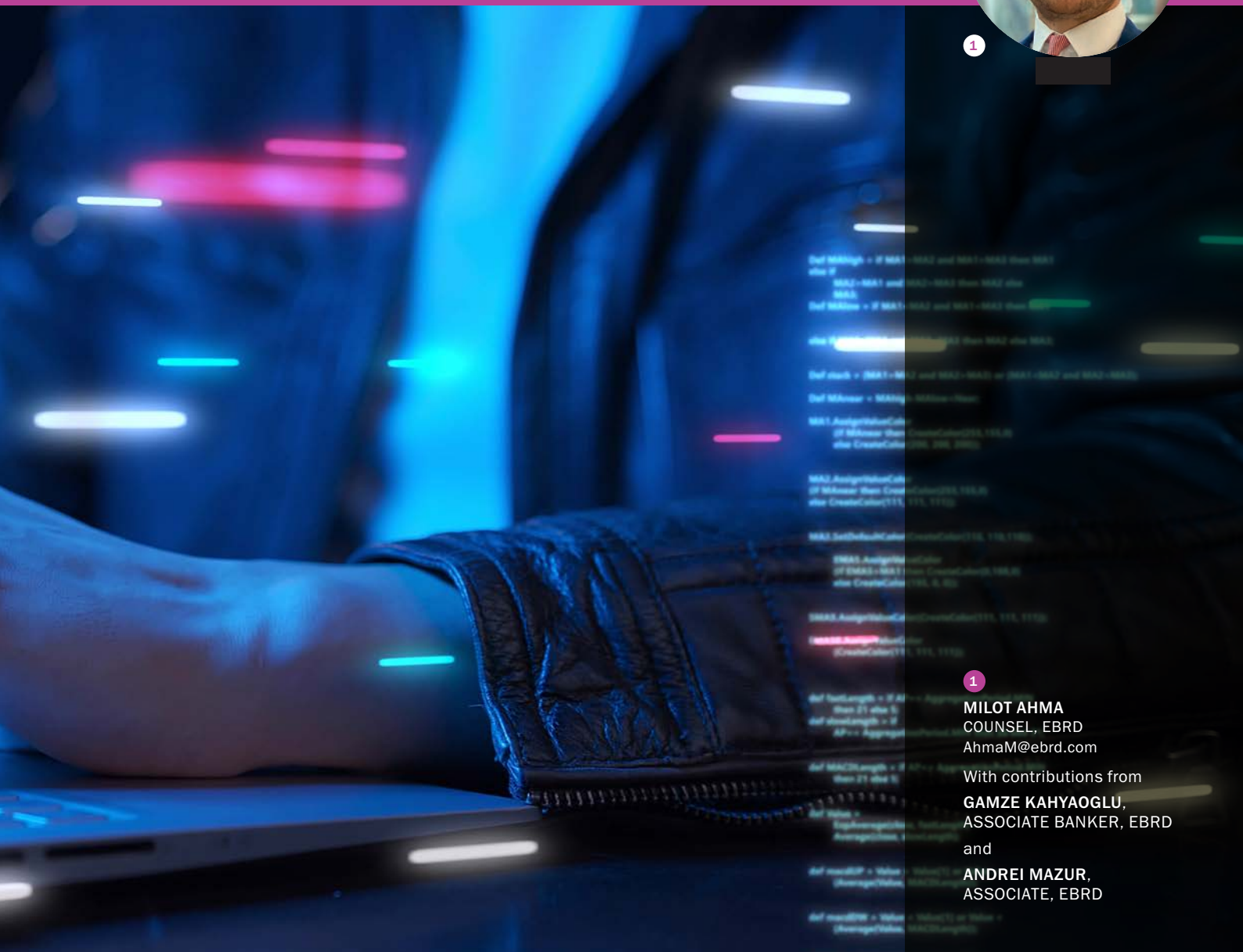


“In the United Kingdom alone, digitalising trade documents would generate £25 billion in new economic growth for SMEs, together with £1 billion in new trade finance.”



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This article explains the benefits of digitalising international trade and analyses how the current legal obstacles mandating the use of paper-based documentation could be addressed through adopting the UNCITRAL Model Law on Electronic Transferable Records.



## THE CASE FOR DIGITAL TRADE

International trade is the engine that drives economic development around the world. Through trade, economies tap into one another to make up for shortfalls and address domestic demand for goods and services.

