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# Blueprint Paper on Digital Trade and the UNCITRAL Model Law on Electronic Transferable Records



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Dr Theodora A Christou and Professor John L Taylor, *Blueprint Paper on Digital Trade and the UNCITRAL Model Law on Electronic Transferable Records, 2023*

# Executive Summary

For centuries, as the backbone of the global economy, domestic and international trade, and trade finance, have driven business practices that evolved into legal norms. These have been conducted and recorded in vast numbers of paper-based documents, the exchange of which continues to be mostly done physically. This paper-based process has many deficiencies and inefficiencies. It results in economic loss, substantial costs, delays and fraud risks for governments, traders, and financial institutions. Moreover, it contributes to environmental degradation and stifles the inclusion of SMEs in the trade process.

Recent developments in digital technology illustrate the enormous benefits that can be derived if domestic and international trade and trade finance were to be undertaken digitally, in line with the increasing use of digital communications in commerce around the world. However, a significant barrier to digitalisation of trade and trade finance is presented by outdated laws in many countries.

This Report sets out a clear case for paperless, digital trade, 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. The Report examines an effective way in which governments can reform their laws by removing the legal barriers to the digitalisation of trade and trade finance.

This can be achieved through the establishment of a series of building blocks, summarised in this Report, that support electronic commerce and particularly by the adoption of laws aligned with the UNCITRAL Model Law on Electronic Transferable Records (MLETR). This Report also includes a description of the efforts made by some jurisdictions that have reformed, or are in the process of reforming, their laws to align with the MLETR. Drawing on these experiences and other practical sources, including the valuable work of the International Chamber of Commerce (ICC) and the World Trade Organisation (WTO), the Report sets out a legal reform Matrix to help countries assess what legal reforms are needed and proposes a roadmap to accomplish and implement those reforms.

The MLETR is strongly supported by the G7 nations and several international organisations, including the European Bank for Reconstruction and Development (EBRD) which has commissioned this Report from the Centre for Applied Sustainable Transition Law (CASTL). It is hoped that this Report will assist policy makers and legislators in the EBRD's economies of operations, as well as countries worldwide, to embrace the need for, and undertake, the necessary law reform that will help to unlock the vast benefits that will arise from the digitalisation of trade and trade finance.

<b>EXECUTIVE SUMMARY .....</b>	<b>3</b>
ABBREVIATIONS.....	5
GLOSSARY .....	6
<b>1. INTRODUCTION .....</b>	<b>9</b>
1.1 ECONOMIC BENEFITS.....	9
1.2 SUSTAINABLE TRANSITION.....	10
1.2.1 <i>Trade barriers and economic growth</i> .....	12
1.2.2 <i>Responsible consumption and Climate action</i> .....	12
1.2.3 <i>Strong institutions</i> .....	12
1.3 THE NEED FOR AN ENABLING LEGAL FRAMEWORK.....	12
1.3.1 <i>MLETR</i> .....	13
1.4 THE PAPER.....	14
<b>2. DIGITAL TRADE.....</b>	<b>16</b>
2.1 KEY BUILDING BLOCKS FOR DIGITAL TRADE.....	16
2.2 TRADE PROCESS .....	19
2.3 TRADETECH .....	23
2.4 EFFICIENCIES IN TRADE INSTRUMENT PROCESSING .....	26
2.5 RISK REDUCTION .....	27
2.6 OPEN ACCOUNT TRANSACTIONS.....	28
2.7 CAPITAL MARKETS.....	29
<b>3. ANALYSIS OF THE MLETR .....</b>	<b>31</b>
3.1 ORIGINS OF MLETR.....	31
3.2 AIMS AND OBJECTIVES OF MLETR .....	32
3.3 THE MAIN PRINCIPLES OF MLETR.....	33
<b>4. LEGAL REFORM.....</b>	<b>40</b>
4.1. BAHRAIN .....	40
4.2. SINGAPORE .....	41
4.2.1 <i>Legislative Process and MLETR Adoption</i> .....	41
4.3. ABU DHABI GLOBAL MARKET (UNITED ARAB EMIRATES).....	42
4.4. FRANCE .....	44
4.5. GERMANY .....	45
4.5.1 <i>Limitations</i> .....	47
4.6. UNITED KINGDOM.....	47
4.6.1 <i>The Reform Process</i> .....	48
4.6.3 <i>Draft English Law Revisions and their Alignment with the MLETR</i> .....	48
<b>5. ROADMAP AND MATRIX.....</b>	<b>51</b>
ROADMAP.....	51
5.1 LEGAL REFORM.....	51
5.2 MLETR LEGAL REFORM MATRIX .....	53
<i>Matrix of main MLETR principles</i> .....	53
<i>Matrix of other MLETR related considerations</i> .....	57
5.3 ENGAGEMENT WITH KEY STAKEHOLDERS.....	60
<i>Government Coordination</i> .....	61
5.4 ADDRESSING IMPLEMENTATION CHALLENGES.....	61
5.5 NEXT STEPS .....	62
<b>ENDNOTES .....</b>	<b>64</b>

## Abbreviations

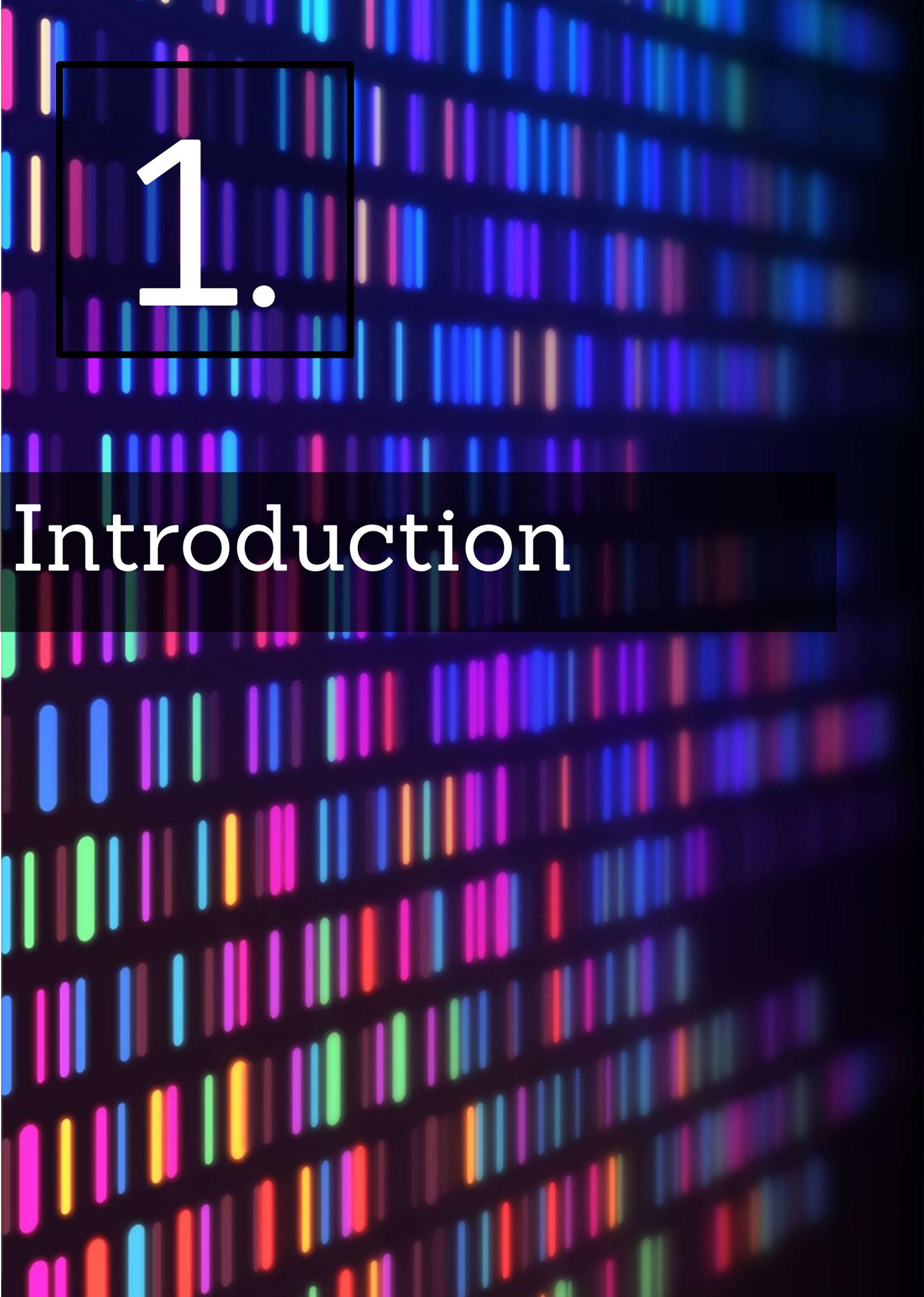
ADGM	Abu Dhabi Global Market
BAFT	Bankers Association for Finance and Trade
BECS	Bahrain Electronic Cheque System
BIMCO	The Baltic and International Maritime Council
C4DTI	Centre for Digital Trade and Innovation (ICC United Kingdom)
DCSA	Digital Container Shipping Association
DLPC	Distributed Ledger Payment Commitment
DLT	Distributed Ledger Technology
DSI	Digital Standards Initiative (ICC)
EBRD	European Bank for Reconstruction and Development
eCMR	Additional Protocol to the Convention on the Contract for the International Carriage of Goods by Road (CMR) Concerning the Electronic Consignment Note
EIB	European Investment Bank
ESCAP	Economic and Social Commission for Asia and the Pacific
ETA	Electronic Transactions Act
ETRL	Electronic Transferable Records Law
EU	European Union
G7	Canada, France, Germany, Italy, Japan, UK, US, and the EU
ICC	International Chamber of Commerce
IMDA	Infocomm Media Development Authority (Singapore)
MAS	Monetary Authority of Singapore
MLEC	UNCITRAL Model Law on Electronic Commerce
MLES	UNCITRAL Model Law on Electronic Signatures
MLETR	UNCITRAL Model Law on Electronic Transferable Records
MSMEs	Micro-, Small- and Medium-Sized Enterprises
OECD	The Organisation for Economic Co-operation and Development
SDGs	UN Sustainable Development Goals
SMEs	Small- and Medium-Sized Enterprises
UAE	United Arab Emirates
UCC	Uniform Commercial Code
UETA	Uniform Electronic Transferable Records Act (United States)
UK	United Kingdom
UN	United Nations
UNCEFACT	United Nations Centre for Trade Facilitation and Electronic Business
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development

US	United States
WEF	World Economic Forum
WPeG	Gesetz zur Einführung von elektronischer Wertpapiere (German laws on Electronic Securities)
WTO	World Trade Organization

## Glossary

<b>Bill of exchange</b>	A financial instrument that is a written order by one party (the drawer/e.g. a buyer) to another (the drawee/the buyer or buyer's bank) to pay a specified sum of money to a third person (the payee/e.g. the seller) on demand or at a future date. Bills of exchange are used frequently in international trade.
<b>Bill of lading</b>	A document issued by a carrier (such as a shipping company) to a shipper that acknowledges receipt of goods for transportation and evidences the contract of carriage. It also serves as a document of title to the goods and can be used as proof of ownership or as collateral for a loan.
<b>Constructive possession</b>	A concept that refers to the legal possession control or ownership of property without necessarily having physical possession of it.
<b>Digital record</b>	A record that is created, stored, and transmitted electronically.
<b>Digital Trade</b>	Refers to the exchange of goods, services, and information using digital technologies and platforms. It includes e-commerce, online banking and payment systems, digital advertising, and digital content transfer.
<b>Digitalisation</b>	Integrating digital technologies to transform trade and economic processes and transactions from manual formats to automated ones.
<b>Digitisation</b>	The process of converting information, usually documents, into a digital format that can be stored and transmitted electronically.
<b>Distributed ledger</b>	A database that is distributed, or shared, across a network of computers, with each computer having a copy of the database and the ability to update it. Additions to the ledger are approved and synchronised through a consensus mechanism agreed by participants.
<b>Distributed ledger technology (DLT)</b>	A type of technology that uses distributed ledgers to store and record information or data, including transactions, in a centralised or decentralized manner.
<b>Draft</b>	A financial instrument similar to a bill of exchange, but typically used for smaller amounts of money and for a shorter term.
<b>Electronic record</b>	Refers to information generated, communicated, transmitted, received, or stored by electronic means.
<b>Electronic Transferable Record (ETR)</b>	A digital record of ownership or other legal interest that can be transferred electronically from one party to another.
<b>Inspection certificate</b>	A document that certifies that a product or shipment has been inspected and meets certain quality standards.
<b>Insurance certificate</b>	A document that provides proof of insurance coverage for a particular product or shipment. It specifies the terms and conditions of the insurance policy, as well as the coverage limits and exclusions.

<b>Intangible</b>	Possessions or assets that do not have a physical form. Incorporeal.
<b>Invoice</b>	A document that lists the goods or services provided by a seller to a buyer, along with the prices, quantities, and terms of the sale. It serves as a request for payment from the buyer. With invoice financing, a company uses an invoice or invoices as collateral to obtain a loan from a bank or other financier.
<b>Letter of credit</b>	A financial instrument (an undertaking from a buyer's bank or other financier) that guarantees to pay the seller when the seller ships goods, as long as the seller meets the pre-agreed conditions specified in the documentation, thereby enhancing the credit of the buyer.
<b>Lien</b>	A legal claim on property as security for a debt or other obligation.
<b>Negotiable</b>	(Interchangeable with 'negotiability') means that a document is not only transferable by a transfer of possession, but also provides the transferee (the recipient/benefactor) with rights greater than those of the transferor (the person who transferred), so long as any necessary requirements are met. This is a peculiar characteristic of documents of title to money and to securities ("negotiable instruments"). The right to claim payment under a negotiable instrument can be transferred through transfer of possession of the document itself (in some cases with indorsement).
<b>Negotiable instrument</b>	A document that legally constitutes the entitlement/right to receive payment, rather than being proof that the transferee (the recipient/benefactor) has a right to claim payment of the sum recorded in the document. It represents a binding promise or order to pay a certain sum of money or securities that can be transferred or sold to another person (e.g. a promissory note or bill of exchange).
<b>Ownership</b>	Refers to the legal right to possess, use, and dispose of property; giving the owner both legal privileges as well as responsibilities.
<b>Possession</b>	The (generally physical) control or occupancy of property.
<b>Promissory note</b>	A financial instrument in the form of a written promise by one party (the maker) to pay a certain sum of money to another (the payee) on demand or at a future date. Used in lieu of cash or security in trade finance.
<b>Property</b>	Refers to the legal rights and interests that an entity has in tangible or intangible things including the right to possess, use, and dispose of the thing.
<b>Tangible</b>	Physical possessions or assets that are perceptible by touch.
<b>Title Document</b>	A document that is used to establish ownership of goods or property, such as a bill of lading or a warehouse receipt.
<b>Transferable</b>	Able to be legally assigned or transferred to another person.
<b>Transport document</b>	A document that covers the entire transport of goods from the place of dispatch to the place of destination.
<b>Warehouse Receipt</b>	A document that provides proof of ownership of goods that are stored in a warehouse, vault, or depository for safekeeping. The document functions effectively as a document of title, may be negotiable or non-negotiable, and may be used as collateral for securing credit.
<b>Waybill</b>	A document usually issued by a carrier that specifies the details of a shipment, including the origin, destination and contents of the shipment, and the terms of transport. Used to track shipments and to bill the shipper.



1.

# Introduction

**There is a clear case for paperless, digital trade. It will make trade more efficient, more inclusive, more sustainable.**

Trade processes, especially those with a cross border element, require an extensive exchange of documents and information between the different participating actors. Documents such as bills of lading, bills of exchange, promissory notes, and warehouse receipts facilitate cross-border trade by creating the necessary trust between the parties and mitigating the inherent risks of cross-border trade. Unfortunately, even in today's day and age, the exchange of trade documents is mostly done physically, creating huge costs and inefficiencies. There are numerous factors that lead to the persisting use of physical trade documents but one of the key factors is compliance with the laws and regulations.

The current legal framework governing trade systems operate in the same way that it has for centuries; it makes for a slow process, creates inefficiencies, and stifles innovation and growth. The requirement for trade documents to be in paper form, in numerous duplicates and submitted to several authorities is the main contributor to the delays and high costs in trade. The rationale for a transition to digital trade is clear and several institutions have published convincing facts and figures which illustrate the tremendous economic uplift which would result from legal reform.

It is estimated by the International Chamber of Commerce (ICC) that at any given time four billion paper-based trade documents are floating through the system.<sup>1</sup> Reforming and aligning legal frameworks to allow for paperless, digital, trade is one of the key building blocks towards the creation of a modern trading environment.



*An environment that is simpler, where processes and systems talk to each other, trade happens in hours and not weeks and months, and where costs are lower – especially for Micro-, Small- and Medium-sized enterprises (MSMEs).<sup>2</sup>*



## 1.1 Economic benefits

The economic benefits of an end-to-end digitalised trade would not only be felt by states or multinationals; the efficiencies in time and money would be felt throughout the business community, at all levels.

After broad consultations, the Law Commission of England and Wales report supporting the publication of the Electronic Trade Documents Bill concluded that processing electronic documents will be faster, and more cost effective compared to paper documents.<sup>3</sup> The economic benefits of digitalising trade have been reported by a number of actors. Set out here are some snapshots.

Across the Commonwealth, it is estimated that legal reform aligned with the UNCITRAL Model Law on Electronic Transferable Records (MLETR) could bring **\$1.1 trillion** in economic benefits by 2026.<sup>4</sup>

In the UK alone<sup>5</sup> the ability to use digital documents instead of the paper-based processes would improve SME efficiency by **35%**. The number of processing days would be reduced by **75%** and free up efficiency savings of **£224 billion**. Digitalising trade documents would generate **£25 billion** in new economic growth for SMEs, together with **£1 billion** in new trade finance.<sup>6</sup>

The economic benefits include increased resilience. For example, Covid-19, and its associated lockdowns, demonstrated that a manual paper-based system is highly disruptive to trade. It has also been reported that digitalisation contributed to the economic recovery.<sup>7</sup>

Adopting an electronic bill of lading could save **\$6.5 billion** in direct costs and enable between **\$30 billion and \$40 billion** in new global trade volume.<sup>8</sup>

According to the Digital Container Shipping Association (DCSA), **16 million** bills of lading are issued by ocean carriers in a year, costing the industry **\$11 billion** a year. Less than 0.3% were electronic bills of lading. A **50%** adoption of electronic bills of lading would save more than **\$4 billion** per year.<sup>9</sup>

## 1.2 Sustainable transition

Implementing legal frameworks and policies that promote trade, commerce, and development in a just, inclusive, environmentally sound, and equitable way is pivotal to addressing the challenges of achieving sustainable transition. The joint World Economic Forum (WEF) - World Trade Organization (WTO) report highlights various benefits of digital trade, including:<sup>10</sup>

- a) ensure transparency of regulatory requirements and procedures for trade;
- b) prevent governments from introducing discriminatory or trade restrictive measures; and
- c) enhance market access.

The ICC has published on the case for legal reform through MLETR adoption globally which illustrates not only the economic benefits but also the social benefits. The transition to digital trade will help fulfil several of the UN Sustainable Development Goals (SDGs) related to poverty, economic growth, responsible consumption, climate action, reduction of fraud, and increased beneficial partnerships.<sup>11</sup>

 <p><b>1</b> NO POVERTY</p>	<p>Reduction in trade barriers and facilitation of global trade will help lift people out of poverty through reduced consumer costs, job creation and improved standards of living.</p>
 <p><b>5</b> GENDER EQUALITY</p>	<p>A substantial percentage of businesses are operated by women. Increasing participation in trade will improve gender equality and empower women.</p>
 <p><b>8</b> DECENT WORK AND ECONOMIC GROWTH</p>	<p>Enhancing inclusion of all sized businesses, through the lowering of costs and the enhancement of sustainable trade as an instrument of economic growth.</p>
 <p><b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	<p>Digital trade can promote efficiencies through smart technological solutions, the removal of legal obstacles will lead to increased innovations.</p>
 <p><b>10</b> REDUCED INEQUALITIES</p>	<p>Inequalities within and among countries, and in all industries will be reduced as digital trade enables greater participation.</p>
 <p><b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	<p>Reducing the amount of paper documents circulating in the system will promote sustainable patterns.</p>
 <p><b>13</b> CLIMATE ACTION</p>	<p>The shift from paper to electronic documents, and from manual to digital trade processes will reduce carbon emissions.</p>
 <p><b>15</b> LIFE ON LAND</p>	<p>Reduction of the quantity of paper documents required in trade transactions will protect and promote sustainable ecosystems on land.</p>
 <p><b>16</b> PEACE, JUSTICE AND STRONG INSTITUTIONS</p>	<p>The use of technological solutions such as systems based on distributed ledger technology (DLT) have the potential of reducing fraud and flagging potential instances of corruption.</p>
 <p><b>17</b> PARTNERSHIPS FOR THE GOALS</p>	<p>Interoperable digital trade systems will enable increased partnerships between governments, but also business and other transnational stakeholders.</p>

Diagram 1: Fulfilment of the SDGs

## 1.2.1 Trade barriers and economic growth

Mainstreaming the use of electronic trade documents has the potential to accelerate inclusion by increasing the access to finance for MSMEs in the supply and value chains. The uptake of new supply chain finance products (e.g. deep-tier supply chain finance) that aim to target MSMEs in the deeper tiers of the supply chains would be reliant on the adoption of legislation that provides electronic transferable instruments equivalence to paper negotiable instruments (i.e. the MLETR).<sup>12</sup>

## 1.2.2 Responsible consumption and Climate action

Moving away from paper-based systems to electronic records has obvious positive impacts for the environment, including a reduction in the carbon footprint. If a paperless trade system was implemented globally, this would reduce emissions by around “36 million tons, equivalent to planting over a billion trees.”<sup>13</sup>

Digitalisation of trade is a crucial enabler to transition to a net zero economy. Moreover, the digitalisation of trade will provide increased and more reliable data on the basis of which sound sustainable transition decisions leading to favourable environmental outcomes could be made. For example, as recognised at the Montreal COP15 discussions, having digital data helps integrate sustainability data and measure impact. Given 80% of trade is based on natural resources having such data digitally will assist in ensuring that this trade is more sustainable. Trade also involves transportation and the ability to track and record routes will enable the quantification of emissions, amongst other factors.

## 1.2.3 Strong institutions

Digital processes, made possible by technologies such as the DLT, help reduce fraud and human error which in turn will speed up administrative processes by both government authorities and private institutions such as banks.<sup>14</sup> Technologies also have the capability of making transactions and data access more secure. The immutability of the records created on DLTs also increases transparency and traceability. This traceability is not only via DLT but also through the tracking using GPS, providing useful data. These systems have increased capabilities to flag potential corruption and other illegal activities.

## 1.3 The need for an enabling legal framework

There is a clear business case for digitalisation of the trade ecosystem to take advantage of digital innovations in the global economy. As mentioned above, for this to occur, it is imperative for the law to recognise digital trade documents and facilitate technology enabled trade transactions and processes.

It is important to recognise that, in the absence of a globally accepted enabling law, the private sector has already sought to develop limited innovative digital solutions where the rights traditionally embodied in paper instruments and documents are created and transferred electronically. Such examples include the Distributed Ledger Payment Commitment (DLPC) of the Bankers Association for Finance and Trade (BAFT).<sup>15</sup> The DLPC relies on the enabling law of Delaware. Without harmonising legal frameworks companies wanting to benefit for example from electronic bills of lading or other trade instruments revert to the creation of closed-loop platforms and private agreements or rulebooks. However, this solution is not ideal since, it increases the complexity of transacting, the agreements do not bind third parties, and they are untested in court and as such “remain relatively uncertain”.<sup>16</sup> In addition, several platforms may need to be used but they may not be interoperable.<sup>17</sup>

As a result of the absence of a generally accepted and secure legal environment for digital trade documents, these documents continue to be in paper form. Astoundingly, it is estimated that “less than 1.5% of the 4 billion documents created each year in international trade are digitised. Each cross-border transaction still requires 36 documents and 240 copies on average”.<sup>18</sup> In contrast, the United National Conference on Trade and Development (UNCTAD) reports that half of all traded services are

enabled by the technology sector.<sup>19</sup> It is therefore evident that an enabling legal framework for digital trade documents is vital.

The members of the ICC Digital Standards Initiative (DSI),<sup>20</sup> including the BAFT, have highlighted the importance of law reform aligned with the MLETR in facilitating digital trade.<sup>21</sup> The EBRD, through its Legal Transition Programme (LTP) and the Trade Facilitation Programme (TFP), are an integral part of the ICC DSI's Legal Reform Working Group, working to promote the alignment of legislative frameworks in economies with the MLETR. In addition to this, the various teams at the EBRD have been active in promoting digitalisation of trade and electronic commerce in its economies of operation. The EBRD is assisting the governments of Georgia and Moldova to put together ecommerce strategies and the Astana International Financial Centre to draft e-commerce laws. In Türkiye, the EBRD is helping authorities with designing an end-to-end blockchain export process and providing recommendations for legal reform to facilitate that.

### 1.3.1 MLETR

The MLETR was developed by the UNCITRAL in 2017 to provide legal grounds for the use of electronic transferable records both domestically and across borders.<sup>22</sup> It recognises legal validity of electronic transferable records that are functionally equivalent to paper-based transferable documents and instruments including bills of lading, bills of exchange, promissory notes, and warehouse receipts.

The MLETR is a key piece of the legal framework required for countries to take advantage of the significant benefits to come from digital trade. The MLETR gives digital trade documents the legal recognition and electronic negotiability as if they were in paper form to give the right of the person who controls them to claim payment of a sum of money or delivery of certain goods.<sup>23</sup>

The MLETR has been used by a few jurisdictions to support the transition to digital trade. As highlighted in Section 4 below, as of the date of this report, seven jurisdictions have seemingly fully aligned or adopted the MLETR,<sup>24</sup> while the G7 countries have all committed to aligning their laws with the MLETR.<sup>25</sup> In the UK, an Electronic Trade Documents Bill (stated as being aligned with the MLETR) is currently making its way through Parliament. In Germany there are two proposals on the table to align with the MLETR more fully. Moreover, we understand that work is under way in some other countries to assess what reforms may be needed to align their laws with the MLETR. There is clearly both the political will and the demand from the private sector for the MLETR adoption and alignment to progress. This movement by several countries is key because amplification is important in building global acceptance and incorporation of the principles into a transnational law merchant.

