

Paris, 18 December 2023

Towards a European “Trade Services” Regulation

Working Paper

1. General considerations

Within international trade, transferable documents allow to request delivery of goods and payment based on possession of the document. Yet, it has been difficult to reproduce the notion of possession, which has to do with control over tangible goods, in an electronic environment.

In order to address that situation, the adoption in 2017 by the United Nations Commission on International Trade Law (UNCITRAL) of a Model Law on Electronic Transferable Records has provided a benchmark for the implementation by States of legal frameworks conducive to the digitization of international trade’s documentary flows. Realizing this opportunity, several States have already adapted their laws in this way or are now doing so, like the United Kingdom, Germany or France which may adopt such a law by the end of 2023. The benefits of such changes include, reduced processing time coming close to real time, reduced costs and better profitability, i.e. for all trade finance stakeholders, which will support finance for the stakeholders concerned; greater security, simplification and fluidity for logistical chains, benefiting exporters and importers; increased transparency and traceability of trade; and improved accessibility of trade finance and security tools for companies of sizes. This means European countries should swiftly undertake the necessary transformations.

By convention, documents involved in trade finance are multiple; the main ones being:

- Certificate of Origin
- Customs Declaration
- Packing List
- Bill of Lading
- Commercial Invoice
- Warehouse Receipt
- Insurance Certificate

In practice, many more documents are generally required, often to describe the goods that are transferred. Due to such a diversity of documents, many of them can already be digitalized as they are required for information and the multiplicity (or infinite reproduction of those documents) does not have any practical or legal consequences.

Nevertheless, a very small list of documents to not share such liberty, hence need to be unique (e.g. bill of lading, promissory note) as specific rights are attached to those documents, and consequently to their holders.

It is also worth adding that the legal capacity to turn any of those documents into digital copies can vary greatly from one country to the other, even across the European Union, which further reinforces to standardize our practices:

LEGAL UNCERTAINTY ABOUNDS – EXTRACT FROM 2020 ICC GLOBAL SURVEY ON TRADE FINANCE										
Country	Letter of Credit	Bill of Exchange	Commercial Invoice	Order Form	Insurance Policy	Promissory Note	Bill of Lading	Certificate of Origin	Payment Confirmation	Import/Export Declaration
Western Europe										
Belgium	●	●	●	●	●	●	●	●	●	●
France	●	●	●	●	●	●	●	●	●	●
Germany	●	●	●	●	●	●	●	●	●	●
Italy	●	●	●	●	●	●	●	●	●	●
Serbia	●	●	●	●	●	●	●	●	●	●
Spain	●	●	●	●	●	●	●	●	●	●
Sweden	●	●	●	●	●	●	●	●	●	●
UK	●	●	●	●	●	●	●	●	●	●

● Must be paper ● Paper or digital ● Unsure

In trade finance, documents can be categorized as transferable and non-transferable. Here’s a brief description of each:

Transferable Documents

- Transferable Letter of Credit: This is a type of documentary credit in which the beneficiary (usually an intermediary) has the ability to instruct their bank to transfer all or part of the documentary credit (called the base documentary credit) to another beneficiary (the second beneficiary, usually the final supplier or producer)¹.

Non-Transferable Documents

- Non-Transferable Letter of Credit: This is a type of documentary credit that cannot be transferred to another party. It is issued for the benefit of a specific beneficiary, who is the only party that can demand payment under the letter of credit.

The transferability of a document often depends on the terms and conditions stipulated in the document itself and the governing law.

In such a context, an end-to-end digitalization of trade finance is not possible, due to the very existence of the latter documents.

The digitization of documentary flows in international trade is far from a minor issue; it is a doubly strategic question for the European Union:

- **The legal attractiveness and competitiveness of the region for trade finance**, in which competition is currently fierce.
- **Supporting and financing European companies, including small, medium and intermediate-sized enterprises, in their international transactions**, in the context of many persistent macroeconomic and geopolitical uncertainties.

¹ <https://financeland.fr/lexique/credit-documentaire-transferable/>

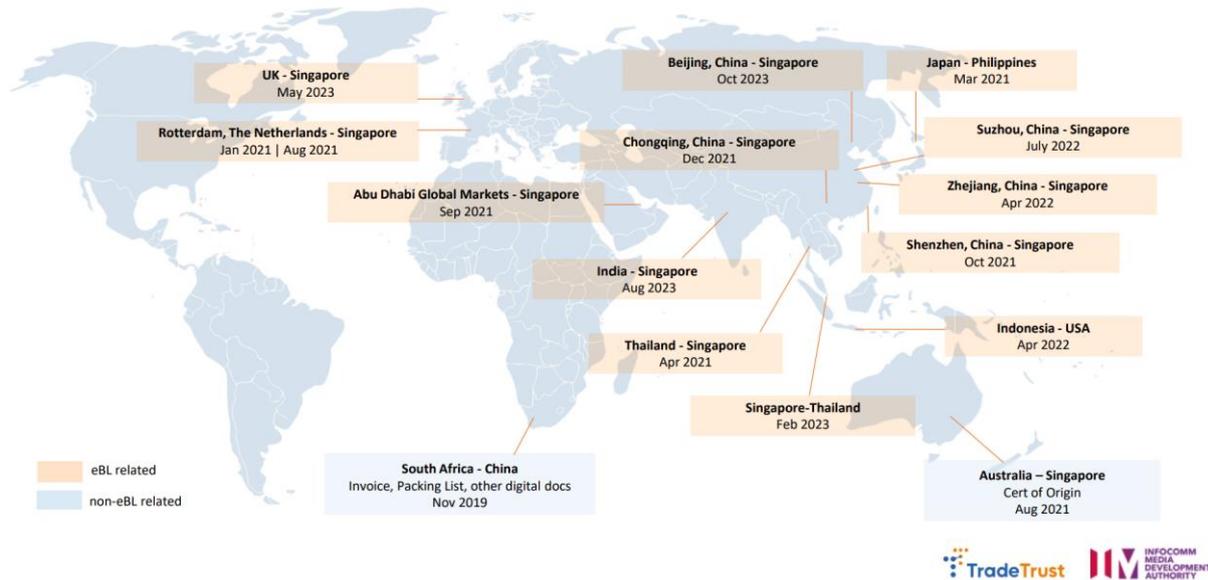
In this context, a mission's work done between November 2022 and June 2023 by Paris Europlace the Paris financial services-led body at the request of Bruno Le Maire, Minister of the Economy, Finance and Industrial and Digital Sovereignty, Éric Dupond-Moretti, Minister of Justice and Olivier Becht, Minister Delegate for Foreign Trade & Economic Attractiveness, particularly identified:

- **The existence of a consensus** across the ecosystem, including banks, insurers, transport and logistics companies and their exporter and importer companies when it comes to improving the fluidity of the logistics chain that underpins international trade, and the lever offered by the digitization of international trade documents in this respect.
- **The need, specifically concerning “transferable” documents, for legislative and regulatory changes in the key national laws** in order to enshrine the full acknowledgment in the law of their electronic form and to define the conditions of their equivalence with paper-based versions, in an approach adapted to the specificities of each law but compatible with the general principles of the UNCITRAL Model Law.
- **High expectations** as regards the short-, medium- and long-term benefits of digitization, including cost reduction for financial intermediaries and businesses, improved security and traceability of transactions, and widened access to financial products for companies operating internationally.
- **The importance of immediately starting to anticipate practical and technological challenges**, alongside changes to the law, of digitization, to ensure real stakeholder ownership of the reform and swift implementation.

