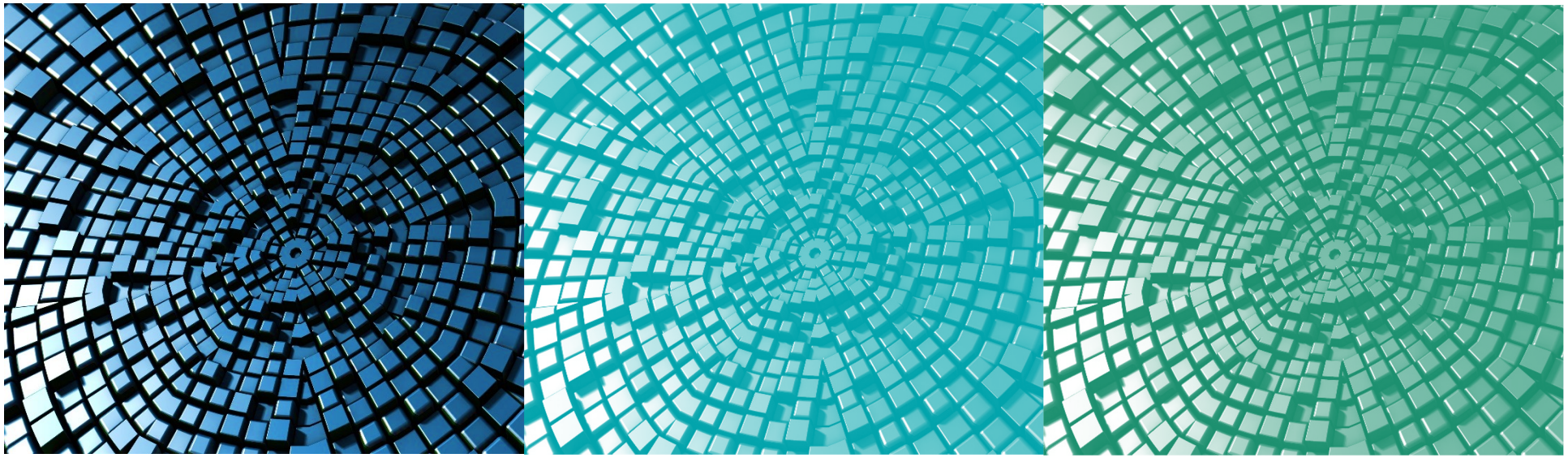
Blockchain and International Trade

Use Cases



BLOCKS

Supply chain
- Logistics

Public administration
- E-governance
- Diplomacy
- Democracy
- Hybrid war

Financing
- Currency
- Factoring
- Crowdfunding
- Audit
- Accounting
- Insurance
- Financial inclusion
- ETFs
- Banking
  - Central banking
  - Bank to business
  - Bank to customer - individual

Sustainability
- Circular economy
- Energy + electricity
- Other utilities?
- Agriculture