The promotion of the legal reforms described above are aligned with all three crosscutting strategic priorities of the EBRD. It will accelerate the digital transition in trade, promote equality of opportunity and inclusivity (especially for MSMEs in the EBRD's countries of operation), and support the transition to a greener economy by promoting paperless trade. The enhanced volume of trade transactions in digital form will also provide the EBRD with increased and accelerated opportunities to assist its countries of operations through the various forms of financial support offered through the Bank's Trade Facilitation Programme. The initiative is also in line with the wider trend for digital trade among leading trading and finance institutions.

## 1.4 The Paper

This paper seeks to draw together existing knowledge<sup>26</sup> on digital trade and use it to (i) identify the key common building blocks (legal, infrastructural, and institutional) needed for digital trade to thrive and (ii) provide a practical blueprint for aligning the legal and regulatory frameworks to the MLETR.

The matrix in this paper will assist in the analysis of existing legislative frameworks and the assessment of the necessary legislative or regulatory reforms to ensure alignment with the key principles of the MLETR. The accompanying roadmap will set out the importance for stakeholder engagement, pre-implementation market readiness and post implementation actions. The reforms aligning with MLETR will accelerate the transformation of the entire legal framework for domestic and international trade.



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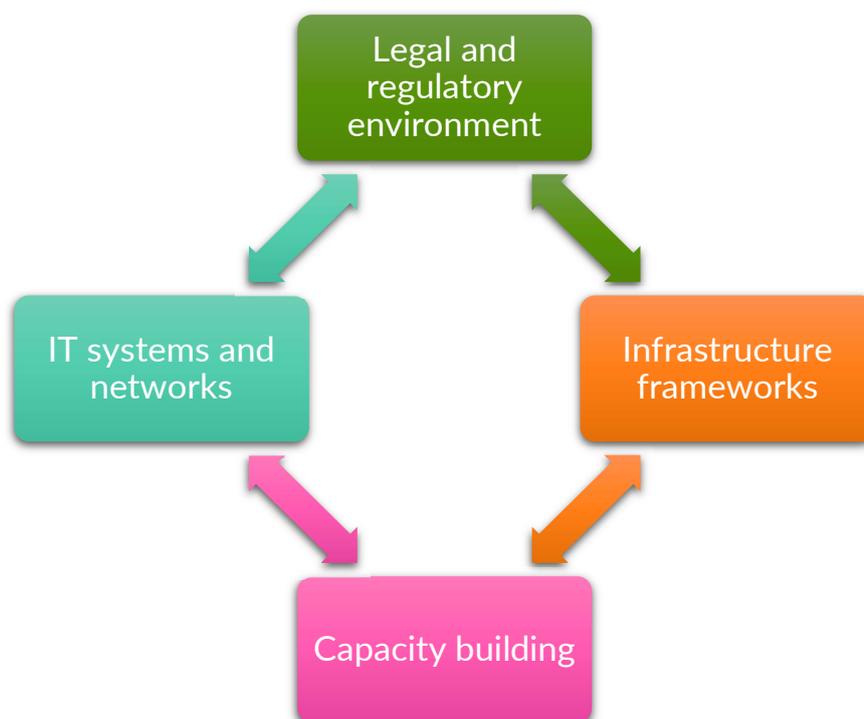
# Digital Trade



There are several steps in a typical trade process which can be made more efficient through the use of TradeTech. For this to happen, a number of key building blocks for digital trade need to be in place.

## 2.1 Key Building Blocks for Digital Trade

There are a number of 'building blocks' that affect the uptake of digital trade and these can be illustrated simply as:



An enabling **legal and regulatory environment** that is conducive to digital trade is one of the main 'building blocks' and this is the focus of our Report. We are aware, however, that the legal and regulatory aspect needs to be complemented by three other – very important – 'building blocks'.

**IT systems and networks:** The electronic transmission and receipt of transferable records essential for digital trade is facilitated by IT systems and networks that provide for a safe and transparent interaction between all the public and private actors involved in digital trade. The IT platforms provide the (often sole) point of contact between the public (port authorities, customs, tax, and sometimes numerous government agencies) and private actors (the traders themselves, financial institutions, logistics, freight and shipping companies, and numerous service providers), each of whom utilises a wide array of IT solutions of their own. Interoperability between these different communication and transmission channels is imperative in order 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 (roads, railways, ports, airports, communications services, etc.) that enable trade and trade finance to be carried out digitally end-to-end; and

**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.**

As explained in the text below, and illustrated in the diagram, all four ‘building blocks’, namely the (i) legal and regulatory environment, (ii) IT systems and networks; (iii) infrastructure framework; and (iv) capacity building, have their own subset of elements.

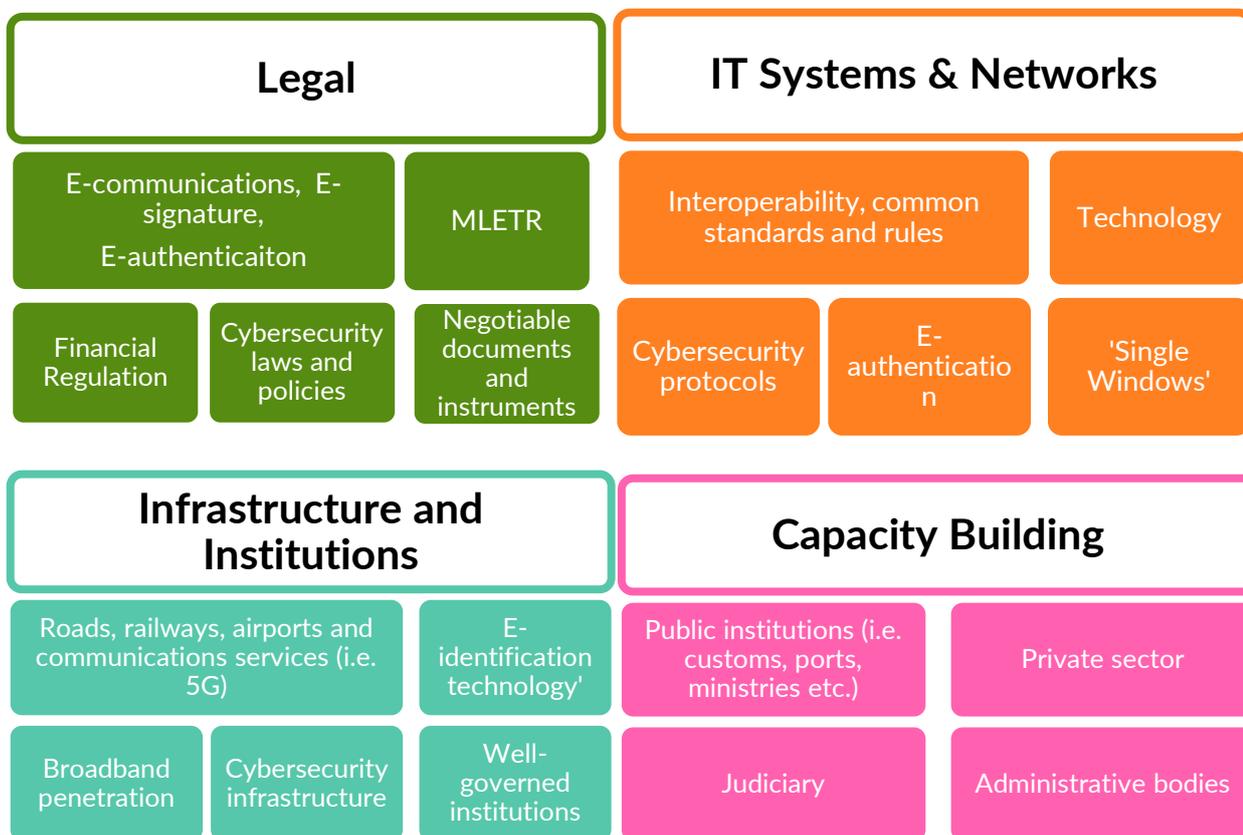
When looking at the legal and regulatory environment, alignment with the MLETR is a very important (if not the most important) building block. There are however other elements of the legal framework that would be helpful in facilitating digital trade, including ensuring legal certainty around topics such as: the validity of use of modern electronic communications in international trade transactions; the legal effectiveness of contracts and signatures in electronic form; electronic authentication frameworks including digital identities; financial regulations and the recognition of electronic trade documents and instruments as eligible collateral; the recognition, admissibility in evidence and enforcement of domestic and foreign commercial contracts in electronic form; and enabling party autonomy, including the free choice of law and judicial or arbitral methods to settle disputes fairly. As the MLETR only touches on the ‘transferability’ of negotiable documents and instruments, in some countries the adoption of the MLETR could – in parallel – be accompanied by a review of the substantive aspect of negotiable documents and instruments so to review their ‘negotiability’.

Similarly, ‘IT systems and networks’ that today often consist of private sector driven platforms will need improvements, particularly to become more interoperable, not only among themselves, but also with the IT systems that are in use by the many government entities that interact with the private sector entities engaged in international trade, some practical examples of which are provided in subsections of this Report below.

Governments will also need to consider what improvements, if any, need to be made and/or maintained in the broader ‘infrastructure frameworks’ in areas related to improving: access to electricity or other forms of energy at reasonable prices; internet and broadband access; and the availability of hardware and software especially to MSMEs.

Capacity building is another important component/building block to promote the uptake of digital trade. To this end, training for public sector authorities and agencies that are engaged in the trade process (e.g. Ministries of Trade, Customs, Port Authorities etc.) as well as for business executives and entrepreneurs in digital commerce, IT systems, finance, and the handling of digital commercial documents, including cybersecurity, should be prioritised.

The following diagram considers the 4 key building blocks and the numerous considerations that need to be taken into account, including the frameworks and actors.



Additionally, as the graph at the beginning of the section suggests, all four 'building blocks' are affected by, and connected with, each other. Obviously, the technology or the IT systems and networks used to facilitate trade have to offer the features (primarily in terms of security and transparency i.e. 'control', 'integrity' and 'reliability' standards) that the legislation requires in order for it to be fit-for-purpose and for the actions that are undertaken through such infrastructure to enjoy full legal recognition. The IT infrastructure also needs to fulfil certain industry standards to ensure interoperability and flexibility with other platforms and solutions used by other actors. The institutions, on the other hand, as (co)owners of the IT infrastructure and designers of the legal framework need to make sure that these two building blocks are kept aligned and be quick to react to market developments.

As mentioned above, this Report focuses on, and promotes, the alignment with the MLETR as a very important building block towards the digitalisation of trade. However, it is important for authorities and governments, who are willing to embark on this journey, to note that a MLETR-enabled framework needs to be complemented by the other 'building blocks' to ensure that it is used (and useful) in practice. This is the only way for digital trade to reach its full potential and for economies to fully reap its benefits.

In this section we do not attempt to set out in any great detail the trade process. We simply seek to provide some context before we dive into the benefits of adopting MLETR, in the next section. The illustrations and cases provided below (most of which we have obtained from existing literature and expertise of reputable organisations and institutions) show the interaction between the various actors in a (cross-border) trade process, the trade documents (and technologies) used and the timelines it takes for such trade processes to be completed end-to-end. They highlight the benefits of digital trade vis-à-vis the existing solutions, in terms of time and cost efficiency, environmental sustainability, and reductions in risks and 'pain points' inherent in paper-based trade processes.

## 2.2 Trade Process

The trade finance process is a good focal point for setting out the trade process and how it can be made more efficient and inclusive through digitalisation.

The following is a description of a basic trade transaction, the purchase and sale of goods between two parties, the Buyer, and the Seller, also known as the Importer and the Exporter, and the steps taken to complete a transaction.

The elements of a transaction are set out in Diagram 2 below. The upper block of Diagram 2 illustrates the Sales agreement and the financial and payment arrangements which underpin the trade transaction. The lower block of Diagram 2 illustrates the movement of goods in the transaction. The diagrams also highlight some of the technologies and their application in the trade process.<sup>27</sup>

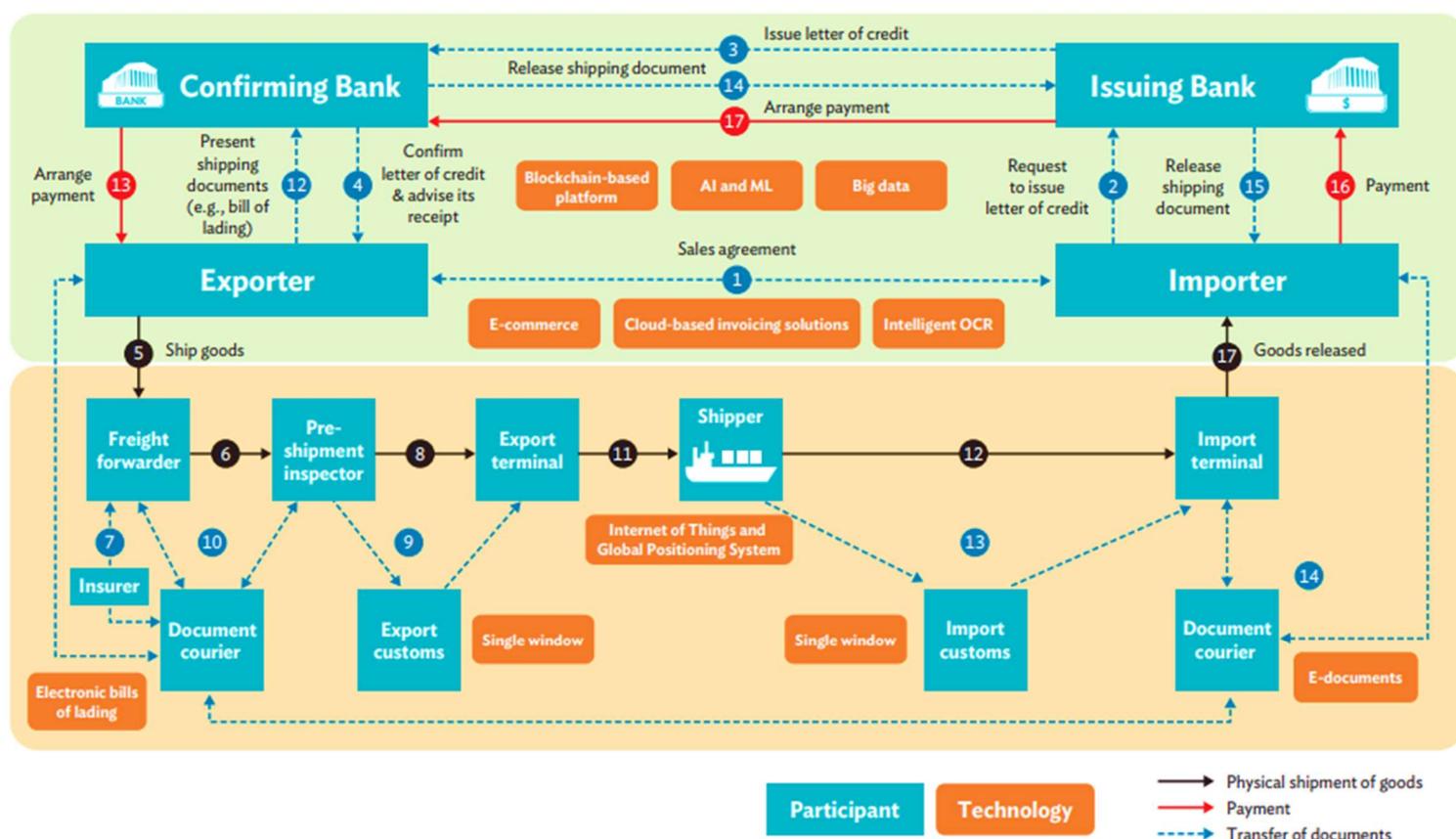


Diagram 2: Participants and technologies in the trade process (Source: Asia-Pacific Trade Facilitation Report 2019)

The vast number of, and in many cases complex, trade transactions make the transition from paper based to digital transactions important to growth of world trade. Digitalisation will reduce the amount of paper documents, the time needed to create and process the paper documents, particularly in the Letter of Credit element of a trade transaction, the cost, and the negative effects of vast quantities of paper on our environment.

Each step in the trade process is a potential pain point when using a paper-based system. Potential pain points include loss of paperwork (due to fire, human error, etc.), delay in the paper documentation arriving, or fraud. The use of electronic documents and records mitigate or entirely remove these risks. Digital trade processes will also eliminate the costs associated with the pain points associated with a paper-based process. In particular, delayed, or lost trade documents can cause companies to incur substantial costs and these costs can deter MSMEs especially from engaging in international trade.

However, to realise the benefits of digitalisation the required legal framework needs to be put in place to provide the underpinning for the transition from a paper to a digital based trade transaction. MLETR is essential to realising this goal.

A trade transaction starts with a Sales agreement #1 between the Importer /Buyer wishing to buy goods from the Exporter/Seller. Whilst this may remain as a paper-based agreement, digitalisation offers the opportunity to use smart contracts. Smart contracts enable the automation of processes, including payment upon delivery (atomic settlement).



**Sales Agreement:** The basic terms and conditions of a transaction between Buyer and Seller.

**Buyer:** The party, which is acquiring goods, and in a trade transaction is known as the Importer.

**Seller:** The party, which is producing goods, and in a trade transaction is known as the Exporter.

A frequent component to facilitating an international trade transaction is the Letter of Credit #3 in Diagram 2. It provides a means to mitigate the risk of the transaction if the parties are not known to each other, facilitate the movement of funds to pay for the goods in the trade transaction, and, if required, provide the credit foundation for financing the trade transaction.



**Letter of Credit (L/C):** A letter of credit is a legal document created by a bank whereby it guarantees the payment of a completed trade transaction if all the components of the transaction as described in the L/C are met. Arising from the Sales agreement, these components typically are an exact description of the goods involved, the quantity of goods, the date and means of shipment, the required insurance cover and any other details required most frequently by the buyer of goods to make sure that they are paying for and will receive exactly what the Sales Agreement calls for. As the seller may not be aware of the buyer's Issuing bank, the seller may require its bank (the Confirming Bank in the Diagram), to confirm or guarantee the payment.

As the credit worthiness of the Importer/Buyer – i.e., the ability of the Importer/Buyer to pay the Exporter/Seller for the goods in the Sales Agreement – may be unknown to the Exporter/Seller, the Importer/Buyer is required to raise a bank-issued Letter of Credit from his bank #2, the Issuing Bank.



**Issuing Bank:** A typical trade transaction starts with the Buyer/Importer asking its bank, the Issuing Bank, to open a Letter of Credit (L/C) on its behalf. This request results from the fact that typically, the Seller/Exporter may not know the Buyer/Importer or its credit worthiness. Therefore, the Seller asks to have the Buyer/Importer's credit standing replaced by a bank, the Issuing Bank, in the form of a Letter of Credit (L/C) from the Issuing Bank.

This Letter of Credit is conveyed to the Exporter/Sellers bank Confirming Bank which confirms/guarantees the credit and informs the Exporter/Seller of the Confirmed Letter of Credit #4.



**Confirming Bank:** The Confirming Bank is typically the Seller/Exporter's bank. As the Seller/Exporter typically does not know the original Issuing Bank and its credit standing, the Seller/Exporter will ask its bank to confirm the L/C or guarantee the L/C, hence the name Confirming Bank.

This provides the Exporter/Seller the assurance that it will be paid by the Confirming Bank if all the terms and conditions of the Sales Agreement which are incorporated in the Letter of Credit are fulfilled.

The L/C is conveyed from the Issuing Bank to the Confirming Bank/Importer's bank by the SWIFT interbank communication system (there are over 2,000 banks connected to SWIFT globally) and then delivered from the Confirming Bank to the Exporter/Seller.

Once the Exporter/Seller receives the Confirmed Letter of Credit from its bank, it can then ship the goods purchased by the Importer/Buyer. The movement of goods from Exporter/Seller #5 to their ultimate release to the Importer/Buyer #17, and their accompanying documents are outlined in the lower section of Diagram 2.

The Freight Forwarder's responsibilities start from the point where the goods leave the seller to the point where they are placed on the chosen transportation vehicle to start the cross-border journey. This activity often starts with a Freight Forwarder who is responsible for steps #6 through #11 in the Exporter's country, and who's counter party in the Importer's country, assumes responsibility steps #12 through #17. The goods are transported via sea, land, or air to the Export Terminal via steps #12-13.



**Freight Forwarder:** A freight forwarder, sometimes called a Forwarding Agent, is a company which arranges the shipment of the goods in the sales agreement from the Seller/Exporter to the Buyer/Importer. Services include inland transportation from origin to destination, and the needed air or sea transportation, The Freight Forwarder/Agent does not move the goods itself but make all the logistical arrangements.

In order to release the goods to the Importer/Buyer, the documents covering the sales agreement and other documents such as the bill of lading (which confers title), are moved from the Exporter/Seller to the Confirming Bank #12, to be conveyed to the Importer/Buyers bank (Issuing Bank) #14.

Upon receiving payment from the Importer/Buyers bank #16, the Issuing bank releases the shipping documents #15 to the Importer/Buyer, which allows release of the goods to the Importer/Buyer #17.

The underlying payment goes from the Issuing Bank to the Confirming Bank to the Exporter/Seller, thereby completing the transaction.

The Freight Forwarder takes responsibility for the execution and completion of the administrative/logistical requirements as spelled out in the Sales Agreement between the Importer/Buyer and the Exporter/Seller and are integral to the facilitation of moving the goods from the seller to the buyer.

All these requirements to complete the transaction have paper documents attached so that one of the principal obligations of the Freight Forwarder is to ensure the documents are couriered between parties as and when required. If all these documents are in electronic form, there is no need to physically courier them and as such reduces costs, time, and the risk of loss/fraud of the documents.



**Couriers:** FedEx, DHL and a variety of other couriers move the paper documentation called for in the Sales Agreement and subsequently the Letter of Credit between the different parties in order to complete the transaction.



**Shipper:** In the case of most cross-border transactions either an air carrier or an ocean carrier ensures the movement of goods between the Seller/Exporter and the Buyer/Importer. In the case of adjoining borders such as the US and Canada, the shipper may be a trucking company. The shipper issues the bill of lading which is required to release the goods to the buyer after shipment.

These administrative requirements, spelled out in the sales agreement between the buyer and the seller often include the following steps. If the transaction is recorded in electronic form, the actors (insurers, customs, banks, tax authorities, etc) could have real-time access to all necessary documents and also have the ability to upload their own documentation. One way by which real-time access can be obtained to the electronic documents by all actors, is through the use of a Single Window system, although other platforms may also be used:

- Inspection of the goods to ensure that they conform to the Sales Agreement;
- Arranging insurance coverage. With real-time access the insurer or another actor such as the freight forwarder could also upload the insurance related documentation;



**Insurer:** Either as directed by the Seller or the Freight Forwarder or Forwarding Agent, an insurer arranges the insurance required under the Sales Agreement.

- The movement of goods to the point of export (terminal);



**Pre-shipment Inspector:** Ensures that the goods are as called for under the Sales Agreement and as written into the Letter of Credit.

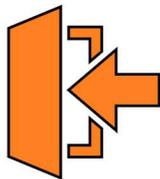
- Ensuring export customs inspection of the goods and levying of any duties required. With real-time access, customs authorities could also upload customs related documentation; and



**Export Customs:** Collects any customs duties due in the country of origin of the goods under the Sales Agreement.

- Finally ensuring the goods are placed on the chosen transportation vehicle to carry out the cross-border journey.

The Freight Forwarder's counterpart in the Buyer's/Importer's country then ensures the completion/execution of the same function as inspection, payment of customs duties and physical movement of good from the time that the goods leave the cross-border transportation vehicle until they are delivered to the buyer. Authorities and parties in the importing country could also have access to all necessary documents in their electronic form, as well as being able to upload their own relevant documents (including clearances, approvals, payments, etc).



**Import Customs:** Collects any customs duties due in the country of destination of the goods under the Sales Agreement.

In summary, the final step of the transaction i.e. the movement of goods from Exporter/Seller #5 to the Importer/Buyer #17, takes place when upon receiving payment from the Importer/Buyers bank #16, the Issuing bank releases the shipping documents #15 to the Importer/Buyer, which allows release of the goods to the Importer/Buyer #17. The underlying payment goes from the Issuing Bank to the Confirming Bank to the Exporter/Seller, thereby completing the transaction facilitated by the Letter of Credit.

As can be seen, the trade transaction process has many steps that have evolved over centuries and is based on paper documentation. These documents describe the details of the underlying trade transaction and provide the legal basis for the transaction. Banks, the principal intermediaries in trade transactions, have built significant infrastructures and staff to process trade transactions. However, with the coming of the digital age, it was realised that trade transactions could be digitalised. By removing the mountains of paperwork to create the documents required and removing significant amounts of time needed to process and transfer the documents, digitalisation of trade would reduce cost, increase efficiency, and make trade more environmentally friendly. Digitalisation will not change the basic commercial processes of a trade transaction. What changes with the coming of digitalisation is a simpler and more efficient means of carrying out the same basic processes. In moving into the digital age, we are simply using another “language” for the same basic steps in a trade transaction; the same underlying commercial processes but new technology.

## 2.3 TradeTech

The World Economic Forum (WEF) and World Trade Organization (WTO) Report defines TradeTech as the set of technologies that enables global trade to become more efficient, inclusive, and sustainable – it is multifaceted, from trade facilitation to efficiency gains and reduced costs, to greater transparency and resilience of supply chains.

As illustrated in Diagram 2 above, through the provision of trade finance, banks play a central role in international trade. Aside from the banks and the buyers and sellers, other key stakeholders include customs authorities, port systems, shippers (sea, air, or land), insurers, and those involved in logistics.

Given the number of disruptions to the traditional way of doing business, banks recognise that they must embrace technological innovations to maintain their central position in trade.

Digitalisation of processes provide what stakeholders seek, namely increased efficiency in terms of time and cost, a reduction in risk, and increased transparency.

The efficiencies associated with adoption of technology that banks particularly like include reduced costs, elimination of the need for manual documentation processing through automation, and the ability for companies to build up a digital profile and data which can be readily used by banks for the assessment of risk. This would be of particular benefit to MSMEs who are often excluded from the international trade system. The replacement of paper-based documents in favour of electronic records also has obvious sustainability benefits.