In relation to this last point, and because the impact of the proposed reform presupposes the widest possible adoption by States of legal frameworks compatible with the UNCITRAL Model Law and norms governing the use of digital technologies in international trade logistics chains, **it is recommended to support national reforms with initiatives at European Union and multilateral levels, especially in the governance space** in order to ensure consistency and alignment inside the European Union.

One may add some sense of urgency for the European Union to take action in this space as many other countries have already launched initiatives to develop their own leadership/ecosystems in that space:

22 PILOTS WITH INDUSTRY PARTNERS AND OVERSEAS GOVERNMENTS



For more information:

- *Speeding up the Digitalisation of Trade Finance* [[link](#)]
- *ICC DSI | 7 key trade documents for digitalisation (tradefinanceglobal.com)* [[link](#)]
- *ICC DIGITAL STANDARDS INITIATIVE (iccwbo.org)* [[link](#)]
- *ICC Digital Standards Initiative launches expanded recommendations for trade documents - ICC - International Chamber of Commerce (iccwbo.org)* [[link](#)]

2. **Promote the TradeTech ecosystem, ensure viable technological solutions are available, and ensure stakeholders use digital tools effectively.**

Digitization requires the **existence of secure technological solutions** accessible to the whole ecosystem, especially banks and businesses. In light of this fundamental aim it is necessary, without taking a position on underlying technologies in line with the technological neutrality enshrined in the UNCITRAL Model Law, (i) **to foster the European TradeTech ecosystem**, the solutions of which are often mature and can help achieve the goals of the reform; (ii) to support the **creation of a conducive framework for digitization** of international trade documents at European Union level, notably when it comes to certification and management of open and interoperable ledgers.

It is key to note that the swift buy-in of the ecosystem of such a transformation is key. In order to achieve such an objective, it is **vital to ensure that technical standards and requirements are clear and normative**, as we shall see herebelow with PSD2.

The development of interoperable platforms capable of managing the exchange, secure storage and traceability of the very large quantities of data of stakeholders would enable extensive usages of benefit to both public and private stakeholders.

3. Beyond traditional trade finance documents.

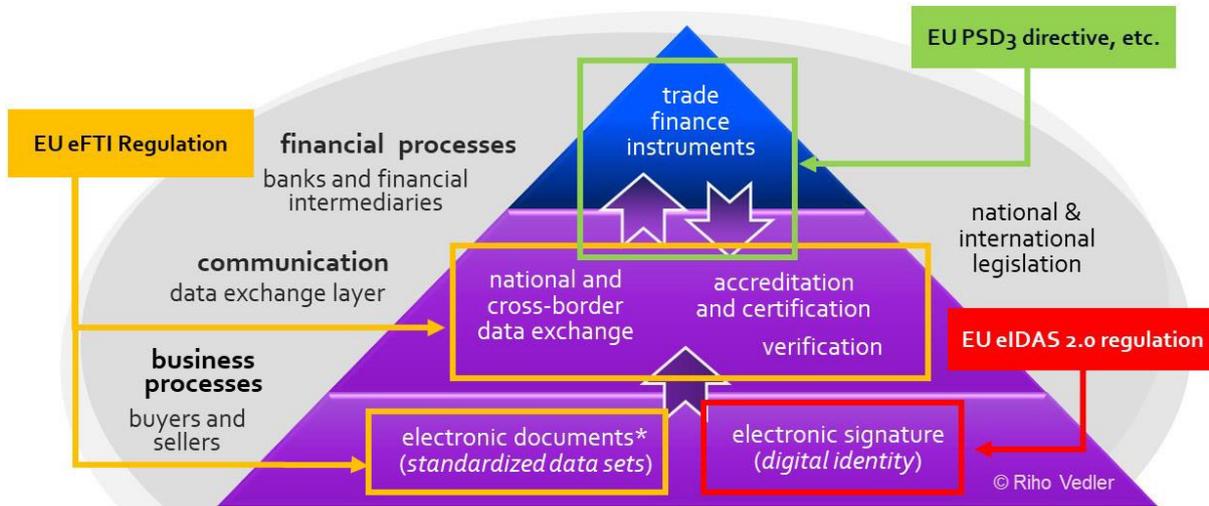
Trade digitalization regulations, such as the European regulation for the digitization of transport documents, are crucial for enhancing the efficiency and interoperability of logistics trade flows. Here's a quick analysis explaining why:

- **Efficiency:** Traditional logistics trade flows often involve a significant amount of paperwork, which can be time-consuming and prone to errors. By digitizing these documents, processes can be streamlined, reducing the time taken to complete transactions and minimizing the risk of errors. This can lead to cost savings and improved operations for businesses involved in the transport of goods.
- **Interoperability:** In the context of logistics, interoperability refers to the ability of different systems and organizations to work together. By standardizing the format and content of digital documents, it becomes easier for different parties involved in a trade flow (such as shippers, carriers, and customs authorities) to exchange and understand information. This can facilitate smoother and more efficient trade flows. As a consequence, our interoperability efforts need to integrate both Financial and Logistics ecosystems
- **End-to-End Digitalization:** For digitalization to be truly effective, it needs to be implemented end-to-end, covering all aspects of the trade flow. This includes not just the transaction itself, but also related processes such as customs checks and freight tracking. By including these documents in the digitalization regulation, the entire process can be made digital, further enhancing efficiency and interoperability.
- **ESG and Regulatory Compliance:** Including these documents in the digitalization regulation also ensures that businesses are compliant with the latest regulatory and ESG requirements. This can help to avoid potential legal issues and penalties. This is all the more important as both Finance and Logistics flows need to have equal access to that type of data/information.

In conclusion, a comprehensive approach to digitalization, which includes all documents involved in logistics trade flows, is key to maximizing the benefits of this reform. It not only enhances efficiency and interoperability but also ensures regulatory compliance, thereby facilitating smoother and more efficient trade flows.

Such is the *raison d'être* of this note, as we aim to take the MLETR reform further by fully integrating it into past, parallel, and future initiatives that are related to trade finance digitalization, as we shall see it further. Precisely, how financial and business/logistics process can interact is described the following chart:

Mapping key elements of the supply chain with EU regulations



* goods documents, insurance policies, special permits, certificates, licenses (for example driving license), etc.

Source: Riho Vedler.

