BUY SHIP PAY

Digital CoO flow: Singaporean Experience

By Nancy Chen

©2022 GUUD Pte Ltd. All rights reserved.

Agenda

- About GUUD
- The GUUD Certificate of Origin(CoO) experience
  - eCO Journey in Singapore
  - eCO implementation for the Singapore International Chamber of Commerce(SICC)
  - Cross-border sharing eCO between Singapore and Belgium (Pilot)
- How to get started

©2022 GUUD Pte Ltd. All rights reserved.

Our mission is to

trade for good

We aim to

make global trade simpler, more efficient and more inclusive, so anyone and everyone can become a player in global trade

©2022 GUUD Pte Ltd. All rights reserved.

GUUD's unique ecosystem makes it all possible.

Buy

Ship

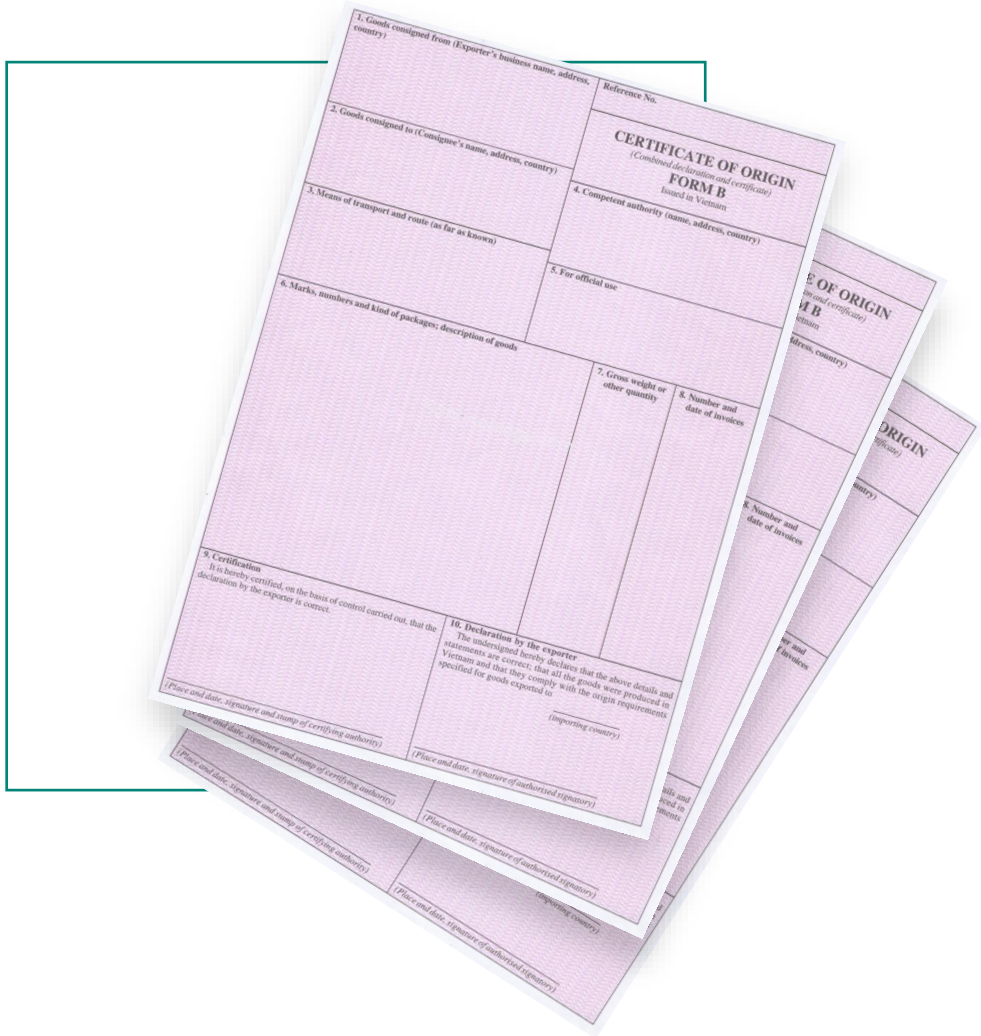
Pay

It is the only one of its kind in the world to bypass long-standing barriers to entry in global trade, digitalising and radically simplifying the processes in UN/CEFACT's BUY-SHIP-PAY model.