Risk management

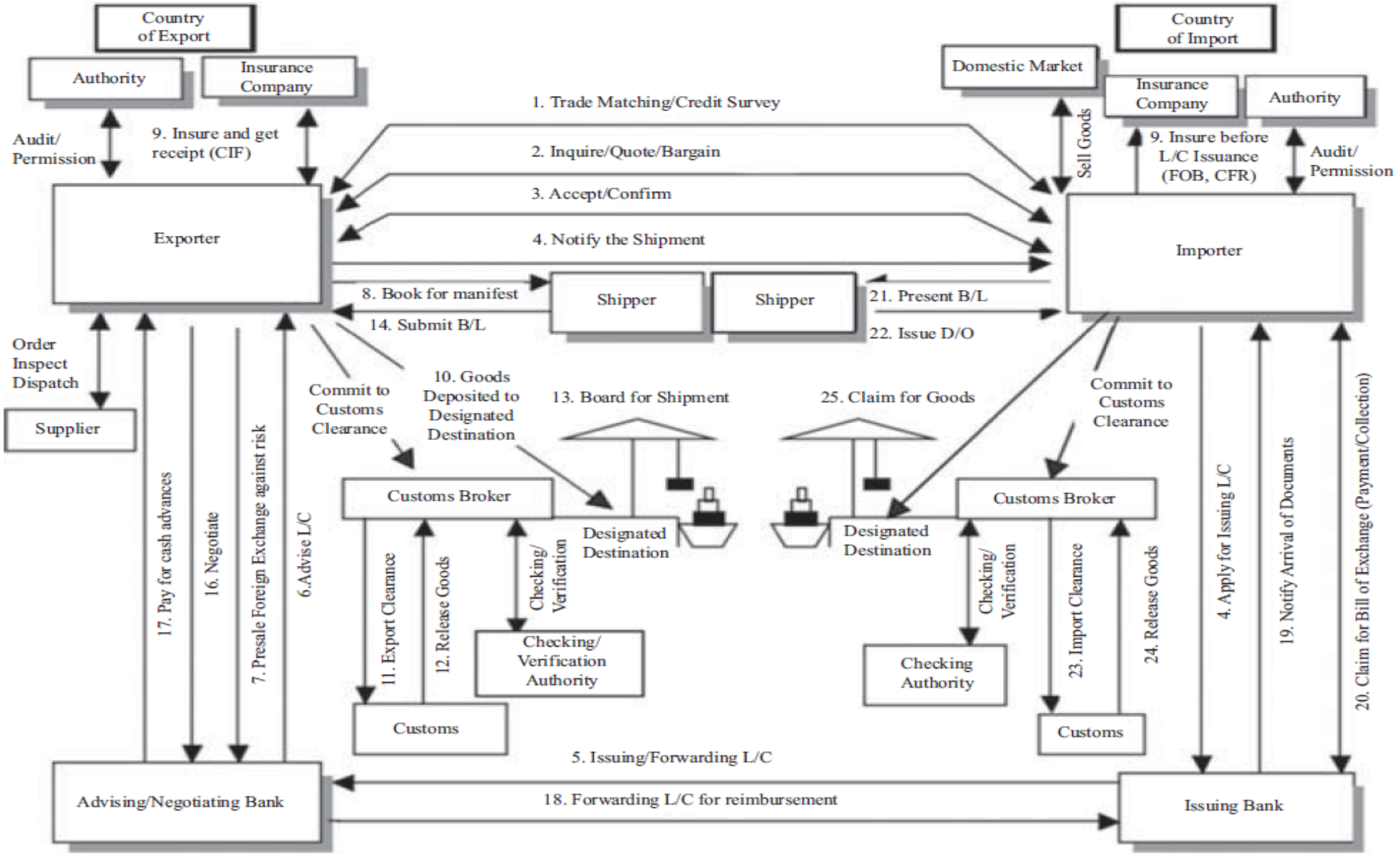
International trade

Community development

HR
- Future of work
- Education
- Healthcare

Cybersecurity

IoT


Country of Export
Authority
Insurance Company
Audit/ Permission
9. Insure and get receipt (CIF)
Exporter
Order
Inspect
Dispatch
Supplier
1. Trade Matching/Credit Survey
2. Inquire/Quote/Bargain
3. Accept/Confirm
4. Notify the Shipment
8. Book for manifest
14. Submit B/L
Shipper
Shipper
21. Present B/L
22. Issue D/O
Country of Import
Domestic Market
Insurance Company
Authority
Sell Goods
9. Insure before L/C Issuance (FOB, CFR)
Audit/ Permission
Importer
Commit to Customs Clearance
10. Goods Deposited to Designated Destination
13. Board for Shipment
25. Claim for Goods
Commit to Customs Clearance
Customs Broker
Designated Destination
Checking/ Verification
Checking/ Verification Authority
11. Export Clearance
12. Release Goods
Customs
Designated Destination
Customs Broker
Checking/ Verification
Checking Authority
23. Import Clearance
24. Release Goods
Customs
17. Pay for cash advances
16. Negotiate
7. Presale Foreign Exchange against risk
6.Advise L/C
4. Apply for Issuing L/C
19. Notify Arrival of Documents
20. Claim for Bill of Exchange (Payment/Collection)
5. Issuing/Forwarding L/C
18. Forwarding L/C for reimbursement
Advising/Negotiating Bank
Issuing Bank