European Union regulations:

- **eIDAS 2.0** | Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Regulation (EU) No 910/2014 as regards establishing a framework for a European Digital Identity [\[link\]](#)
- **eFTI** | Regulation (EU) 2020/1056 of the European Parliament and of the Council of 15 July 2020 on electronic freight transport information [\[link\]](#)
 - **Implementing Act [draft]** | Electronic freight transport information (eFTI) - procedures and access rules for competent authorities [\[link\]](#)
 - **Delegated Act [draft]** | National provisions in scope, eFTI common data set & data subsets [\[link\]](#)

If make parallels:

European Union	United Nations
eFTI Regulation	MLETR; Negotiable Cargo Documents
eIDAS 2.0 Regulation	MLIT

United Nations recommendations:

- UNCITRAL Model Law on the Use and Cross-border Recognition of Identity Management and Trust Services [\[link\]](#)
- UNCITRAL Negotiable Cargo Documents [\[link\]](#)

4. Trade Services Regulation (“TSR”): minimum conditions for success

Notwithstanding the above, it appears that **an EU regulation could potentially be necessary to accelerate the required transformation of our ecosystem** and consequently bring the expected benefits of such a reform effectively to our corporates, and notably SMEs, and ultimately to our citizens.

As a reminder, MLETR regulation is to ensure that any technological developments would guarantee 3 key pillars are respected:

- To make all the digital clones exact copies of the original, and in some cases to become the new single original (e.g. bill of lading)
- To make the variations applied to this original visible to all clone holders,
- To assign the rights to only one individual.

As an example, the benefits of digitalizing transferable titles for the French ecosystem, using a similar methodology to the one used by the UK in the impact assessment of the draft law under consideration. **It projects that the savings generated for the whole ecosystem could reach €3.8 billion for France and 36 billion across the EU by 2030.**

Taking stock of similar initiatives, whether private or regulatory, is highly valuable to us, as it should appear as a guide driving our future efforts in trade digitalization. Besides, those valuable; learning points can come from beyond trade-directly-related areas. On that basis, PSD2 (i.e. Payment and Service Directive) helps understand the necessary conditions to turn ambitions into reality. The European directive established an ambitious legal framework but leaving technical standards and implementation at the mercy of each member state. Worth noting that PSD2-3 cover both retail and corporate activities, hence is fully relevant to our discussion.

Looking at the countries that benefited the most from the Payment directive, we can highlight some key success factors that we could replicate:

- Adoption of a **centralized approach to Open Banking, with a single set of standards and a dedicated entity** (e.g. Open Banking Implementation Entity or OBIE in the UK) to oversee the development and governance of the ecosystem.
- High penetration of digital banking, **presence of innovative Fintechs**, and the consumer appetite for personalized and convenient financial solutions.
- **Supportive regulatory environment** for Open Banking, with the regulator (eg Financial Conduct Authority) providing clear guidance and supervision for both banks and third-party providers (TPPs), as well as promoting consumer awareness and protection.

In contrast, some of the challenges faced by other European countries in adopting Open Banking are:

- The **lack of harmonization and coordination amongst national regulators and industry players**, resulting in different interpretations and implementations of the PSD2 across the EU.
- The **low level of consumer/user awareness** and trust in Open Banking and part of its associated technologies (e.g. blockchain), due to the limited marketing efforts, the perceived security risks, and sometimes the insufficient data protection measures.
- The **slow pace of innovation and competition** in some markets, due to the dominance of incumbent banks, the barriers to entry for new entrants, and the low availability and quality of APIs.

Notwithstanding the above, we believe a regulation, instead of a directive, could ensure greater homogeneity across the EU, especially in terms of timeline, and technical consistency; leveraging in particular our experience with the PSD2, which has not succeeded in establishing a pan-European open

banking framework, leaving instead a patchwork of local approaches inspired by a single European initiative.

For more information:

- *PAYMENT SERVICES DIRECTIVE 2 AND OPEN BANKING: What is the Second Payment Services Directive (PSD2)?* [\[link\]](#)
- *Open Banking around the world: Towards a cross-industry data sharing ecosystem* [\[link\]](#)
- *EU vs UK: How open banking adoption differs on the Continent* [\[link\]](#)

More specifically on PSD2 standards:

The first bullet point on standards refers to a single set of standards and a dedicated entity to oversee the development and governance of the ecosystem:

- The standards are developed by a single/central entity (eg Open Banking Implementation Entity - OBIE), while being independent. The standards cover aspects such as security, data sharing, customer authentication, and API specifications. The philosophy of our potential regulation would not consist of setting in stone the sage of any specific technologies, which could become outdated shortly after, but instead make sure technical/communication standards are managed and communicated clearly to all potential players, so as to avoid an unnecessary competition across actors trying to set their own standards as the global one.
- That same entity is also to provide a directory of regulated providers, a dispute management system, a customer education programme, and a performance dashboard.
- **The benefits of having a centralized approach to Open Banking are that it facilitates consistency, interoperability, and quality across the ecosystem, as well as reducing costs and complexity for both providers and customers.** It also enables **faster innovation and adoption of Open Banking services**, as well as facilitating collaboration and coordination among stakeholders.

For more information:

- *Corporate report: Update on Open Banking* [\[link\]](#)
- *Open Banking* [\[link\]](#)
- *Getting started with open banking – Standards, Regulations, And Examples* [\[link\]](#)

Besides, the potential **benefit of a European regulation could be to normalize our technical standards across all of Europe**, as well as with our non-EU trade partners. Such an approach would arguably be more impactful than some other/similar initiatives that leverage only their soft power to aggregate an ecosystem around varying standards, while also recommending the interoperability of platforms. We believe indeed in the **strength of our European market to convince our non-EU trade partners to join forces with us**.

As a reminder, according to the latest statistics from Eurostat, the European Union (EU) accounted for around **14 % of the world's trade in goods** and **18.3 % of the world's trade in services, in value in 2020**. The EU is the world's largest exporter of manufactured goods and services, and is itself the biggest export market for around 80 countries. As an illustration, the EU share in global energy imports goes up to 27.8% in 2022.