©2022 GUUD Pte Ltd. All rights reserved.

GUUD CoO experience

- Implemented non-preferential eCO for the Singapore International Chamber of Commerce (SICC)
- Implementing non-preferential and preferential eCO for Qatar Chamber
- Launched world's first blockchain-based eCO
- Cross-border sharing of non-preferential eCO between Singapore and Belgium



©2022 GUUD Pte Ltd. All rights reserved.

World's first eCO on Blockchain

SICC and VCC Launched World's First Electronic Certificate of Origin (eCO) on Blockchain

Published on 8 May, 2018

vCargo Cloud Pte Ltd / Newsroom / In The News / SICC and VCC Launched World's First Electronic Certificate of Origin (eCO) on Blockchain

World's First Electronic Certificate of Origin (eCO) on Blockchain – Immutable. Smart. Simple.

The world's first eCertificate of Origin (eCO) on Blockchain held by (from left), Mr Victor Mills – CE of SICC, Mr Chua Taik Him – Senior Advisor of Enterprise Singapore and Mr Desmond Tay – CEO of VCC

Latest News

MoneyFM 89.3 Prime Time Show on Simplifying Trade with GUUD

Published on October 9, 2020

Read More

Official Launch of GUUD, the Latest Group of Companies Operating Under VCC

Published on September 25, 2020

Read More

8 May 2018

©2022 GUUD Pte Ltd. All rights reserved.

The GUUD Certificate of Origin experience

eCO Journey in Singapore

	Submission And Process	Authenticating	Technology	Sharing e-copy
1 Manual submission and processing of Certificate of Origins	Manual and be presented in person	Physical verification and authentication of printed copy	N/A	N/A
2 Traditional electronic Certificate of Origins	Online	Physical verification and authentication of printed copy	Print on pre-printed form. Manual signature and stamp. Special equipment.	No
3 Modern Technology integrated electronic Certificate of Origin	Online	Online verification and authentication by scanning QR	Print on normal paper. Digital signature and stamp. Blockchain and QR technology	No
4 Connected electronic Certificate of Origin	Online	Online verification and authentication	Blockchain	Yes – A connected eCO system with stakeholders

©2022 GUUD Pte Ltd. All rights reserved.

1

Challenges

Manual submission and processing

Cost. High cost in courier and manpower

Productivity.
Inefficiency and productivity losses.

Time consuming and delays.
Need for manual human processing causing delays. Need to be in person at chambers and other government agencies for submission and processing.

Fraud. Easily subjected to fraud and mishandling of documents.

©2022 GUUD Pte Ltd. All rights reserved.

2

Challenges

Traditional eCO system

Technology.

Uses old technology in eCO system for the past decade even though disadvantages are apparent

Existing Technology	Disadvantages
Microprint	• Need a high-resolution laser printer. • Have to use a magnifying glass to verify.
Digital watermark	• Need a high-resolution laser printer. • Costly to implement as the technology need to be licensed.
2-D barcodes	• Need a special software or barcode scanner to verify.

Fraud.

eCO system's features are mainly for electronic submission/approval and do not prevent fraud.

The technology of scanners and copiers has also caught up, circumventing traditional fraud prevention methods.

©2022 GUUD Pte Ltd. All rights reserved.

3

Improvements

Modern technology integrated eCO

Blockchain technology prevents data reproduction of digital assets through a distributed shared ledger.

QR Code technology. Enabling quick verification of authenticity of eCO without requiring importer/exporter to be present in person.

Being ubiquitous in our everyday life and is an effective and simple way to encode data creates easy adaption..

©2022 GUUD Pte Ltd. All rights reserved.