Elements to consider

- Trade *is driven by economic incentives* to reap the benefits of comparative advantage.
- **Trust**, **transparency** and **accountability** are **friends** and the **costs of distance** and **uncertainty** are **foes** (Chaney 2013)

Blockchain technology has the potential to revolutionize, reinvent or disrupt international trade as this is occurring just as we have begun to understand the impact that **internet-led digitalization** has had on trade

blockchain can take goods along **the whole chain**, from producer to consumer

Blockchain can ease the cumbersome and complex process of **trade financing**

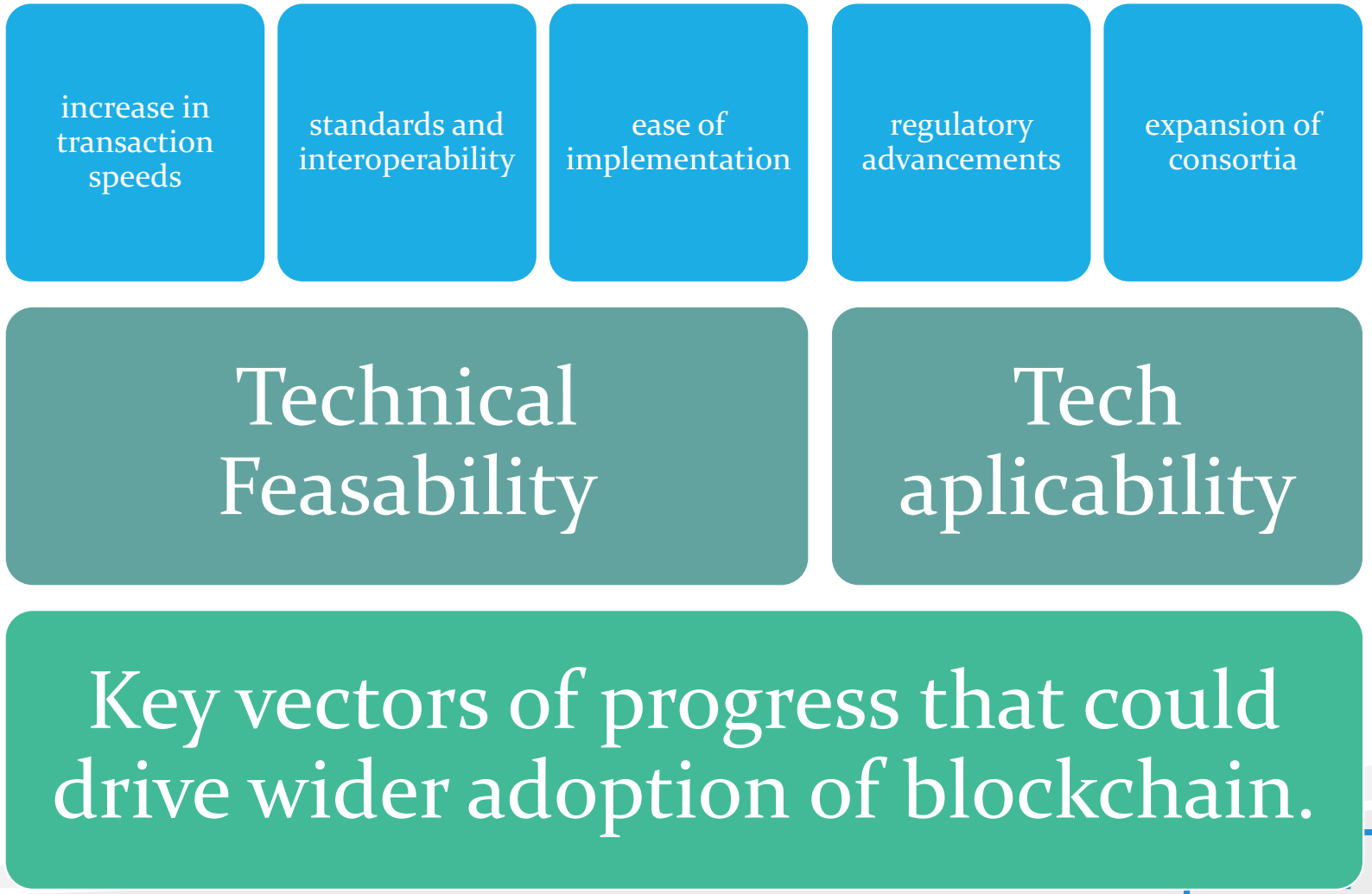
The shipping process can incorporate more transparency by using blockchain technology for inspection documentation