For more information:

- [eurostat | World trade in goods and services - an overview](#) [link]
- [European Commission | EU position in world trade](#) [link]
- [Eurostat | International trade in goods](#) [link]

5. European Trade Services Regulation: Participants, Objectives & Pillars

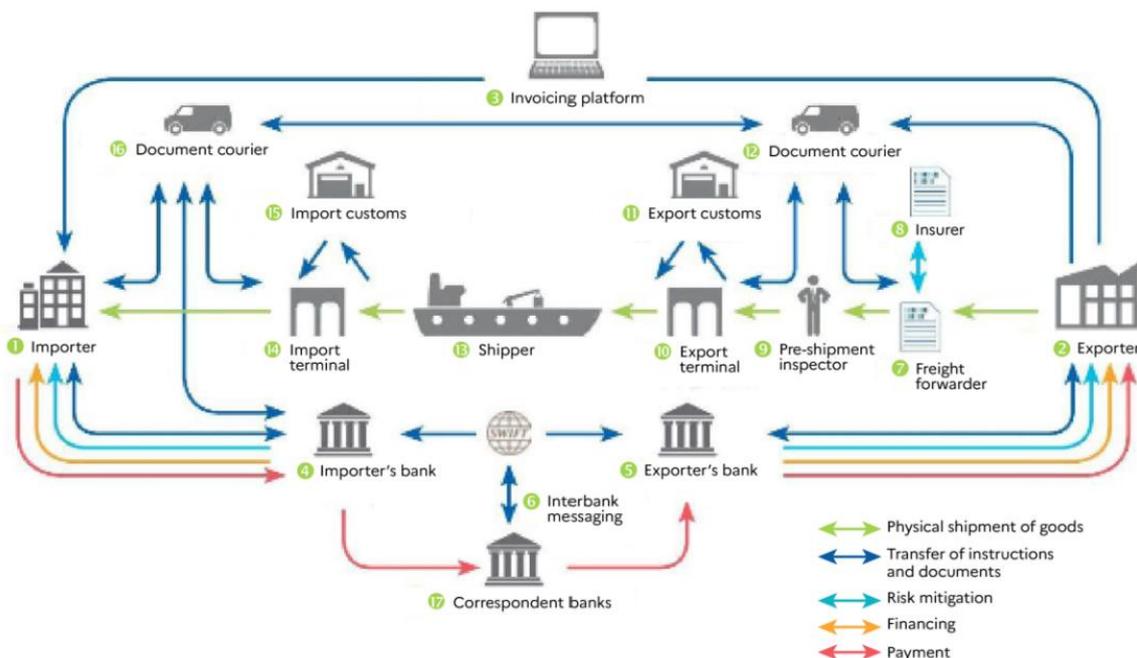
a. Participants and trade organization in a post-digital era

Trade Finance covers a broad range of participants:

- Public sector: customs, regulators, tax authorities...
- Supply chain actors: logistics, transports
- Importers / Exporters
- Banks
- Insurers
- Traders
- Freight Forwarders
- Fintech: specialized in funding, Compliance, ESG...

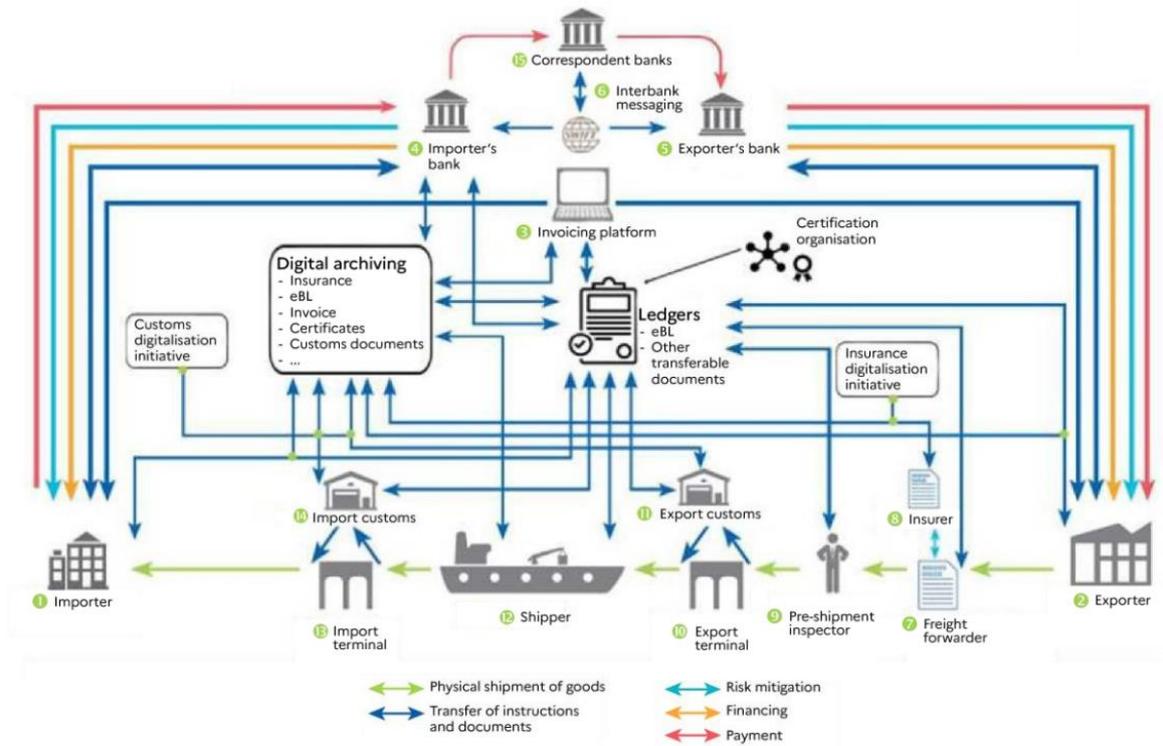
The below chart summarizes the way financial and physical exchanges will occur once trade finance has transitioned to digital. It illustrates the very need to coordinate the trade framework efficiently, along with trade digitalization regulatory efforts across the globe.

Trade Finance: Key Participant and Flows
Actual organization of the ecosystem



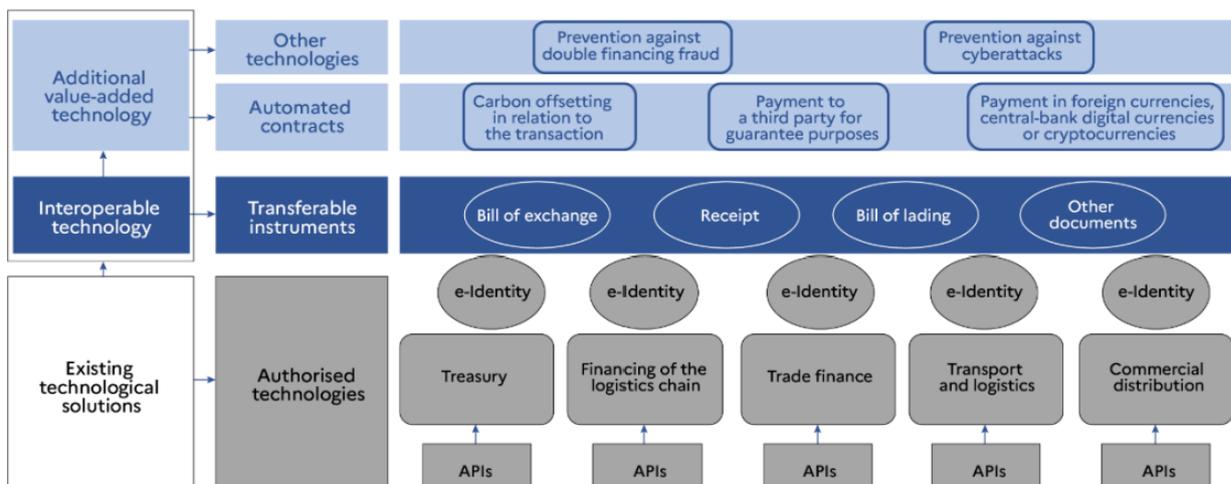
Source: BCG.