3

Improvements

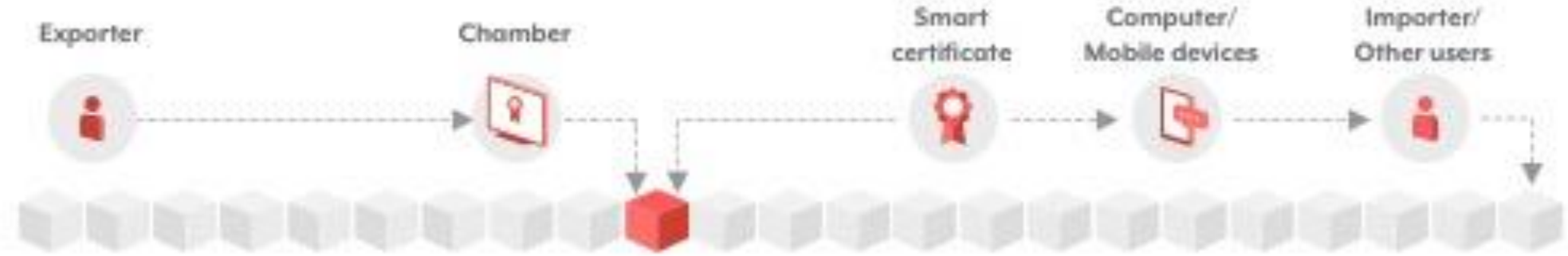
How eCO with Blockchain works

With Singapore International Chamber of Commerce (SICC)

1. Export applies CO online with attached documents

3. A digital copy of the CO gets added to the blockchain

5. The importer and bank can verify the authenticity of the certificate via blockchain



2. Chamber approves and issue a CO where the exporter can print

4. The smart CO is propagated to all blockchain nodes

6. Fingerprint is added into the blockchain to mark utilisation

©2022 GUUD Pte Ltd. All rights reserved.