Additional benefits of technology in trade are summarised in the World Economic Forum and World Trade Organization report on the promise of TradeTech Policy approaches to harness trade digitalisation:

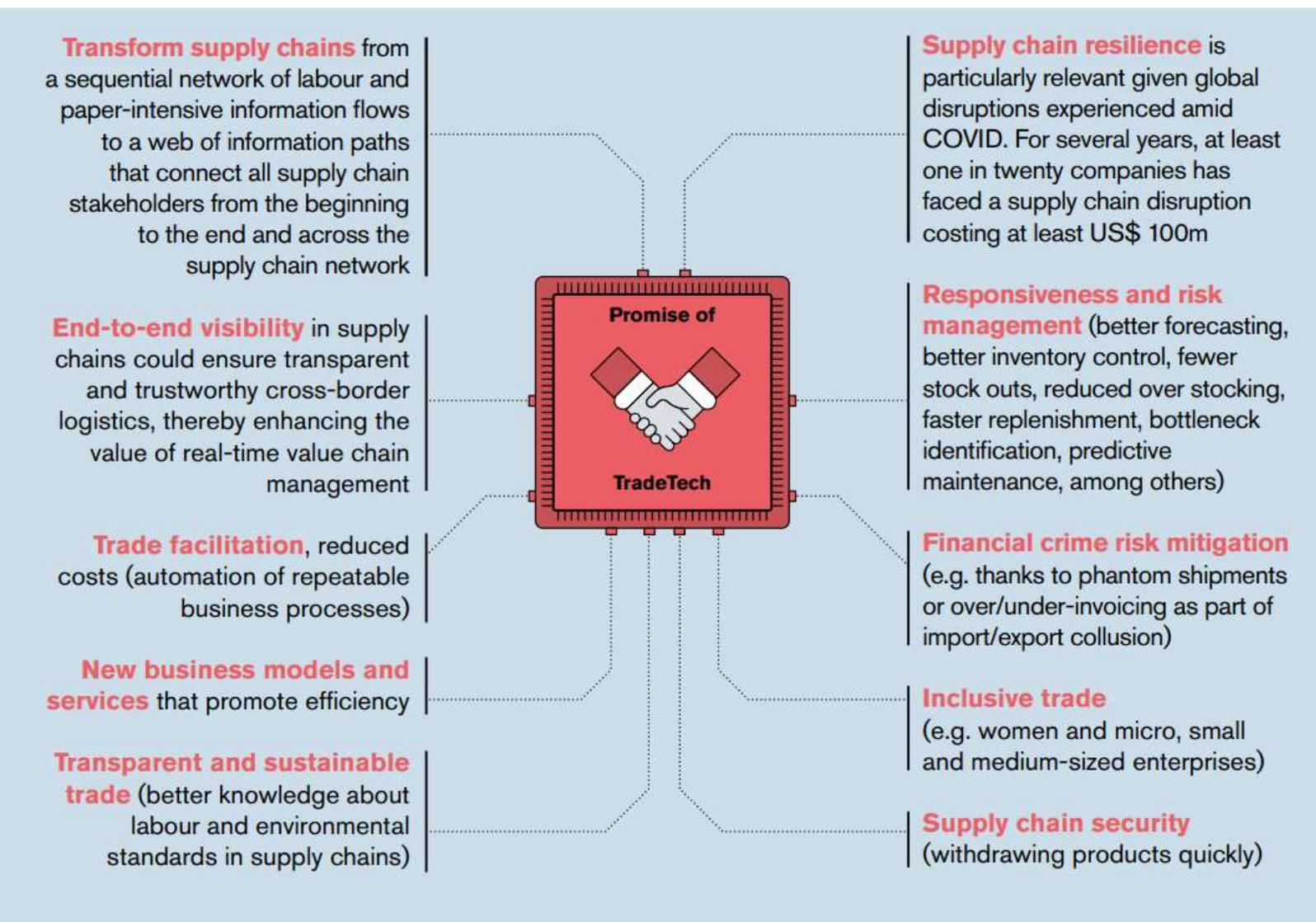


Diagram 3: TradeTech (Source: WEF-WTO Report)

A particular use of TradeTech that builds upon digital trade, and is encouraged by the WTO, is the establishment by governments of electronic trade “single windows”. A single window is an electronic system or platform that enables “traders to submit documentation and/or data requirements for importation, exportation, or transit of goods through a single-entry point to the participating [government] authorities or agencies [for their review, with the results being notified to the applicants] through the single window in a timely manner.”

Single windows enable all relevant government authorities to handle all administrative aspects of international trade (such as health and security screening, customs, and tax requirements etc.) with the same information in real time. This eliminates the cumbersome process of traders providing information separately to several different authorities at different times. Single windows therefore multiply the efficiencies that digitalising trade can bring.

The diagram below shows one way in which a single window can be set up. It further illustrates the interconnectedness of key actors in the trade process.

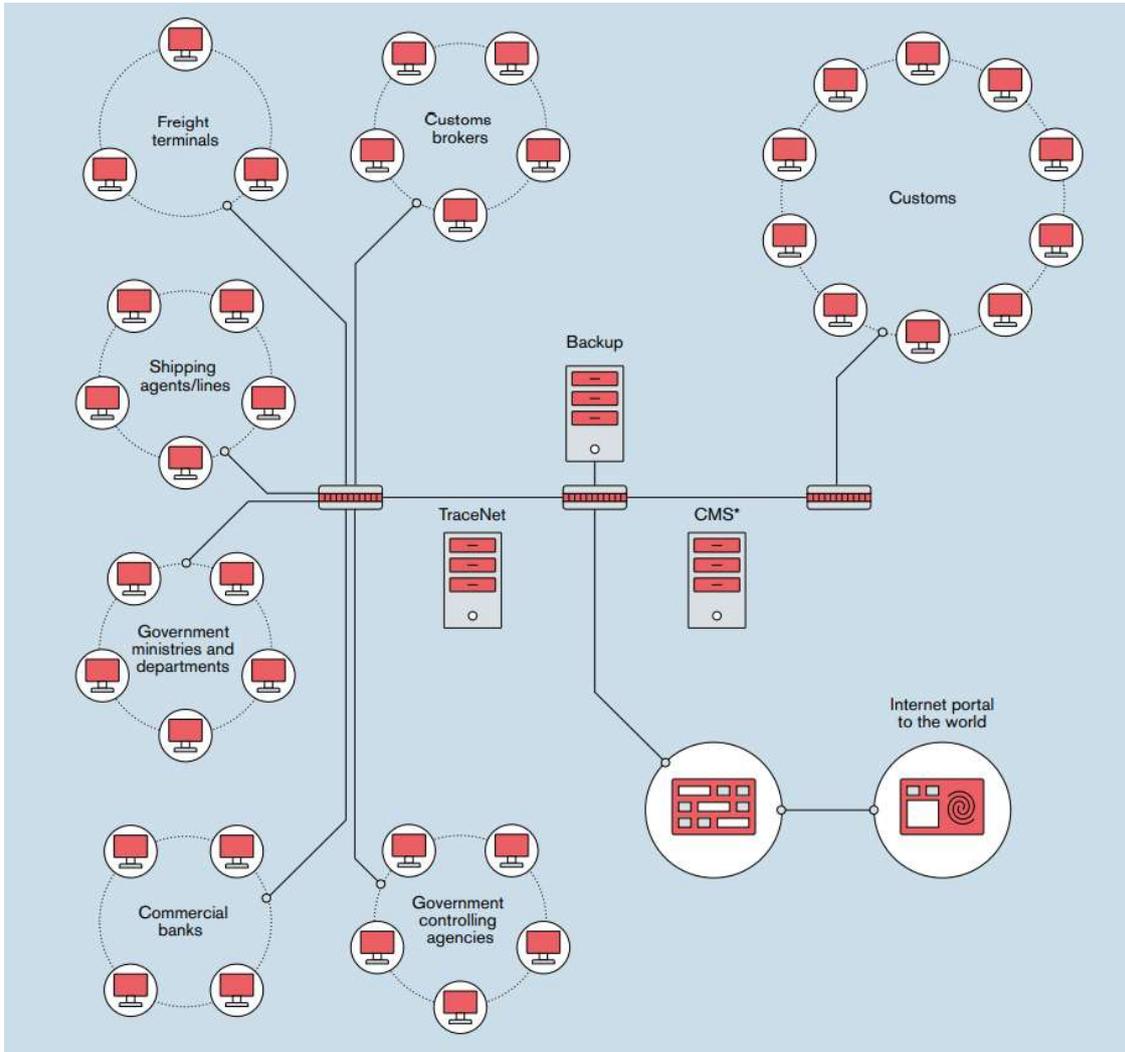


Diagram 4: Single window network Source: WEF-WTO Report)

Nevertheless, a Single Window also underscores the importance of interoperability between the different platforms (to eliminate 'digital islands'), not only at national level but also cross-border with foreign platforms. Additionally important considerations, as with all other technologies, include data protection and cybersecurity.<sup>28</sup>

As set out above, significant efficiencies can be achieved through the deployment of a range of technologies, even before a single window system is established (which can take time).

## 24 Efficiencies in Trade Instrument Processing

We can illustrate the efficiencies created using electronic trade documents by looking at two of the main trade instruments, namely the bill of lading and letter of credit. For example, the process for the transfer of the ownership on the bill of lading can be reduced from 5-10 days (paper-based and couriered) to less than 24 hours (electronic and digitally transferred).<sup>29</sup>

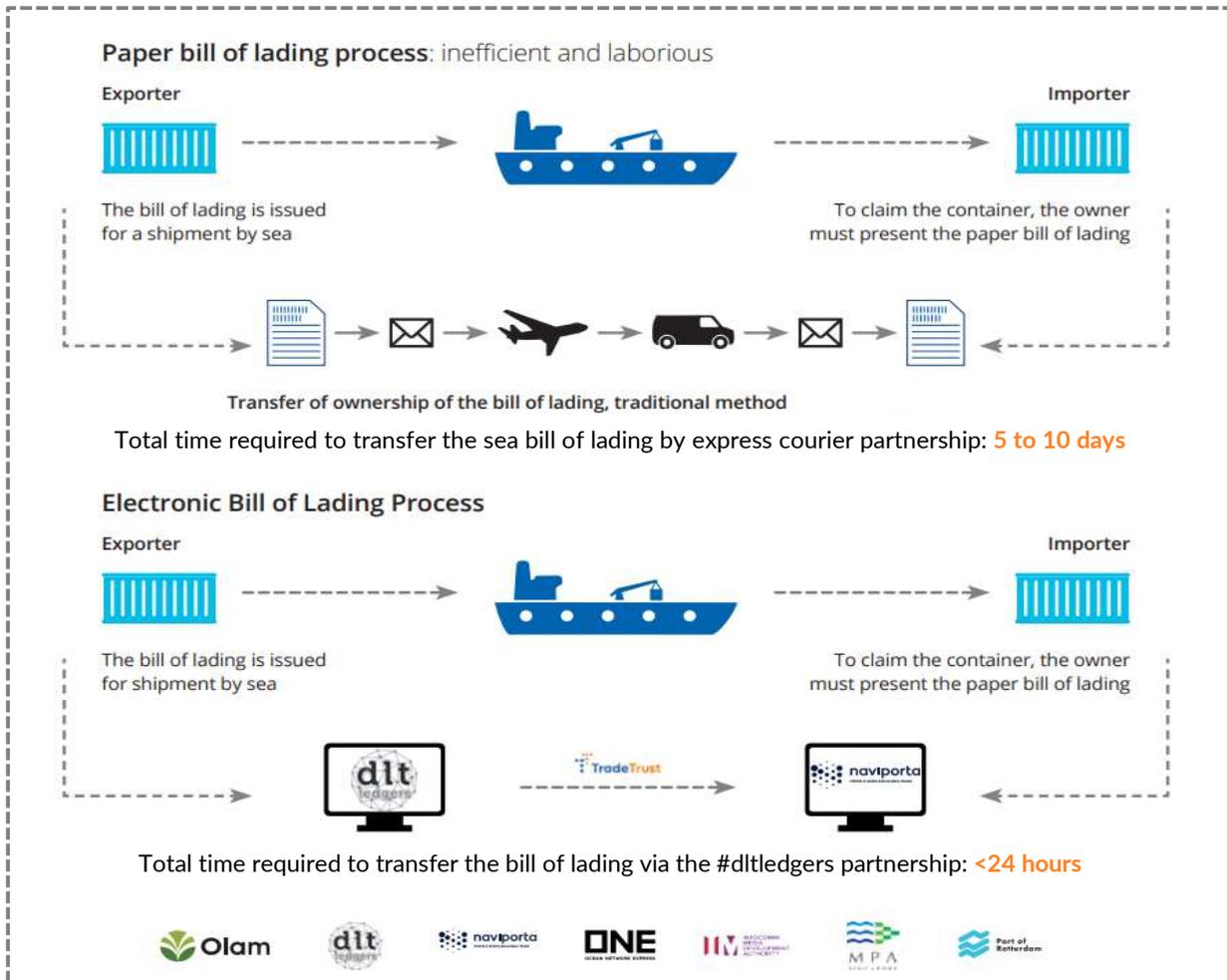


Diagram 5: Bill of lading process (Source: ICC France White Paper)

The use of electronic instruments instead of paper documents for promissory notes and bills of exchange, could affect the same changes in the process, removing the need for physical transfer of paper documents.

As set out in the diagram below, the letter of credit processing time would be reduced from 12-15 days to 48-72 hours. This efficiency is due to the time taken to check paper documents, in comparison to verification of digital documents by all the key actors.<sup>30</sup>

It is not only time efficiencies but also costs which can be significantly lowered. A bill of lading equates to between 10-30% of trade documentation costs, and it is estimated that an electronic bill of lading could lead to more than \$15.5 billion in direct benefit to the shipping ecosystem and up to \$40 billion in increased trade.<sup>31</sup>

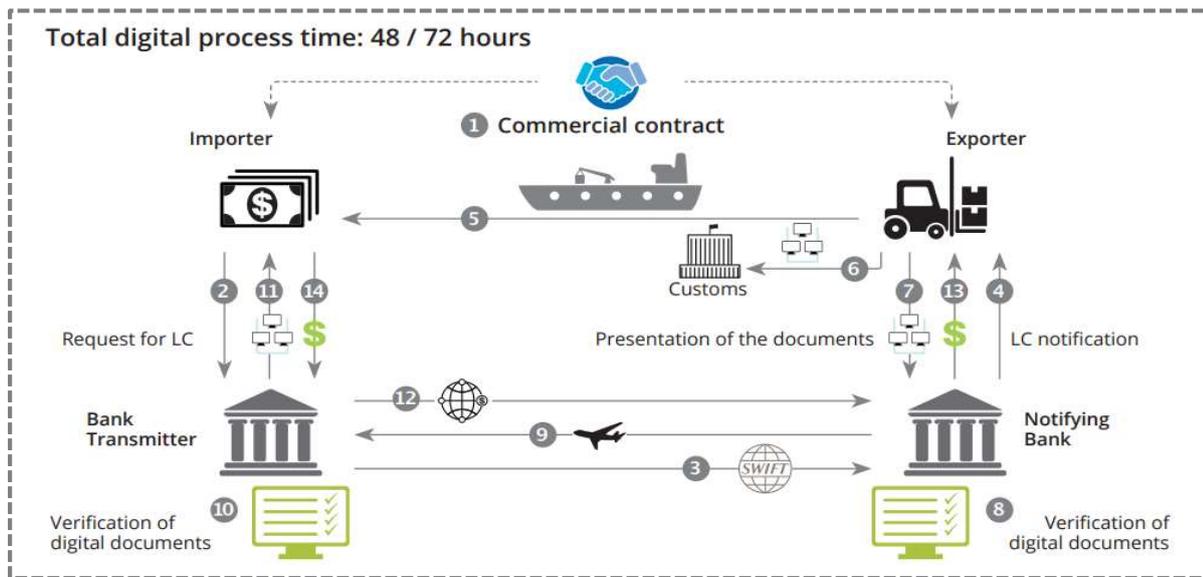
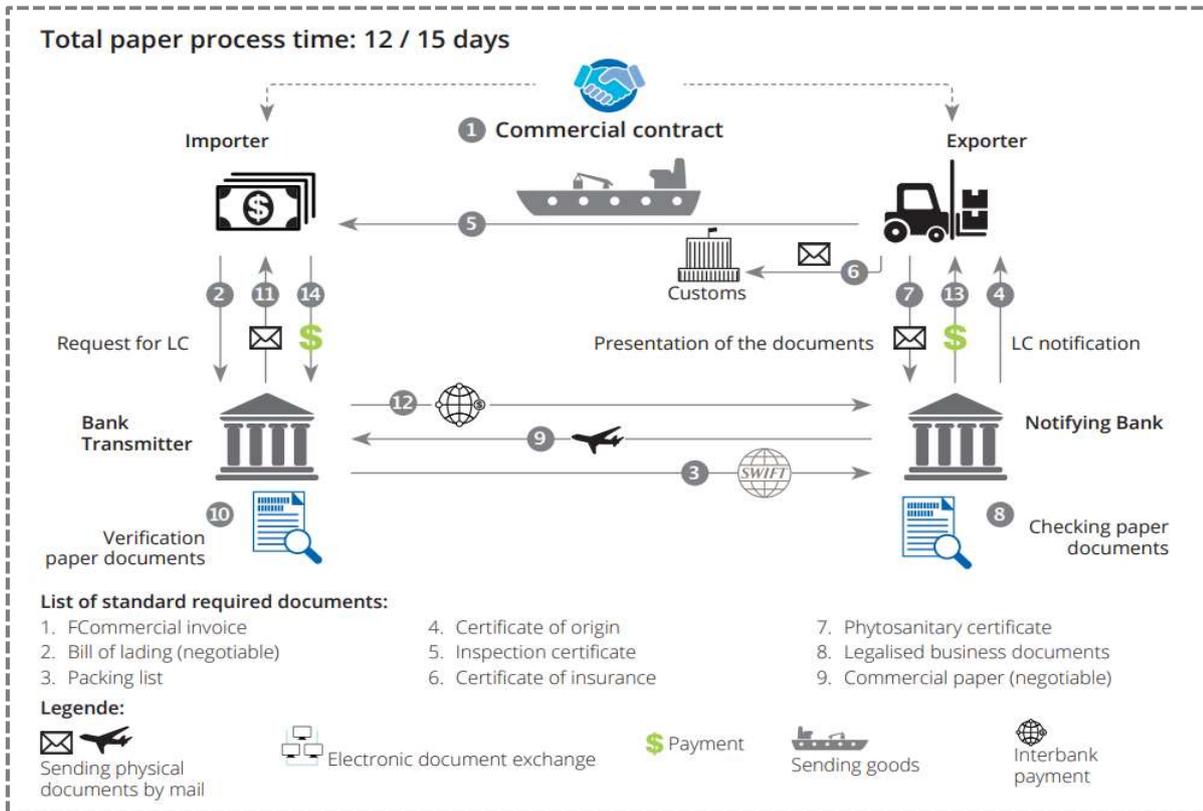


Diagram 6: Letter of credit process (Source: ICC France White Paper)

## 2.5 Risk Reduction

In addition to time and cost efficiencies, through the example of a letter of credit, we can also clearly see the reduction in risk caused by human error or fraud.<sup>32</sup> A recent ICC report further illustrates how the use of technology can reduce fraud.<sup>33</sup> Digital trade will of course need to be protected from cybersecurity risks and costs. Many countries and private sector companies have established cybersecurity policies and regulations. Calls have been made for closer international cooperation and the introduction of strengthened, harmonised standards that address risk-based approaches to cybersecurity as well as promoting trade opportunities.<sup>34</sup>

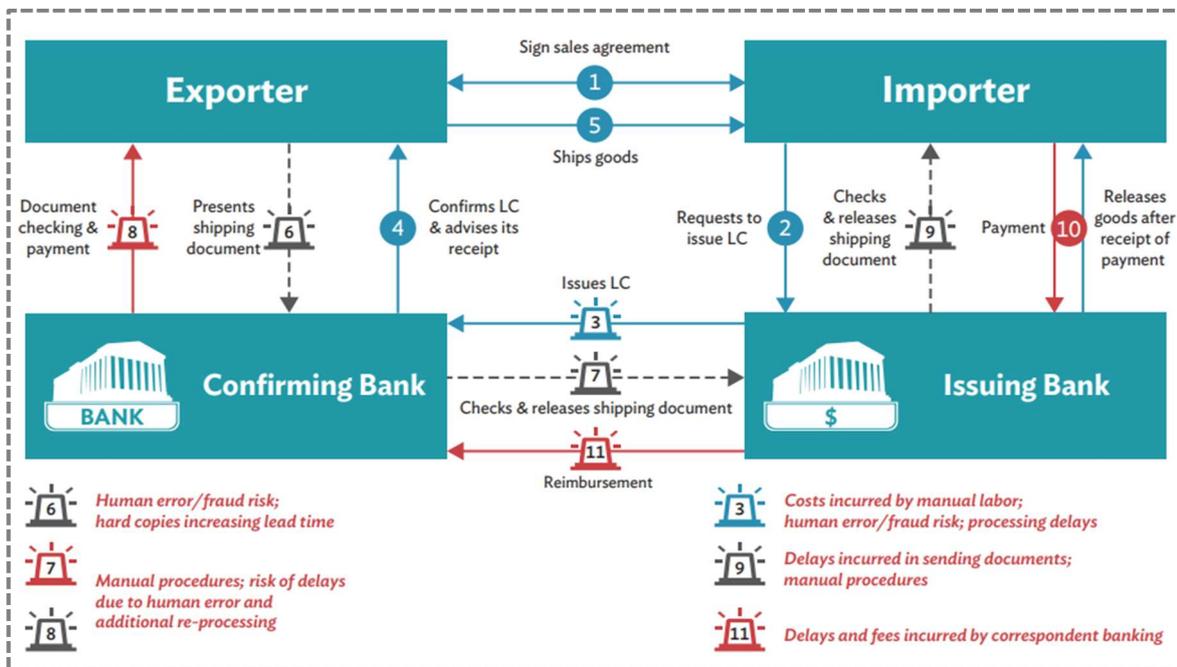


Diagram 7: Risk of human error and fraud (Source: Asia-Pacific Trade Facilitation Report 2019)

## 2.6 Open Account Transactions

Frequently in international trade, payment by a buyer of goods takes place against delivery of documents (such as a bill of lading) entitling the buyer to the goods. In an “open-account” transaction, the goods are delivered to the buyer before the payment, usually on credit terms, is due. This increasingly popular method of trade is advantageous to the buyer in terms of cash flow, cost, and efficiency, but it increases the risks to the seller, and is therefore usually employed in transactions involving powerful, low default risk buyers (like large multinational companies). Bank and investor financing, including deep tier finance, in open-account transactions is often available in supply chain finance transactions that take advantage of the buyer’s good credit standing.