Organisation of the ecosystem after the adoption of France of a legal framework compatible with the UNCITRAL Model Law



Source: The mission; BCG.

Finally, the below chart summarizes the technological remit that could be covered by a Trade Services Regulation:



Source: Casterman Advisory

b. Regulations and existing initiatives

The European Union and other major countries have already taken different initiatives that have got an impact onto Trade Finance. In order to ensure **full complementarity** with a potential TSD, **it is vital to take into account and leverage each of them**, while ensuring no contradiction is present in those texts. **It could therefore be a matter of benefiting from existing regulations when they can apply to Trade Finance and adding elements specific to it to a TSR.**

Our objective should not be to start from a blank page but to identify all external relevant initiatives and directives/regulations, so as to establish how they can already support each other for trade finance digitalization, and where some ambiguities/contradictions may exist in order to have those sorted out/clarified. Finally, should some regulatory elements be missing, the TRD would have to establish what needs to be added to our existing European regulatory corpus.

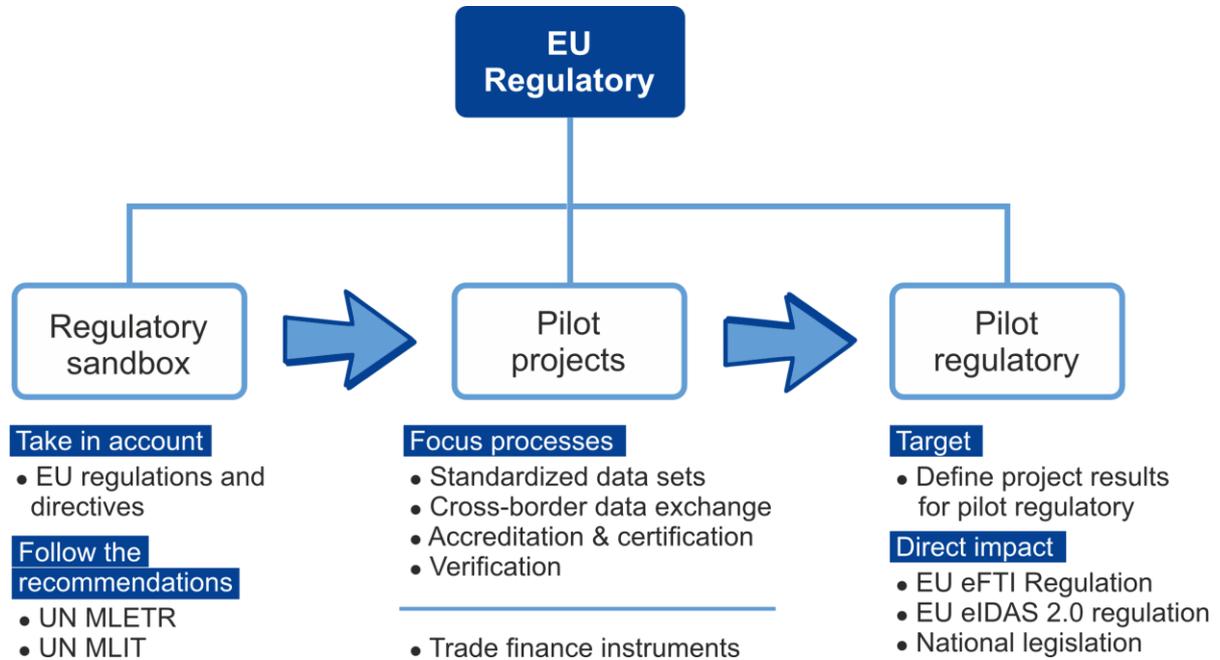
A non-exhaustive list of such regulations/initiatives could be:

- Regulatory-driven:
 - o PSD2-3
 - o PSR
 - o FIDA
 - o eIDAS (2.0)
 - o LEM
 - o eFTI
 - o IMSOC
 - o MICA
 - o Digital Operational Resilience Act (DORA)
 - o Digital Services Act (DSA)
 - o EU Digital Product Passport (DPP)

- Initiatives:
 - o EBSI (European Union)
 - o CEFACT (United Nations)
 - o UPI (India)
 - o Tradetrust (Singapore)
 - o C4DTI (UK)
 - o TReDS (India)
 - o G20 (Global)

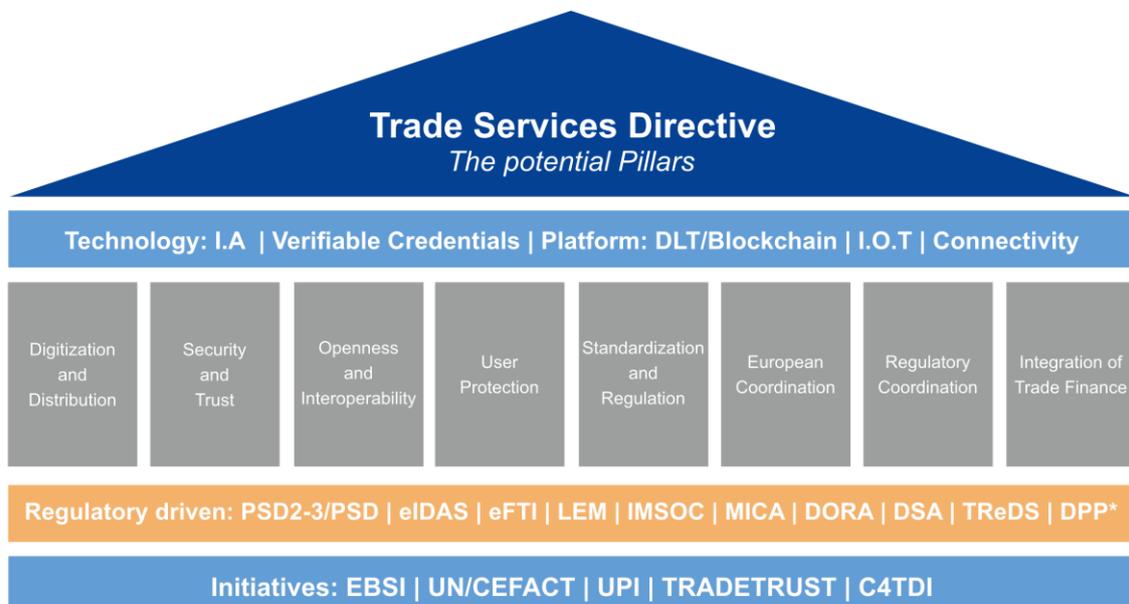
Based on the above initiatives, we propose to consider the following process to make TSR a realty, shared and supported by everyone:

Guidance on regulatory sandboxes, testbeds and living labs in the EU



Source: Riho Vedler.

c. TSR's potential pillars



* EU regulation on Digital Product Passport planned for 2026 (European Commission).