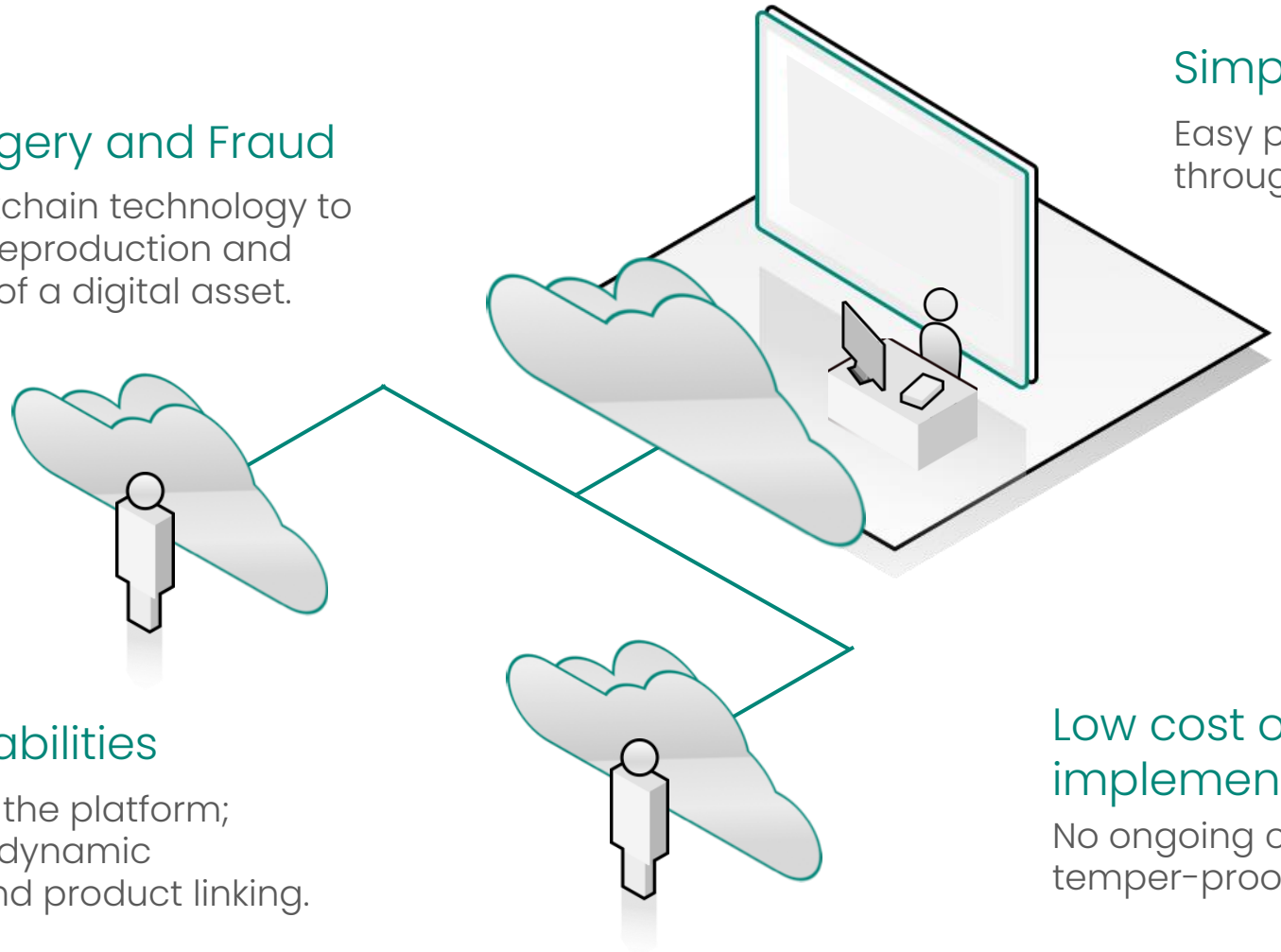
3

Improvements

Modern technology integrated eCO

Prevent Forgery and Fraud

Applying blockchain technology to prevent data reproduction and modifications of a digital asset.



Simple verification process

Easy process to verify authenticity through simply scanning a QR code.

Distributed database

Database is not dependent on a single source of truth.

Smart Capabilities

Embedded on the platform; fingerprinting, dynamic certification and product linking.

Low cost of implementation

No ongoing cost of implementing temper-proof printing.

©2022 GUUD Pte Ltd. All rights reserved.

