



Australian Government

Department of Home Affairs

# **G2G Pipelines & the inter- customs ledger**

## ***A Trade Modernisation Initiative***

WTO Blockchain Conference, 27 Nov 2018

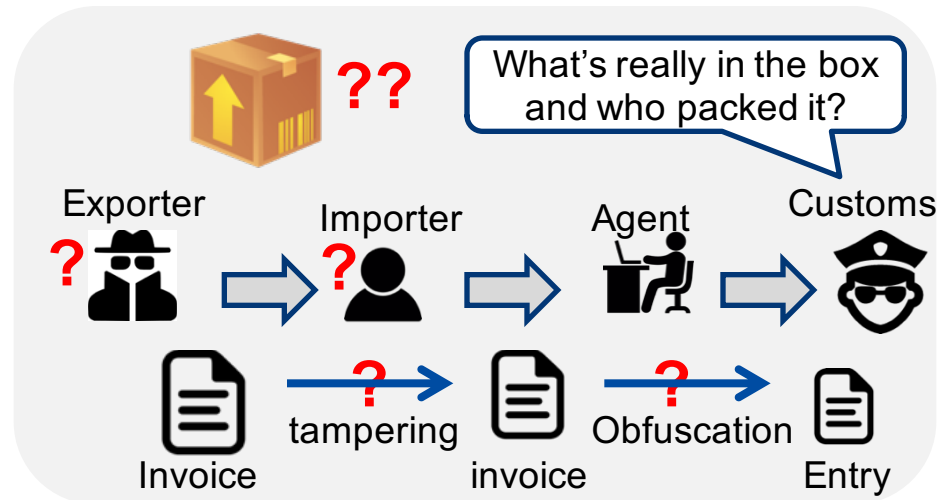
Steven Capell, Enterprise Architect, AU Dept of Home Affairs

[steven.capell@homeaffairs.gov.au](mailto:steven.capell@homeaffairs.gov.au)

