International Transport Forum

Policy Recommendation

Digitalisation of International Freight Transport Connectivity

International transport connectivity underpins global trade, enabling the smooth movement of goods and services across borders. Digitalisation can facilitate international transport connectivity by reducing transit times, improving supply chain resilience and reliability, and enhancing visibility of cross-border flows, thereby supporting trade competitiveness, economic growth, and deeper regional integration. Realising these benefits in practice will require digitalisation efforts that are harmonised and supported by strong human and institutional capacity. To harness the full strategic value of digitalisation, national governments and authorities can pursue policies in the following five categories.

Digitalisation to enhance international freight flows

National governments can leverage digitalisation to improve the performance of cross-border freight transport. By replacing fragmented, paper-based procedures with electronic documentation, automated data exchange, and interoperable digital platforms, countries can significantly accelerate cross-border freight transport flows. Such digitalisation initiatives can build on and be complemented by private sector initiatives, such as real-time cargo tracking and electronic consignments. Governments can play enabling roles in industry-led digitalisation projects, by helping convene industry players and providing the necessary frameworks (e.g., data standards). To realise these benefits, governments could develop a clear strategy that addresses the following elements:

- **Formulate a strategy on digitalisation of international connectivity.** This strategy could be based on an assessment of which processes of public authorities could be digitalised. In addition, governments could define clear objectives and prioritisation criteria for digitalisation in this respect.
- **Supporting upskilling and reskilling to enable digitalisation of international connectivity.** Governments could assess the digital skills gaps within relevant public authorities and develop targeted programs for staff involved in customs and border management and inspection processes. Similar training for private sector organisations in the transportation sector could be promoted based on their own assessments. In addition, digital skills could be incorporated in the curriculum of logistics and freight related educational programmes.
- **Explore digitalisation initiatives.** Examples of such digitalisation initiatives could be digital one-stop shops, cross-border testbeds, digital single windows and port community systems.

Transparent safety and security standards for digitalised international freight transport connectivity

Digitalisation needs to facilitate safe and secure cross-border freight flows. Data, documentation, and operational decisions related to cargo need to remain reliable, verifiable, traceable and compliant with international standards. As part of this approach, information security must be treated as a core safety requirement. Safety and security are also integral elements in building trust between cooperative partners. To support the safety and security of digitalisation of international connectivity, governments could:

- **Formulate safety and security standards**, aligned with regional and global frameworks that public authorities and private stakeholders would need to respect when digitalising and securing processes and information within the area of international transport connectivity.
- **Facilitate implementation and enforcement of these standards.** Authorities could do so by establishing mechanisms for continuous monitoring, cyber security oversight, and risk management for digital processes, enabling authorities to identify irregularities in real time.

Digital solutions for international transport

To ensure that digitalisation delivers seamless cross-border freight flows, countries should work towards harmonised data standards and interoperable Application Programming Interfaces (APIs). Governments can:

- **Establish legal and institutional frameworks for digital transport documentation** that clearly define responsibilities for data governance, information security, and cross-border information exchange and receive recognition as the legal equivalent to paper-based processes.
- **Encourage open digital architectures** that allow different systems to interconnect and evolve over time without costly redesign. As part of this, authorities could adopt common, interoperable data and messaging standards in line with international frameworks and cyber security standards and introduce mutual recognition arrangements for electronic documents, digital signatures, and trusted trader programmes—where appropriate and in accordance with national legislation—to avoid redundant checks and accelerate clearance. This would ensure that systems are accessible to industry participants in the supply chain.
- **Facilitate cross-border harmonisation to support the efficient flow of goods** for example via alignment, and where appropriate, mutual recognition of standards and policy coordination between countries, using global and regional cooperation mechanisms.
- **Encourage and promote semantic interoperability frameworks** where appropriate that enable a shared understanding of international freight transport data across heterogeneous systems, complementing technical standards and APIs that facilitate trade. Without a shared semantic layer, digitalisation risks scaling fragmentation by multiplying bilateral integrations and platform dependencies. In that respect, the development of shared semantic reference models to enable scalable, multi-party interoperability across diverse actors and jurisdictions could be encouraged.

Funding for the digitalisation of international connectivity

Sustained and predictable investment is essential for developing the digital infrastructure, systems, and human capacity required for modern, resilient transport connectivity. To ensure long-term financing for digitalisation initiatives, governments could:

- **Launch dedicated public investment programmes** for digital infrastructure and digital skills development, including initiatives delivered by public-private partnerships.
- **Use integrated funding models** that combine investments in physical and digital infrastructure encouraging, where appropriate, the integration of digital components and interoperability requirements in new transport assets.
- **Leverage funding to mitigate the security risks** of increased digital connectivity of freight transport and logistics.

Governance for digitalisation of international connectivity

Effective digitalisation of international connectivity depends on strong governance that can overcome fragmented decision-making, lack of coordination and limited capabilities. To address operational and regulatory challenges, governments could:

- **Strengthen cooperation between stakeholders and along transport corridors**. Governments could stimulate cooperation at various levels: across agencies, across borders and along key transport corridors.
- **Support capacity building** for officials of the relevant authorities and stakeholders to stimulate adoption of digital systems and standards for effective integration with public platforms.
- **Encourage, where appropriate, the exchange of high-quality data** between relevant public and private stakeholders to improve the security and resilience of transport systems.
- **Facilitate adaptation to evolving data and cybersecurity rules** by ensuring that standards and systems are implemented in a proportionate manner, without imposing undue operational or financial burdens on transport operators and drivers across countries.

The Council of Ministers of Transport of the International Transport Forum adopted this Policy Recommendation *Concerning Urban Transport Development* at its meeting on 7 May 2026 in Leipzig during the ITF Summit on "Funding Resilient Transport".