4

Improvements

Connected electronic Certificate of Origin

End-to-end digitalisation

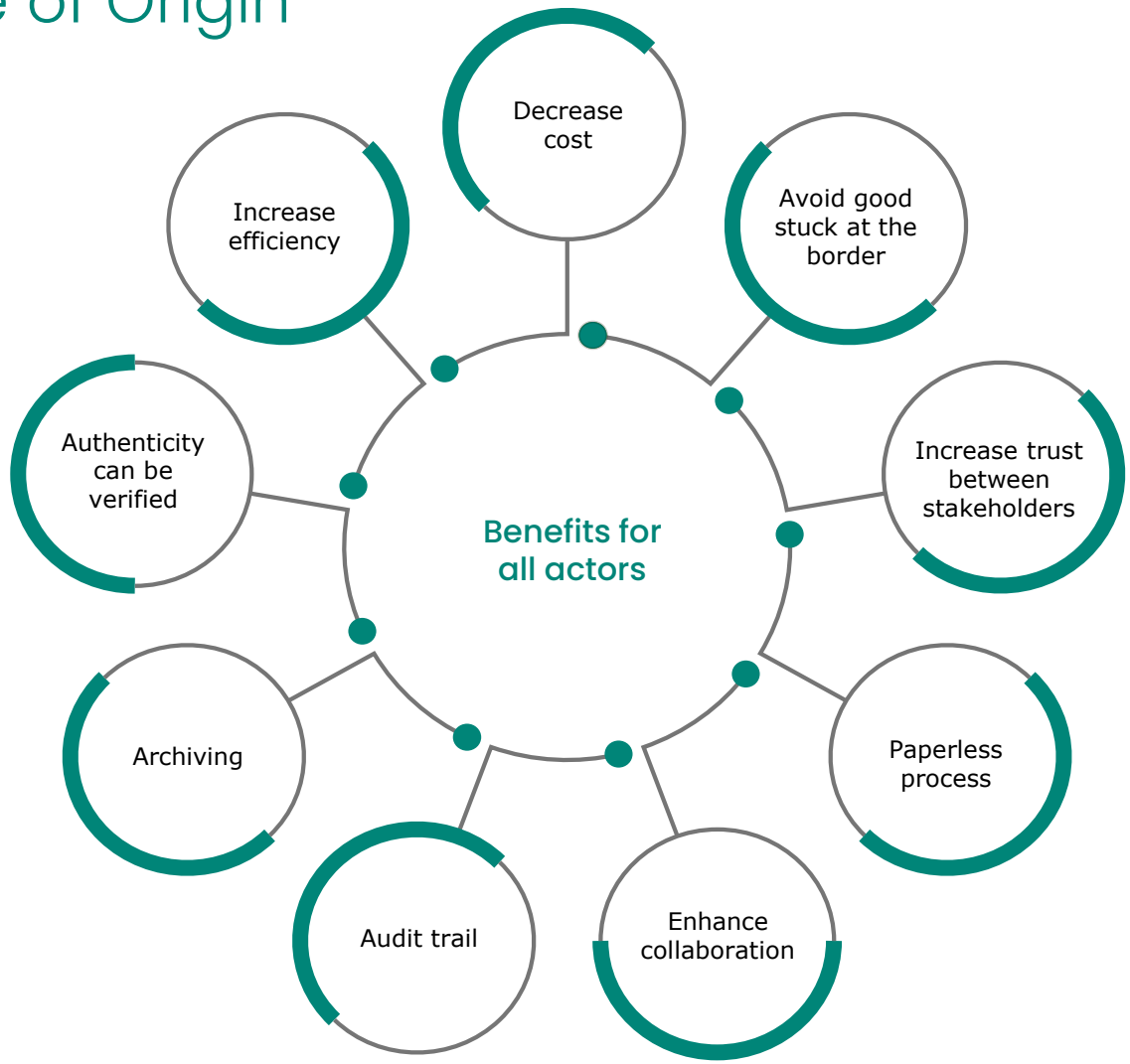
Numerous platforms for issuing or processing CoO's already exist. The challenge is making the process end-to-end digital, across several existing platforms and initiatives (both cloud-based and blockchain-based)

Experience the benefits hands-on

Allow both economic operators and authorities to experience the benefits of an end-to-end digital process.

Proof of scalability

Not just a technology demo – we did that in 2018 with phytosanitary certificates and insurance bonds – but a "Proof of Business" to show it can scale and gain adoption. Including a suitable financial model.



©2022 GUUD Pte Ltd. All rights reserved.

4

Connected electronic: Certificate of Origin

Cross-border sharing of eCO between Singapore and Belgium (pilot)

Belgium

Singapore

1 Exporter applies for a CoO using DigiChambers 2.0
Recorded on blockchain

2 Recorded on blockchain
Chambers of Commerce issues a digital CoO, DigiChambers submits the CoO to the blockchain network