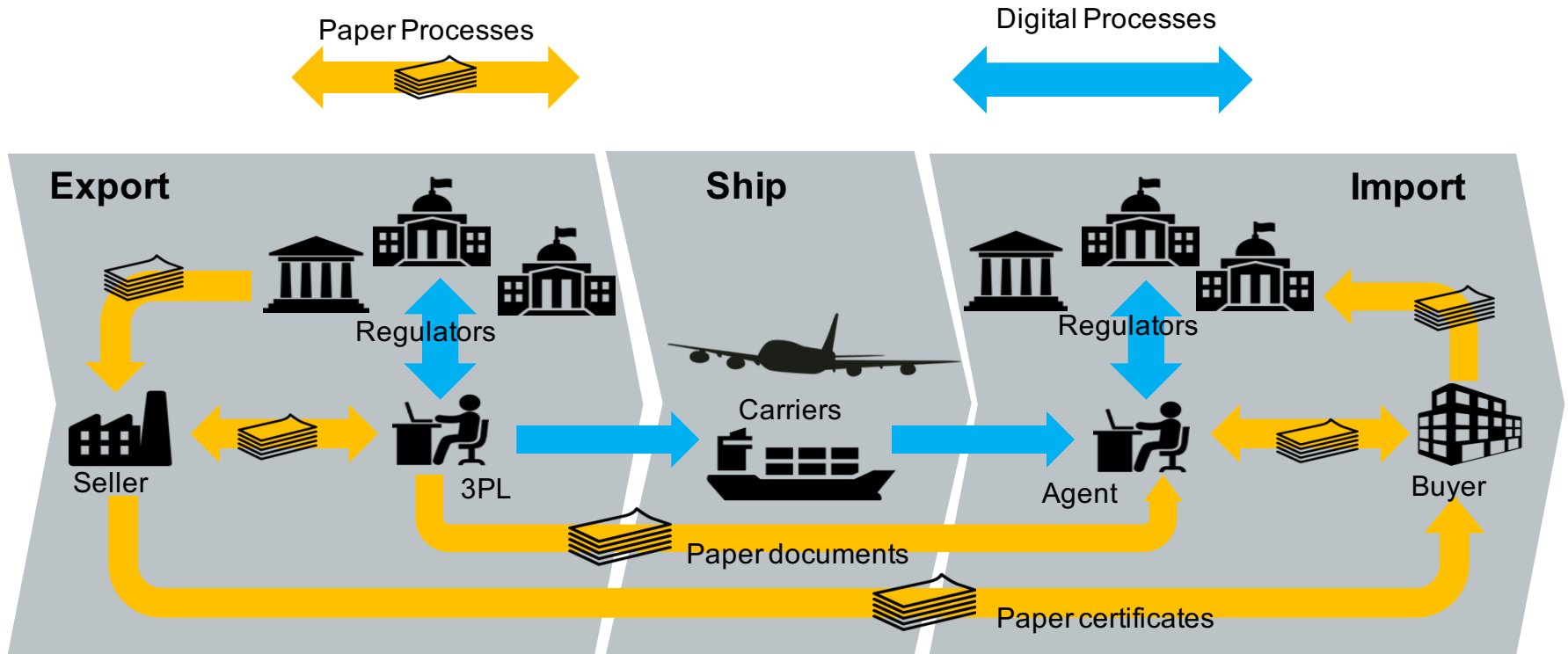
# Key Problems for Regulators

Despite our “digital world” there is still a mountain of physical paper documents in international trade processes that present non-tariff barriers to our exporters.

Unlike person movements that have strong identity, regulators must make cargo risk decisions based on minimal information from poorly identified parties.



# Information Flows – Current State



- AU has 99% digital uptake between 3PL, Agents, & Regulators.
- The paper problem is mostly **cross-border**. E.g. Origin certificates
- We aim to digitise all these cross border flows, starting with CoO

# Certificates of Origin

A Certificate of Origin (CoO) is a document issued by an accredited organisation (usually Chambers of Commerce) that asserts that the goods in a specific shipment comply with the terms of a free trade agreement (FTA).