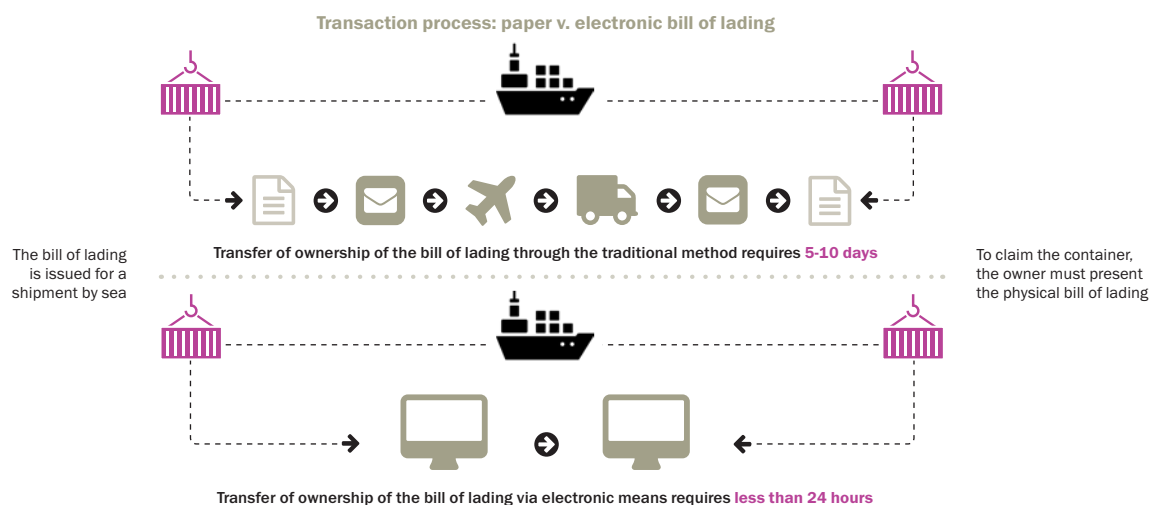
Economies have traded with each other since ancient times. Over the years, decades and centuries, driven by growing populations, economic outputs and – as a result – trade volumes, the means of trading internationally have evolved to address the increased demand. While the means of carrying goods across the borders have evolved, however, the practices and processes involved in the trade process have failed to follow suit. This is primarily because most trade processes still, at one point or another, require the production and exchange of paper-based documents to effect trade fully. This results in delays and inefficiencies. Digital technologies have the potential to deliver

enormous benefits and transform the way (domestic and international) trade and trade finance work.

In the United Kingdom alone, using digital documents instead of the paper-based processes would improve the efficiency of small and medium-sized enterprises (SMEs) by 35 per cent, according to the International Chamber of Commerce. It would also reduce the number of processing days by 75 per cent and free up efficiency savings of £224 billion (€254 billion). Digitalising trade documents would generate £25 billion (€28 billion) in new economic growth for SMEs, together with £1 billion (€1.14 billion) in new trade finance.<sup>1</sup>

The Digital Container Shipping Association estimates that ocean carriers issue 16 million bills of lading a year, costing the industry US\$ 11 billion (€10 billion) annually. Fewer than 0.3 per cent were electronic bills of lading. A 50 per cent adoption of electronic bills of lading would save more than US\$ 4 billion (€3.6 billion) a year.<sup>2</sup>

Figure 1. Electronic bill of lading greatly reduces time to transfer ownership



<sup>1</sup> UK Law Commission (2022), Recommendations to Allow Electronic Documents Would Revolutionise Trade. Available at: <https://www.lawcom.gov.uk/recommendations-to-allow-electronic-documents-would-revolutionise-trade/>, (last accessed on 19 September 2023).

<sup>2</sup> See <https://www.shippingandfreightresource.com/conversion-of-bill-of-lading-to-electronic-bills-gains-traction-with-bimcos-25-by-25-pledge>, (last accessed on 19 September 2023).

Note: Figure depicts the Singapore/Rotterdam Corridor experience with an electronic bill of lading

Source: ICC France White Paper<sup>3</sup> citing TradeTrust Newsletter issue 05 IMDA<sup>4</sup>

<sup>3</sup> See <https://www.icc-france.fr/wp-content/uploads/2022/09/ICC-France-WhitePaper.pdf>, (last accessed on 19 September 2023).