3 Exporter ships to Singapore, and transfers the digital CoO to the importer
Recorded on blockchain

4 Registered on blockchain
Logistics provider receives the digital format of the CoO that accompany the goods

5 Importer receives the goods, and shares access to the digital CoO with Customs
Registered on blockchain

6 Registered on blockchain
Customs Authority can verify the authenticity of the digital CoO

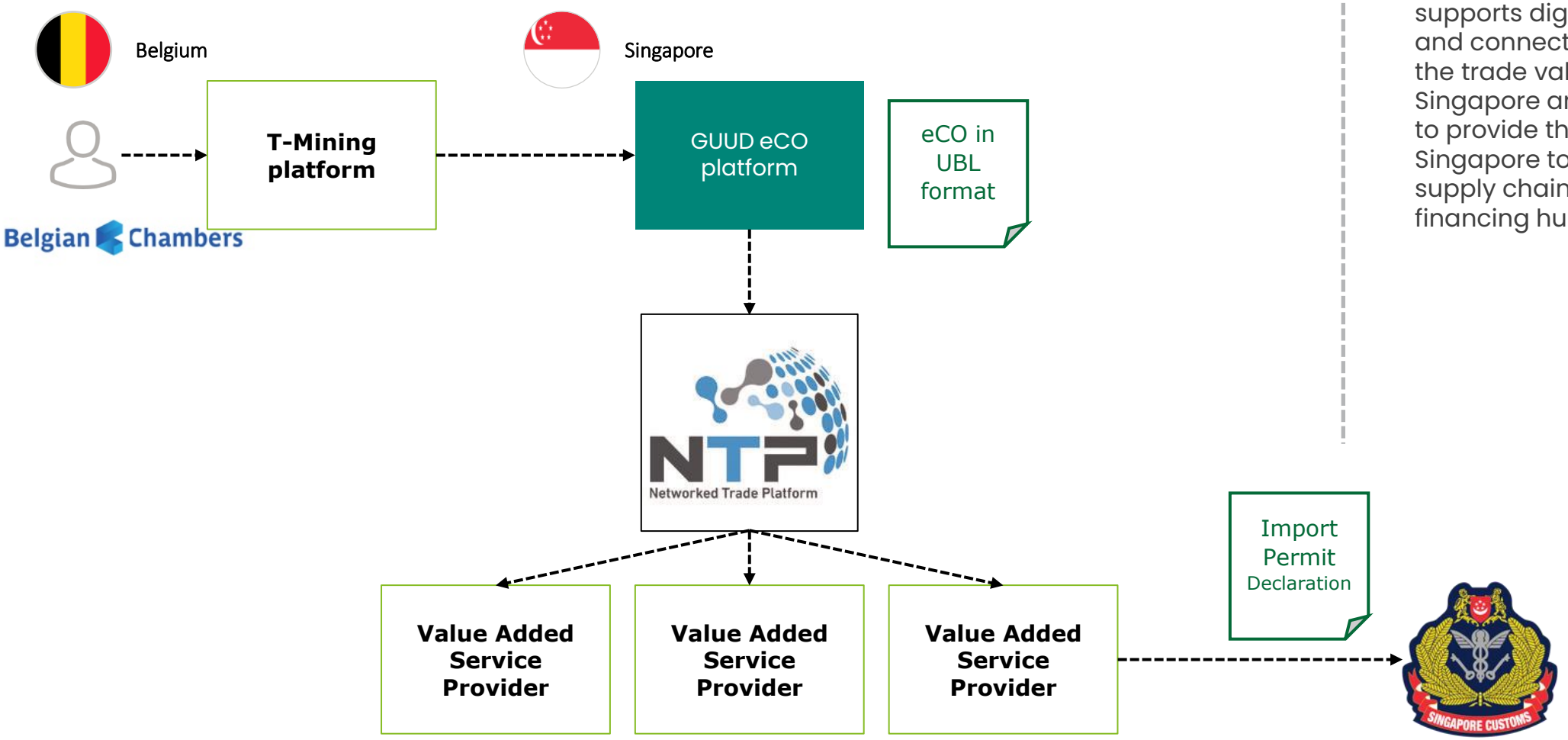
7 Audits
Verify on blockchain

©2022 GUUD Pte Ltd. All rights reserved.

4

Cross-border sharing of eCO between Singapore and Belgium (Pilot)

Inbound to Singapore (Singapore Custom's Networked Trade Platform)