Open account transactions can be transformed using a digital platform with MLETR aligned laws enabling the use of digital payment instruments (e.g. electronic promissory notes) and smart contracts. This would remove the need under current laws to engage in work arounds (e.g. agreements between parties) and also ensures negotiability of key trade documents. Moreover, the processing times are decreased, together with costs. The Asia-Pacific Trade Facilitation Report 2019 provides a clear graphic illustration of this:<sup>35</sup>

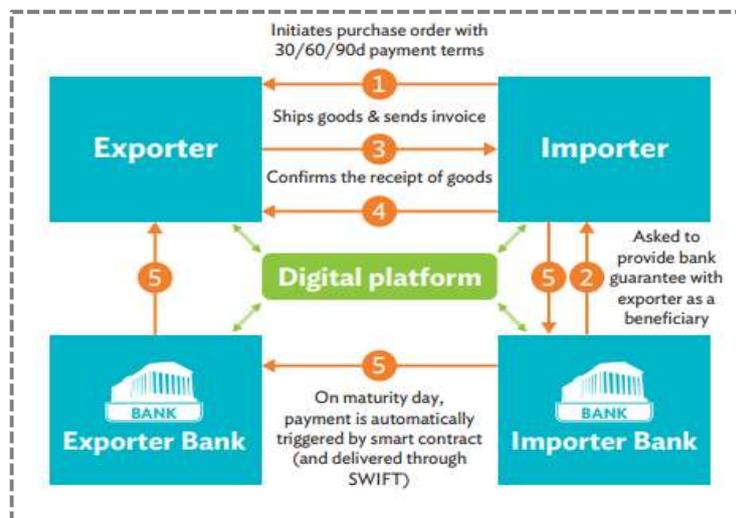


Diagram 8: Digital platform for open account transactions (Source: Asia-Pacific Trade Facilitation Report 2019)

The WEF-WTO Report sets out what is referred to as the 5Gs which would facilitate better trade digitalisation, in addition to more inclusive, fairer, more transparent, and less fragmented technology ecosystems.<sup>36</sup>

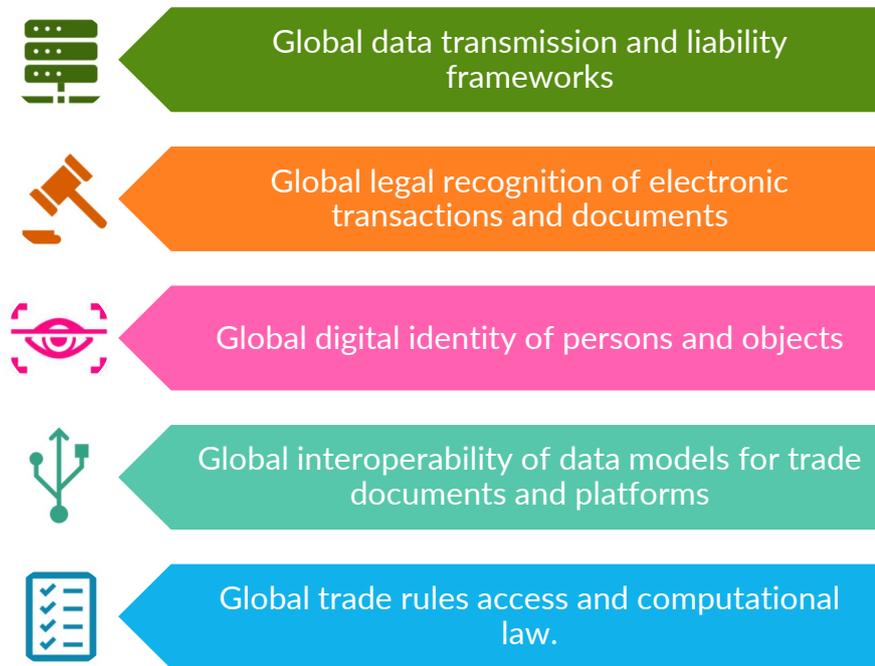


Diagram 9: The WEF-WTO Report 5Gs for facilitating trade digitalisation

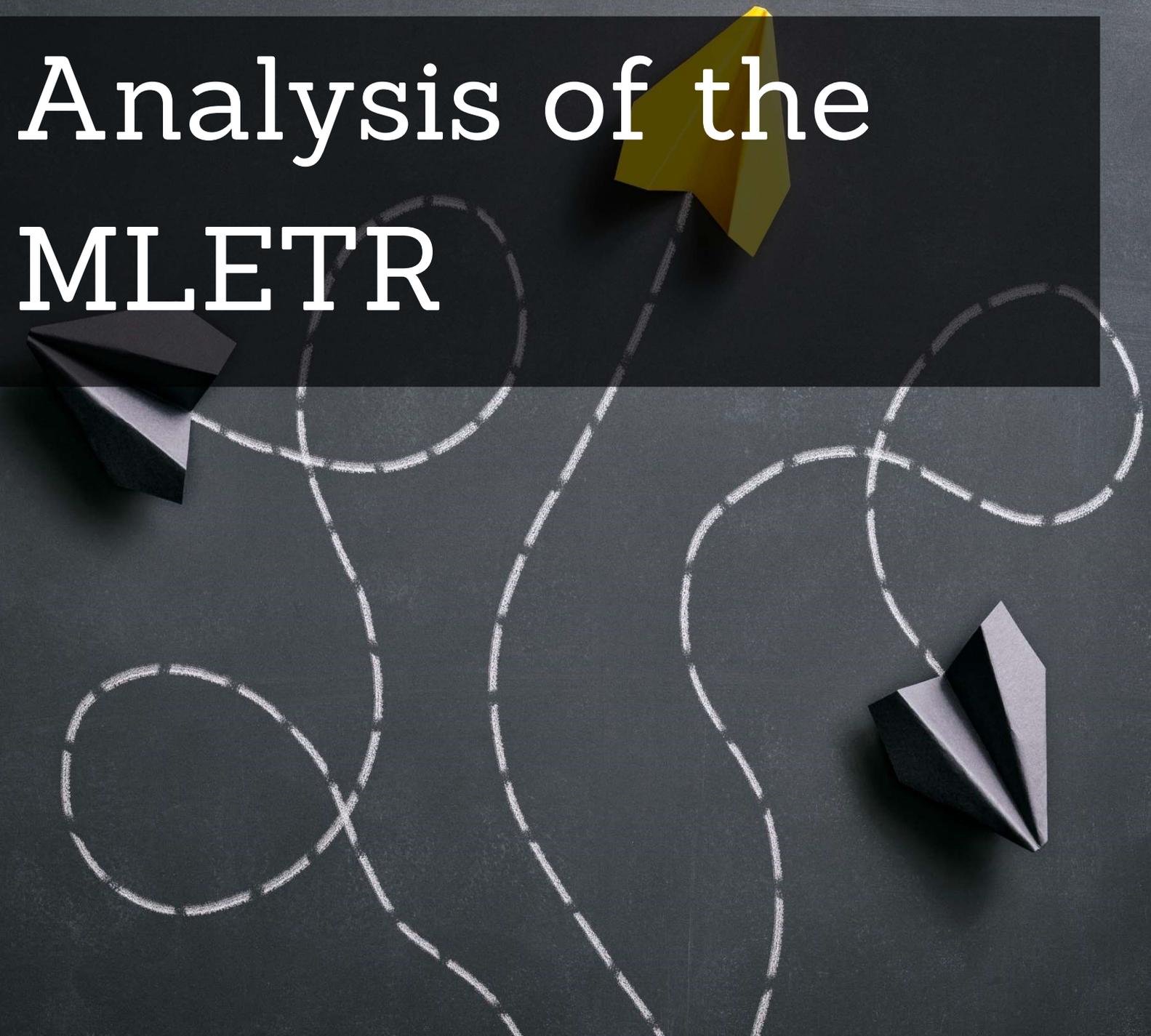
What is necessary in order to fully take advantage of TradeTech and to accelerate digital trade is the enabling legal framework.

## 2.7 Capital Markets

As trade assets increasingly digitise, there is great potential to inject additional liquidity into the trade finance market. The need for banks and many primary originators to distribute trade assets has never been greater. A reliable technological infrastructure is critical for the facilitation of widespread volume distribution of trade assets, particularly for the distribution of short-term assets. By aligning policy and technology developments for trade finance assets to become a liquid, investible asset class, a large number of institutional investors could be new entrants in trade finance and extend liquidity to originators of various size and in various locations. This would represent an opportunity to link trade finance and capital markets, by expanding as a confirmed securitised asset class for instance. This would ultimately represent a positive step to help SMEs access short term funds to grow sustainable trade and mitigate trade risk.<sup>37</sup>

3.

# Analysis of the MLETR



## 3.1 Origins of MLETR

For more than 40 years, international businesses and financiers have desired to carry out increased international commercial transactions by electronic, rather than paper-based, means. Recognising this, the United Nations Commission on International Trade Law (UNCITRAL), particularly through its Working Group IV (Electronic Commerce), has undertaken several initiatives to facilitate electronic commerce in international trade. Its ground-breaking work has resulted in the following significant instruments (among others) designed to remove a range of legal uncertainties arising from the use of electronic trade means.

- 1996** | **Model Law on Electronic Commerce (MLEC)<sup>38</sup>**  
Seeks to facilitate commerce in electronic form by confirming that contracts and signatures may be expressed in electronic form, data messages are admissible in evidence, and contains special facilitating provisions for carriage of goods and transport documents.
- 2001** | **Model Law on Electronic Signatures (MLES)<sup>39</sup>**  
Seeks to confirm the legal effectiveness of signatures in electronic form.
- 2005** | **United Nations Convention on the Use of Electronic Communications in International Contracts (the Electronic Communications Convention)<sup>40</sup>**  
A treaty aiming at further facilitating the use of electronic communications in international trade by removing obstacles and updating and providing more uniform substantive law applicable to electronic communications.
- 2017** | **UNCITRAL Model Law on Electronic Transferable Records (MLETR)<sup>41</sup>**  
Described below.
- 2022** | **UNCITRAL Model Law on the Use and Cross-border Recognition of Identity Management and Trust Services 2022**  
Seeks to facilitate the use and cross-border recognition of identity management and trust services in the context of commercial activities and trade-related services.

In summary, taken together, these UNCITRAL instruments aim to facilitate electronic commerce. They provide a framework that ensures commercial contracts in reliable electronic or automated systems (including contract formalities, like signatures) are functionally equivalent to paper-based communications and contracts. They also ensure that these documents are valid and enforceable.

Although the United Nations General Assembly and UNCITRAL have frequently urged all States to subscribe to and implement the principles in these documents<sup>42</sup>, in 2011, UNCITRAL recognised that such instruments do not comprehensively address legal uncertainties arising from the use of certain electronic transferable records critical in international trade.<sup>43</sup> These legal uncertainties were – and still are – prompting the continued use of inefficient paper-based processes and records, when electronic records with the same effect would substantially enhance international trade, economic development and sustainability goals.

UNCITRAL Working Group IV (Electronic Commerce) was therefore tasked, for several years, to prepare a model law that would assist States to enact or clarify their legislation on electronic commerce, especially relating to the use of electronic transferable records used in trade transactions. This work culminated in 2017 with UNCITRAL adopting a Model Law on Electronic Transferable Records

(MLETR), together with an Explanatory Note<sup>44</sup> (Explanatory Note). The United Nations General Assembly recommended all States to favourably consider the MLETR and appealed to UN system bodies and international and regional organisations “to coordinate their legal activities in the area of electronic commerce, including paperless trade facilitation, with” UNCITRAL.<sup>45</sup> Since then, the G7 countries have committed to aligning their laws with the MLETR,<sup>46</sup> and multilateral development banks (including the EBRD) and significant international banking and business associations and others are participating in efforts to drive global adoption of the MLETR.<sup>47</sup>

## 3.2 Aims and Objectives of MLETR

Before summarising the main principles of the MLETR, it is important to emphasise the critical importance to domestic and international trade of the availability of what the MLETR describes as a “transferable document or instrument” and therefore why UNCITRAL decided to invest so much time and effort to prepare a model law whose principles are designed to confirm the legality of use of those documents and instruments in digital form.

For centuries, and still today, trade and trade finance transactions have depended upon, and been recorded in, various ‘transferable’ ‘documents’ and ‘instruments’ in paper form. The most important examples of these documents/instruments used in trade and trade finance include bills of exchange, promissory notes, bills of lading, ship’s delivery orders, marine insurance policies, cargo insurance certificates and warehouse receipts<sup>48</sup>, among others.

As a result of centuries of commercial practice that evolved to facilitate trade (especially cross border trade), and the application of *lex mercatoria*<sup>49</sup> in settling trade disputes, most of these trade documents assumed a special ‘legal status’ that was ultimately codified in statutes such as the UK Bills of Exchange Act 1882 (or similar in almost all countries) or had become settled law worldwide. Not only are these paper documents transferable by a transfer of “possession”, but they are recognised by law as embodying the rights to claim performance of the obligation (for example to pay money or to deliver goods) described in the documents, wherever they are used.

Moreover, although with some variance in the documents from one jurisdiction to another, some of these documents (e.g. in the U.K., documents of title to money or securities) are accorded additional protection for transferees as “negotiable instruments”. These documents provide a transferee with better rights to the property than the transferor had, so long as certain requirements are met. Accordingly, a good faith transferee for value of a “negotiable instrument” need not investigate the history of the transferor’s title to rely on the integrity of the transaction, thus conferring significant protection in cross border trade transactions.

In summary, the special legal status of these trade documents confers the following rights on the holder of such documents that have been essential in establishing the legal reliability of trade transactions:

- Entitling the holder of the document to *performance* of an obligation (e.g. a promise to pay, or the delivery of goods) described in the document;
- Giving the holder the power to *transfer* the rights to performance of the obligation or constructive possession of the goods by transferring the document itself; and
- In the case of negotiable instruments, *cutting off competing property claims* from third parties, where the holder is a ‘holder in due course’ (i.e. for value and without notice of competing claims).

These special legal protections and attributes afforded to transferable documents/instruments critical to trade in paper form are vested in the person having “possession” of those documents/instrument but have not been accorded to similar documents or instruments in digital form. The main reason for this is because the laws of most jurisdictions have held that electronic transferable records, being

intangible, are incapable of being “possessed.” Accordingly, under the existing laws of most jurisdictions, the trade documents in electronic form cannot legally function in the same way as their counterparts in paper form. This is notwithstanding that other commercial contracts and signatures in electronic form (often referred to as “ecommerce”) are generally accepted as legally binding. It became apparent that the laws governing trade documents in electronic form were in need of reform.

Accordingly, after close examination, UNCITRAL concluded that “[t]ransferable documents and instruments are essential commercial tools. Their availability in electronic form may be greatly beneficial for facilitating electronic commerce in international trade ... particularly ... for certain business areas such as transport and logistics, and finance. ... Moreover, a fully paperless trade environment may not be established without their use.”<sup>50</sup>

Recognising that removal of the legal impediments arising from the legal requirements for “possession” could best be achieved through statutory reform of domestic legislation, UNCITRAL decided to prepare a model law entitled, as previously mentioned, the Model Law on Electronic Transferable Records (MLETR).

The MLETR and its accompanying Explanatory Note were adopted to guide this essential legal reform effort. The MLETR “aims to enable the legal use of electronic transferable records both domestically and across borders”, based on their functional equivalence with paper-based transferable documents or instruments.<sup>51</sup>

The MLETR builds on the fundamental principles underlying the existing UNCITRAL texts (described above) facilitating electronic commerce, emphasising non-discrimination against the use of electronic communications and technological neutrality.<sup>52</sup> It is designed for use with all technologies and all electronic models including registries, platforms, tokens, and Distributed Ledger Technology.

### 3.3 The Main Principles of MLETR

At the outset, three general observations may be helpful:

1. The MLETR uses the term “**records**”, rather than “documents or instruments” as have customarily been used in trade and finance. This reflects the fact that “records” created and stored in electronic form may be functionally equivalent to documents or instruments in paper form, but they may not be identical to those documents or instruments. In particular, the electronic records are likely to be in code, and may consist of a set of composite data drawn from different but linked parts of electronic management systems, with related metadata, for example, describing the life cycle or unique identifier of a relevant record.<sup>53</sup>
2. An **electronic transferable record** of the type contemplated by the MLETR may exist even if its paper equivalent has never been issued. However, the applicable substantive law must indicate what constitutes a paper-based transferable document or instrument and the electronic record must contain the information that is required for that paper-based transferable document or instrument and must satisfy the other requirements of Article 10 of the MLETR summarised below.
3. The MLETR offers a **uniform and neutral** text that governments can choose to incorporate into their statutory law largely in the form prepared by UNCITRAL. Alternatively, depending upon the state of their existing law, governments may choose to enact, in other forms, such of the main principles of the MLETR as are necessary to ensure that electronic transferable records will be treated the same in law as paper-based

transferable documents and instruments. To assist governments in making this choice, the following summary of the MLETR and its main principles is offered.

There are four foundational concepts of the MLETR that are reflected in its key definitions and provisions in order to establish the functional equivalence of records in electronic form with paper-based documents, namely:

1. What constitutes an “Electronic Transferable Record”;
2. The establishment of “control” of that transferable record;
3. The importance of “integrity” of that transferable record; and
4. The standard of “reliability” of the method to establish the foregoing.

The MLETR’s treatment of these concepts is discussed in the boxes below, followed by a brief summary of other important topics included in the MLETR that should be reflected in local law to put electronic transferable documents on the same legal footing as paper documents.

A central provision of MLETR is the determination of what is an “**electronic transferable record**”, defined in Article 10 of the MLETR. It is only an “electronic record”<sup>54</sup>:

- a) that contains the information that would be required in a paper-based ‘*transferable document or instrument*’; and
- b) where a ‘*reliable method*’ is used: to identify it as an electronic transferable record; to render it as capable of being subject to ‘*control*’ from its creation until it ceases to have any effect or validity; and to retain its ‘*integrity*’. These concepts have been incorporated in the MLETR to prevent the possibility, in the electronic environment, of the existence of multiple claims to perform the same obligation.

MLETR contains criteria for assessing some of these key concepts:

#### Reliable Method

To preserve technological neutrality, MLETR does not define what is a “reliable method”. That is left for market participants to choose and deploy whatever digital models, platforms, or systems<sup>55</sup> they wish to use and, if disputes arise, for courts to determine whether the reliability standard has been met.

In addition to determination of an electronic transferable record, other aspects where the MLETR requires the application of a “reliable method” for their fulfilment, are:

- (i) “any system used to implement that method”<sup>56</sup>,
- (ii) the signature of a person<sup>57</sup>,
- (iii) indications of time or place<sup>58</sup>,
- (iv) amendments of a legal nature<sup>59</sup>, and
- (v) any change in medium from electronic to paper<sup>60</sup> or vice versa<sup>61</sup>

However, to increase legal certainty, Article 12(a) of MLETR provides the reliability standard as being “[a]s reliable as appropriate for the fulfilment of the function for which the method is being used, in the light of all relevant circumstances”. The concept of reliability extends to the design<sup>62</sup> of the method used as well as to its content and Article 12 adds a number of non-exhaustive circumstances that could be relevant in assessing reliability, as follows:

- (i) Any operational rules relevant to the assessment of reliability;

- (ii) The assurance of data integrity;
- (iii) The ability to prevent unauthorized access to and use of the system;
- (iv) The security of hardware and software;
- (v) The regularity and extent of audit by an independent body;
- (vi) The existence of a declaration by a supervisory body, an accreditation body, or a voluntary scheme regarding the reliability of the method;
- (vii) Any applicable industry standard.

Alternatively, an electronic method can be proven in fact to be reliable under Article 12(b). This can be due to the method itself or together with further evidence.

### Control

Under the laws of most, if not all jurisdictions, the special rights and protections accorded to paper negotiable instruments/documents of title (i.e. key international trade documents) depended upon “possession” by the “holder” of those documents. However, documents or records in electronic form, not being tangible, cannot as a matter of law be “possessed”, without express statutory or other law reforms to this effect. Therefore, it was essential for MLETR to provide for a functional equivalent of “possession”. This equivalence is “control”.

Thus, according to Article 11.1 of MLETR, any requirement for “possession” of a paper document or instrument is met for an electronic transferable record if a reliable method is used to establish that the record is in the exclusive control<sup>63</sup> of an identified (legal or natural) person. Article 11.2 similarly provides that the transfer of control of an electronic transferable record acts as the functional equivalent of a “transfer of possession” of a paper-based transferable document or instrument.<sup>64</sup>

This is to prevent the existence of multiple claims for performance of the same obligation.

Article 10.1 (b) of MLETR provides that this will be accomplished:<sup>65</sup>

- (1) by “reliable identification of the electronic transferable record that entitles its holder to request performance of the obligation”,
- (2) by “the use of a reliable method to identify the person in control” of the record, and
- (3) by ensuring that these records have integrity.<sup>66</sup>

### Integrity

As with paper records, it is also essential that electronic records (including any authorized changes) remain “complete and unaltered” at all relevant times, apart from changes in the normal course of communication, storage, and display.<sup>67</sup> During their life cycle, electronic transferable records will undergo changes such as transfers or other authorised changes, that will need to be reliably reflected by the electronic methods used for the records. Beyond the method, cybersecurity considerations of the system/platform would need to be taken into account during its design.

The following table provides a summary of how the key MLETR concepts are applied in a paper-based trade process and how they apply if recognised in electronic form.

MLETR Concept	Electronic	Paper-based
<b>1. Transferable Record</b>	An electronic transferable record must contain the information that would be required in a paper based transferable document or instrument. This definition “is intended to apply to electronic transferable records that are functionally equivalent to [paper-based] transferable documents and instruments.” <sup>68</sup>	A transferable document or instrument is “a document or instrument issued on paper that entitles the holder to claim the performance of the obligation indicated in the document or instrument and to transfer the right to performance of the obligation indicated in the document or instrument through the transfer of that document or instrument.” <sup>69</sup>  Applicable substantive law determines which documents or instruments are transferable in the various jurisdictions. <sup>70</sup>
<b>Identified as such</b>	The electronic record must be identified as the precise “electronic transferable record” embodying the obligations in question. This requirement is to reflect in the electronic environment the functional equivalence of “singularity” of paper-based documents and instruments.	A paper document is inherently considered unique, or “singular”, because it is tangible, and centuries-old techniques have been developed by traders and financiers to assess the “singularity” of the paper document embodying the relevant obligations.
<b>2. Control</b>	<p>Under the laws of most, if not all jurisdictions, records in electronic form, not being tangible, cannot as a matter of law be “possessed”, without express statutory or other law reforms to this effect. Therefore, it was essential for the MLETR to provide for a functional equivalent of “possession”. This equivalence is “control”.</p> <p>For electronic transferable records, control as the functional equivalence of possession is achieved under the MLETR when a reliable method is employed to establish “exclusive control”<sup>71</sup> of that record by a person and to identify that person as the person in control. The person in control of an electronic transferable record is in the same legal position as the possessor of an equivalent paper-based transferable document or instrument and may transfer the electronic record by the transfer of control over that record.<sup>72</sup></p> <p>As with paper-based transferable documents and instruments, although applicable law might permit the “possibility of issuing multiple originals of a [paper-based] transferable document or instrument [...] in several fields of trade”<sup>73</sup>, it is critical to the proper functioning of an electronic transferable record that there can be only one reliable electronic record, and only one reliably established “holder” of that electronic record, at any one time.</p>	<p>Under the laws of most, if not all jurisdictions, the special rights and protections accorded to paper-based transferable documents and instruments depend upon “possession” by the “holder” of those documents and instruments. Physical documents can be controlled by possession. The possessor of a tangible transferable document or instrument is usually the person in control of that document or instrument.</p> <p>Transfer of these paper-based documents and instruments is affected by a transfer of possession.</p>
<b>3. Integrity</b>	<p>A functional equivalence to assess integrity had to be found for such a record.</p> <p>MLETR’s criteria for assessing the integrity of an electronic transferable record is whether information contained in that record “has</p>	A paper-based document or instrument has “integrity” if it is complete and free of errors or defects such as fraud. Centuries-old practices have been developed by traders and financiers to assess the “integrity” of paper documents or instruments embodying relevant obligations.

MLETR Concept	Electronic	Paper-based
	<p>remained complete and unaltered” from its creation until it ceases to have any effect or validity”, apart from any change which arises in the normal course of communication, storage, and display.<sup>74</sup></p> <p>During their life cycle, electronic transferable records will undergo changes such as transfers or other authorised changes, that will need to be reliably reflected by the electronic methods used for the records. In practice, verification of the integrity of the electronic transferable record could be achieved if a reliable assurance is provided of the link between an electronic signature affixed on the record and the content of that record at the time the electronic signature was affixed.<sup>75</sup></p>	
<p><b>4. Reliable Method and Standard of Reliability</b></p>	<p>The MLETR requires that a “reliable method” is used to identify, among others, an electronic record as the “electronic transferable record”; to render it as capable of being subject to ‘control’; and to retain its ‘integrity’.</p> <p>For electronic transferable records, MLETR provides that the “reliable method” must conform to a “[g]eneral reliability standard” in assessing reliability. The “reliability of the method used” implies “reference to any system used to implement that method.”<sup>76</sup></p> <p>Whether the reliability standard has been met is to be judged by various circumstances outlined in the MLETR, including whether the method is proven in fact to have fulfilled the function by itself or together with further evidence.</p>	<p>The assessment of the reliability or trustworthiness of paper-based documents and instruments has developed over many centuries of practical experience of traders and financiers, usually by a careful examination of the tangible document or instrument.</p>

In concluding this discussion of the main principles of MLETR, other topics referred to in MLETR that may need to be incorporated in local law to put electronic transferable documents on the same legal footing as paper documents are:

- providing that electronic transferable records should not be denied legal effect on the sole ground that they are in electronic form, and that foreign electronic transferable records should not be discriminated against<sup>77</sup>;
- providing legal effect to reliable digital processes that achieve the same functional effect as ‘writing’<sup>78</sup>, ‘signatures’<sup>79</sup>, ‘endorsement’<sup>80</sup>, and ‘amendment’<sup>81</sup>; and
- confirming the principle of freedom and privity of contract<sup>82</sup>, the application of rules of private international law to electronic transferable records<sup>83</sup> and the continued application of rules requiring certain disclosures and the legal consequences of making inaccurate, incomplete, or false statements.<sup>84</sup>

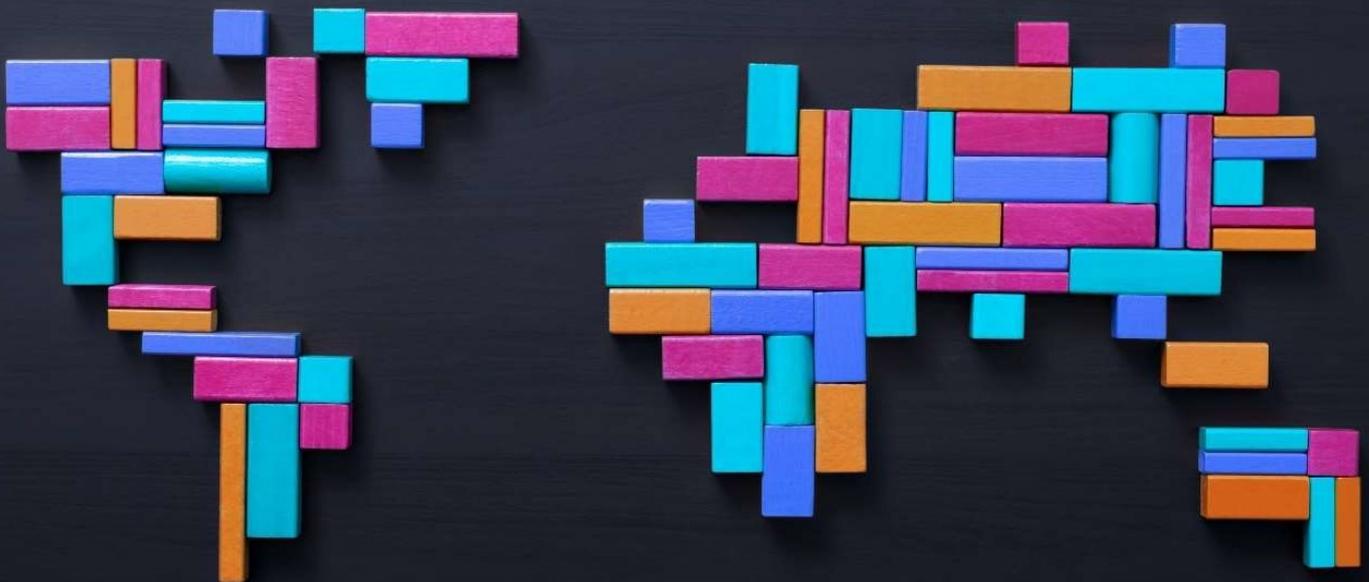
In addition to the key MLETR concepts (ETR, reliable method, control, and functional equivalence), consideration must also be given to the general principles common to all UNCITRAL model laws: Non-

discrimination against electronic communications; Technological neutrality; and Functional equivalence.

Finally, per Article 1 and Article 19, Paragraph 2 of the MLETR, it is very important to point out that the MLETR does not touch or affect in any manner the substantive law applicable to transferable documents or instruments or relevant rules of private international law. The MLETR focuses on the “transferability” of the record and not on its “negotiability”. This means that the underlying rights of the holder of the document or instrument shall be dealt with by other substantive law provisions. It is therefore important that any reform efforts to align with the MLETR also consider potential improvements to the substantive law governing the negotiability of transferable records and instruments.

4.

# Legal Reform



Seven jurisdictions are said to have fully aligned or adopted MLETR.<sup>85</sup> This section looks at three jurisdictions from this list that are active in international trading, namely, Bahrain, Singapore, and Abu Dhabi Global Market. The G7 commitment to aligning their laws to MLETR has led to action in several other countries. This section takes a closer look at the reform process in three of these countries, namely, France, Germany, and the UK.