<sup>4</sup> See <https://www.tradetrust.io/news>, (last accessed on 19 September 2023).

## TRADE DOCUMENTS AND INSTRUMENTS

Trade and trade finance transactions are effected through the transfer and exchange of various documents and instruments such as bills of exchange, promissory notes, bills of lading, ship's delivery orders, marine insurance policies, cargo insurance certificates and warehouse receipts.<sup>5</sup> They create the necessary trust between the parties and mitigate the inherent risks of cross-border trade. The specifics of these documents vary, but the common feature they all share is that only the "holder/possessor" of such document/instrument can exercise the underlying rights that come with it.<sup>6</sup>

In international trade transactions, for the reasons mentioned above, parties transfer possession of such documents and instruments (together with their underlying rights) between each other. The legal concept of possession, however – in the vast majority of jurisdictions – comprises only *physical* possession of goods/things. This is the key element that dictates and mandates the physical production, transfer and exchange of such documents and instruments. As such it presents a barrier to the production, transfer and exchange of electronically issued documents and instruments.

## LEGAL AND REGULATORY ENVIRONMENT

Recognising that statutory reform of domestic legislation is the best way to remove the impediments arising from the legal requirements for "possession," the United Nations Commission on International Trade Law (UNCITRAL) prepared the Model Law on Electronic Transferable Records (MLETR). This law seeks to enable the legal use of electronic trade documents and instruments, both domestically and across borders.

In pursuit of this aim, the MLETR relies on the following principles:

- **Non-discrimination against the use of electronic means** – thus not allowing electronic trade documents and instruments to be deemed invalid solely on the grounds that they exist or are issued in electronic form.
- **Functional equivalence** – thus granting electronic trade documents and instruments the same status as paper-based counterparts.
- **Technology neutrality** – thus accommodating the use of all technologies and all models, such as registries, tokens and distributed ledgers.

“ One of the key novelties under the Model Law on Electronic Transferable Records is the introduction of the notion of “control” representing the functional equivalent of “possession” of a document or instrument. ”

Perhaps one of the key novelties under the MLETR is the introduction of the notion of “control” representing the functional equivalent of “possession” of a document or instrument. Under the model law, an electronic document/instrument meets the possession requirement if a reliable method is used to (a) establish exclusive control of that electronic transferable record by a person and (b) identify that person as the person in control. The MLETR also provides guidance on assessing the reliability of the method used to manage an electronic transferable record and on change of medium (electronic to paper and the reverse), among other things.

The digitalisation of trade documents would benefit many business areas, especially those that relate to transport and logistics. It also promises to facilitate access to credit, as it enables more innovative supply chain financing techniques (for example, deep-tier supply chain finance) that reach the SMEs in the deeper supply chain tiers.<sup>7</sup> Furthermore, digitalising trade documents opens up opportunities for trade finance assets to become a liquid, investible asset class.<sup>8</sup>

<sup>5</sup> This list is taken from Section 2(1) of the UK Electronic Trade Documents Bill, the text of which is annexed to the Law Commission Report.

<sup>6</sup> Usually, rights to claim performance of the obligation to pay money (instruments) or to deliver goods (documents).

<sup>7</sup> ADB Briefs No. 129, Deep-Tier Supply Chain Finance. Available at: <http://dx.doi.org/10.22617/BRF220397-2>, (last accessed on 19 September 2023).

<sup>8</sup> See Christoph Gugelmann (February 2023), “Breaking down the barriers to investing”, Private Debt Investor. Available at <https://www.privateinvestor.com/breaking-down-the-barriers-to-investing/>. See also Eleanor Wragg (November 2022), “AllianzGI launches investment-grade trade finance fund”, *Global Trade Review*. Available at <https://www.gtreview.com/news/global/allianzgi-launches-investment-grade-trade-finance-fund/>; and McKinsey and Company (October 2022), *The multi-billion-dollar paper jam: Unlocking trade by digitalizing documentation*. Available at: <https://www.mckinsey.com/industries/travel-logistics-and-infrastructure/our-insights/the-multi-billion-dollar-paper-jam-unlocking-trade-by-digitalizing-documentation>, (last accessed on 19 September 2023).





