

DIGITALISATION OF TRADE AND THE GOVERNANCE DIVIDEND: BUILDING TRUST ACROSS CORRIDORS



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This article argues that the digitalisation of trade should be understood not just as a logistics upgrade, but as an economic governance reform. It looks at how digital trade strengthens transparency, accountability and trust across three dimensions: business-to-government processes, business-to-business legal instruments and government-to-government data exchange. Using the Middle Corridor as a case study, the article shows how paper-based systems create avoidable friction, legal uncertainty and border delays. It concludes that legal reform, interoperable public infrastructure and coordinated institutional action are essential in order to build resilient, bankable and trusted trade corridors.



INTRODUCTION: THE GOVERNANCE CASE FOR DIGITAL TRADE

The case for digitalising international trade is typically made using the language of logistics: faster clearance times, reduced demurrage fees and the elimination of expensive courier costs. While the gains from such efficiencies are substantial, framing digital trade reform solely as an operational upgrade misses its most profound impact. Digitalising trade is fundamentally about improving how trade relationships are organised, verified, enforced and coordinated across public institutions and private actors – meaning its true value lies in economic governance.

The EBRD's Economic Governance Strategy 2026-30 defines economic governance as the pursuit of better-functioning markets, unlocking private sector-led growth and holding the state accountable for delivering high-quality public goods and services.¹ The strategy explicitly identifies transparency, accountability and fair competition as core objectives, noting that digital technology is a critical cross-cutting enabler of all three. Viewed through this lens, the transition from paper-based to electronic trade documents is not just a technical modernisation process – it is one of the most effective structural reforms a government can undertake to strengthen cross-border economic governance.

International trade is inherently vulnerable to governance deficits, because it relies on trust between actors operating across different legal jurisdictions and performing disparate functions. Exporters, carriers, customs authorities and financing banks interact almost entirely through documents. Where these documents exist on paper, the system is characterised by opacity, duplication and vulnerability to fraud or delay.² By digitising them, the rights, obligations and physical status of goods become visible, auditable and actionable. This governance dividend is realised across three distinct but mutually reinforcing dimensions: business-to-government (B2G), business-to-business (B2B) and, ultimately, government-to-government (G2G) relationships.

THE B2G DIMENSION: THE “SINGLE WINDOW” AND THE END OF INFORMATION ASYMMETRY

The most immediate governance benefits of digital trade are realised at the border – the critical juncture where private commerce meets state authority. In a traditional paper-based environment, B2G interactions are highly fragmented. A trader might submit a customs declaration to the revenue authority, present transport documents to the port operator and physically courier a phytosanitary certificate to agricultural inspectors.

This fragmentation breeds inefficiency, but more importantly, it also creates a governance deficit. It introduces information asymmetries

¹ See EBRD (2026).

² See OECD (2025).

between different state agencies, widens the scope for discretionary decision-making (and thus corruption) and creates an unpredictable environment for traders. Goods often arrive before the necessary paperwork, leading to demurrage charges and supply-chain congestion.³

One cornerstone of B2G digital governance is the electronic national “single window” for trade. Endorsed by the World Trade Organization’s Trade Facilitation Agreement and the World Customs Organization, a single window is an intelligent digital facility that allows parties involved in trade to lodge standardised information and documents with a single entry point to fulfil all import, export and transit-related regulatory requirements.⁴



Practical implementation of digital trade: digitising customs procedures in Moldova

The EBRD’s work on digital trade combines legal reform, institutional modernisation and practical support for electronic trade systems. In Moldova, the Bank is supporting the Moldovan Customs Service and the Chamber of Commerce and Industry by means of a package of measures aimed at expanding the functionality of the ASYCUDAWorld customs platform and accelerating the country’s transition towards fully electronic customs procedures.

This project is designed to make import, export and transit processes faster, more transparent and more predictable. By reducing reliance on paper-based procedures, it can improve customs clearance, facilitate e-commerce and cross-border trade, strengthen revenue collection, reduce opportunities for fraud and discretionary decision-making, and lower costs for businesses. It also supports Moldova’s wider digital economy agenda and shows how digital trade reform can deliver a broader governance dividend: more accountable public institutions, more efficient border processes, and greater trust between traders and the state.