The following sections highlight some of the experience of legal reforms in these selected jurisdictions to illustrate the common trends, issues and concerns that are likely to be relevant to other jurisdictions wishing to undertake similar reforms. As will become apparent, consideration will most likely need to be given to the views of key stakeholders in the process, the extent to which the existing local legal system already accommodates electronic commerce (for example by the adoption of other UNCITRAL model laws or EU laws on topics such as e-signatures), as well as the proposed end result of the reform process in terms of the legal instrument and text to produce the desired result.

## 4.1. Bahrain

Bahrain was the first country to align its laws with the MLETR on 29 November 2018,<sup>86</sup> when it adopted the Electronic Transferable Records Law (“Bahrain ETRL”).<sup>87</sup> This was part of a wider programme of reform led by the Bahrain Economic Development Board<sup>88</sup> to facilitate digital trade and digital innovation in the finance sector. It is worth noting that Bahrain already had in place the Electronic Transactions Act 2002<sup>89</sup> and other laws which covered a broad range of legal subjects relevant to e-commerce. The 2002 Act was repealed and updated by the Electronic Communications and Transactions Law, Legislative Decree No. 54 of 2018, also issued on 29 November 2018.<sup>90</sup>

Bahrain did not transplant the full text of the MLETR but incorporated its substantive provisions. The primary function of having digital negotiable instruments and documents as transferring legal rights in the same way as the (current) paper equivalent is the overarching principle.

Apart from passing the new Bahrain ETRL, it was also necessary to review and revise other laws in the Kingdom. This illustrates that, in particular jurisdictions, in order to effectively adopt MLETR, it may be necessary to review a broad range of related legal areas.

A few key aspects of the law reform covered in the Bahrain ETRL that merit attention are summarised below.

As mentioned above, the MLETR does not specify which documents or instruments are transferable. Jurisdictions are free to make their own choice. Accordingly, the Bahrain ETRL makes the definition of the following terms.<sup>91</sup>

**Document:** any of the following:

1. Bills of lading;
2. Letters of credit;
3. Warehouse receipts; and
4. Any other document of title, in respect of an obligation to deliver goods indicated in the document, specified in a regulation issued by the competent Minister for Transportation after consultation with the Governor.

**Instrument:** any of the following:

1. Cheques;
2. Bills of exchange;
3. Promissory notes; and
4. Any other instruments, in respect of an obligation to pay a fixed amount of money indicated in the instrument, specified in a regulation issued by the Governor.

In October 2021, as part of the Bahrain’s innovative digitalisation efforts, the Central Bank of Bahrain introduced the first electronic cheques (e-Cheques), under the Bahrain Electronic Cheque System (BECS). The enabling legal basis for this was the Bahrain ETRL and the Electronic Communications and Transactions Law.<sup>92</sup>

As in other jurisdictions, legal possession is a key legal challenge because of the difficulty in establishing “possession” of an intangible electronic record. In summary, the Bahrain ETRL follows the solution of the MLETR by making “control” and “exclusive control” (reliably established) of an electronic transferable record the equivalent of possession of a similar physical document or instrument.

The Bahrain ETRL contains two other provisions that might be helpful in implementing the MLETR principles. Article 3 states that, where appropriate, in the interpretation of the ETRL, “regard shall be had in particular” to the electronic communications and transactions law and jurisprudence issued by UNCITRAL on the MLETR.<sup>93</sup> In addition, the Bahrain ETRL provides for the establishment of a voluntary accreditation system that among other things could certify reliability of digital systems and electronic records. It applies to both to local and foreign operators of ETR management systems.<sup>94</sup>

## 4.2. Singapore

Singapore is a global leader in digital trade law facilitating international commerce, and the codification of international legal instruments that are formulated to facilitate transactions and the digital economy. It has continued to pioneer legal reform to promote the use of technology in trade.<sup>95</sup> Since the 1990s, Singapore has actively participated in the formulation, adoption, and implementation of UNCITRAL texts.<sup>96</sup>

On 1 February 2021, Singapore became the second country to adopt the MLETR principles,<sup>97</sup> when it amended its Electronic Transactions Act (ETA)<sup>98</sup> through the adoption of the Electronic Transactions (Amendment) Bill (“Amended 2021 ETA”).<sup>99</sup> It did not fully adopt the text of the MLETR, but aligned Singapore’s existing laws with the MLETR provisions.

It is worth noting that before aligning its laws with the MLETR, Singapore had also been amongst the first jurisdictions to adopt several key laws which created the building blocks for a digital ecosystem. Notably, through two ETAs (in 1996 and in 2010 gave effect to the 1996 UNCITRAL Model Law on Electronic Commerce (MLEC), the United Nations Convention on the Use of Electronic Communications in International Contracts, the United Nations Convention on the Use of Electronic Communications in International Contracts.<sup>100</sup>

### 4.2.1 Legislative Process and MLETR Adoption

The Republic of Singapore is a common law jurisdiction, drawing its commercial law from English origins. The practice in Singapore is to hold public consultations on proposed new strategic pieces of

legislation, including those relevant to the development of Singapore as a regional financial centre. Accordingly wide consultation, first in March-April 2017 and again in June-August 2019, led to the adoption of the Amended 2021 ETA.

As in the case of other common law jurisdictions, the Singapore authorities recognised that one of the key legal challenges in digitalising transferable documents and instruments was “to define the electronic functional equivalents of the requirement for possession of a unique or singular transferable document or instrument.”<sup>101</sup> The substantive text of Articles 10 and 11 of the MLETR was chosen as the way to address this challenge by way of the amendments to the ETA that refer to “control” and “exclusive control” as functional equivalents of possession.

Two additional aspects of Singapore’s efforts to update its law applicable to transferable trade documents in electronic form may be mentioned. First, other laws were amended to ensure alignment with the MLETR, including the Bills of Lading Act (Chapter 384 of the 1994 Revised Edition); and The Contracts (Rights of Third Parties) Act (Chapter 53B of the 2002 Revised Edition). In particular, the meaning of ‘bill of exchange’ and ‘bill of lading’ has been extended to include those documents or instruments in other Singaporean laws.<sup>102</sup> The emphasis is on substance over form.

Secondly, similar to Bahrain, the legislation adopting the MLETR also enabled the establishment of a voluntary accreditation system by which local and foreign digital systems and electronic records can be presumed to be reliable.<sup>103</sup>

Singapore has also taken practical steps to facilitate digital trade. The government has built a technology public DLT 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 (UN/CEFACT) to issue a White Paper containing guidance on the “Transfer of MLETR-compliant titles”.<sup>104</sup>

Singapore has been leading the way in the issuance of electronic bills of lading as well, when the first ever electronic Bill of Lading (eB/L) transaction governed by Singapore law was issued in accordance with the Singapore Electronic Transactions Act. It has been reported that this milestone was achieved on a container shipment carrying Nickel Matte from Australia to China carried by the container shipping line ONE.<sup>105</sup>

On 11 November 2021, the world’s first cross-border digital trade financing test transaction was carried out by Singapore’s Infocomm Media Development Authority (IMDA), the Monetary Authority of Singapore (MAS) and the Financial Services Regulatory Authority (FSRA) of Abu Dhabi Global Market (ADGM), in collaboration with commercial partners.<sup>106</sup> It used the IMDA’s TradeTrust platform 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>107</sup>

### 4.3. Abu Dhabi Global Market (United Arab Emirates)

The Abu Dhabi Global Market (ADGM) is an international financial centre and free trade zone located in the United Arab Emirates (UAE). On commercial matters, it has its own substantial law-making authority.<sup>108</sup>

On 15 September 2020, it launched a public consultation on the adoption of an electronic transactions regulation.<sup>109</sup> The consultation was designed to facilitate electronic transactions, records, and signatures by bringing ADGM’s legal and regulatory framework more in line with international best practice and thereby provide greater certainty in the use of documents and records in electronic form. ADGM

works within a common law framework, and this is reflected in the principles-based approach it took in reforming the draft and final regulations. For example, when it came to the choice of signature method, it opted for a minimalist approach, allowing the parties to choose for themselves the signature method.<sup>110</sup> The draft regulations that were initially proposed<sup>111</sup> was based on three UNCITRAL documents: (a) the Model Law on Electronic Commerce (1996); (b) the Model Law on Electronic Signatures (2001); and (c) the Convention on the Use of Electronic Communications in International Contracts (2005). Arising out of the consultation process, the MLETR was also incorporated into the law.

By 25 February 2021, the ADGM enacted the Electronic Transactions Regulations 2021 (“ADGM ETR”).<sup>112</sup> They provide that e-signatures and electronic contracts, records, communications, and documents are legally enforceable in the same way as paper versions. Notably for the purposes of this Paper, Part 5 of the ADGM ETR (and the Interpretation provisions in Part 8) adopt - without significant changes - the text of the MLETR:

#### PART 5: ELECTRONIC TRANSFERABLE RECORDS

16. Electronic Transferable Records

17. Requirements of an Electronic Transferable Record

18. Control of Electronic Transferable Records

19. Time or place

20. Endorsement

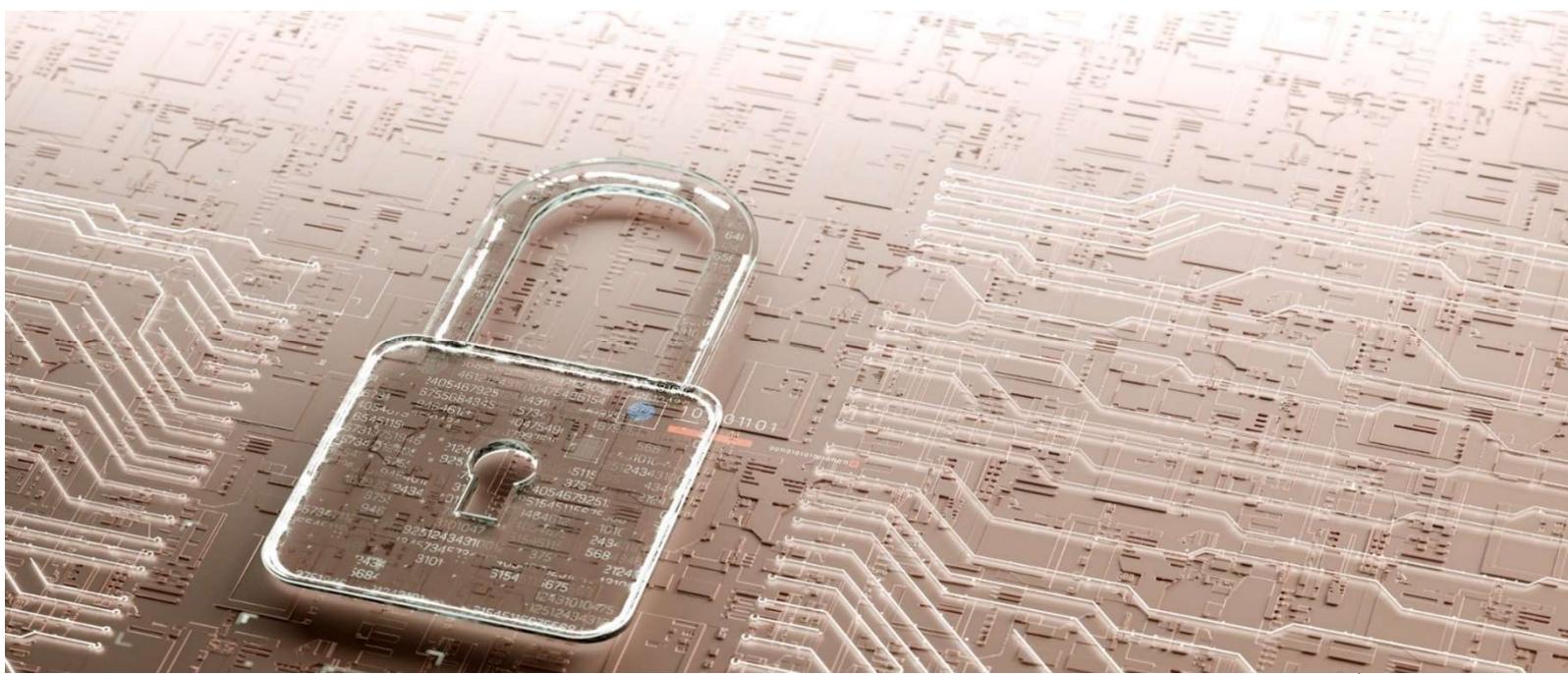
21. Amendment

22. Replacement of a Transferable Document or Instrument with an Electronic Transferable Record

23. Replacement of an Electronic Transferable Record with a Transferable Document or Instrument

Although the ADGM ETR does not expressly name the electronic transferable documents (such as bills of lading, bills of exchange, promissory note, etc.) to which it applies, the definition in the ADGM ETR of an “electronic transferable record” mirrors the MLETR text and therefore would cover these trade documents and instruments that are customarily used in trade and trade finance.

A focus of ADGM is trade finance. The ADGM is in the process of developing, or encouraging the development of, proofs-of-concept employing electronic trade documents. As mentioned above, on 11 November 2021, the Financial Services Regulatory Authority (FSRA) of the AGDM was part of the world’s first cross-border digital trade financing, along with Singapore’s Infocomm Media Development



Authority (IMDA) and the Monetary Authority of Singapore (MAS), in collaboration with commercial partners.<sup>113</sup>

## 4.4. France

As a member of the G7, France has committed to align its laws with MLETR.

In July 2022, a substantial White Paper was published by ICC France to formulate recommendations that would accelerate the digitalisation of cross-border trade recommended, among other things, the “[a]daptation of French and EU law to existing international instruments” including MLETR.<sup>114</sup> The White Paper provides a detailed analysis of what is compliant in French law with MLETR and what additional amendments would be required to facilitate the digitalisation of trade.

French law is largely compliant with the MLETR, in particular the recognition given to electronic documents<sup>115</sup> (including bills of exchange and promissory notes<sup>116</sup>) and e-signatures<sup>117</sup>. Nevertheless, explicit provisions on functional equivalence of paper and electronic documents for title documents (e.g. bills of lading) and payment instruments (e.g. bills of exchange and promissory notes) are still lacking under French law. The ICC France White Paper observes that the “only issue that would justify legislative intervention would be the definition of transferable document as resulting from Articles 2 and 11 of the MLETR. The provisions of Article 19 of the MLETR (cross-border recognition of electronic transferable records) could also be included.”<sup>118</sup>

It was reported in 2021 that a two-tier approach would have to be undertaken in France. Firstly, amendment of three codes, the Commercial Code, Transport Code and Civil Code, to include an article that would permit the issuance of an electronic document in accordance with the conditions set out in the MLETR. Secondly, the adoption of a decree or order which would incorporate the MLETR and provide guidance for fulfilling the principles of security and reliability of the methods used.<sup>119</sup>

On 10 November 2022, the French government announced that Paris Europlace<sup>120</sup> was mandated to work on the digitalisation of trade finance. A MLETR Working Group set up by Paris Europlace with several transnational organisations are engaged in this mission including the ICC France and members of its Banking Commission, IFTA, and stakeholders including trade finance and legal experts. The ICC France White Paper sets out the three current proposals under consideration by the Paris Europlace MLETR working group. First would be amendment of various provisions of the Civil Code and other Codes, second could be to seek adoption of a Regulation incorporating the MLETR principles at EU level, and the third would be a single legislative document which would align French law with the MLETR.

A first track aims at introducing several amendments to the Civil Code in order to achieve two objectives:

1. Broaden the current definition of “writing” to also include the meaning of “transferable document”; and
2. Specify the rules that must be satisfied by the electronic transferable record to constitute the evidential equivalent of the [paper-based] transferable record.

In order to implement the first objective, it is proposed to complete Article 1365 of the Civil Code with a definition of a “negotiable instrument” which could be drafted as follows

“Such a writing constitutes a negotiable document of title when it incorporates a right in such a way that it is impossible to enforce or transfer that right independently of the document of title.”

In order to implement the second objective, several additions would be necessary to the Civil Code in order to specify the rules which guarantee the exclusive control of the electronic document: an addition to Article 1366<sup>121</sup> could say:

“Where that electronic writing constitutes a negotiable document of title, the possession requirement for a paper-based negotiable document of title is satisfied if a reliable method is employed to establish the exclusive control of a person over that electronic negotiable document of title, and to identify that person as the person who has control.”

Another addition to Article 1322 of the Civil Code appears necessary in order to delimit the scope of negotiable instruments. [...]

Whether other codes such as the Commercial Code and the Economic and Monetary Code should also be amended is an open question on which there is no consensus among jurists. Some believe that amendments to the Civil Code are sufficient while others believe that provisions in the Commercial Code concerning the letter of credit, the bill of exchange and the promissory note must be inserted in order to recognise electronic media.

Another possibility was proposed: instead of transposing the MLETR into the law of each Member State, why not push for its integration into the European corpus, in particular into the eIDAS Regulation? It led to some exchanges with representatives of [the European Commission’s] DG Connect at the beginning of 2021, which led to the conclusion that there was no desire on the European side to deal with the subject of title documents in the revision of the eIDAS Regulation.

Finally, some bank lawyers favour a third option, the only one that they believe would provide a single legal framework. Indeed, the MLETR offers exemptions to states in Article 1.3, that of a multilateral international convention as is the case for bills of exchange and cheques.<sup>122</sup>

It is reported that the Europlace MLETR “working group is already in discussions with the justice ministry about how the legal changes would be implemented, with the private sector preferring an approach where a layer of new legislation enabling use of digital trade documents supersedes previous laws, instead of combing through and individually altering every relevant law.”<sup>123</sup>

The MLETR working group is scheduled to report its findings in the first quarter of 2023.<sup>124</sup>

## 4.5. Germany

As a member of the G7, Germany has committed to align its laws with MLETR. Almost a decade ago, Germany recognized the need to allow for electronic equivalents to certain transport documents commonly used in trade. Accordingly, in 2013 the German Commercial Code anticipated the UNCITRAL Model Law on Electronic Transferable Records (MLETR) by stipulating that an electronic record having the same functions as a bill of lading shall be deemed equivalent to a bill of lading in paper form if the authenticity as well as the integrity of the record are assured.<sup>125</sup> The same applies to consignment notes, waybills, and sea waybills.

The Commercial Code left it to the government to set out, by way of an ordinance, the specifics for, inter alia, the issuance, and presentation of such electronic records. The government’s expectation that the industry would come up with broadly accepted technical standards and solutions which could then be adopted under the ordinance did not become a reality, however. The law’s underlying legal concepts of functional equivalence and its main elements of authenticity and integrity, respectively, were too

opaque to provide sufficient legal guidance to the industry as to what technical requirements those documents needed to comply with. As there has been no progress on this front for some years, a working group of leading practitioners and academics supported by the main trade industry bodies in Germany have recently worked on and submitted a proposal for an appropriate ordinance to the German government.<sup>126</sup> This is now under review by the Federal Ministry of Justice of Germany.

The draft ordinance follows the principles established by the G7 Digital Ministers for the use of electronic documents in international trade and takes a technology-neutral approach. It is intended to induce users to develop and implement legally compliant technical solutions. Accordingly, the regulation only sets minimum standards for the use of electronic documents. The parties remain free to enrich the electronic records with information and functions they deem appropriate.

In addition, the ordinance proposal is accompanied by a further proposal to implement the digitalisation of an electronic transport insurance certificates process.<sup>127</sup> In the canon of documents required for the handling of an export (financing) process, the transferable insurance certificate forms an important pillar. However, in order to open up German law to electronic transport insurance certificates, it is first necessary to insert an opening clause in the German Commercial Code.

The draft ordinance shall serve as a link between the various international regulatory models for electronic transport documents and traditional documents. For example, the term "electronic record" is already based on the international regulatory model of the "electronic record" as defined in Art. 1 No. 18 of the Rotterdam Rules which are rooted in the UNCITRAL Model Law on Electronic Commerce. The draft also shares the emphasis the UK Electronic Trade Documents Bill puts on party agreement on the technical process used. In addition, the eCMR supplementary protocol<sup>128</sup> was taken into account in order to create consistency between the requirements for national and international electronic consignment notes.

Generally speaking, the draft ordinance should make it easier for the parties to a dispute to prove the functional equivalence of an electronic record of freight or warehouse documents with paper documents of the same type. To this end, the draft ordinance specifies minimum or standard requirements, which if met would constitute the functional equivalence of the electronic recording. Exclusive control is the main pillar of functional equivalence.

At the heart of the draft ordinance lies therefore a detailed understanding of what constitutes **functional equivalence**. It is particularly important to ensure that, irrespective of the way in which the electronic freight or warehouse document is generated and stored, there is always only one truth (single point of truth). The technical system must therefore be designed in such a way that no digital or analogue copies of the freight or storage document can be generated that grant rights or authorizations to a person other than the person originally authorized by the freight or storage document. The term thus includes not only the mere uniqueness of the record itself, but also the exclusivity of the exercise of rights by the authorized person. In this respect, the international regulatory models of 'singularity' and '**exclusive control**' are implicitly incorporated. A person is exclusively authorized to dispose of the electronic record if it is ensured by appropriate technical devices that the electronic record is assigned to this person alone (similar to the concept of Art. 11(1)(a) MLETR: "exclusive control") and only this person is able to grant the third party the exclusive right of disposal or a right of registration. The exclusive power to dispose of the electronic record is initially vested in the person who creates the record.

Furthermore, the preservation of the authenticity and integrity of the electronic record is key. According to the draft ordinance it is ensured if a suitable technical procedure has been used for this purpose.

A technical process is appropriate with respect to the particular electronic shipping or warehousing document if:

- a. the technical procedure meets the specific requirements for such instrument specified under the ordinance;
- b. the technical procedure corresponds to the state of the art at the time of issuance of the electronic freight or warehouse document;
- c. the technical procedure enables the electronic freight or warehouse document to be signed;
- d. the electronic transport or storage document identifies the signatory and the principal of the signatory; and
- e. if it is ensured that there is only one exclusively authorized person.

In addition, the person to whom an electronic record has been presented, returned, or released for the purpose of subsequent entry or termination, or to whom knowledge of an electronic record has been provided, must have the ability to verify compliance with the requirements of the above.

Furthermore, the preservation of the authenticity and **integrity** of the record shall be presumed if:

- a. the suitability of the technical procedure used has been certified by an independent body, or
- b. the parties to the underlying freight or storage contract have agreed, prior to the issuance of the electronic freight or storage document, that the technical procedure used meets the above-mentioned requirements and this agreement is documented in the electronic record.

## 4.5.1 Limitations

It is to be noted that the draft ordinance does not address promissory notes or bills of exchange. Neither the Commercial Code nor the German laws on negotiable instruments (Wechsel- und Scheckgesetz) and on electronic securities (WPeG) allow for electronic bills of exchanges and promissory notes. They are and will remain subject to treaties of international public law to which Germany is a party. Unfortunately, these treaties date far back to the early 1930s and do not provide any substantial interpretative room for adapting them to the electronic age. It remains to be seen whether Germany will adopt an approach similar to the one pursued in the US<sup>129</sup> where the Uniform Electronic Transferable Records Act (UETA) has established a parallel legal universe to the Uniform Commercial Code by introducing electronic instruments legally fully equivalent in substance to paper-based negotiable instruments under the UCC. So far, no initiative has been taken by the German government in this respect.

## 4.6 United Kingdom

As a member of the G7, the United Kingdom has committed to align its laws with the MLETR.

As with the laws of many other jurisdictions, under current English law and commercial practice, several documents or instruments that are critical to domestic and international trade and trade finance (referred to in this paper as “trade documents”<sup>130</sup>) depend on their being capable of “possession”. Only the person in possession of the document has the right to claim performance of the obligation recorded in the document (e.g. payment of money or delivery of goods) and this right is embodied in the document and can be transferred only by physical transfer of possession.

Although it has been widely recognised that digitalisation of trade documents confers many benefits, and technological advances (especially in the past 30 years) have made such digitalisation feasible, a key problem<sup>131</sup> that has blocked widespread digitalisation is that documents in digital form are intangible and, in law, cannot be “possessed”. As a result, trade documents in digital form cannot function in the same way as their paper equivalents.

The UK government recognised that English law was acting as a disincentive to digitalisation of trade documents and that this could threaten the application of English law in global commerce. Therefore, the Law Commission of England and Wales (“the Law Commission”), which had been examining legal aspects of emerging technologies, was asked in 2020 “to make recommendations to solve the problems caused by the law’s approach to the ‘possession’ and transfer of electronic documents ... [and] to prepare draft legislation to implement those recommendations.”<sup>132</sup> The Law Commission was aware of various global initiatives that are also being made to remove the legal barriers to digitalising trade documents, including especially UNCITRAL’s important work on the MLETR, and were keen to make recommendations that were compatible with these global initiatives.

Accordingly, the main objective of the English law reform effort is to allow certain trade documents in electronic form to have the same legal effect as paper-based documents and to achieve this objective in such a way as to support the international harmonisation of laws recognising electronic trade documents. The Law Commission candidly stated that the “intended effects are to: (1) make England and Wales the jurisdiction of choice for electronic commerce; (2) reduce transaction costs for parties; and (3) encourage business growth by facilitating the development of digital products and services.”<sup>133</sup>

#### 4.6.1 The Reform Process

The process of reforming English law with respect to trade documents began in earnest when the UK government, aware of the blockages that English law presented to the widespread adoption of digitalisation, requested the Law Commission in September 2020 to (a) set out the current law, and (b) identify and make recommendations for necessary law reform to solve these problems, including drafting appropriate reform legislation.

The Law Commission assembled a team, began its research efforts and, in April 2021 published an extensive consultation paper containing a description of key trade documents used in trade, an analysis of relevant English law<sup>134</sup>, recommendations for reform and draft legislation.<sup>135</sup> The paper sought the views of the public and, through a consultation period that ended on 30 July 2021, the Law Commission received 55 responses (and met with other stakeholders) from businesses, industry associations and groups, academics, lawyers and individuals. These responses were considered in detail and the consultation paper was revised, leading to the preparation of a comprehensive, 268-page final report (the “Law Commission Report”).<sup>136</sup>

As requested by the UK government, the Law Commission Report includes draft legislation (“the Electronic Trade Documents Bill” or “the Bill”) <sup>137</sup>, which was introduced to the UK Parliament in October 2022, thereby beginning its process of enactment that is currently predicted to take a few months to complete.