### Uptake of the MLETR: Singapore case study<sup>9</sup>

On 1 February 2021, Singapore became the second country to adopt the MLETR principles when it amended its Electronic Transactions Act (ETA) by adopting the Electronic Transactions (Amendment) Bill (“Amended 2021 ETA”). The country did not fully adopt the text of the MLETR, but aligned its laws with MLETR provisions.

Singapore has also taken practical steps to facilitate digital trade. The government has built a public Distributed Ledger Technology platform (TradeTrust) to support the exchange of electronic trade documents. It also proposed and is actively collaborating with the United Nations Centre for Trade Facilitation and Electronic Business to issue a white paper containing guidance on the transfer of MLETR-compliant titles.<sup>10</sup>

The first electronic bill of lading transaction governed by Singaporean law was issued in accordance with the Singapore ETA.

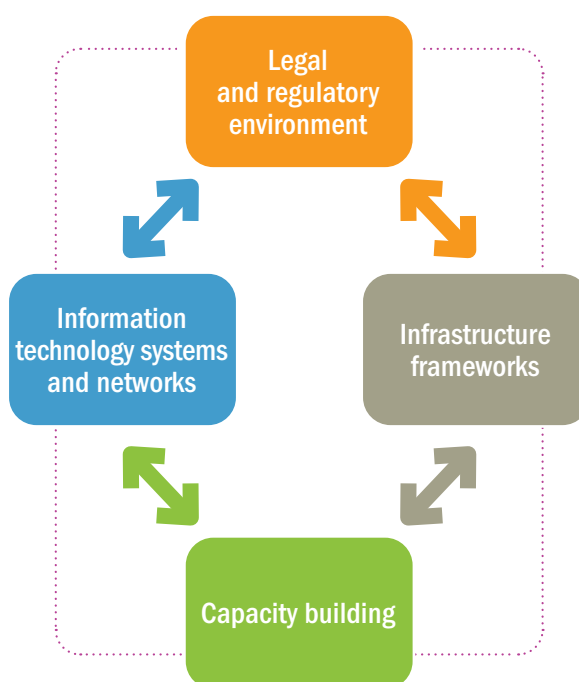
On 11 November 2021, Singapore’s Infocomm Media Development Authority (IMDA), the Monetary Authority of Singapore and the Financial Services Regulatory Authority of Abu Dhabi Global Market, in collaboration with commercial partners, carried out the world’s first cross-border digital trade financing test transaction.<sup>11</sup> The IMDA’s TradeTrust platform was used to transfer the electronic records between Singapore and Abu Dhabi. The pilot was made possible because both jurisdictions had aligned their laws with the MLETR.<sup>12</sup>

The digitalisation of trade documents would benefit many business areas, especially those that relate to transport and logistics. It also promises to facilitate access to credit, as it enables more innovative supply chain financing techniques

### BUILDING BLOCKS FOR DIGITAL TRADE<sup>13</sup>

Numerous building blocks affect the uptake of digital trade. These are illustrated simply in the following diagram.

Figure 2. Four building blocks are key to digital trade



<sup>9</sup> Theodora A. Christou and John L. Taylor (2023), *Blueprint Paper on Digital Trade and the UNCITRAL Model Law on Electronic Transferable Records*. Available at: <https://www.ebrd.com/documents/legal-reform/blueprint-paper-on-digital-trade.pdf>, (last accessed on 19 September 2023).

<sup>10</sup> United Nations Economic Commission for Europe, *Transfer of MLETR-Compliant Titles*. Available at: <https://uncedfact.unece.org/display/uncedfactpublic/Transfer+of+MLETR-compliant+titles>, (last accessed on 19 September 2023).

<sup>11</sup> Statements on the pilot can be found at <https://www.adgm.com/media/announcements/worlds-first-digital-trade-financing-pilot-between-mletr-harmonised-jurisdictions> and at <https://www.mas.gov.sg/news/media-releases/2021/worlds-first-digital-trade-financing-pilot-between-mletr-harmonised-jurisdictions>, (last accessed on 19 September 2023).

<sup>12</sup> Eleanor Wragg (November 2021), “Singapore and Abu Dhabi pilot first MLETR-enabled trade transaction”, *Global Trade Review*. Available at: <https://www.gtreview.com/news/fintech/singapore-and-abu-dhabi-pilot-first-mletr-enabled-trade-transaction/>, (last accessed on 19 September 2023).