- The main reason paper is still used is not because the CoO can't be digitised, but rather because there is no easy way for the importing regulator to verify the identity of the issuer in the exporting country. It's an **asymmetric trust problem**.
- But the importing regulator will trust the digital CoO if the exporting regulator asserts that it was issued by an accredited entity. So the G2G interchange is essentially a **trust bridge**.

# Digital CoO Design Challenges

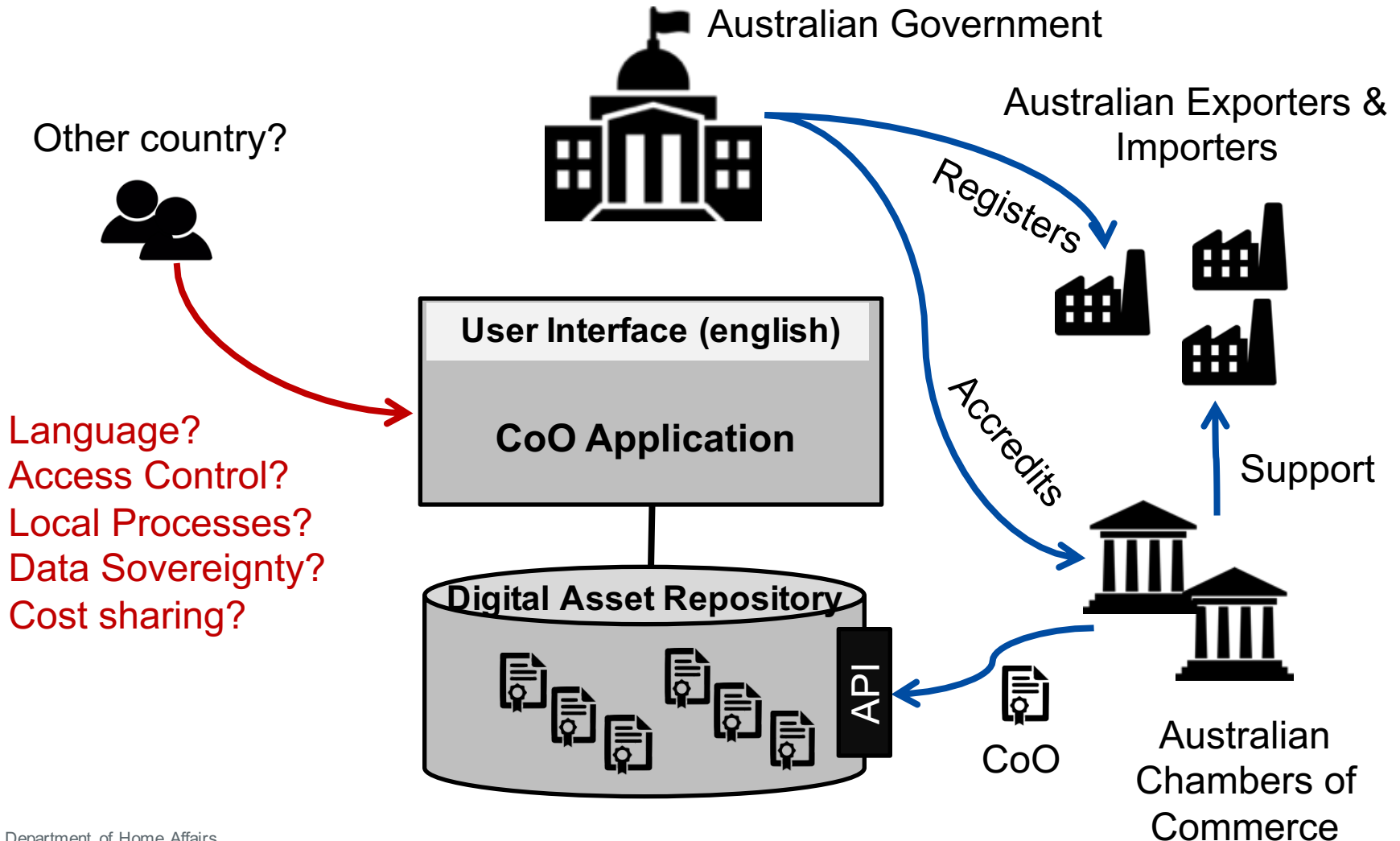
- **Multiple** countries must agree. Always a challenge! So maximise their autonomy.
- Asymmetric **trust** problem. So leverage G2G **trust**.
- Certificates are specific to a single shipment. There needs to be a way to transfer and **acquit**.
- **Independent** national participants should be able to audit system **integrity**.
- National data sovereignty rules must be accommodated.
- Funding models for centralised solutions are notoriously difficult to achieve. A **distributed** system would be better.