#### 4.4.3 Draft English Law Revisions and their Alignment with the MLETR

Before summarising the proposed English law revisions and assessing their alignment with the MLETR, it is important to note that the draft English law revisions that are contained in the Electronic Trade Documents Bill do not simply mirror the text of UNCITRAL’s model law into English law. Rather, the Law Commission’s recommendations and the Bill focus on removing the fundamental legal blockages that exist in current English law. It seeks particularly to address the “possession problem”, through a

principles-based approach that, “align[s] with the aims and policy of the MLETR but are tailored specifically to” English law.<sup>138</sup>

The main provisions of the Bill and our assessment of its alignment with the MLETR may be summarised as follows.

The Bill applies only to a limited (but nevertheless critical for trade) set of electronic documents (described as “**electronic trade documents**”) that are functionally equivalent to paper documents. It identifies those electronic trade documents if they satisfy several “gateway” criteria set out in Sections 1 and 2 of the Bill. In brief, these criteria are:

- (a) the information in the electronic form<sup>139</sup>, “if contained in a document in paper form, would ... [be] a paper trade document”<sup>140</sup>. This provision aligns with Article 10.1(a) of MLETR<sup>141</sup>; and
- (b) a “reliable system”<sup>142</sup> is used to: identify the document (and that it is not a copy); protect it from unauthorised alteration (to preserve its integrity); ensure that only one person<sup>143</sup> can exercise factual “control” – and can demonstrate that exercise of control - of the document at any one time (to prevent double spending) ; and that transfer of the document is effective to deprive the transferor of it.<sup>144</sup> These provisions substantially align with Articles 10.1(b) and 11 of MLETR.<sup>145</sup>

A determination of whether a system is “**reliable**” may take into account a non-exhaustive list of factors that largely mirror the circumstances stated in Article 12(a) of MLETR.<sup>146</sup> However, the “safe harbour provision” in Article 12(b) of MLETR has not been included in the Bill because the Law Commission considered that, even if a system fulfils the function intended, it should still be assessed for reliability.<sup>147</sup>

“**Control**” is exercised over a document when a person uses, transfers, or otherwise disposes of the document, other than merely reading or viewing it.<sup>148</sup>

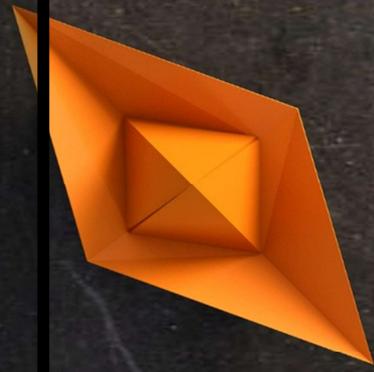
Of central importance to the English law reform effort, the Bill expressly addresses the “**possession**” and functional equivalence problems by providing that: a “person may possess, indorse and part with possession of an electronic trade document”; an electronic trade document has the same effect as an equivalent paper trade document; and anything done to an electronic trade document that could be done with an equivalent paper trade document is to have the same effect.<sup>149</sup> These provisions are designed to give the same functionality to electronic and paper trade documents in every respect. On the face of it, they seem to be compatible with the MLETR, but they go further and in practice the outcome of a particular case might differ depending on whether the case is governed by English law or MLETR.<sup>150</sup>

The Bill **permits paper trade documents to be converted into electronic trade documents**, and vice versa, subject to requirements similar to those in Articles 17 and 18 of MLETR.<sup>151</sup> These provisions recognise the current realities, especially in cross-border trade, that not all stakeholders (e.g., port or border authorities) will be able to process trade documents solely in electronic form.

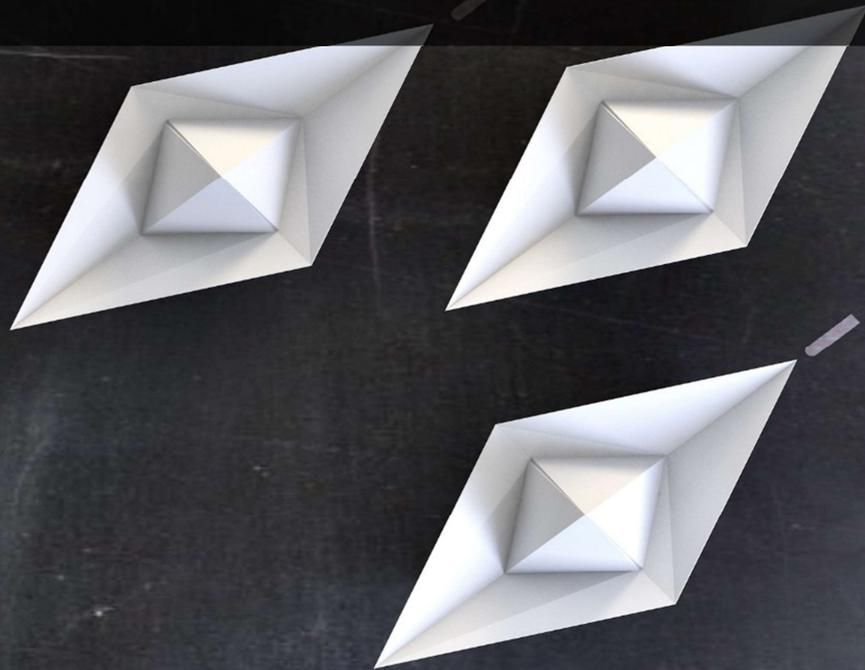
The Bill has prospective effect only and therefore will apply only to documents issued after the proposed legislation comes into force.<sup>152</sup>

A number of provisions in the MLETR designed to facilitate the use of electronic documents were considered unnecessary to be included in the Bill, because English statutory or common law already adequately addresses these matters.<sup>153</sup>

5.



# Roadmap and Matrix



# Roadmap

There is no doubt that digitalisation of trade brings significant opportunities. As set out above, the trade process involves a number of actors, instruments, and also legal requirements. Any transition programme will need to take a holistic approach to the legal and technical reforms. The focus of this Blueprint is the law which is a key enabler of the transition towards digital transformation of trade. Central to this is the MLETR.

Beyond legal reform, attention must also be paid to other elements such as, stakeholder engagement, adoption of common standards, and a level of interoperability.

The ICC Roadmap<sup>154</sup> sets out three pillars of work for both governments and business:

1. Implementation: of trade frameworks (legal framework, rules, and standards).
2. Standardisation: common, interoperable standards framework for the entire digital trade ecosystem.
3. Legal Reform: centred around alignment of legal systems with MLETR

In relation to the legal framework, the World Trade Organization (WTO) and the World Economic Forum (WEF)<sup>155</sup> identifies 3 aspects:

1. The establishment of legal frameworks which recognise the legal validity and enforceability of electronic transactions and documents. Here they identify specifically electronic transferable documents, e-signatures, and other trust services, such as digital identities;
2. The alignment of the legal frameworks with global standards. This is in order to further facilitate transnational trade and recognition of electronic transactions and documents;
3. The avoidance of regulatory fragmentation.

This section will set out the legal reform steps, as well as highlight other key elements.

## 5.1 Legal Reform

Whilst MLETR is key for digitalising trade, it is not the panacea, it needs to be accompanied by legal reform in other areas. The general legal ecosystem will need to be considered, for example, e-signatures, e-commerce, etc.

A good starting point would be the following model laws and Convention:

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UNCITRAL Model Law on Electronic Commerce 1996

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UNCITRAL Model Law on Electronic Signatures 2001

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United Nations Convention on the Use of Electronic Communications in International Contracts 2005

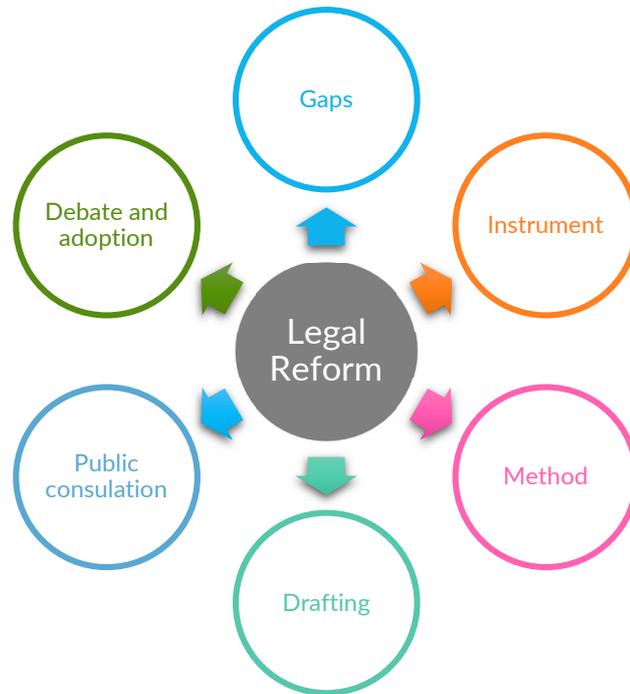
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UNCITRAL Model Law on the Use and Cross-border Recognition of Identity Management and Trust Services 2022

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As previously stated, seven jurisdictions are regarded as aligned or compliant with MLETR and there are several other jurisdictions which are partially aligned. The reform movement has begun to accelerate with several countries moving towards MLETR alignment or adoption. These include the G7 countries considered above (France, Germany, and the United Kingdom). They also include countries in Asia such as China, Georgia, and Viet Nam, as well as the United States of America.

As an increasing number of countries are embarking on their reform process, it is hoped that this Blueprint Paper will act as a useful guide to the MLETR and legal reform.



The first step in any legal reform process is to locate the **legal gaps**. This is a process set out above with reference to both France and Germany where there was partial alignment but not complete alignment with MLETR. In Germany for example, they had taken an instrument approach so needed to amend laws so that all key trade instruments could be in electronic form. As set out above, apart from passing a MLETR-aligned law, alignment of other existing laws that affect digital trade may also be required.

Once the gaps have been pinpointed, a next step would be to identify the appropriate **legal instrument**. This may be an Act of Parliament, as in the UK, a decree, or an amendment to legal codes. The process of passing a law that incorporates MLETR will be dependent on the legal tradition of the country in question, the competent authority, its existing laws, and prescribed legislative procedure.

In parallel, a decision would need to be taken as to the **method**. In other words, whether the model law (MLETR) is simply incorporated into the law, as was the case in Singapore, Bahrain, and Abu Dhabi Global Market, or if a principles-based approach is taken as in the UK.

The task of **drafting** the text of the draft law is then delegated to the appropriate authority in the jurisdiction. In the case of Singapore, it was Parliament, the Ministry of Communications & Information (MCI), the Attorney-General, and the Infocomm Media Development Authority (IMDA) who were the competent authorities. In the UK it was the Law Commission.

In the vast majority of jurisdictions, this will then lead to a **public consultation** on the draft. From the experience of those countries which have held such consultations, submissions were received by a broad range of stakeholders. As an example, the Law Commission of England and Wales received submissions from, or consulted with: 5 judges, 4 government bodies, 20 academics, 31 business and financial institutions, 8 law firms, 28 business groups and associations, and 13 knowledgeable individuals.<sup>156</sup> The final step is for a proposal to be presented to the legislative arm (for example Parliament or National Council) for **debate, further amendment, and adoption**.

The legal reform process will ordinarily proceed in parallel to other processes such as, stakeholder engagement, exploration of technical solutions, and identification of appropriate standards.

## 5.2 MLETR Legal Reform Matrix

Any reform of laws to align with MLETR must clearly include the main principles embodied in MLETR. Any reform of laws to align with MLETR must clearly include the main principles embodied in MLETR. These principles are summarised in Section 4.3 of this Paper.

### Matrix of main MLETR principles

<p>What constitutes an “electronic transferable record” and its legal recognition</p>	<p>Utilizing the MLETR definition may be sufficient.</p> <p>Consideration could be also given to providing a non-exhaustive list of the specific transferable documents or instruments to which the law reform applies.</p> <p>Consideration could be given to whether certain documents or instruments in electronic form should be excluded from the definition of ETR.</p>
<p>What constitutes a reliable method</p>	<p>In addition to the criteria for determining the reliability standard required by MLETR.</p>
<p>What functional equivalent will be used for “possession” and “transfer of possession” when applied to an electronic transferable record.</p>	<p>For this purpose, MLETR uses “control” and “exclusive control”.</p> <p>Consideration could also be given to expressly providing that electronic transferable records are capable of “possession”.</p>
<p>Provision of an adequate definition of “integrity”</p>	
<p>The conferring of legal effect to digital processes such as “writing”, “signatures”, “endorsement”, “amendment” and the cross-border recognition of foreign electronic transferable records.</p>	
<p>Whether the law reform should expressly provide for guidance on the interpretation of its terms.</p>	

Taking the above criteria into account the following table provides an initial assessment tool which can be used to identify the areas where, and to what extent, the legal framework requires improvement.

Key MLETR Principles	LEVEL 1 Basic framework <i>Requires improvement</i>	LEVEL 2 Good framework <i>Requires minor improvement</i>	LEVEL 3 Advanced framework <i>Little or no improvement required</i>
<p>A. The status of negotiable or transferable trade documents in the legislation.</p> <p>Article 2 MLETR</p>	<p>The applicable law does not contain references to any of the negotiable or transferable trade documents.</p> <p>Such documents include bills of exchange, cheques, promissory notes, bills of lading, ship's delivery orders, warehouse receipts, mate's receipts, marine insurance policies and cargo insurance certificates.</p>	<p>The applicable law contains limited references to one or more negotiable or transferable trade instruments and/or does not recognise important features, which negatively affect their effectiveness and enforceability.</p> <p>Such documents include bills of exchange, cheques, promissory notes, bills of lading, ship's delivery orders, warehouse receipts, mate's receipts, marine insurance policies and cargo insurance certificates.</p>	<p>The applicable law contains references to all (or most) negotiable or transferable trade instruments and recognises their key features.</p> <p>Such documents include bills of exchange, cheques, promissory notes, bills of lading, ship's delivery orders, warehouse receipts, mate's receipts, marine insurance policies and cargo insurance certificates.</p>
<p>B. The key features of the negotiable or transferable trade documents in the legislation</p> <p>Article 2 MLETR</p>	<p>The applicable law does not recognise important key features of the negotiable or transferable trade documents, which negatively affect their effectiveness and enforceability.</p> <p>Key features would typically include:</p> <ul style="list-style-type: none"> <li>▪ entitlement/ right of the holder of such document to claim performance or payment;</li> <li>▪ entitlement/right of the holder of such document to transfer the right to such performance through the transfer of the document to another person; and</li> <li>▪ In the case of negotiable trade documents, the right under certain circumstances to receive a better title than the transferor.</li> </ul>	<p>The applicable law recognises some, but not all, of the key features of the negotiable or transferable trade documents, which negatively affect their effectiveness and enforceability.</p> <p>Key features include:</p> <ul style="list-style-type: none"> <li>▪ entitlement/ right of the holder of such document to claim performance or payment;</li> <li>▪ entitlement/right of the holder of such document to transfer the right to such performance through the transfer of the document to another person; and</li> <li>▪ In the case of negotiable trade documents, the right under certain circumstances to receive a better title than the transferor.</li> </ul>	<p>The applicable law recognises all of the key features of the negotiable trade documents.</p> <p>Key features include:</p> <ul style="list-style-type: none"> <li>▪ entitlement/ right of the holder of such document to claim performance or payment;</li> <li>▪ entitlement/right of the holder of such document to transfer the right to such performance through the transfer of the document to another person; and</li> <li>▪ In the case of negotiable trade documents, the right under certain circumstances to receive a better title than the transferor.</li> </ul>
<p>C. What constitutes an 'electronic transferable record' (ETR) and its legal recognition</p> <p>Articles 2, 5-7 &amp; 10 MLETR</p>	<p>The applicable law includes no or basic provisions which directly/indirectly refer to:</p> <ul style="list-style-type: none"> <li>▪ The contents of the ETR not affecting the legal requirements as to the information required by law.</li> <li>▪ The possibility of ETRs to include additional information to that contained on a 'transferable document or instrument' .</li> <li>▪ Not denying legal effect, validity, or enforceability of</li> </ul>	<p>The applicable law includes substantive but not fully MLETR aligned provisions which specifically regulate:</p> <ul style="list-style-type: none"> <li>▪ The contents of the ETR not affecting the legal requirements as to the information required by law.</li> <li>▪ The possibility of ETRs to include additional information to that contained on a 'transferable document or instrument'</li> </ul>	<p>Applicable laws in place are fully aligned with this MLETR principle. The applicable law explicitly provides for:</p> <ul style="list-style-type: none"> <li>▪ The contents of the ETR not affecting the legal requirements as to the information required by law.</li> <li>▪ The possibility of ETRs to include additional information to that contained on a 'transferable document or instrument'</li> </ul>

Key MLETR Principles	LEVEL 1 Basic framework <i>Requires improvement</i>	LEVEL 2 Good framework <i>Requires minor improvement</i>	LEVEL 3 Advanced framework <i>Little or no improvement required</i>
	an ETR on the sole basis that it is in electronic form.	<ul style="list-style-type: none"> <li>Not denying legal effect, validity, or enforceability of an ETR on the sole basis that it is in electronic form.</li> </ul>	<ul style="list-style-type: none"> <li>Not denying legal effect, validity, or enforceability of an ETR on the sole basis that it is in electronic form.</li> </ul>
D. Control <b>Article 11 MLETR</b>	<p>The applicable law includes no or basic provisions which directly/indirectly refer to:</p> <ul style="list-style-type: none"> <li>the ability to exclusively control ETRs; and</li> <li>the capability for ETRs to be possessed.</li> </ul>	<p>The applicable law includes substantive but not fully MLETR aligned provisions which specifically regulate:</p> <ul style="list-style-type: none"> <li>the ability to exclusively control ETRs; and</li> <li>the capability for ETRs to be possessed.</li> </ul>	<p>Applicable laws in place are fully aligned with this MLETR principle. The applicable law explicitly provides for:</p> <ul style="list-style-type: none"> <li>the ability to exclusively control ETRs; and</li> <li>the capability for ETRs to be possessed.</li> </ul>
E. Reliability <b>Articles 10 &amp; 12 MLETR</b>	<p>The applicable law includes no or basic provisions which directly/indirectly refer to the following circumstances that could be relevant in assessing reliability (non-exhaustive):</p> <ul style="list-style-type: none"> <li>(i) Any operational rules relevant to the assessment of reliability;</li> <li>(ii) The assurance of data integrity;</li> <li>(iii) The ability to prevent unauthorized access to and use of the system;</li> <li>(iv) The security of hardware and software;</li> <li>(v) The regularity and extent of audit by an independent body;</li> <li>(vi) The existence of a declaration by a supervisory body, an accreditation body or a voluntary scheme regarding the reliability of the method;</li> <li>(vii) Any applicable industry standard; or</li> <li>(viii) Proven in fact to have fulfilled the function.</li> </ul>	<p>The applicable law includes substantive but not fully MLETR aligned provisions which specifically regulate the following circumstances that could be relevant in assessing reliability (non-exhaustive):</p> <ul style="list-style-type: none"> <li>(i) Any operational rules relevant to the assessment of reliability;</li> <li>(ii) The assurance of data integrity;</li> <li>(iii) The ability to prevent unauthorized access to and use of the system;</li> <li>(iv) The security of hardware and software;</li> <li>(v) The regularity and extent of audit by an independent body;</li> <li>(vi) The existence of a declaration by a supervisory body, an accreditation body or a voluntary scheme regarding the reliability of the method;</li> <li>(vii) Any applicable industry standard; or</li> <li>(viii) Proven in fact to have fulfilled the function.</li> </ul>	<p>Applicable laws in place are fully aligned with this MLETR principle. The applicable law explicitly provides for the following circumstances that could be relevant in assessing reliability (non-exhaustive):</p> <ul style="list-style-type: none"> <li>(i) Any operational rules relevant to the assessment of reliability;</li> <li>(ii) The assurance of data integrity;</li> <li>(iii) The ability to prevent unauthorized access to and use of the system;</li> <li>(iv) The security of hardware and software;</li> <li>(v) The regularity and extent of audit by an independent body;</li> <li>(vi) The existence of a declaration by a supervisory body, an accreditation body or a voluntary scheme regarding the reliability of the method;</li> <li>(vii) Any applicable industry standard; or</li> <li>(viii) Proven in fact to have fulfilled the function.</li> </ul>
F. Integrity <b>Article 10 MLETR</b>	<p>The applicable law includes no or basic provisions which directly/indirectly refer to:</p> <ul style="list-style-type: none"> <li>an adequate criterion for assessing “integrity”</li> </ul>	<p>The applicable law includes substantive but not fully MLETR aligned provisions which specifically regulate:</p> <ul style="list-style-type: none"> <li>an adequate criterion for assessing “integrity”</li> </ul>	<p>Applicable laws in place are fully aligned with this MLETR principle. The applicable law explicitly provides for:</p> <ul style="list-style-type: none"> <li>an adequate criterion for assessing “integrity”</li> </ul>
G. Functional Equivalence <b>Articles 8-10 MLETR</b>	<p>The applicable law includes no or basic provisions which directly/indirectly refer to:</p> <ul style="list-style-type: none"> <li>conferring of legal effect to digital processes such as ‘writing’ and ‘signatures’, as</li> </ul>	<p>The applicable law includes substantive but not fully MLETR aligned provisions which specifically regulate:</p> <ul style="list-style-type: none"> <li>conferring of legal effect to digital processes such as</li> </ul>	<p>Applicable laws in place are fully aligned with this MLETR principle. The applicable law explicitly provides for:</p> <ul style="list-style-type: none"> <li>conferring of legal effect to digital processes such as</li> </ul>

Key MLETR Principles	LEVEL 1 Basic framework <i>Requires improvement</i>	LEVEL 2 Good framework <i>Requires minor improvement</i>	LEVEL 3 Advanced framework <i>Little or no improvement required</i>
	well as an electronic record being recognised as a transferable document or instrument.	'writing' and 'signatures', as well as an electronic record being recognised as a transferable document or instrument.	'writing' and 'signatures', as well as an electronic record being recognised as a transferable document or instrument.
H. Other <i>Articles 15-18 MLETR</i>	The applicable law includes no or basic provisions which directly/indirectly refer to: <ul style="list-style-type: none"> <li>conferring of legal effect to digital processes such as 'endorsement' and 'amendment'; and</li> <li>replacement of a transferable document or instrument with an ETR, and vice versa.</li> </ul>	The applicable law includes substantive but not fully MLETR aligned provisions which specifically regulate: <ul style="list-style-type: none"> <li>conferring of legal effect to digital processes such as 'endorsement' and 'amendment'; and</li> <li>replacement of a transferable document or instrument with an ETR, and vice versa.</li> </ul>	Applicable laws in place are fully aligned with this MLETR principle. The applicable law explicitly provides for: <ul style="list-style-type: none"> <li>conferring of legal effect to digital processes such as 'endorsement' and 'amendment'; and</li> <li>replacement of a transferable document or instrument with an ETR, and vice versa.</li> </ul>
I. Non-discrimination of foreign ETRs <i>Article 19 MLETR</i>	The applicable law includes no or basic provisions which directly/indirectly refer to: <ul style="list-style-type: none"> <li>the cross-border recognition of foreign electronic transferable records.</li> </ul>	The applicable law includes substantive but not fully MLETR aligned provisions which specifically regulate: <ul style="list-style-type: none"> <li>the cross-border recognition of foreign electronic transferable records.</li> </ul>	Applicable laws in place are fully aligned with this MLETR principle. The applicable law explicitly provides for: <ul style="list-style-type: none"> <li>the cross-border recognition of foreign electronic transferable records.</li> </ul>
J. Interpretation <i>Article 3 MLETR</i>	It is uncertain whether the applicable law would be interpreted to take into account the international origin of the law and the need to interpret it in a manner which promotes uniformity and in line with the general principles on which MLETR is based.	The applicable law can take into account: <ul style="list-style-type: none"> <li>the international origin of the law and the need to interpret it in a manner which promotes uniformity and in line with the general principles on which MLETR is based.</li> </ul>	Applicable laws in place are fully aligned with this MLETR principle and explicitly provides for: <ul style="list-style-type: none"> <li>the international origins of the law and the need to interpret it in a manner which promotes uniformity and in line with the general principles on which MLETR is based.</li> </ul>

In addition, drawing on the precedents of some of the jurisdictions that have aligned their law with MLETR, consideration could be given to the following aspects.

## Matrix of other MLETR related considerations

Whether the general principles are explicitly respected, namely: Non-discrimination against electronic communications; Technological neutrality; and Functional equivalence.

Whether the implementation of the MLETR principles would be assisted by the establishment or application of an accreditation system.

The costs of meeting accreditation requirements may deter SME's.

What other laws, if any, need to be passed or amended to facilitate the implementation of the MLETR principles.

Consideration of this issue would be especially relevant to jurisdictions that have not adopted the UNCITRAL or other texts facilitating electronic commerce or communications.

If the medium of a transferable record is changed during its life cycle, whether all, or some only, of the information in a paper document needs to be reproduced in an electronic record replacement, and vice versa.