<sup>13</sup> *Ibid.* pp. 16-18.

Source: Theodora A. Christou and John L. Taylor (2023), *Blueprint Paper on Digital Trade and the UNCITRAL Model Law on Electronic Transferable Records*. Available at: <https://www.ebrd.com/documents/legal-reform/blueprint-paper-on-digital-trade.pdf>, (last accessed on 19 September 2023).

An enabling **legal and regulatory environment** that is conducive to digital trade is one of the main building blocks. We are aware, however, that three other – very important – building blocks need to complement the legal and regulatory aspect.

**IT systems and networks** that provide for safe and transparent interaction among all public and private actors involved in digital trade facilitate the electronic transmission and receipt of transferable records essential for digital trade. The IT platforms provide the (often sole) point of contact between public actors (port authorities, customs, tax and sometimes numerous government agencies) and private actors (the traders themselves, financial institutions, logistics, freight and shipping companies, and various service providers), each of which uses a range of IT solutions of their own. Interoperability between these different communication and transmission channels is essential for digital trade to work.

**The broader infrastructure frameworks** that should also be fit for purpose with the governments creating, and investing in, the necessary infrastructure and interconnector resources (such as

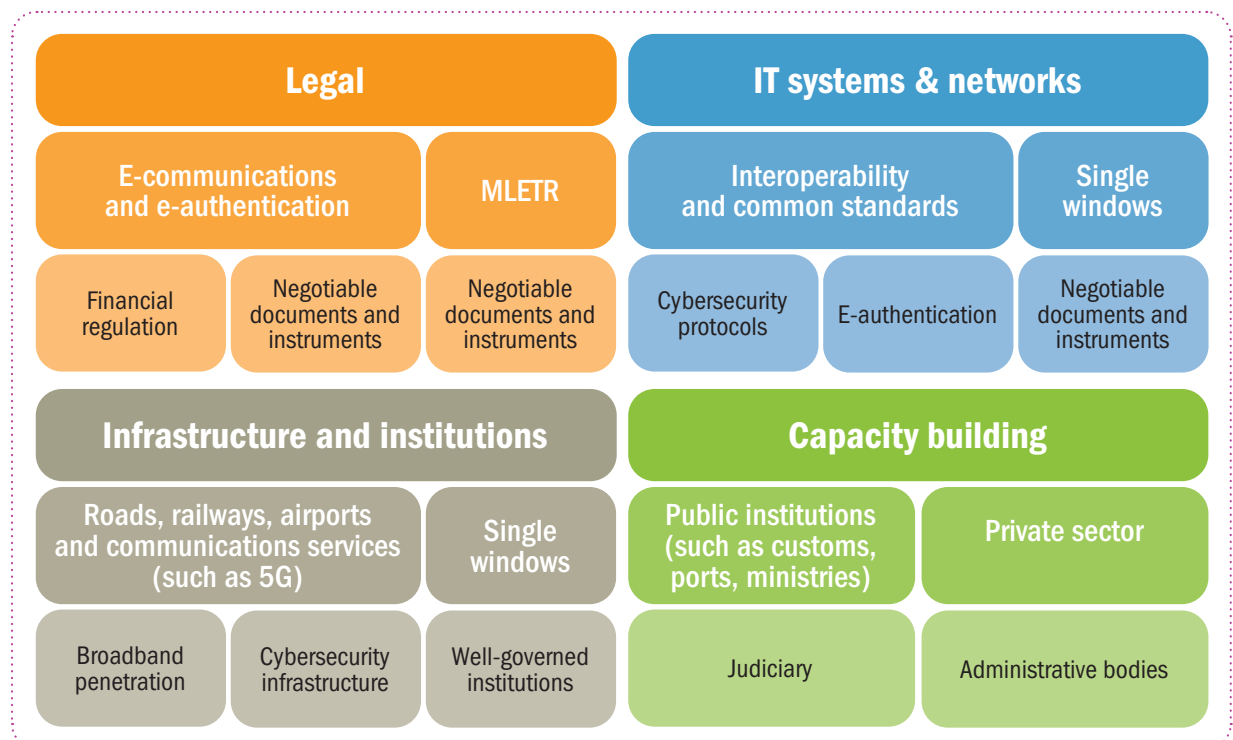
roads, railways, ports, airports and communications services) that make it possible to carry out trade and trade finance digitally end-to-end.