# How to solve these challenges?

**Acquit** **Distributed** **Multiple**  
**Independent** **Auditable** **Trust**

## Sounds Like a Blockchain

# Digital CoO – One Country



# Digital CoO – Two Countries

*The importing regulator trust the exporting regulator to identify the CoO issuer*

Only two things to agree!

On Chain  
Data

Transaction hash = "kfESTOv24o31skyXUrhGXTD+j1kZ6FAvLIqCOu1Yhh4="

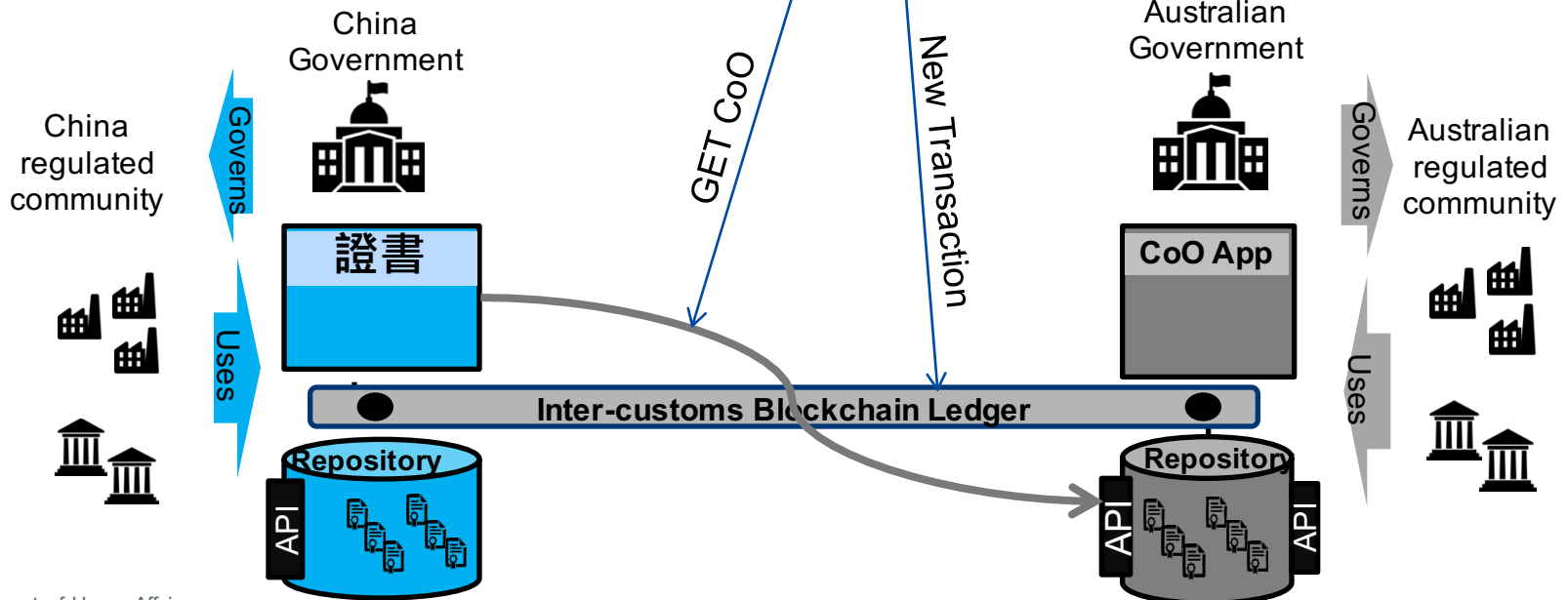
Exporting Jurisdiction = "AU"