© OpenbanQ

In line with the above initiatives, we believe a potential Trade Service regulation should consider the following pillars, equally shared by most of the above initiatives:

1. Digitization and Distribution: focus on digitization and innovation to modernize traditional practices in financial transactions and international trade by adopting digital and technological solutions for improved efficiency and transparency, while increasing available liquidity to fund Trade transactions.

Potential applications: tokenization of financial assets (e.g. receivable & supplier financing, trade finance loans), leveraging blockchain technology. Besides, additional digital data can be integrated in the process flow (e.g. KYC, geolocation, digital seal to ensure goods are untampered, automated/aggregated customs payments) in order to further automate processing times and costs (e.g. border agencies).

=> cf appendices for details on EBSI, Tradetrust, C4DTI, eFTI, PSD2, PSD3, eIDAS, DORA, MICA, TReDS and DSA

2. Security and Trust: importance of security and trust. It should include clear technical standards and protocols (eg PSD2, eIDAS), as well as cybersecurity, assurance, and data integrity within a reliability framework.

Potential applications: setting up minimum security standards as mandatory would strongly reinforce the switch to digital by most actors. Besides, what data will be allowed to be shared with other platforms and registers, without breaching with confidentiality commitments by, say, banks?

=> cf appendices for details on PSD2, PSD3, eFTI, eIDAS, DORA, DPP and DSA

3. Openness and Interoperability: significance of data openness and interoperability. The aim is to create systems that interoperate with other reliable systems for seamless international trade, at lower costs for their users. It also aims at bringing more order to data sharing across trade actors. By better sharing information, friction across actors should markedly reduce to improve decision making and inclusion. Besides, lack of information sharing, sometimes due to different electronic formats, has led to sub-optimal data and rejection of transactions for wrong reasons. Data and process standardization should markedly improve customer experience. Ultimately, improved information sharing should also markedly contribute to fighting against fraud (e.g. double-financing).

Potential applications: establishing clear technical norms across actors in order to make sure they can quickly, and at a lower cost, establish interoperability across one another. Besides, a broader opening to funding would allow new players, especially in the tech/logistics space to enter the funding environment.

=> cf appendices for details on EBSI, Tradetrust, C4DTI, eFTI, PSD2, PSD3, eIDAS, DORA, MICA and DSA

4. User Protection: protection through authentication and data privacy measures, while enhancing transparency. => cf appendices for details on eFTI, PSD2, PSD3, eIDAS, DORA, DPP, TReDS and DSA

5. Standardization and Regulation: importance of standards and regulations. It worth stressing here the progress already achieved, through some initiatives like ICC's, way beyond European borders. While previous initiatives refer to regulatory initiatives like PSD2, eFTI, eIDAS, EBSI and TradeTrust's standards framework, the C4DTI paper intends to align with existing standards and practices in its reliability framework.

Potential applications: determining which entity (e.g. regulator) is responsible for establishing and then updating the abovementioned standards. Besides, should we extend trade finance innovation to the

required payments at the end of a transaction, how can we integrate/adapt the MICA regulation to accept cryptocurrency/CBDC payments instead of normal transfers? Potential benefits of such a coordinated move across regulators would involve faster and cheaper cross-border payments, helping us to further reduce the entry level by SMEs into Trade Finance. Besides, how to regulate potential new entrants into the Trade Finance funding space? We could equally consider standardizing KYC obligations, in order to require KYCs to be created by the platform and not the funders, and to reduce processing times and costs, to the benefit of SMEs. Likewise, we should consider how to better integrate electronic signatures and associated powers into the regulatory/technical mix in order to fully digitalize the validation chain of transactions.

=> cf appendices for details on CEFAC, C4DTI, UPI, EBSI, Tradetrust, PSD2, PSD3, eFTI, eIDAS, DORA, DPP, TReDS and DSA

6. European Cooperation: cooperation between member states, businesses, and international actors to establish common standards and facilitate cross-border transactions, including the emergence of new European champions vs competing countries/regions.

Potential applications: how to coordinate within France and across Europe actors like central banks, BPI, ICC, EU logistics working group... In order to ensure optimal funding and support are allocated to:

- Ensure concrete objectives are set onto each of them
- Monitor progress
- Favour the emergence of EU champions in Tradetech

=> cf appendices for details on PSD2, PSD3, eFTI, eIDAS, DORA, MICA and DSA

7. Regulatory Coordination: ensuring compatibility between various legislative provisions and standards.

Potential applications: it appears that laws and regulations can differ broadly across the EU around receivable (RF)/payable financing/securitization. Some countries require a banking license, other a RF license, and some none. We need to ensure a consistent treatment of those asset transfers and their actors in order to avoid clear and fair treatment of players all across Europe, and this way favor a truly unified European market.

=> cf appendices for details on CEFAC, C4DTI, UPI, PSD2, PSD3, eFTI, eIDAS, DORA, MICA and DSA

8. Integration of Trade Finance: optimization of open banking for the benefit of trade finance, as it seeks to enhance digital trade, including new payment options, as part of its reliable systems framework. That element should contribute to a broader diversity and integration of actors, hence stimulating competition amongst themselves, to the benefit of customers, hence their enhanced participation to international trade.

Potential applications: how to make the most of e-invoicing, MLETR, Open Banking and MICA for instance all together. Can we consider an e-invoicing structure (similar to the French initiative) across all the EU in order to accelerate the digitalization of trade finance within our region, and potentially with non-EU entities tomorrow? Similar to the Indian initiative, could we automatically add to such a process digital insurance to protect sellers against payment defaults? Likewise, what regulatory/technical framework could we set-up in order to favour API connectivity across

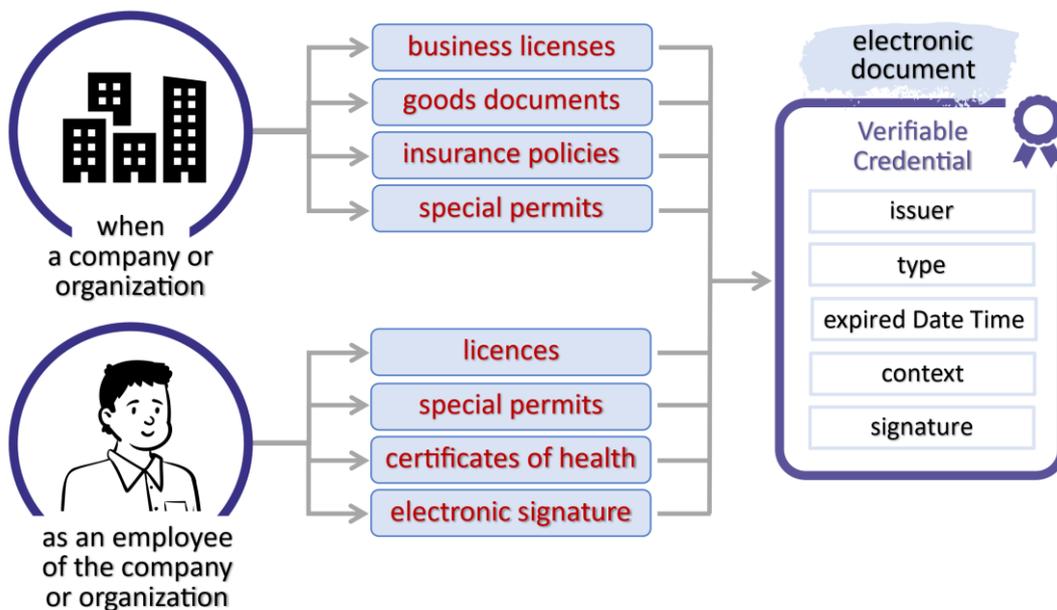
platforms/registers/players so as to improve interoperability at limited costs, without compromising with security?