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“The governance logic of the single window is elegantly simple: ‘submit once; use many times’.”

The governance logic of the single window is elegantly simple: “submit once; use many times”. When a business submits data to the single window, that information becomes visible to all relevant public stakeholders – customs authorities, border police, health inspectors and environmental agencies – simultaneously. This structural shift radically alters the B2G relationship. It enhances transparency, as traders know exactly what is required and can track their submissions in real time. It improves accountability, because electronic logging makes it possible to audit exactly where a clearance delay occurred and which agency was responsible. And crucially, it limits arbitrary state interference by embedding procedures in transparent digital workflows, ensuring fair and consistent treatment for all economic operators.

THE B2B DIMENSION: DOCUMENTS OF TITLE AND THE ARCHITECTURE OF TRUST

While the B2G dimension modernises traders’ interaction with the state, the B2B dimension concerns the private legal and commercial architecture of trade. Finance is the oil that keeps global trade flowing. That finance is secured by documents of title and negotiable instruments, such as bills of lading, warehouse receipts, bills of exchange and promissory notes.

³ See World Bank Group (2023).

⁴ See World Customs Organization (n.d.).

The reliance on paper for these B2B instruments is a source of profound systemic risk. If a bill of lading – the vital document conferring title to sea-freighted goods – is in paper form, it can be forged, lost in transit or delayed in a courier envelope. When a bank finances goods in transit, its security interest relies on the physical possession of a piece of paper that might be thousands of miles away. If a dispute arises or a buyer defaults, unwinding the paper trail is a slow, expensive and legally uncertain endeavour.

Digitising these B2B instruments improves the governance of private trade relationships by making the instruments themselves legally reliable and practically immutable. A properly implemented electronic bill of lading (eBL) creates a unique, transparent and auditable chain of title. Transfers are time-stamped and cryptographically secured. If a trade route is abruptly blocked – owing to a war, pandemic or geopolitical shock, for example – an eBL allows the exporter to pivot instantly, transferring title to a new buyer in a different jurisdiction within seconds, rather than waiting weeks to reroute physical paperwork.

“ Without legal equivalence, a digital document is practically useful but legally void. ”

This architecture of trust does require legislative backing, however. Without legal equivalence, a digital document is practically useful but legally void. The EBRD's Legal Transition Programme is instrumental here, helping economies where the Bank operates to upgrade their domestic legal frameworks and support an investor-friendly environment. The United Nations Commission on International Trade Law (UNCITRAL) Model Law on Electronic Transferable Records (MLETR) is transformative in this respect, because it grants electronic transferable records the exact same legal effect as their paper counterparts.



For multimodal trade, this must go further. The UN Convention on Negotiable Cargo Documents (the NCD Convention) is increasingly vital, as it governs the issuance and use of documents that span multiple modes of transport. Legal reform that only covers the maritime leg of a journey creates a broken chain; multimodal reform, on the other hand, ensures that governance extends seamlessly across rail, road and sea. When these legal frameworks are in place, they encourage financial institutions to fully digitalise their trade finance offerings, expanding access to credit for small and medium-sized enterprises (SMEs) that are currently priced out by the heavy compliance and administrative costs of paper-based financing.

THE G2G DIMENSION: CROSS-BORDER DATA EXCHANGE AND SYSTEMIC INTEROPERABILITY

If B2G digitalisation governs the border, and B2B digitalisation governs the transaction, G2G digitalisation governs trade corridors. Trade does not occur in a vacuum: an export from one country is necessarily an import into another.

The G2G dimension in digital trade is about the systemic interoperability of state institutions across sovereign borders. Currently, even if two neighbouring countries both operate highly efficient national single windows, they

often remain digital islands. The exporter submits digital data to Country A on exit, and the importer manually re-inputs the exact same data into Country B's system on entry.

True G2G digital trade breaks this silo through secure cross-border data exchange. By establishing customs-to-customs (C2C) interoperability, the export declaration approved by Country A automatically feeds into the import declaration system of Country B.⁵ This prevents border bottlenecks, vastly improves risk management and eliminates the data discrepancies that often conceal smuggling, tariff evasion or systemic fraud.