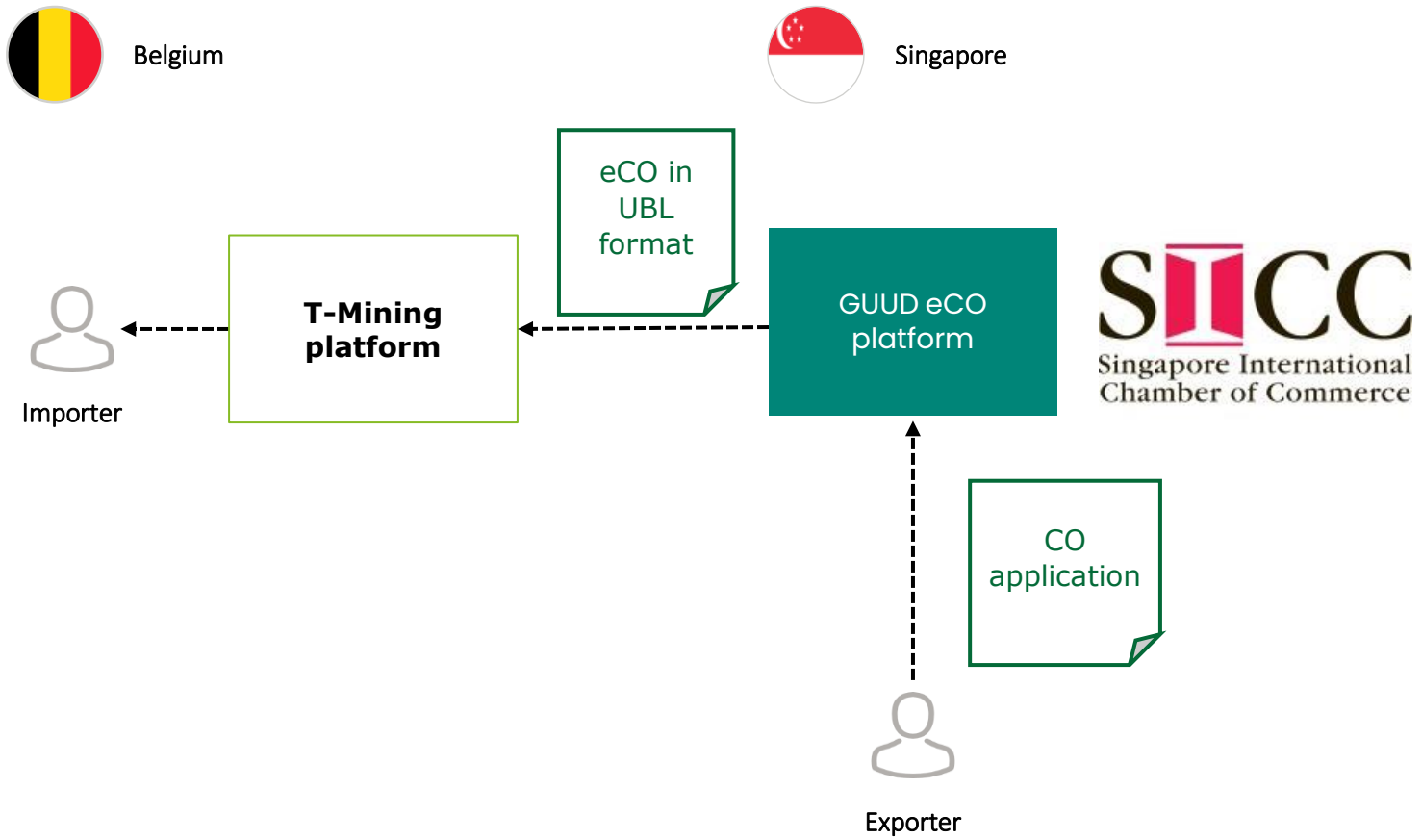
The Networked Trade Platform (NTP) is a one-stop trade and logistic ecosystem which supports digitalisation efforts and connects players across the trade value chain – in Singapore and abroad. It aims to provide the foundation for Singapore to be a leading trade, supply chain and trade financing hub.

©2022 GUUD Pte Ltd. All rights reserved.

4

Cross-border sharing of eCO between Singapore and Belgium (Pilot)

Outbound from Singapore (Singapore International Chamber of Commerce)



The Singapore International Chamber of Commerce (SICC) was founded in Singapore in 1837. It is a wholly independent, non-profit business association.

SICC began by standing up for Singapore as a business hub and for its members' business interests. This is still its mission today. SICC achieves its mission by understanding its members' business concerns. It advocates these to the government with the aims of achieving greater mutual understanding and practical solutions. This win-win approach benefits policymakers and the businesses which sustain Singapore's economy. SICC members include global corporations, large local companies as well as SMEs from 20 industries. The Chamber also works to facilitate international trade via its Certification Services.