Importing Jurisdiction = "CN"



Repository API

GET repository.gov.au/digitalassets/kfESTOv24o31skyXUrhGXTD+j1kZ6FAvLIqCOu1Yhh4=

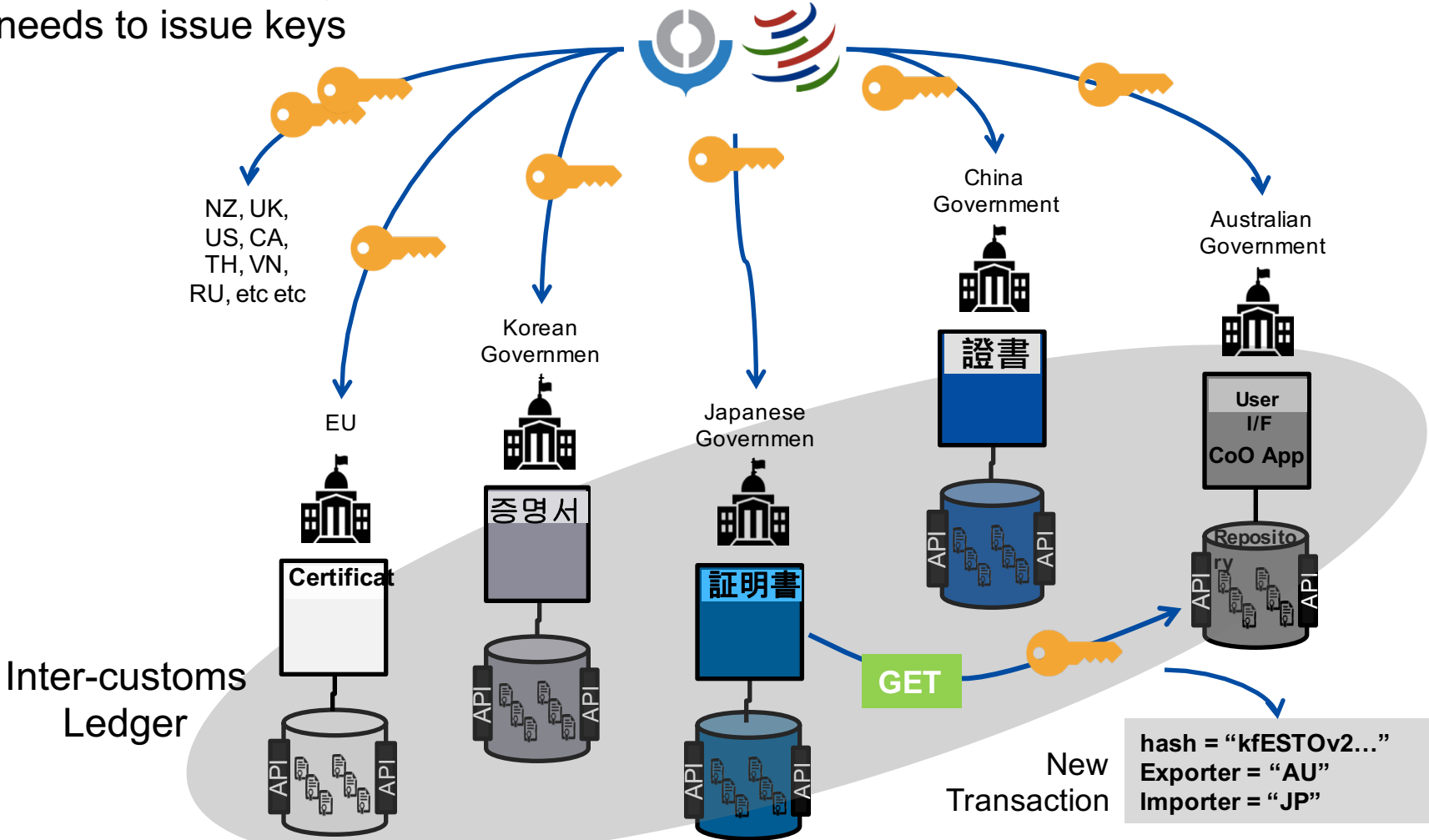




# Digital CoO – Multiple Countries

Some trusted entity needs to issue keys

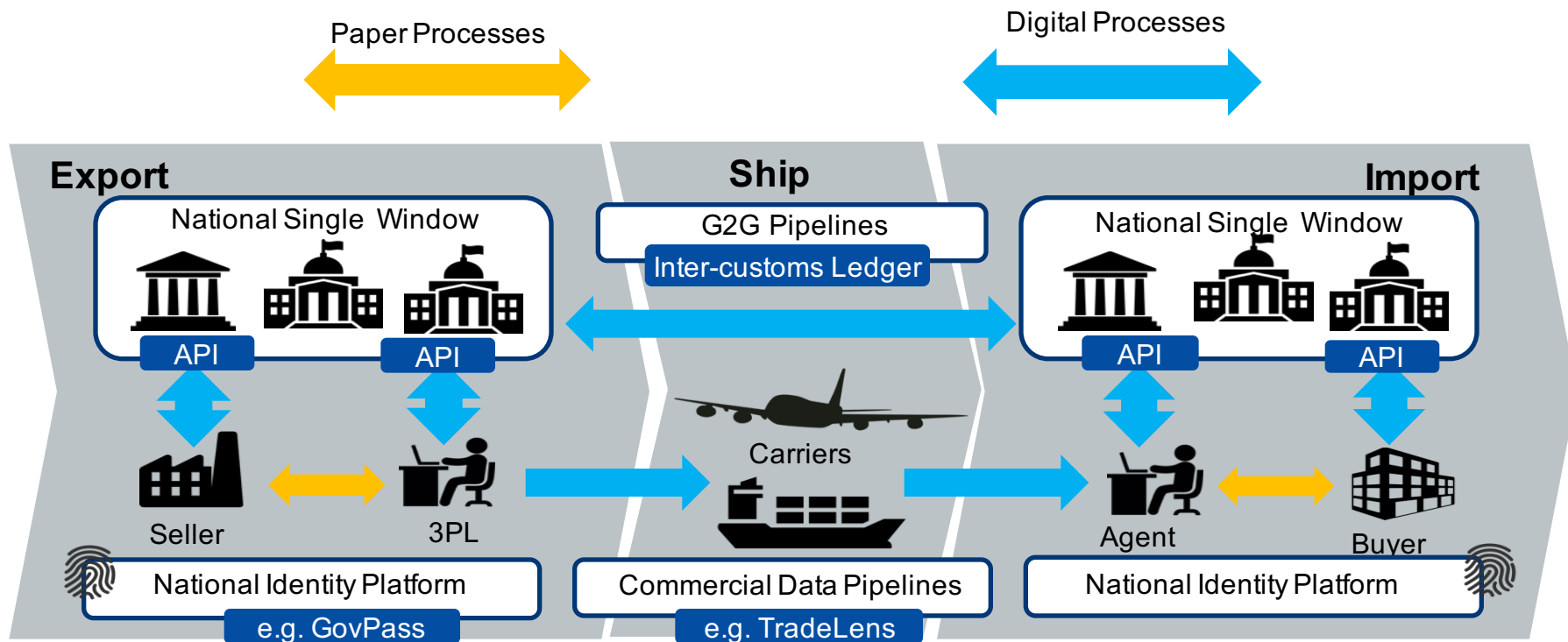
WCO or WTO?



# G2G Pipeline – not just for CoO

- Why stop at CoO – what about Phytosanitary and others?
- Trend towards trader “declarations of origin” supported by commercial invoices. Then we have trade documents on the ledger too!
- Trend towards national identity frameworks (eg AU “GovPass”) means ledger entries can be strongly identified.
- Now regulators have rich data and strong identity as the basis for risk assessment. Improved targeting of interventions.
- And, where risk is low, automated pre-clearance.

# Information Flows – Future State



- National SW & identity : high integrity digital domestic processes
- G2G Pipelines : high integrity digital cross-border regulatory processes
- Commercial Pipelines : can build better solutions leveraging the above.

# Current state of play

- AU GovPass **identity platform** is planning 2019 roll out.
- AU **Single Window** envisioned as a suite of consistent APIs – enabling multiple Govt & commercial “windows” & “no wrong door”
- International standard APIs for trade, transport, financial and regulatory processes kicking off – based on UN/CEFACT data models.
- Inter-customs ledger for digital CoO - PoC between AU and CN looks likely to complete by June 2019. As an open source project.
- Maybe we could plug in to Singapore NTP?
- UN/CEFACT may host inter-customs ledger standards project
- Who will be key issuer for the inter-customs ledger? WCO or WTO?



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# Thanks. Questions?

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