This G2G dimension extends to the mutual recognition of electronic documents. Global initiatives such as the International Plant Protection Convention's ePhyto Hub – which allows national agricultural authorities to seamlessly exchange electronic phytosanitary certificates – demonstrate the power of G2G connectivity. A certificate issued by a European authority is instantly verifiable by an Asian customs agency, eliminating the risk of forged paper certificates and ensuring that public health and environmental standards are rigorously enforced. Ultimately, G2G digitalisation ensures that national governments control the movement of goods as a collaborative, connected chain, rather than as a series of isolated, adversarial checkpoints.



Investing in the digitalisation of trade: the example of e-phytos

The use of electronic phytosanitary certificates – e-phytos – to export plants and plant products results in lower trade costs and higher margins for exporters, ultimately increasing trade. This is one of the findings of a recent report by the EBRD and the Food and Agriculture Organization of the United Nations (FAO).

The EBRD and FAO worked together to quantify and explore the benefits of e-phytos for companies in four countries: Egypt, Serbia, Ukraine and Uzbekistan. Their report, which is based on analysis of trade data and interviews with commercial exporters, government officials and logistics providers, shows that e-phytos are easier and cheaper to use, are more responsive to changing circumstances, and can speed up the export process. For exporting companies, the potential savings range from US\$ 3.70 per fruit shipment exported from Uzbekistan (about US\$ 0.18 per tonne, based on the average volume of shipments) to US\$ 83.50 per fruit shipment exported from Egypt (about US\$ 4.24 per tonne), with savings boosted where surrounding countries accept e-phytos. These savings become substantial when multiplied over hundreds of shipments per year per export company, or thousands per country. For companies with large export volumes and small margins, this significantly reduces operational costs, contributing to higher margins. Other key benefits include swift and transparent administrative procedures, reduced risk of logistical disruption and better trade integration with countries that have already adopted e-phytos.

Countries that have already switched from paper to e-phytos confirm that the transition is relatively inexpensive. The report also shows that as more countries adopt e-phytos, exporting companies will see increased benefits. By investing in digital tools such as e-phytos, countries can position themselves to reap the full benefits of a more efficient, transparent and sustainable global trading system. The EBRD and FAO have since promoted and supported the adoption of e-phytos across the EBRD regions – work that was instrumental in the recent implementation of e-phytos in Ukraine.

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⁵ For more information, see <https://unece.org/unda-project-c2c-data-exchange>.

THE MIDDLE CORRIDOR: WHERE GOVERNANCE MEETS GEOGRAPHY

There is no clearer test case for the necessity of this three-tiered governance framework than the Trans-Caspian International Transport Route, widely known as the Middle Corridor. Following geopolitical shifts that have complicated traditional northern routes, the Middle Corridor has emerged as a vital artery linking Asia and Europe via central Asia, the Caspian Sea and the southern Caucasus.⁶

As independent analysis by the Overseas Development Institute (ODI) and other studies have noted, the Middle Corridor presents a profound paradox: geographically, it is the shortest and most direct alternative trade route between Europe and Asia (some 3,000 kilometres shorter than the Northern Corridor),^{7,8} yet operationally, it can take the longest to pass through.⁹ This paradox is driven largely by border controls. While the physical transit time on the route itself could, in theory, be reduced to roughly two weeks, actual journey times frequently extend to a month or more owing to crippling delays at border crossings.¹⁰

As the landmark EBRD study *Sustainable Transport Connections Between Europe and Central Asia* (funded by the EU) makes clear, the corridor's constraints are not merely physical.¹¹ While the study identifies €18.5 billion of essential infrastructure needs, it emphasises that “soft connectivity” measures – specifically, the digitisation of transport documents, the interoperability of customs procedures and the elimination of repetitive border controls – are just as critical to the route's sustainability.¹² Goods traversing the Middle Corridor must cross at least five sovereign borders and switch between rail, maritime and road transport multiple times. Every time transport modes

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⁶ See OECD (2023).

⁷ See Mami (2024).

⁸ See Trends Research (2024).

⁹ See EBRD and EU (2023).

¹⁰ Ibid.

¹¹ Ibid.