Blockchain improves the **trade agreements that are already in place**

Blockchain also works very well to support the **underlying characteristics** of modern trade agreements

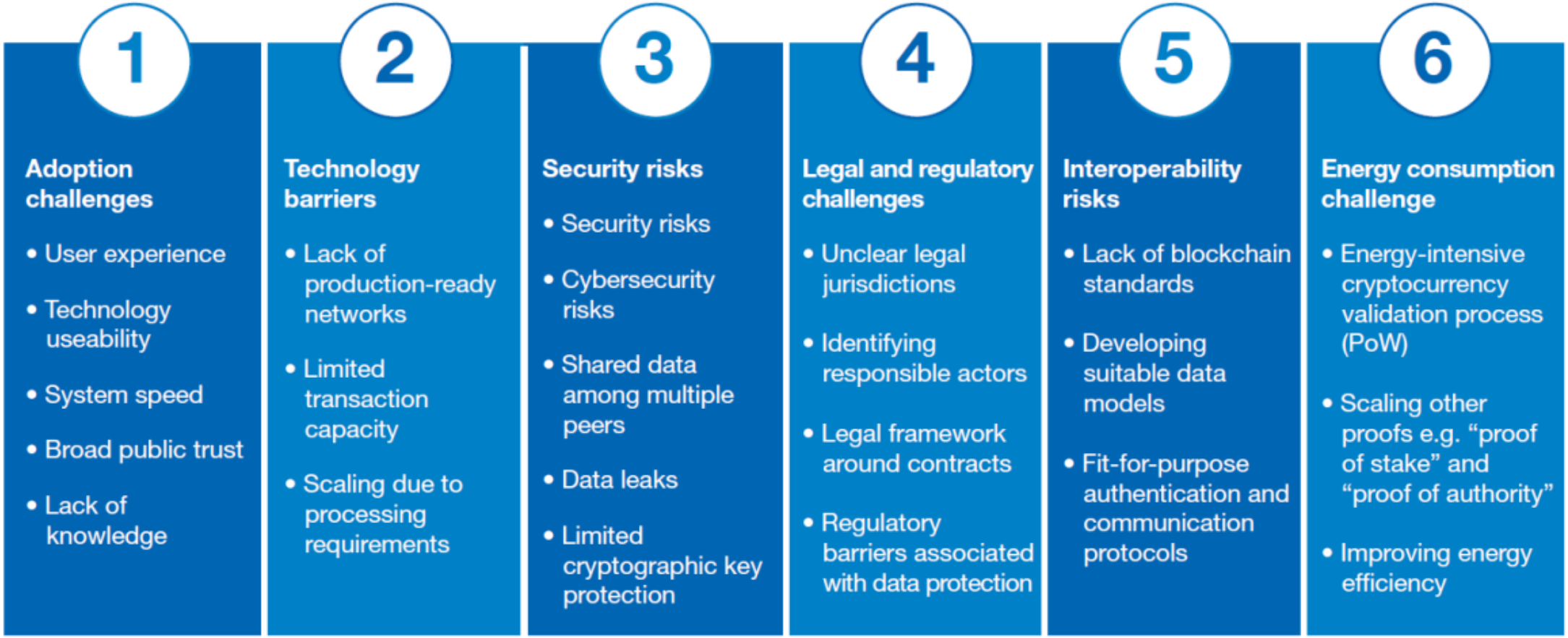
BLOCKS

- Blockchain's low transaction speed – risk for enterprises that depend on high-performance legacy transaction processing systems
- Legal and regulatory concern around data privacy, intellectual property, enforceability of contracts, and choice of jurisdiction
- (Deloitte, 2019
- *Insights - David Schatsky, Amanpreet Arora, Aniket Dongre*)