**Capacity building** is an important building block which will improve awareness and build confidence in the digital environment. The upskilling of those engaging in trade, in both the private and public sector, will be necessary.

### THE BLUEPRINT PAPER ON DIGITAL TRADE

The EBRD/CASTL *Blueprint Paper on Digital Trade and the UNCITRAL Model Law on Electronic Transferable Records* provides a comprehensive roadmap which governments can use in their quests to facilitate the uptake of digital trade through legal, regulatory and institutional reform. In the initial chapters, the paper sets out a clear case for paperless, digital trade by contrasting some of the inefficient paper-based trade processes that prevail worldwide with the much faster, simpler, more secure and environmentally friendly digital trade processes that modern technology offers.

Figure 3. What does each building block involve?



The Blueprint Paper then examines the building blocks that underpin the transition to an end-to-end digital trade process. It identifies outdated legal and regulatory frameworks as one of the stumbling blocks to the uptake of digital trade and analyses how adopting the MLETR would address current issues. The paper summarises the efforts made by some countries that have reformed, or are in the process of reforming, their laws to align with the MLETR and provides – among other things – a “readiness matrix” that can be used to assess the level of alignment of local legal regimes with the MLETR.

The Blueprint Paper was presented and published at a public event on 25 April 2023. You can download the document by scanning the following code with your device’s camera app:



## THE EBRD’S WORK ON DIGITAL TRADE: CASE STUDIES

In line with the EBRD’s Strategic Capital Framework and country strategy priorities, the Bank is supporting a rapidly growing portfolio of digitalisation technical cooperation projects. These projects support a range of digitalisation initiatives to improve cross-border trade/logistics processes, enhance financial inclusion, promote cashless economy and support the development of an e-commerce sector.



### Designing an end-to-end export process using blockchain technology in Türkiye

Delivered between 2021 and 2023, this technical cooperation project aimed to support the Turkish Ministry of Trade with the design of a cross-institutional, end-to-end blockchain network that covered all stages of an export process, from the issuance of the initial receipt until the final transaction and the release of the goods from the Turkish customs/border.

The main focus of the project was to prove the feasibility of using blockchain in export processes and show the associated efficiency gains to the key decision-makers in Türkiye. To address this technical part, we analysed the current export processes and compared it to how such processes would work if they were migrated to blockchain and delivered via a blockchain-based platform. To demonstrate the feasibility and efficiency gains, we developed two demo blockchain platforms as proof of concepts (addressing exports of two different goods in two phases). Apart from the technical (IT-focused) components of the project, we also identified the legal and governance-related impediments that hinder the use of blockchain in the export process and provided recommendations for improvement. We are exploring the possibility to complement this “within-the-country” exercise with digital cross-border trade pilot implementation as the next step.



### Digitising customs services in Moldova

Since the Moldova-EU Association Agreement took effect in 2016 the Moldovan Customs Service (MCS) has been modernising its operating systems in line with EU requirements to enable customs administrations and traders to comply with international standards in import, export and transit-related procedures. To support these efforts, the Moldovan government asked for EBRD support to expand the operational capacity of the MCS's ASYCUDAWorld system. The project Republic of Moldova: Support for the Digitisation of Custom Procedures is a package of four complementary assignments for the MCS and the Chamber of Commerce and Industry that are designed to help the government transition towards fully electronic customs procedures.

Expanding the ASYCUDAWorld system functionalities for MCS will help increase the speed and efficiency of customs clearance processes, facilitate e-commerce and cross-border trade, increase revenue receipts for the government, minimise the risk of consignment fraud and improve the efficiency of Moldovan customs operations. The project will also contribute to the government's digitisation programme (eEconomy roadmap) and efforts to enhance transparency and efficiency in cross-border trade, reduce costs for businesses and help build resilience to the economic impacts of COVID-19. In addition, this new institutional arrangement should pave the way for better collaboration between the EBRD and the United Nations Conference on Trade and Development to help address key transition challenges across the EBRD regions. The project is funded by the EBRD's Shareholder's Special Fund and EBRD – Türkiye cooperation fund.