¹² Ibid.



change or borders are crossed, paper documents must be checked, stamped and reissued, resulting in severe delays and a critical lack of end-to-end shipment visibility. Similarly, the International Road Transport Union (IRU) estimates that one day lost at a Middle Corridor border can cost more than driving hundreds of kilometres, warning that without procedural enhancements, freight demand will fall 35 per cent short of expected growth.¹³

The Middle Corridor is, fundamentally, suffering from governance friction that only digitalisation can resolve. Applying the three-tiered digital trade framework reveals a roadmap to unlocking the route's capacity:

1. B2G reform: Countries along the corridor must urgently implement and upgrade national single windows. Traders must be able to submit customs and transit data once per jurisdiction, allowing port authorities in Baku or Aktau to coordinate directly with state customs without manual exchanges of paper-based documents.

- 2. B2B reform:** The corridor cannot scale up if it is not bankable. To finance goods in transit across five jurisdictions, banks require the certainty of legally recognised electronic documents of title. Adoption of the MLETR and the NCD Convention across Middle Corridor states would allow an electronic multimodal bill of lading to legally underpin trade finance from origin to destination, injecting vital liquidity into the corridor.
- 3. G2G reform:** This is the most critical missing link. The World Bank explicitly calls for a unified, interoperable digital framework along the corridor. G2G interoperability would allow customs authorities in Azerbaijan, Georgia and Kazakhstan to automatically exchange transit data, creating a "green corridor" where risk assessments are done electronically before the train or ferry even arrives at the border.

¹³ See IRU (2026).

THE EBRD'S COMPREHENSIVE DIGITAL TRADE OFFERING

To translate this governance framework into reality, the EBRD deploys a comprehensive product offering across the entire digital trade ecosystem. Rather than addressing digital trade in silos, the Bank leverages its diverse mandates under the umbrella of an internal “digital trade network” to support reform at every level.

Legal and regulatory frameworks: The EBRD's Legal Transition Programme promotes adoption of the MLETR and the NCD Convention, ensuring commercial laws recognise electronic documents of title. Four such projects are under way in Morocco, Tunisia, Türkiye and Ukraine. The Bank's goal is to roll out these reforms in strategically important regions and trade corridors, thus ensuring that a critical piece of the digital trade puzzle is in place.

Digital public infrastructure: Through its Competitiveness and Economic Governance team, the Bank finances and structures e-customs solutions, port modernisation, national single windows and e-certificates of origin as part of its work in the area of sustainable infrastructure.

Agricultural trade: Agri-advisory teams support the rollout of e-phytosanitary certificates to streamline sanitary and phytosanitary controls.

Trade finance and risk mitigation: The EBRD's Trade Facilitation Programme (TFP) provides crucial risk-sharing facilities to ensure the market remains liquid during the digital transition.

Institutional digitalisation: The TFP and the Bank's Digital Hub work together to accelerate the digitalisation of financial institutions, ensuring they have the technical capability to process digital trade instruments.

Innovation: The EBRD Innovation Lab facilitates broader digital transformation, piloting cutting-edge technologies to future-proof the trade ecosystem.

“The digitalisation of trade is not a logistics project; it is an economic governance imperative.”



A POLICY IMPERATIVE

The digitalisation of trade is not a logistics project; it is an economic governance imperative. As the EBRD's Economic Governance Strategy emphasises, dynamic and resilient economies require transparent, accountable and fair market conditions. Paper-based trade actively subverts these goals by sustaining opacity, enabling fraud and creating prohibitive frictions that lock SMEs out of global value chains.

Policymakers must move beyond isolated information technology upgrades and pursue a holistic digital trade agenda. This means passing MLETR-aligned laws to govern private

transactions (B2B), deploying robust single windows to streamline interactions with the state (B2G) and committing to cross-border interoperability to secure international supply chains (G2G).

Trade corridors like the Middle Corridor need to do more than just lay new train tracks or dredge deeper ports if they are to maximise their potential. Infrastructure dictates where goods can go, but economic governance dictates how fast, how safely and how profitably they can get there. By committing to the full digitalisation of trade, governments can finally build an architecture of trust that is worthy of the modern global economy.



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