=> cf appendices for details on PSD2, PSD3, MICA and TReDS

6. National and cross-border data exchange, verification

Verifiable data exchange model with Verifiable Credentials (goods documents, insurance policies, special permits, certificates, licenses, etc.), Digital Identity (citizen as employee of company or organization) and Digital Wallet can be applied in a trade context to enhance transparency, trust, and efficiency in various aspects of the trading process.

Verifiable Credential - many dataset standards, one data container for electronic documents in the supply chain



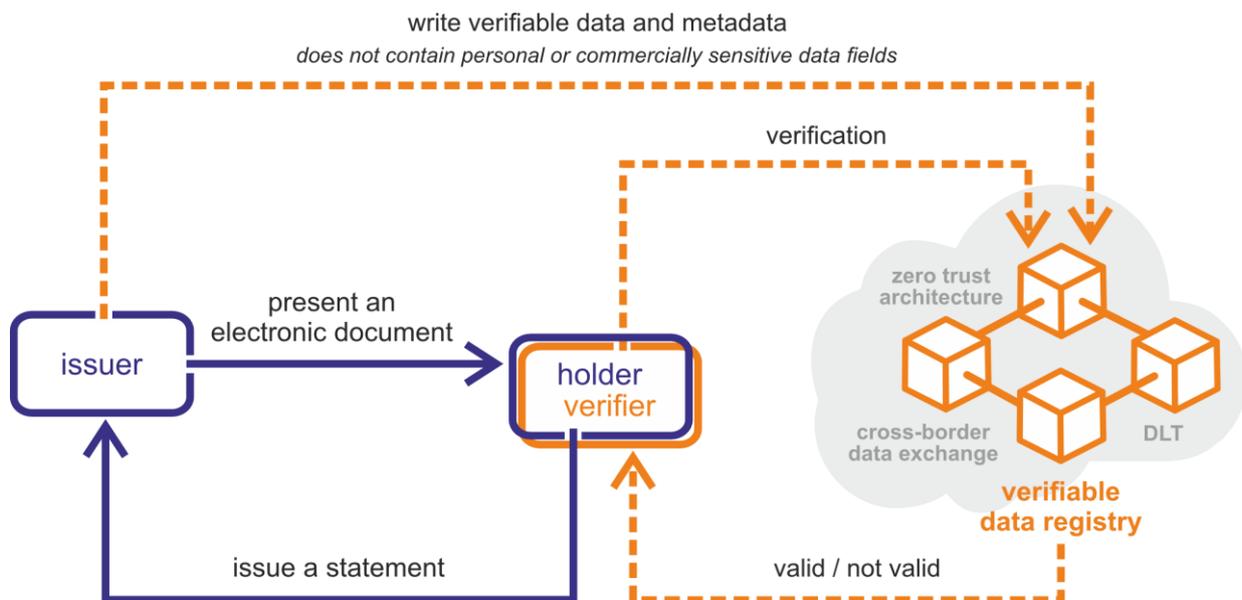
Source: Riho Vedler.

We can use this model in several ways:

- **Authentication and Authorization:** Verifiable Credentials enable secure and decentralized authentication, allowing parties involved in trade transactions to present and verify their credentials without the need for central authority. This can enhance the trustworthiness of participants in digital trade ecosystems.
- **Data Integrity and Privacy:** The use of Verifiable Credentials ensures the integrity of the data being exchanged. Once a credential is issued, its contents are cryptographically signed, making it resistant to tampering. Users have more control over their personal information, as they can selectively disclose only the necessary information for a particular transaction.

- **Streamlining Trade Processes:** Verifiable Credentials can streamline trade processes by providing a standardized way for participants to share and verify relevant information, such as certificates of origin, product quality, or compliance documents. This can reduce the administrative burden, minimize errors, and expedite the overall trade cycle.
- **Trade Finance:** In the context of trade financing, Verifiable Credentials can be used to establish the creditworthiness and legitimacy of the entities involved in a trade transaction. Financial institutions can rely on verified and tamper-proof credentials to make more informed decisions when providing trade financing services.
- **Smart Contracts and Automation:** Verifiable Credentials can be integrated with smart contracts to automate certain aspects of trade agreements, such as triggering payments or releasing goods upon the fulfillment of predefined conditions. This can enhance efficiency, reduce the risk of disputes, and facilitate faster and more secure trade finance processes.

Illustrated Verifiable Credential Data Model



Source: Riho Vedler.

The question certainly arises as to how the parties can exchange data securely, even without a network connection. The 'issuer' can send Verifiable Credentials to the 'holder' using various technical protocols and mechanisms. The choice of technology depends on the specific use case and the underlying infrastructure. Here are some common methods:

1. **Direct Communication.** The issuer and holder may have a direct communication channel, and the Verifiable Credential can be sent directly from the issuer to the holder. This could be implemented using secure channels such as HTTPS or other encrypted communication protocols.
2. **Push Mechanism.** The issuer can push the Verifiable Credential to the holder's Digital Wallet or repository. This could involve sending a push notification or initiating a data transfer using protocols like HTTP POST or similar mechanisms.

3. **Secure Channels.** Issuers can leverage secure channels, such as encrypted emails or secure messaging protocols, to send Verifiable Credentials to holders. The use of encryption ensures the confidentiality and integrity of the information during transmission.
4. **DIDComm².** DidComm is a communication protocol specifically designed for secure communication between Decentralized Identifiers (DIDs). It allows issuers to send Verifiable Credentials to holders in a secure and privacy-preserving manner. DIDComm operates based on the exchange of encrypted and signed messages.
5. **Digital Wallet Integration.** In scenarios where Digital Wallets are used to manage Verifiable Credentials, issuers can integrate with these wallets through standardized protocols. For example, the W3C Verifiable Credentials and Presentation APIs define a JavaScript API for interacting with Digital Wallets.
6. **OAuth and OpenID Connect.** If Verifiable Credentials are part of an identity system that uses OAuth and OpenID Connect, issuers can follow the token-based exchange protocols defined by these standards. The holder may obtain Verifiable Credentials by presenting tokens to the issuer.