Taking the above additional elements into account the following table provide an initial assessment tool which can be used to identify the areas where, and to what extent, the legal framework requires improvement.<sup>157</sup>

Other factors enabling the use of ETRs	LEVEL 1 Basic framework <i>Requires improvement</i>	LEVEL 2 Good framework <i>Requires minor improvement</i>	LEVEL 3 Advanced framework <i>Little or no improvement required</i>
A. General Principles <a href="#">Paragraph 44 MLETR Explanatory Note</a>	The applicable law includes no or basic provisions which directly/indirectly refer to: <ul style="list-style-type: none"> <li>Non-discrimination against electronic communications;</li> <li>Technological neutrality; and</li> <li>Functional equivalence.</li> </ul>	The applicable law includes substantive but not fully MLETR aligned provisions which specifically regulate: <ul style="list-style-type: none"> <li>Non-discrimination against electronic communications;</li> <li>Technological neutrality; and</li> <li>Functional equivalence.</li> </ul>	Applicable laws in place are fully aligned with this MLETR principle. The applicable law explicitly provides for: <ul style="list-style-type: none"> <li>Non-discrimination against electronic communications;</li> <li>Technological neutrality; and</li> <li>Functional equivalence.</li> </ul>
B. Digital Ecosystem <a href="#">UNCITRAL MLEC 1996</a> <a href="#">UNCITRAL MLES 2001</a>	The legal framework includes no or basic provisions which directly/indirectly refer to: <ul style="list-style-type: none"> <li>The facilitation of commerce in electronic form by confirming that contracts and signatures may be expressed in electronic form,</li> </ul>	The legal framework includes substantive but not fully aligned provisions which specifically refer to: <ul style="list-style-type: none"> <li>The facilitation of commerce in electronic form by confirming that contracts and signatures may be expressed</li> </ul>	The legal framework in place is fully aligned with the model laws or the equivalent. The legal framework explicitly cover: <ul style="list-style-type: none"> <li>The facilitation of commerce in electronic form by confirming that contracts and signatures may</li> </ul>

Other factors enabling the use of ETRs	LEVEL 1 Basic framework <i>Requires improvement</i>	LEVEL 2 Good framework <i>Requires minor improvement</i>	LEVEL 3 Advanced framework <i>Little or no improvement required</i>
<ul style="list-style-type: none"> <li>▪ UN Electronic Communications Convention 2005</li> <li>▪ UNCITRAL Model Law on the Use and Cross-border Recognition of Identity Management and Trust Services 2022</li> </ul>	<p>data messages are admissible in evidence, and contains special facilitating provisions for carriage of goods and transport documents.</p> <ul style="list-style-type: none"> <li>▪ The confirmation of the legal effectiveness of signatures in electronic form.</li> <li>▪ The facilitation of the use of electronic communications in international trade by removing obstacles. The use and cross-border recognition of identity management and trust services in the context of commercial activities and trade-related services</li> </ul>	<p>in electronic form, data messages are admissible in evidence, and contains special facilitating provisions for carriage of goods and transport documents.</p> <ul style="list-style-type: none"> <li>▪ The confirmation of the legal effectiveness of signatures in electronic form.</li> <li>▪ The facilitation of the use of electronic communications in international trade by removing obstacles. The use and cross-border recognition of identity management and trust services in the context of commercial activities and trade-related services</li> </ul>	<p>be expressed in electronic form, data messages are admissible in evidence, and contains special facilitating provisions for carriage of goods and transport documents.</p> <ul style="list-style-type: none"> <li>▪ The confirmation of the legal effectiveness of signatures in electronic form.</li> <li>▪ The facilitation of the use of electronic communications in international trade by removing obstacles. The use and cross-border recognition of identity management and trust services in the context of commercial activities and trade-related services</li> </ul>
C. Jurisprudential Recognition	Domestic law and the domestic judicial system (through its judgments) do not provide for the recognition and enforcement of commercial contracts, including negotiable instruments in electronic form.	Domestic law and/or the domestic judicial system (through its judgments) provides for limited recognition and enforcement of commercial contracts, including negotiable instruments in electronic form.	Domestic law and/or the domestic judicial system (through its judgments) provides for recognition and enforcement of commercial contracts, including negotiable instruments in electronic form.

In addition to the above matrix, the position of a country in terms of digital trade can also be mapped and compared using the UN Global Survey on Digital and Sustainable Trade Facilitation.<sup>158</sup> The criteria by which a country is assessed are broader than the legal focus of this paper but are nevertheless worth setting out here.

Paperless Trade measures	Cross-Border Paperless Trade measures
<ul style="list-style-type: none"> <li>17. Electronic Single Window System</li> <li>18. Electronic submission of Customs declarations</li> <li>19. Electronic application and issuance of import and export permit</li> <li>20. Electronic Submission of Sea Cargo Manifests</li> <li>21. Electronic Submission of Air Cargo Manifests</li> <li>22. Electronic application and issuance of Preferential Certificate of Origin</li> <li>23. E-Payment of Customs Duties and Fees</li> <li>24. Electronic Application for Customs Refunds</li> </ul>	<ul style="list-style-type: none"> <li>25. Laws and regulations for electronic transactions</li> <li>26. Recognised certification authority</li> <li>27. Electronic exchange of Customs Declaration</li> <li>28. Electronic exchange of Certificate of Origin</li> <li>29. Electronic exchange of Sanitary &amp; Phyto-Sanitary Certificate</li> <li>30. Paperless collection of payment from a documentary letter of credit.</li> </ul>

An additional useful assessment tool is the UNESCAP Legal Readiness Assessment Guide,<sup>159</sup> the relevant questions set out in the legal guide are set out below. Their explanations elaborate on what should be taken into account and include reference to MLETR.

## I.A ELECTRONIC TRANSACTIONS LAW: GENERAL PRINCIPLES

### I.A.4 Does the law establish functional equivalence between paper documents and electronic communications?

The law may adopt a “functional equivalence” approach to give electronic communications the same legal effect as paper-based documents. The principle of functional equivalence establishes that, when certain conditions are met, the legal value of electronic communications is equivalent to that of paper-based documents because they satisfy the same policy function as the paper. This approach allows a legal system not to alter its traditional rules about paper-based documents. It also avoids creating a special legal regime for electronic communications (a so-called “dual regime” approach).

UNCITRAL texts rely on a functional equivalence approach to determine how the purposes and functions of paper-based documents can be fulfilled by electronic communications. For example, the requirement of a document “in writing” aims at making the information contained in that document available beyond the moment of the transaction.

### I.A.8 Are there special rules for the use of electronic transferable records such as bills of lading?

Certain commercial documents are transferable, i.e. they incorporate the entitlement to the delivery of goods that they describe (for example, bills of lading, warehouse receipt) or the payment of money (for example, checks, promissory notes). Bills of lading are particularly relevant for paperless trade facilitation and for logistics. Other transferable documents relate to financing and are relevant for national trade platforms.

Because of their need for special features, notably non-duplication and control (“possession” when on paper), the law requires special rules for their use in electronic form. UNCITRAL has prepared the Model Law on Electronic Transferable Records 2017 (MLETR) to deal with those documents in line with UNCITRAL principles of technology neutrality and functional equivalence.

In certain jurisdictions, special legal regimes exist to enable the use of specific types of electronic transferable records.

The related Regulation on the Implementation of the Provisions of the Commercial Act Regarding Electronic Bills of Lading provides details on how electronic bills of lading should be managed and on the requirements by which a registry agency may be licensed.

## IV.D ELECTRONIC PAYMENTS AND ELECTRONIC TRANSFERABLE RECORDS

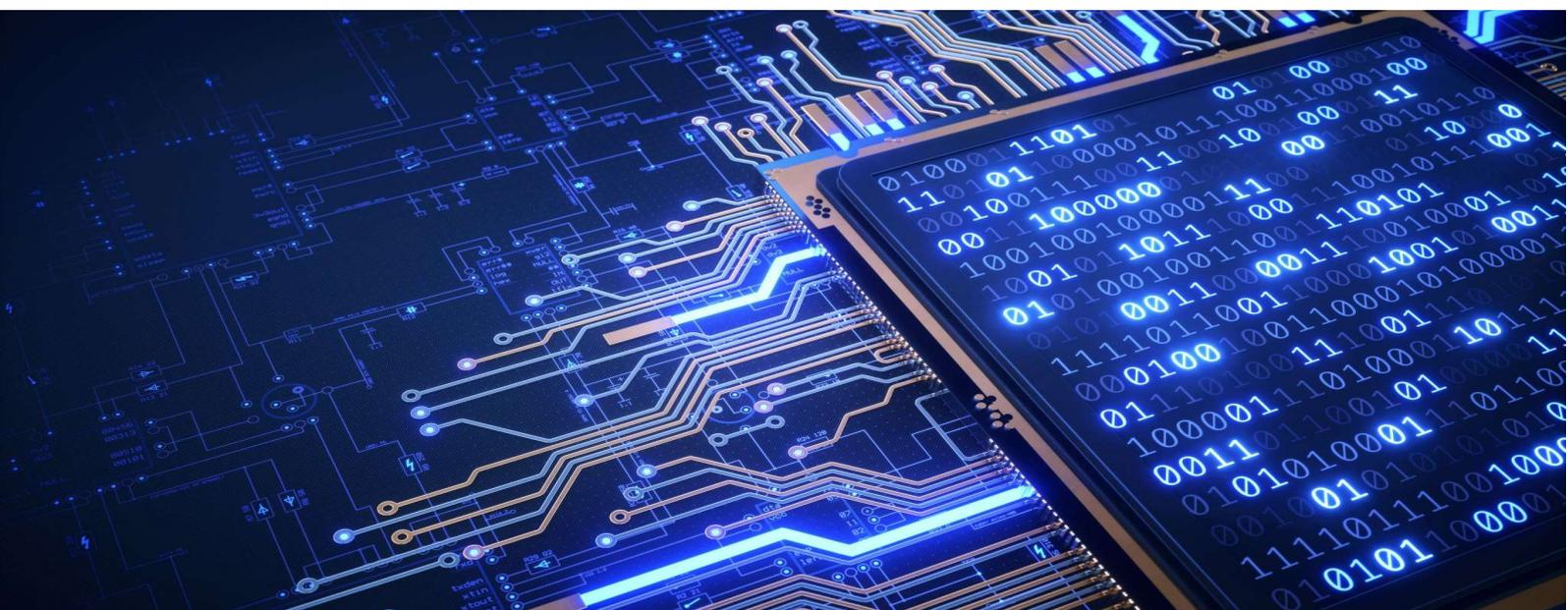
### IV.D.2 Does the paperless trade system accept electronic transferable records?

Certain commercial documents are transferable, i.e. they incorporate the entitlement to the delivery of goods that they describe (for example, bills of lading, warehouse receipt) or the payment of money (for example, checks, promissory notes). Bills of lading are particularly relevant for paperless trade facilitation and for logistics. Other transferable documents relate to financing and are relevant for national trade platforms.

Because of their need for special features, notably non-duplication and control (“possession” when on paper), the law requires special rules for their use in electronic form. UNCITRAL has prepared the Model Law on Electronic Transferable Records 2017 (MLETR) to deal with those documents in line with UNCITRAL principles of technology neutrality and functional equivalence.

In certain jurisdictions, special legal regimes exist to enable the use of specific types of electronic transferable records.

The related Regulation on the Implementation of the Provisions of the Commercial Act Regarding Electronic Bills of Lading provides details on how electronic bills of lading should be managed and on the requirements by which a registry agency may be licensed.



## 5.3 Engagement with key stakeholders

Stakeholder engagement requires coordination between government and the private sector. It is important that is done from the early stages to ensure onboarding, since many sectors will be critical to successful implementation and take-up. The engagement ideally should run during all of the following three phases:



Stakeholder engagement will also typically take place via public consultations at different stages of the legal reform process. This will include in the first phase when the legal obstacles are being identified. The day-to-day practical experience of industry will assist in ascertaining not only the hindrances for digitalising trade, but also understand the solutions that already exist or can be developed. A second phase consultation on a draft law will extend the stakeholder engagement.

All core industry sectors in the trade process should have a voice in the transformation process. This is because some sectors have the ability to create barriers to full digitalisation of trade. Which sectors are considered core will depend on the jurisdiction. These core sectors could include significant traders, law, banking, logistics, shipping, insurance, and technology.

A Public-Private forum or platform is one vehicle. An example of such forum is the ICC United Kingdom Centre for Digital Trade and Innovation (C4DTI) which acts as a neutral forum for public private dialogue and cooperation.

### **Centre for Digital Trade and Innovation (C4DTI)<sup>160</sup>**

C4DTI is an ICC United Kingdom-led, global initiative. It is industry-led, and government supported, working with the ICC Digital Standards Initiative, governments, business groups, companies, and international partners. It provides an impartial environment in which industry and government can collaborate on practical pilot work to accelerate the pace and scale of digitalisation, ensure there is a consistent application of standards, rules and laws and increase the

prospects for adoption of digital trading processes in the future. It is agnostic to technology and advocate for open, interoperable systems.

Their mission is to accelerate the adoption of digital processes based on three types of interoperability; legislation and policy, international standards, and technology. As a public/private partnership their framework enables the legislative, policy, standards, and rules elements of trade to proceed at the same pace.

Other forums could be hosted by regional bodies such as ASEAN Economic Community.<sup>161</sup>

In addition to forums, individual sectors may establish a taskforce to consider how to operationalise the MLETR reforms. This would appear especially important for some sectors such as those financing trade and therefore using the electronic transferable records to their best advantage. These sector taskforces would then feed into other public private forums.

Development of an action plan is important, this should include amongst others, market preparation and pilots.<sup>162</sup>

## Government Coordination

There also needs to be coordination within government, including the identification of the main government departments and authorities who play a role in the trade process. For example, in the UK the lead government department was the Department for Digital, Media, Culture and Sport, who coordinated with other departments, including the Department for International Trade (now the Department for Business and Trade - DBT), and the Ministry of Justice. The UK also utilises the National Trade Facilitation Committee, which the DBT co-chairs with HM Revenue and Customs whose mandate includes the digitalisation of trade documents. There has been a tendency for countries to digitalise their Customs. However, as has been seen, this will not be sufficient to trigger digitalisation of the entire trade process. The WTO Trade Facilitation Agreement (TFA) 2017 encourages customs authorities to accept either paper or electronic copies of requisite documents. However, no matter how well the TFA measures are implemented, if the rest of the trade process is not effectively digitalised, including MLETR related legal equivalence of electronic trade documents, the impact will be limited.<sup>163</sup>

It is usually not sufficient for only one government department or authority to act, there needs to be joined up thinking amongst the identified departments.

Once these departments have embraced digital transformation, a starting point is that their systems need to be interoperable.

## 5.4 Addressing implementation challenges

Technology solutions are already available, but the challenge is getting wide enough market adoption, so the buy-in of key stakeholders is imperative to achieve the requisite scale.

Fragmentation is a core challenge for most technologies, the same is true for technology beyond trade. The term used to describe this is 'digital islands'. The issue of interoperability is a key element. Whilst MLETR is technology neutral, interoperability, and the use of even open standards where possible, will increase the reach of any platform, and also are imperative in order to take full advantage of the benefits.<sup>164</sup>

Coupled with interoperability is the need for common standards. The Digital Standards Initiative (DSI)<sup>165</sup> hosted by the ICC is leading on work related to standards. Its membership includes key international financial institutions, as well as industry sector representatives, and government

representatives. It collates standards relating to a range of instruments and sets out several trade requirements for smooth digitalisation, including:

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Foundational Standards
Identity
Unique document creation and validation
Electronic Title Documentation
Uniform rules for digital trade transactions
Rulebook Harmonisation
Electronic Warehouse Receipts
Dry and Wet Bulk electronic bill of lading
Digital trade attestations.

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An outcome of this initiative has been the ICC-WTO Standards Toolkit for Cross-Border Paperless Trade<sup>166</sup> which provides an overview of existing standards with the goal of driving adoption, identifying potential gaps, and promoting interoperability. Its key target audience are corporations and MSMEs, logistics operators and customs authorities, with the aim of equipping every supply chain participant with the widely used standards to enable secure, trusted, and seamless trade connectivity.

Pilots (dummy and shadow) provide proof of concept and data which, together with surveys, will strengthen the business case for adoption of MLETR. Once the law is adopted, live pilots can be conducted to test the systems in place. In the same way as standards are being collated and defined, a Pilot Playbook is also being developed by the ICC in partnership with others, with the aim of achieving a uniform approach to pilots. Of particular importance is identifying the relevant metrics by which to assess and learn from pilots. The ICC seeks to achieve cheaper, faster, and simpler trade processes and as such relevant metrics would include processing time, costs, and process simplicity.

Another aspect to consider are the challenges to effective implementation and achieving scale. Awareness of the changes and opportunities may be an initial challenge, running campaigns, together with setting out the business case are two steps which can be taken. Lack of skills is another potential challenge for which training and executive education is a solution.

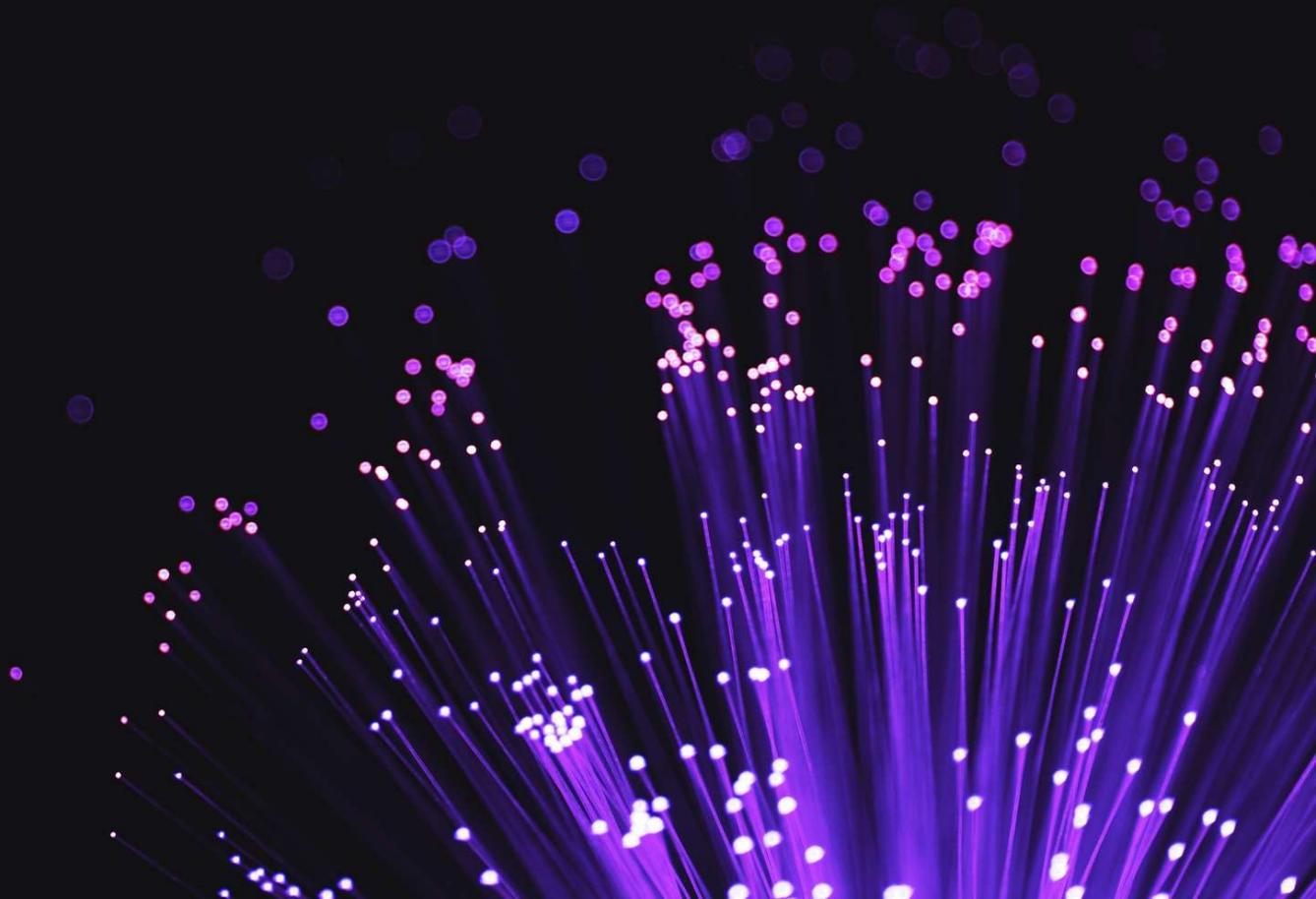
Increasing the legal, technological, and stakeholder capacity will be crucial for effective adoption and implementation of MLETR aligned law, as well as facilitating a broader digitalising of trade agenda.

## 5.5 Next Steps

Those jurisdictions which decide to embark on the process of digitalising their trade process will need to ensure that an enabling legal framework is in place. As set out in this Paper, the MLETR is a key piece of the framework.

EBRD, as the publication of this paper shows, plays a key part in these standard-setting initiatives. Importantly, the EBRD also aims to drive the implementation of these standards through policy work (i.e. technical assistance to draft MLETR-aligned laws and policies) as well as providing financial assistance for trade transactional work through the EBRD's Trade Facilitation Programme.

# Endnotes



## Section 1: The clear case for paperless, digital trade

1. ICC Guide to Legal Reform, available at: [https://www.dsi.iccwbo.org/\\_files/ugd/0b6be5\\_0934506fada643a197d5f727413c4389.pdf?index=true](https://www.dsi.iccwbo.org/_files/ugd/0b6be5_0934506fada643a197d5f727413c4389.pdf?index=true)
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3. The Law Commission, *Recommendations to Allow Electronic Documents Would Revolutionise Trade*, (16 March 2022), <<https://www.lawcom.gov.uk/recommendations-to-allow-electronic-documents-would-revolutionise-trade/>>
4. Report of the Commonwealth Secretariat: Quantitative Analysis of the Move to Paperless Trade, 2022. Available at: Quantitative Analysis of the Move to Paperless Trade ([https://production-new-commonwealth-files.s3.eu-west-2.amazonaws.com/s3fs-public/2022-03/Quantitative\\_Analysis\\_of\\_the\\_Move\\_to\\_Paperless\\_Trade\\_UPDF.pdf](https://production-new-commonwealth-files.s3.eu-west-2.amazonaws.com/s3fs-public/2022-03/Quantitative_Analysis_of_the_Move_to_Paperless_Trade_UPDF.pdf))
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8. McKinsey & Company, *The multi-billion-dollar paper jam: Unlocking trade by digitalizing documentation* (October 2022) <<https://www.mckinsey.com/industries/travel-logistics-and-infrastructure/our-insights/the-multi-billion-dollar-paper-jam-unlocking-trade-by-digitalizing-documentation>>
9. As an illustration of the industry interest to accelerate trade digitalisation, nine container shipping line members have pledged to convert 100% of paper bills of lading to electronic bills by 2030, and some of the world's largest shippers, members of BIMCO, are committed to moving their annual seaborne trade volume of at least one commodity using electronic bills of lading by 2025: <https://www.shippingandfreightresource.com/conversion-of-bill-of-lading-to-electronic-bills-gains-traction-with-bimcos-25-by-25-pledge/>.
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## Section 2: Digital Trade Process

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31. McKinsey, The multi-billion-dollar paper jam: Unlocking trade by digitalizing documentation October 2022. Available at: <https://www.mckinsey.com/industries/travel-logistics-and-infrastructure/our-insights/the-multi-billion-dollar-paper-jam-unlocking-trade-by-digitalizing-documentation?cid=e-ml-web>
32. Asian Development Bank, Asia-Pacific Trade Facilitation Report 2019: Bridging Trade Finance Gaps through Technology, 2019. Figure 14: Risks in Letter of Credit Transactions Available at: <https://www.adb.org/publications/asia-pacific-trade-facilitation-report-2019>
33. ICC, C4DTI and Monetago, Shutting fraudsters out of trade, October 2022. Available at: <https://c4dti.co.uk/wp-content/uploads/2022/10/Shutting-fraudsters-out-of-trade-whitepaper.pdf>
34. An informative summary of this subject is at: <https://www.brookings.edu/research/cybersecurity-and-digital-trade-getting-it-right/>
35. Asian Development Bank, Asia-Pacific Trade Facilitation Report 2019: Bridging Trade Finance Gaps through Technology, 2019. Figure 23: Open Account: Traditional versus Digital Platforms. Available at: <https://www.adb.org/publications/asia-pacific-trade-facilitation-report-2019>
36. World Economic Forum and World Trade Organization, The promise of TradeTech Policy approaches to harness trade digitalization. Figure 2 – The 5Gs of TradeTech Available at: [https://www3.weforum.org/docs/WEF\\_The\\_promise\\_of\\_TradeTech\\_Policy\\_approaches\\_to\\_harness\\_trade\\_digitalization\\_2022.pdf](https://www3.weforum.org/docs/WEF_The_promise_of_TradeTech_Policy_approaches_to_harness_trade_digitalization_2022.pdf)
37. See Christoph Gugelmann, Breaking down the barriers to investing, Private Debt Investor, (February 2023) available at: <https://www.privateinvestor.com/breaking-down-the-barriers-to-investing/>; Eleanor Wragg, AllianzGI launches investment-grade trade finance fund, Global Trade Review, (15 November 2022) <https://www.gtreview.com/news/global/allianzgi-launches-investment-grade-trade-finance-fund/>; and McKinsey and Company, The multi-billion-dollar paper jam: Unlocking trade by digitalizing documentation, (October 4, 2022): <https://www.mckinsey.com/industries/travel-logistics-and-infrastructure/our-insights/the-multi-billion-dollar-paper-jam-unlocking-trade-by-digitalizing-documentation/>

## Section 3: Analysis of MLETR

38. See the text of the UNCITRAL Model Law on Electronic Commerce with Guide to Enactment 1996 with additional Article 5 bis as adopted in 1998, at: [https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/19-04970\\_ebook.pdf](https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/19-04970_ebook.pdf). As of 29 October 2022, UNCITRAL reports that legislation based on or influenced by the Model Law has been adopted in 83 States and a total of 164 jurisdictions: [https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic\\_commerce/status](https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_commerce/status)
39. See text of MLES and Guide to Enactment at <https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/ml-elecsig-e.pdf>. Building on the basic principal underlying Article 7 of the MLEC, the purpose of the MLES “aims to enable and facilitate the use of electronic signatures by establishing criteria of technical reliability for the equivalence between electronic and hand-written signatures”: [https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic\\_signatures](https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_signatures). The MLES was inspired by Directive 1999/93/EC of the European Parliament and of the European Council on a Community framework for electronic signatures. As of 29 October 2022, UNCITRAL reports that legislation based on or influenced by the Model Law has been adopted in 38 States and a total of 39 jurisdictions: [https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic\\_signatures/status](https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_signatures/status).
40. By UN General Assembly resolution 60/21 of 23 November 2005; see [https://treaties.un.org/doc/source/docs/A\\_RES\\_60\\_21-E.pdf](https://treaties.un.org/doc/source/docs/A_RES_60_21-E.pdf). As of 29 October 2022, there were 18 signatories to this Convention: see [https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg\\_no=X-18&chapter=10&clang=en](https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=X-18&chapter=10&clang=en).
41. At [https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/mletr\\_ebook\\_e.pdf](https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/mletr_ebook_e.pdf)
42. At many times since these documents were prepared, the United Nations General Assembly and UNCITRAL itself have called upon all Governments to consider becoming party to the Convention. They have also recommended that all States

give favourable consideration to both MLEC and MLES when enacting or revising their laws so as to facilitate electronic alternatives to traditional paper-based transactions.