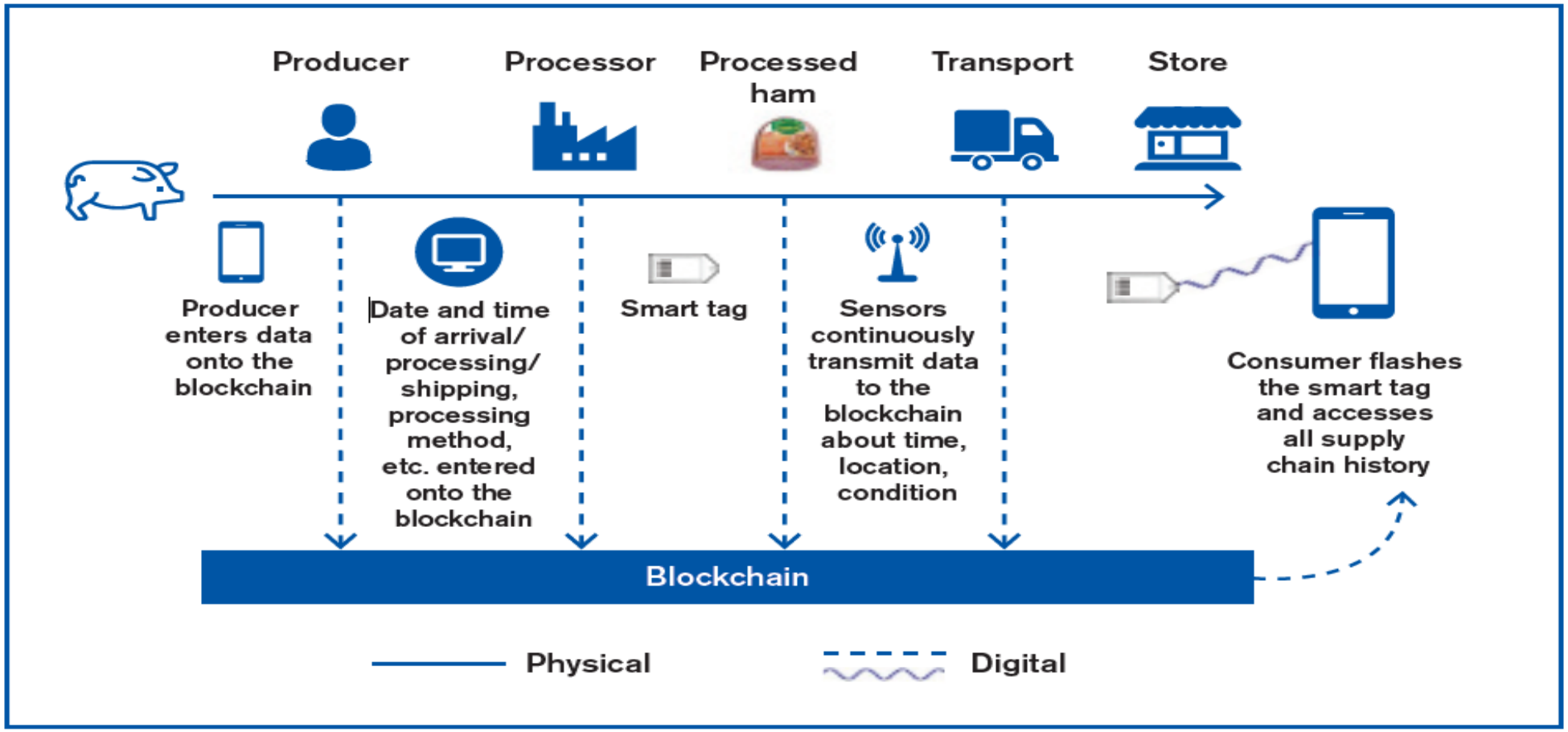
BLOCKS

Risks



Source: PwC

Key Issue: TRACEABILITY



Stakeholder	Now	Future
Producer: Adds value to the raw materials into other consumables and finally the end-product	• Has a limited ability to control and verify the flows coming from its suppliers (e.g. compliance to standards, respect of requirements)	• Benefits from an integrated and distributed ledger that enables them to control the inputs and keep track of its production
Freight Forwarder: Responsible for transporting materials and products to and from the different stakeholders	• Reliable but one-sided tracking system • Limited certification ability and complex tracking (e.g., heat or pressure variations) • Difficulty to certify a code of conduct	• Shared information system • Client can benefit from a distributed and certified system • Client can make sure his goods are transported in the right conditions and timing
Broker: Makes the link between the stakeholders	• Difficulty to certify the origin and path of the goods bought and sold	• Can easily check the origin of the goods and their transformation path on the blockchain • With sealed IoT devices put on the goods, the broker can check and prove its authenticity and provenance
Consumer: The final consumer of the product	• Difficulty to verify the compliance, origin, and composition of the goods to be bought	• Has a full view on the goods bought (i.e., provenance, transformation process, transportation) directly on the blockchain

