## 1) Join us to co-create TradeTrust Proofs of Value

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

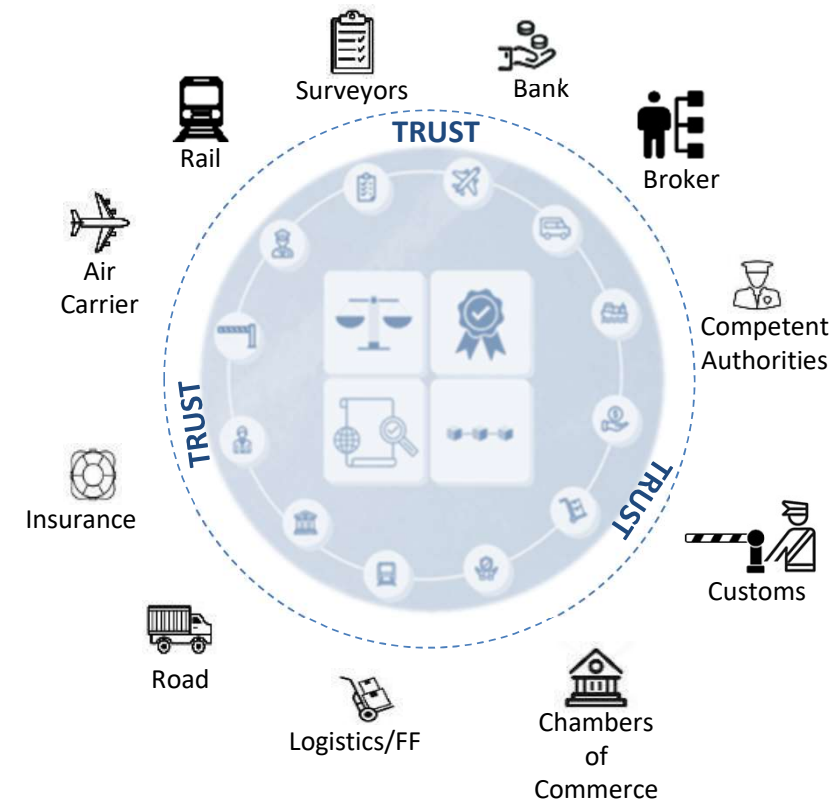
## 2) Incorporate TradeTrust code into your Applications

If you're from:

Tech Companies  
Platform Providers

Source code and documentation available to download at  
<https://docs.tradetrust.io>

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







THANK YOU