©2022 GUUD Pte Ltd. All rights reserved.

GUUD
BUY SHIP PAY

How to get started

New technology eCO

1. Develop buy-in before the project starts
2. Secure budget
3. Map business processes
4. Stakeholder involvement
5. Evaluate Blockchain technologies
6. Choose a suitable product/vendor
7. Change control

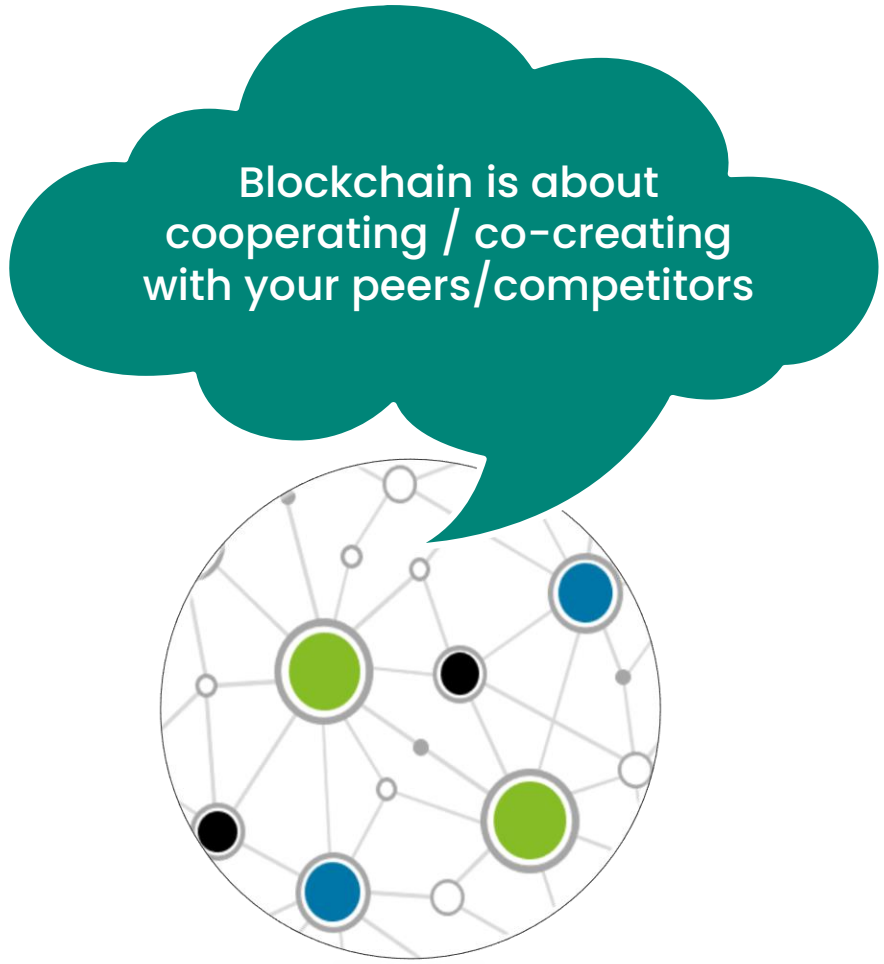
©2022 GUUD Pte Ltd. All rights reserved.

Exchange CO cross-border

1. Focus on the business case and proof of adoption, the technology has already been tested and validated. Choose an existing blockchain framework over building your own technology.

2. Choose a technology platform and pilot architecture that allows you to scale to production if the pilot is successful. Plan for the production phase. This includes thinking about (financial) incentives for the different types of participants.

3. Join a broad consortium that represents your target market, be a forerunner but make sure you get the laggards on board



©2022 GUUD Pte Ltd. All rights reserved.

Thank you.

BUY SHIP PAY

I'm Nancy Chen Junhua
Contact me at Nancy.chen@guud.company

©2022 GUUD Pte Ltd. All rights reserved.