Source: Deloitte, 2017

- IBM & Maersk – **TradeLens** https://youtu.be/oO2E9bCpKDk
- DTC - Diamond Trading Company (a subsidiary of De Beers) – **Tracr** (https://www.tracr.com/
- 2018 – Walmart, Nestlé SA, Dole Food Co., Driscoll's Inc., Golden State Foods, Kroger Co. and Unilever NV - tracking its respective food supplies across the globe via the use of a unified decentralized platform called the **Food Trust Blockchain**
  - June 2019 – Walmart China fully tracks 23 products scalable with extra 10 in 6 months
  - https://www.youtube.com/watch?v=QWijlTDHLMQ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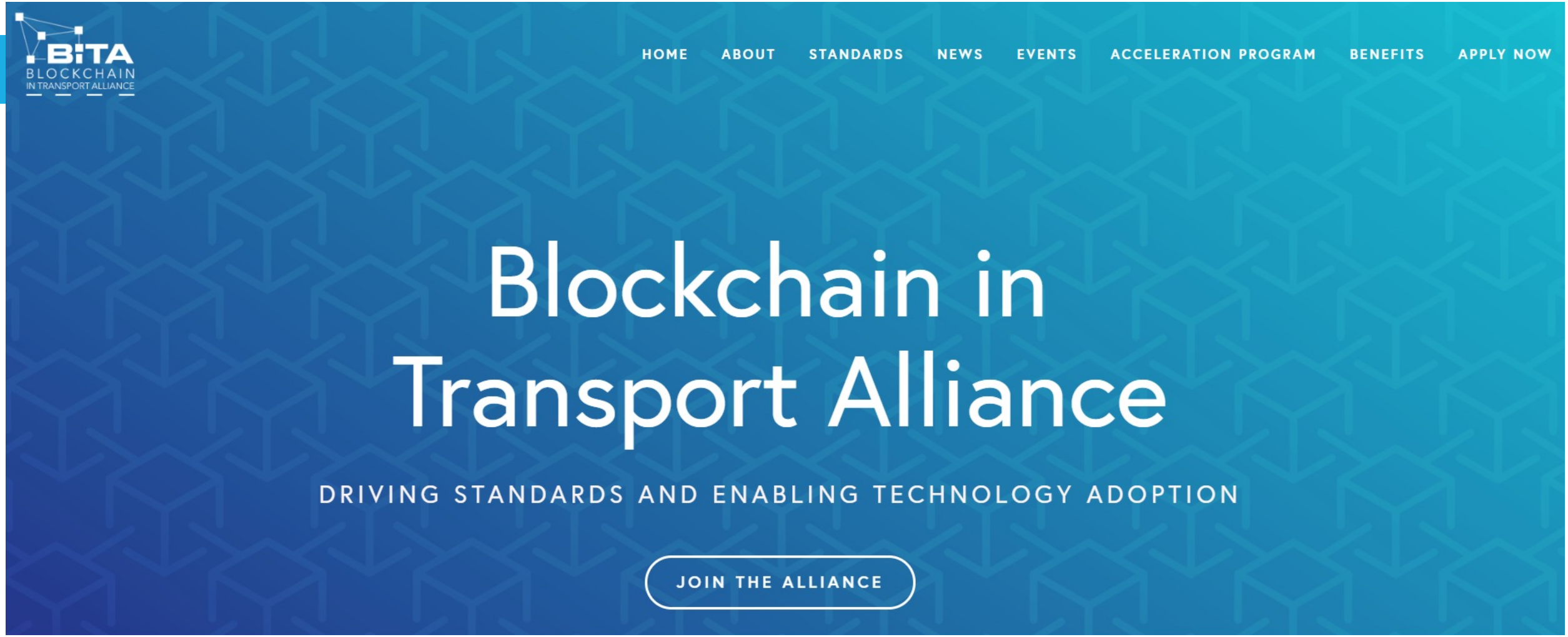
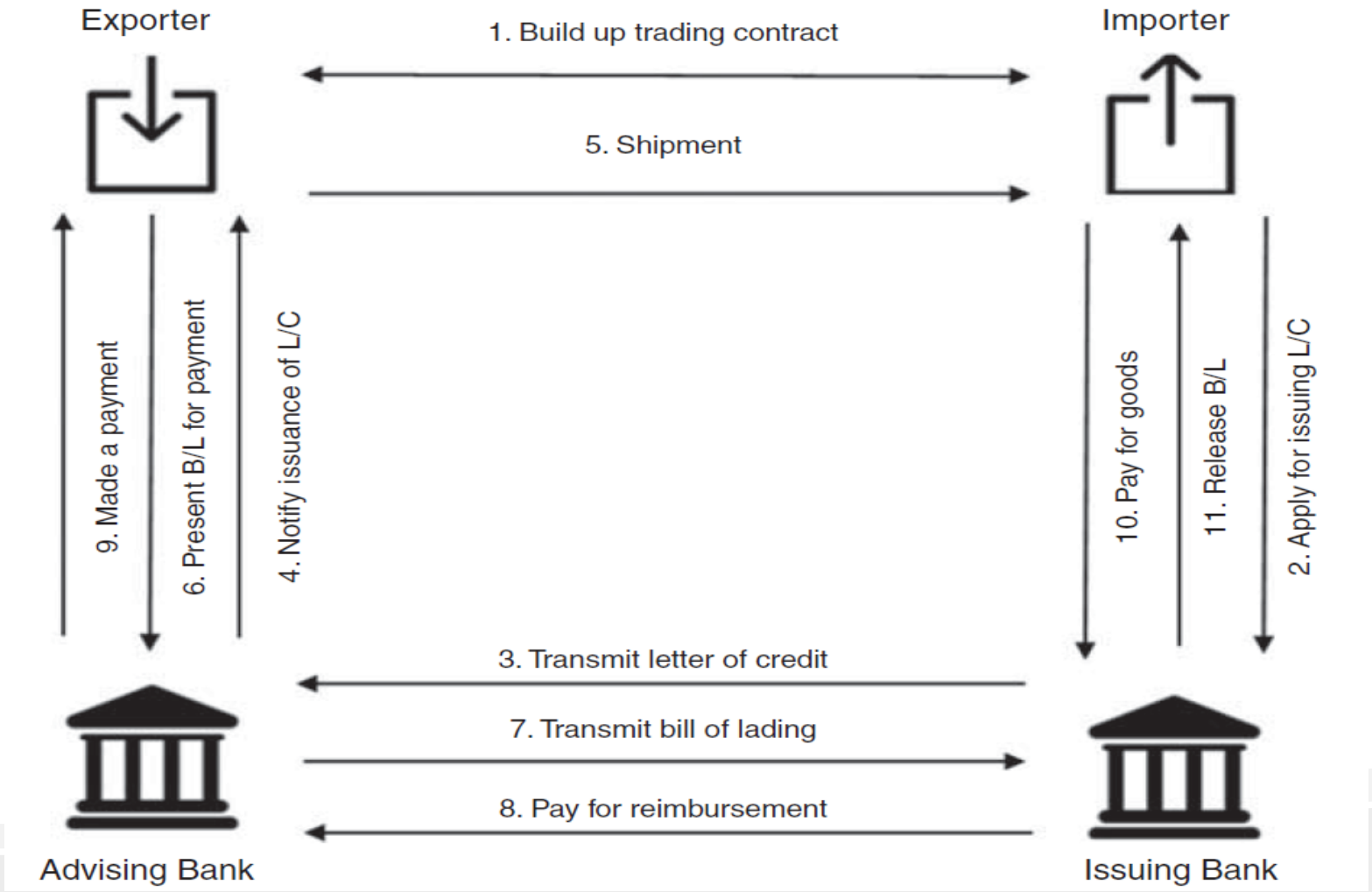
Diamonds
Electronics
Blockchain Based Anti-Counterfeit Solution
Introducing transparency to supply chains