43. By way of example, Article 2 (2) of the Electronic Communications Convention expressly states that the Convention “does not apply to [certain records that are customarily used in international trade, namely] bills of exchange, promissory notes, consignment notes, bills of lading, warehouse receipts or any transferable document or instrument that entitles the bearer or beneficiary to claim the delivery of goods or the payment of a sum of money.” UNCITRAL explains: “That exclusion was based on the view that finding a solution to the challenges posed by the potential consequences of unauthorized duplication of those documents and instruments required a combination of legal, technological and business solutions, which had not yet been fully developed and tested.” See para 6 of the Explanatory Note at note 44. By 2017, these solutions were emerging.
44. The Explanatory Note is available at: [https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/mletr\\_ebook\\_e.pdf](https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/mletr_ebook_e.pdf)
45. UN General Assembly Resolution 72/114 adopted by the UN General Assembly on 7 December 2017 at <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N17/432/05/PDF/N1743205.pdf?OpenElement>.
46. See the Declaration of 28 April 2021 of the G7 Digital and Technology Ministers to work “towards a trusted, values-driven digital ecosystem” and, among other efforts, “promote the adoption of legal frameworks compatible with MLETR available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/981567/G7\\_Digital\\_and\\_Technology\\_Ministerial\\_Declaration.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/981567/G7_Digital_and_Technology_Ministerial_Declaration.pdf) as well as The Framework for G7 Collaboration On Electronic Transferable Records available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/986162/Annex\\_4\\_Framework\\_for\\_G7\\_collaboration\\_on\\_Electronic\\_Transferable\\_Records.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/986162/Annex_4_Framework_for_G7_collaboration_on_Electronic_Transferable_Records.pdf).
47. For example, see: (a) the supportive comments of the Bankers Association for Finance and Trade (BAFT) at para.5 of Section II.F. of UN General Assembly document A/CN.9/1113/Add.1, 14 June 2022 at <https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/1113-add1-e.pdf>; (b) the ICC UK’s call on national governments to align their legal frameworks to MLETR at [https://www.dsi.iccwbo.org/files/ugd/0b6be5\\_9a983b7c954d49389dd25a54033bcf78.pdf?index=true](https://www.dsi.iccwbo.org/files/ugd/0b6be5_9a983b7c954d49389dd25a54033bcf78.pdf?index=true); and (c) the support of the World Economic Forum Other organisation links and the World Trade Organization for international regulatory convergence through adoption of MLETR at [https://www.wto.org/english/res\\_e/booksp\\_e/tradtechpolicyharddigit0422\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/tradtechpolicyharddigit0422_e.pdf)
48. This short 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.
49. Transnational mercantile (commercial and trade) law, usage, and custom recognised internationally.
50. Para 4 of the Explanatory Note. See also Law Commission Report para.3.19
51. Ibid. As summarised in Chapter 6 below, MLETR, or its principles, has already been adopted for use by a number of jurisdictions (seven to date) and other jurisdictions are in the process of similar legislative reform to support the use of digital trade records. As of November 2022, these include 7 jurisdictions: Bahrain, Belize, Kiribati, Paraguay, Papua New Guinea, and Singapore, plus Abu Dhabi Global Market. See UNCITRAL MLETR Status page at: [https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic\\_transferable\\_records/status](https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_transferable_records/status).
52. See para 7 of the Explanatory Note, where it is stated that this builds “upon the fundamental principles underlying existing UNCITRAL texts in the area of electronic commerce, namely non-discrimination against the use of electronic communications, functional equivalence and technological neutrality.”
53. The term “electronic record” is defined in Article 2 of the MLETR as “information generated, communicated, received or stored by electronic means, including, where appropriate, all information logically associated with or otherwise linked together so as to become part of the record, whether generated contemporaneously or not”. Paragraph 35 of the Explanatory Note at note 44 above clarifies that “‘logically’ refers to computer software and not to human logic.”
54. Article 2 of the MLETR.
55. Including “all electronic transferable records management systems and not only ... third-party service providers” (para 123 of the Explanatory Note). The electronic “methods” could range from well-known email, text, or social media “methods” (some of which may not be sufficiently “reliable”) through to sophisticated block chain “methods” of communication, if hosted by reliable distributed ledger providers that employ cryptographically secure “hash”, or equivalent, techniques to ensure secure, traceable, and auditable transactions. The electronic methods used will need to track the life cycle of the electronic transferable records, including a reliable way of evidencing transfers from one party to another.
56. Para.122 of the Explanatory Note (at note 44 above).
57. As stipulated in Article 9 “to identify [the] person [signing] and to indicate that person’s intention in respect of the information contained in the electronic transferable record.”
58. Article 13. See above
59. Article 16 and para. 156 of the Explanatory Note (at note 44 above). See above
60. Article 17. See above
61. Article 18. See above
62. The standards relating to reliability and integrity of an electronic transferable record and of its management system apply to their designers in establishing commercially viable enterprises: para. 200 of the Explanatory Note
63. Although Article 11(1) (a) refers to “exclusive control”, para. 111 of the Explanatory Note clarifies that “control, like possession, could be exercised concurrently by more than one person”.
64. Article 11.2. See above
65. As said in para. 84 of the Explanatory Note (at note 44 above). These principles are reflected also in Articles 17(3) and 18(3) that deal with a medium change from electronic to paper records and vice versa. These Articles, together with Articles 10(1) (b) (i) and 11, achieve the functional equivalence of an “original” document in paper form “that entitles the person in control to claim performance ... [of] the electronic transferable record that is the object of control”: see para. 190 (and para. 81) of the Explanatory Note.

66. As mentioned in the text at note 30 above, the precise methods (models, platforms, or systems) that might be deployed to achieve these objectives are left for market participants to choose.
67. Article 10(2), such as purely technical changes (e.g. for storage in a repository).
68. Explanatory Note, para 87.
69. MLETR Article 2.
70. To make the situation abundantly clear, para 38 of the Explanatory Note includes the following “indicative list of transferable documents or instruments...: bills of exchange; cheques; promissory notes; consignment notes; bills of lading; warehouse receipts; [some] insurance certificates; and air waybills.” Although the definition means that “an electronic transferable record existing only in electronic form (and therefore not functionally equivalent to a paper-based document) would not satisfy the requirements of article 10 and would not fall under the definition of electronic transferable record contained in article 2” (as mentioned in para. 92 of the Explanatory Note), Article 6 allows additional information to be included in an electronic transferable record if permitted by substantive law. Article 1(3) and its footnote also clarify that the MLETR does not apply to investment securities, or possibly other types of exclusions if so decided by the legislating authority.
71. Although Article 11(1) (a) refers to “exclusive control”, para. 111 of the Explanatory Note clarifies that “control, like possession, could be exercised concurrently by more than one person”.
72. MLETR Article 11.
73. To quote from para. 191 of the Explanatory Note (at note 44 above).
74. MLETR Article 10.2.
75. Explanatory Note, para 101.
76. MLETR Article 12 and Explanatory Note, para 122.
77. Articles 7(1) and 19(1). These provisions do not however establish the legal validity of an electronic transferable record which is determined by substantive law; see para 60 of the Explanatory Note to the MLETR.
78. Article 8.
79. Article 9.
80. Article 15.
81. Article 16.
82. Article 4
83. Article 19(2).
84. Article 5.

#### Section 4: Country Reports

85. According to UNCITRAL, these are Abu Dhabi Global Market, Bahrain, Belize, Kiribati, Papua New Guinea, Paraguay, and Singapore: see [https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic\\_transferable\\_records/status](https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_transferable_records/status).
86. UNCITRAL Secretariat, “Bahrain Enacts the UNCITRAL Model Law on Electronic Transferable Records” (2018) <https://uncitral.un.org/en/news/bahrain-enacts-uncitral-model-law-electronic-transferable-records>
87. The Kingdom of Bahrain Electronic Transferable Records Law, Law No. (55) of 2018 (Bahrain ETRL). Found here <https://www.legalaffairs.gov.bh/FullEn/L5518.docx>
88. More information about the Bahrain Economic Development Board can be found here: <https://www.bahrainbusinesslaws.com>
89. Bahrain Legislative Decree No.28 of 2002. Available here <https://www.bahrain.bh/wps/wcm/connect/1ede6815-4dc0-451c-aa7d-09c3622f0494/CASPMFGX.pdf?MOD=AJPERES>.
90. The English text is available at: <https://www.bahrainbusinesslaws.com/laws/electronic-communications-and-transactions-law>. This new law updates the legal treatment of electronic records beyond the “electronic transferable records” covered by the Bahrain ETRL. A further law passed at the same time by Legislative Decree No. 56 of 2018 relates to Providing Cloud Computing Services to Foreign Parties available at: <https://www.bahrainbusinesslaws.com/laws/Law-of-Providing-Cloud-Computing-Services-to-Foreign-Parties> Bahrain also became a party to the United Nations Convention on the Use of Electronic Communications in International Contracts, available at: [https://uncitral.un.org/en/texts/ecommerce/conventions/electronic\\_communications](https://uncitral.un.org/en/texts/ecommerce/conventions/electronic_communications).
91. In the boxes are the relevant Provisions of the Bahrain ETRL, excerpted from Article (1).
92. For more information about this see: The CBB Press Release, The Central Bank of Bahrain introduces the Bahrain Electronic Cheque System, 16 October 2018, available at: <https://www.cbb.gov.bh/media-center/the-central-bank-of-bahrain-introduces-the-bahrain-electronic-cheque-system/> See also the website of Benefit, the implementing technology partner: <https://benefit.bh/business/echeque/>
93. This Article reflects the intention of Art.3 of MLETR itself. which seeks to promote uniformity and predictability of the law applicable to commercial transaction, especially across borders: see paras 40-45 of the Explanatory Note to MLETR.
94. Bahrain ETRL, Articles (15)-(17).
95. It has also been recognised as the most effective user of digital technology in the world, according to Networked Readiness Index (NRI). Thierry Geiger, ‘The Top 10 Nations for Bridging the Digital Divide’, (*World Economic Forum* 15 April 2015), <https://www.weforum.org/agenda/2015/04/which-nations-are-top-for-digital/>.
96. Luca Castellani, “Adoption of UNCITRAL Model Law Heralds A Quiet Revolution In Digital Trade” (*The Business Times* 3 February 2021) <<https://www.businesstimes.com.sg/opinion-features/columns/adoption-uncitral-model-law-heralds-quiet-revolution-digital-trade>>.
97. Singapore Infocomm Media Development Authority (IMDA), “Electronic Transactions Act Amended To Facilitate Electronic Transactions, Providing Convenience And Strengthening Singapore’s Trade Competitiveness In The Digital Economy”, ( February 2021) <https://www.imda.gov.sg/Content-and-News/Press-Releases-and-Speeches/Press->

98. Electronic Transactions Act (Chapter 88 of the 2011 Revised Edition).
99. Singapore Electronic Transactions (Amendment) Act (No 5/2021) Found here [https://sso.agc.gov.sg/Acts-Supp/5-2021/Published/20210312?DocDate=20210312#:~:text=%E2%80%94\(1\)%20Nothing%20in%20this,inferred%20from%20the%20person's%20conduct.&text=the%20parties%20may%20not%20derogate,the%20provisions%20of%20this%20Part](https://sso.agc.gov.sg/Acts-Supp/5-2021/Published/20210312?DocDate=20210312#:~:text=%E2%80%94(1)%20Nothing%20in%20this,inferred%20from%20the%20person's%20conduct.&text=the%20parties%20may%20not%20derogate,the%20provisions%20of%20this%20Part)
100. See, A/RES/60/21 adopted by the United Nations General Assembly on 23 November 2005.
101. Ibid at para 2.5.3, "...such that only one set of obligations is owed by the person who is obliged to perform."
102. See, Amended 2021 ETA, s 16A(1).
103. See, Electronic Transactions (Amendment) Act (No 5/2021) (Singapore), s. 6.
104. UNECE, *Transfer of MLETR-Compliant Titles* <https://uncefact.unece.org/display/uncefactpublic/Transfer+of+MLETR-compliant+titles>.
105. Excerpt from <https://www.shippingandfreightresource.com/importance-of-mletr-in-current-and-future-trade-environment/?subscribe=success#subscribe-blog-1>
106. A statement on the pilot can be found here: <https://www.adgm.com/media/announcements/worlds-first-digital-trade-financing-pilot-between-mletr-harmonised-jurisdictions> and here <https://www.mas.gov.sg/news/media-releases/2021/worlds-first-digital-trade-financing-pilot-between-mletr-harmonised-jurisdictions>
107. Eleanor Wragg, 'Singapore and Abu Dhabi pilot first MLETR-enabled trade transaction' (*Global Trade Review* 17 November 2021) <https://www.gtreview.com/news/fintech/singapore-and-abu-dhabi-pilot-first-mletr-enabled-trade-transaction/>.
108. Established by UAE Federal law and decree, ADGM's jurisdiction extends across the entire 114 hectares of Al Maryah Island. ADGM's three independent authorities are the Registration Authority (RA), the Financial Services Regulatory Authority (FSRA) and ADGM Courts. Refer to the Federal Law No. 8 of 2004 Concerning Financial Free Zones Issued on 14/3/2004 and the Federal Decree No. (15) of 2013. Concerning Establishing a Financial Free Zone in the Emirates of Abu Dhabi issued 11 February 2013. See also: <https://www.adgm.com/about-adgm/overview>
109. ADGM Consultation Paper No.3 of 2020 on Electronic Transactions Regulations, 15 September 2020, at: <https://www.adgm.com/documents/legal-framework/public-consultations/2020/adgm-consultation-paper-no-3-2020--electronic-transactions-regulations.pdf>.
110. The other options set out in the consultation were the prescriptive approach which imposes use of a specific technology and a specific technical method for the electronic signing of documents and dictates the types of permissible signature technologies. The other was the two-tiered approach that "accepts all or most electronic signatures on a technology-neutral basis, but also creates a class of approved technologies similar to the prescriptive approach. Both approaches do allow the parties to agree between themselves what is an acceptable form of signature."
111. The proposed law can be found here: <https://adgm.com/documents/legal-framework/public-consultations/2020/adgm-consultation-paper-no-3-2020--electronic-transactions-regulations.pdf>. Annex A – Proposed Electronic Transactions Regulations 2020 can be accessed here: <https://www.adgm.com/documents/legal-framework/public-consultations/2020/annex-a--proposed-electronic-transactions-regulations-2020.pdf> and Annex B – Proposed Interpretation (Amendment No. 1) Regulations 2020 here: <https://www.adgm.com/documents/legal-framework/public-consultations/2020/annex-b--proposed-interpretation-amendment-no-1-regulations-2020.pdf> The announcement here: <https://www.adgm.com/media/announcements/adgm-commences-public-consultation-on-proposed-eelectronic-transactions-regulations>
112. The full text of the published law can be found here: [https://adgmen.thomsonreuters.com/sites/default/files/net\\_file\\_store/ADGM1547\\_23197\\_VER2021.pdf](https://adgmen.thomsonreuters.com/sites/default/files/net_file_store/ADGM1547_23197_VER2021.pdf)
113. See note 106 above.
114. Challenges And Opportunities of Digitalisation of International Trade, White Paper 2022 (Updated version as of 7 July 2022) at p.8 of the English version available at: [https://www.icc-france.fr/wp-content/uploads/2022/09/ICC\\_France\\_WhitePaper\\_.pdf](https://www.icc-france.fr/wp-content/uploads/2022/09/ICC_France_WhitePaper_.pdf). The White Paper was prepared by a Task Force of representatives of various commissions of ICC France with broad participation by trade and trade finance experts (listed on p.11) and feedback from numerous stakeholders.
115. For example, The Transport Code provides (Article L. 5422-3) that "the carrier or his representative shall deliver to the shipper, at his request, a writing known as a bill of lading..." It should be noted that since 1 October 2016, Article 1365 of the Civil Code has defined writing as consisting of "a series of letters, characters, numbers or any other signs or symbols with an intelligible meaning, regardless of their medium"; this is perfectly compatible with a digital document as long as the provisions of Article 1366 of the same Civil Code are complied with: "an electronic writing has the same evidential force as a paper-based writing, provided that the person from whom it emanates can be duly identified and that it is drawn up and stored in conditions likely to guarantee its integrity."
116. The Commercial Code (Articles L. 511-1s and L.512-1s), do not specify the nature of the media on which these instruments must be drawn up, only the fact that they must be signed either in manuscript or "by any non-manuscript process".
117. Article 1367 of the Civil Code states, "The signature required in order to complete a legal act must identify its author. It manifests his consent to the obligations arising from that act. [...] When it is electronic, it consists in the use of a reliable identification process guaranteeing its link with the act to which it is attached. The reliability of this process is presumed, until proven otherwise, when the electronic signature is created, the identity of the signatory is attested and the integrity of the document is guaranteed, under conditions laid down by decree in the State Council." The ICC France states that in practice, the probative value of electronic writing depends essentially on the reliability of the signature. An electronic signature is defined in paragraph 2 of Article 1367 of the Civil Code and in Articles 3.10, 3.11 and 3.12 of the eIDAS Regulation.
118. See note 44 above at p. 58.

119. See Societe Generale, MLETR Trade Momentum for Digital Big Bang, <https://wholesale.banking.societegenerale.com/en/insights/news-press-room/news-details/news/mletr-trade-momentum-for-digital-big-bang/>
120. <https://paris-europlace.com/fr>. It is reported in the Global Trade Review on 30 November 2022 that “The Paris Europlace working group includes representatives from shipping sector businesses such as CMA CGM, essDocs and Buyco alongside representatives of lenders such as Crédit Agricole, Natixis and Société Générale and platforms Bolero, Surecomp and TradeLens”: at [https://www.gtreview.com/news/europe/france-sets-sights-on-electronic-trade-document-reforms/?utm\\_source=Exporta+Publishing+%26+Events+Ltd&utm\\_campaign=90aac96308-EMAIL\\_CAM-PAIGN\\_2022\\_11\\_30\\_02\\_10&utm\\_medium=email&utm\\_term=0\\_-90aac96308-%5BLIST\\_EMAIL\\_ID%5D](https://www.gtreview.com/news/europe/france-sets-sights-on-electronic-trade-document-reforms/?utm_source=Exporta+Publishing+%26+Events+Ltd&utm_campaign=90aac96308-EMAIL_CAM-PAIGN_2022_11_30_02_10&utm_medium=email&utm_term=0_-90aac96308-%5BLIST_EMAIL_ID%5D)
121. Article 1366 of the Civil Code currently provides: “An electronic document has the same evidential value as a paper document, provided that the person from whom it originates can be duly identified and that it is drawn up and stored in conditions that guarantee its integrity.”
122. See note 44 above at p.25.
123. See note 120 above.
124. <https://www.tresor.economie.gouv.fr/Articles/2022/11/10/accelerer-la-digitalisation-des-activites-de-financement-du-commerce-international>
125. Section 516 subsection II German Commercial Code (Handelsgesetzbuch – HGB).
126. [https://www.iccgermany.de/wp-content/uploads/2022/10/20221007\\_Verordnungsentwurf\\_final.pdf](https://www.iccgermany.de/wp-content/uploads/2022/10/20221007_Verordnungsentwurf_final.pdf)
127. [https://www.iccgermany.de/wp-content/uploads/2022/10/20221007\\_Rechtsrahmen\\_e-Transportversicherungs-police.pdf](https://www.iccgermany.de/wp-content/uploads/2022/10/20221007_Rechtsrahmen_e-Transportversicherungs-police.pdf)
128. Additional Protocol to the Convention on the Contract for the International Carriage of Goods by Road (CMR) Concerning the Electronic Consignment Note: <https://unece.org/fileadmin/DAM/trans/conventn/e-CMRe.pdf>
129. And proposed for English law under the Electronic Trade Documents Bill: see at xx below
130. Examples include, bills of lading, bills of exchange, promissory notes, ship’s delivery orders, airway bills, warehouse receipts, cargo insurance certificates and others.
131. In a survey conducted by the WTO and Trade Finance Global in 2020, it was bluntly observed that “legal challenges were rated as posing a more pressing problem than any of the other challenges” confronting digitalisation and that “[g]overnmental authorities and policymakers around the world need to begin addressing the historic, and often wildly outdated, laws that are burdening those seeking to guide the industry into the future.” D Patel and E Ganne, WTO and Trade Finance Global, *Blockchain & DLT in Trade: Where do we stand?* (October 2020), p.21 at [https://www.wto.org/english/res\\_e/booksp\\_e/blockchainanddlte.pdf](https://www.wto.org/english/res_e/booksp_e/blockchainanddlte.pdf).
132. Law Commission *Electronic trade documents; Report and Bill* (Law Com No 405), 15 March 2022, para 1.13, p.4 at <https://s3-eu-west-2.amazonaws.com/lawcom-prod-storage-11jxou24uy7q/uploads/2022/03/Electronic-Trade-Documents-final-report-ACCESSIBLE-1.pdf>.
133. *Ibid.* at para. 10.2.
134. The Law Commission’s recommendations, as well as the proposed Electronic Trade Documents Bill, focus on the law of England and Wales (referred to in this Paper as “English law”) and not other devolved jurisdictions of the UK (Scotland and N. Ireland).
135. At: <https://s3-eu-west-2.amazonaws.com/lawcom-prod-storage-11jxou24uy7q/uploads/2021/04/Electronic-trade-documents-CP.pdf>.
136. At note 132 above.
137. See note 132 above, at Appendix 4, page 243.
138. At page 6 of <https://s3-eu-west-2.amazonaws.com/lawcom-prod-storage-11jxou24uy7q/uploads/2022/03/Electronic-Trade-Documents-summary-of-final-report-.pdf>.
139. The information in electronic form includes “information with which it is logically associated”, i.e. “electronically connected to, linked to, or otherwise cross-referenced to”: Section 1(3) of the Bill and para. 6.25 of the Law Commission Report at note 132 above.
140. A “paper trade document” is a document “in paper form ... possession of ... [which] is required ... for a person to claim performance of an obligation”: Section 1(1) of the Bill. In addition, Section 1(2) of the Bill provides greater clarity by stating that, if they fall within Section 1(1), the following are “examples” of paper trade documents: a bill of exchange, a promissory note, a bill of lading, a ship’s delivery order, a warehouse receipt, a mate’s receipt, a marine insurance policy and a cargo insurance certificate. However, the Bill does not apply to bearer bonds or uncertificated units transferable in systems within the Uncertificated Securities Regulations 2001: Section 5(2) of the Bill.
141. See para. 6.6 of the Law Commission Report at note 132 above.
142. Meaning and electronic system that “meets certain standards in the way that it operates”: para. 6.32 of the Law Commission Report at note 132 above.
143. Including persons acting jointly: Section 2(2)(b) of the Bill.
144. Each of these criteria is set out in more detail in Section 2(2)(1) of the Bill.
145. See the text in Chapter 5 above.
146. See Chapter 5 above. Unlike MLETR, the Law Commission thought that the Bill should not refer to an accreditation process.
147. See para. 6.53 of the Law Commission’s Report at note 132 above.
148. Section 2(2)(a) and 2(3) of the Bill.
149. Section 3 of the Bill. The inclusion of the term “indorse” is consistent with Article 15 of MLETR.
150. “Possession” in English common law depends on two factors: “control and relevant intention”, whereas Article 11 of MLETR indicates that a requirement of “possession”/ “transfer of possession” is met by a reliable showing only of “control”/ “transfer of control”, without the need for proof of a “relevant intention” to possess. Whether these different criteria will produce different results will depend on the interpretation that will be given to paras 105-107 of the Explanatory

Note to Article 11 of MLETR that recognise that the concept of “possession” may vary in each jurisdiction and state that MLETR’s “notion of control does not affect or limit the legal consequences arising from possession.”

151. Section 4 of the Bill.

152. Section 7(3) of the Bill.

153. Including, among other things, privity of contract, legal recognition of an electronic record, writing, signature, and amendment.

## Section 5: Matrix and Roadmap

154. ICC United Kingdom, The UK roadmap to digitalise trade, Version 2.0, available at: <https://c4dti.co.uk/wp-content/uploads/2022/10/Digital-roadmap-2023.pdf>
155. World Trade Organization (WTO) and the World Economic Forum (WEF), The promise of TradeTech: Policy approaches to harness trade digitalization, Available at: [https://www.wto.org/english/res\\_e/booksp\\_e/tradtechpolicyharddigit0422\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/tradtechpolicyharddigit0422_e.pdf)
156. The full list is at pp. 233-237 of the Law Commission Report at <https://s3-eu-west-2.amazonaws.com/lawcom-prod-storage-11jxou24uy7q/uploads/2022/03/Electronic-Trade-Documents-final-report-ACCESSIBLE-1.pdf>. All documents relating to the reform process can be found at: <https://www.lawcom.gov.uk/project/electronic-trade-documents/>.
157. The full text of the model laws and Convention listed in the table can be found at: <https://uncitral.un.org/en/texts/ecommerce>.
158. This includes an interactive tool which sets out the analysis visually. It is available at: <https://www.untfsurvey.org/>
159. The UNESCAP Legal Readiness Assessment Guide is available at: <https://readiness.digitalizetrade.org/>
160. For more information see: <https://c4dti.co.uk/>. CASTL is privileged to be the implementing partner of C4DTI in the Legal Reform Technical Assistance Taskforce for low-to middle income countries: for further information, see <https://c4dti.co.uk/legal-assistance/>.
161. Here also the UN Economic and Social Commission for Asia and the Pacific (ESCAP) It's work on the readiness for digital trade is detailed and informative and available here: <https://readiness.digitalizetrade.org/>
162. For a good action plan on digitalising trade can be found in the ICC publication, Making Thai-UK trade cheaper, faster, and simpler, 2023. Available to download at: <https://iccwbo.org/blogs/press-releases/new-report-highlights-enormous-progress-of-thailand-and-uk-digital-trade-partnership-to-deliver-a-cheaper-faster-and-simpler-trade-framework-for-smes>
163. United Nations Global Survey on Digital and Sustainable Trade Facilitation 2021, it is available at: <https://www.untfsurvey.org/>
164. One such platform is TradeTrust, an open source initiative of Singapore. For more information see the Factsheet on Tradetrust: A Trusted Global Network For Digitally Interconnected Trade Documents available at: <https://www.mas.gov.sg/-/media/MAS/News/Media-Releases/2021/Annex-B---TradeTrust-Factsheet.pdf>
165. It includes a Governance Board, Industry Advisory Board and Legal Reform Advisory Board. For more information see: <https://www.dsi.iccwbo.org/>
166. The Toolkit can be downloaded here: <https://iccwbo.org/publication/standards-toolkit-for-cross-border-paperless-trade/>



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