BITA
BLOCKCHAIN
IN TRANSPORT ALLIANCE
HOME
ABOUT
STANDARDS
NEWS
EVENTS
ACCELERATION PROGRAM
BENEFITS
APPLY NOW
Blockchain in Transport Alliance
DRIVING STANDARDS AND ENABLING TECHNOLOGY ADOPTION
JOIN THE ALLIANCE

The International Trade Angle

- Singapore – TradeTrust https://www.youtube.com/watch?v=jXHNECJD4Sg&t=42s
- the International Chamber of Commerce - ICC Blockchain/DLT Alliance – with Perlin – Centre for Future Trade
- China's 'National Customs Cross Border Technology Innovation Initiatives' - Powerbridge Blockchain Cross Border Compliance Platform
  - 26 cross border ports and marketplaces along China's southwestern border
  - provided as blockchain-as-a-service to Nanning Customs
  - designed to allow the customs agency to significantly increase the effectiveness of risk assessments and interventions in monitoring and controlling the flow of goods, documents, and vendors for cross border trade events and transactions, with an enhanced level of regulatory information transparency and synchronization among customs agencies and other government authorities

Traditional Letter of Credit



Application of Blockchain to Letter of Credit

- Blockchain will help alleviate the risk of documentary fraud and will reduce the cost of the transaction.
- Blockchain have the potential to make the payment methods in international trade more effective, trusted, and easier for all parties in letter of credit transaction and increase the good reputation of letter of credit among international trade.
- Blockchain eliminating the need for correspondent banks in letter of credit transaction.
- Payment method automation on blockchain ensures faster assured payments by preventing disputes arising from contract ambiguities, which reduces payment delays through early discovery of discrepancies and decreases the expense and difficulty of making amendments due to discrepancies.
- Blockchain technology removes the necessity for physical presentation of documents, making the procedure faster and easier for letter of credit parties. Applying blockchain can help to complete the whole letter of credit transactions within one day only. It also guarantees that all parties have visibility into the process and can check the documents presented by the seller.
- https://www.youtube.com/watch?v=37WaD4iEHCI

Thank you