In summary this model plays a crucial role in trade by enhancing security, transparency, and efficiency, ultimately fostering trust among trading partners and improving the overall trade ecosystem. At the level of legislative recommendations, the model is supported by MLETR, MLIT and by organizations such as European Blockchain Infrastructure (EBSI), UN/CEFACT, ICC, W3C, etc.

For more information:

- *FEDeRATED Living Lab 17, Verifiable Credentials, eFTI, EU-Gate, OneAPP for Authorities [\[link\]](#)*
- *DHS Supply Chain Traceability Startups Successfully Complete Data Exchange Testing [\[link\]](#)*
- *Neoflow Successfully Completes Integration Test with the U.S. CBP and 13 Oil Industry Companies [\[link\]](#)*
- *Zetrix Unveils Zetrix-Xinghuo International multi chain wallet, enabling interoperable verifiable credentials and enhanced cross-border transactions [\[link\]](#)*
- *Australian Government | Your Guide to the Digital ID Legislation and Digital ID Rules [\[link\]](#)*

² <https://didcomm.org/>

7. Conclusion

We believe that creating an EU open space operating under common standards, submitted and approved through common processes/standards for digital trade, could materially support our trade activities, such as importing commodities and raw material necessary for EU companies, and more broadly support our EU trade surplus.

Besides, it should further enhance our support to SMEs and bigger corporates in the European reindustrialization strategy, while further enhancing our efforts in terms of Compliance/AML/Sanctions monitoring and ESG optimization, through the additional digital information would be able to collect and analyze throughout our supply chains.

The TSR could contribute to define the necessary framework to build such an open space also facilitating intra EU exchanges, which might be a new target in a world where regionalization and new supply chain routes are converging.

If speak about possible technical infrastructure, then first and foremost European Blockchain Infrastructure (EBSI) with Verifiable Credentials, EU Digital Wallet and Digital Identity offers a standardized, secure, and interoperable blockchain infrastructure that promotes trust, efficiency, and innovation in cross-border digital services, ultimately contributing to the European Union's broader goals of a digital single market and increased economic competitiveness.

For the above reasons, we recommend going further by launching at EU level the following actions:

1. Form a core team, led by international experts:
 - Institutions at government level
(customs, road police, etc.)
 - *Both legislative and technical experts*
 - Institutions from private sector
(warehouses, hauliers, etc.)
 - *Transportation, digital identity, trade finance... experts*
2. Prepare and sign joint agreement
3. Define the scope of the pilot project
4. Launch pilot project
5. Validate results and EU's support to the proposed TSR

Appendices

PSD2

LEGISLATION

The Payment Services Directive 2 (PSD2), adopted by the European Union in 2015, is a regulation aimed at modernizing the rules governing payment services within the EU, as well as the sharing of information that can now be associated with the underlying transaction. It aims to encourage innovation, strengthen the security of online payments and improve consumer protection. Here are some of the main aspects of PSD2:

1. **Open Banking:** PSD2 encourages open banking by allowing third-party payment service providers (TPPs) to access customers' bank accounts with their consent. This allows consumers to use innovative financial services offered by third-party companies, such as account aggregators or payment initiators.
2. **Strong Customer Authentication (SCA):** PSD2 requires the implementation of strong customer authentication (SCA) for online payments. This means that during transactions, at least two of the following three elements must be used to authenticate the customer: something they know (such as a password), something they have (such as a mobile device) and something they are (such as a fingerprint).
3. **Ban on card fees for debit cards:** PSD2 prohibits merchants from imposing additional fees on customers who pay by debit card or other electronic payment instruments.
4. **Increased liability of banks:** In case of fraud related to unauthorized payment transactions, the liability of the bank is increased. In some cases, customers may be reimbursed.
5. **Data protection and privacy:** PSD2 emphasizes data protection and privacy of customer information. TPPs must comply with privacy rules and obtain explicit consent from customers to access their data.
6. **Notification in case of security breach:** Financial institutions are required to notify regulators and customers in case of a security breach resulting in data loss.
7. **Removal of national barriers:** PSD2 aims to create a single market for payments in Europe by removing barriers that prevent payment service providers from operating across borders.

These key aspects of PSD2 have a significant impact on the landscape of payments and financial services in Europe, fostering innovation, security and competition.

PSD3

LEGISLATION

Here are some details on the changes that PSD3 is expected to bring :

- Improve the functionality and performance of open banking APIs: PSD3 provides technical standards and quality indicators for APIs, as well as a monitoring and sanction mechanism in case of non-compliance.
- Strengthen anti-fraud measures and transaction security: PSD3 introduces a risk-based approach for strong customer authentication (SCA), which allows to adapt the level of security according to the customer profile, the amount and type of transaction.
- Ensure fairer competition between banks and non-bank payment service providers: PSD3 extends the scope of the directive to providers located outside the EEA, who offer payment services to European consumers. PSD3 also provides common rules on licensing, authorization and supervision of providers.
- Simplify and harmonize regulatory procedures and requirements: PSD3 aims to reduce administrative costs and regulatory barriers for providers, by simplifying registration, notification and reporting procedures. PSD3 also provides for enhanced cooperation between national competent authorities and the European Banking Authority (EBA).
- Strengthen consumer rights and protection: PSD3 introduces stricter rules on pre-contractual information, liability, refund, complaint and dispute resolution. PSD3 also provides for a capping of fees for cross-border payments within the EEA.

For more information:

1. *PSD3 and open banking: What to expect from the new European directive* [[link](#)]
2. *PSD3: Everything We Know About the Payment Services Directive Update* [[link](#)]
3. *European Commission's PSD3 proposals 'bring payments into the digital age'* [[link](#)]
4. *PSD3 has arrived: 7 key things you need to know* [[link](#)]

eIDAS (2.0)

LEGISLATION

Electronic identification and trust services (eIDAS) are a set of rules and standards established by the European Union to harmonize and facilitate the use of electronic identities and trust services across member countries. The main goal of eIDAS is to promote digital trust by enabling citizens, businesses and governments to carry out cross-border electronic transactions in a secure and transparent way. Here are the main aspects of eIDAS:

1. **Electronic identities (eID):** eIDAS facilitates mutual recognition of electronic identities issued by EU member states. This allows citizens and businesses to identify themselves online securely and in a way that their identity is accepted throughout the EU.
2. **Trust services:** eIDAS establishes a framework for electronic trust services, such as electronic signatures, electronic seals, electronic timestamps and electronic archiving services. These services are used to ensure the authenticity, integrity and legal validity of electronic transactions.
3. **Cross-border mutual recognition:** One of the main achievements of eIDAS is the creation of a mutual recognition mechanism between member states. This means that an electronic identity or a trust service issued in one member state must be recognized and accepted in the other member states, thus facilitating cross-border transactions.
4. **Electronic signature:** eIDAS establishes standards for advanced and qualified electronic signatures, which have legal value equivalent to that of handwritten signatures. This allows to sign contracts and electronic documents securely.
5. **Electronic seal:** Electronic seals work similarly to electronic signatures but are used by entities rather than individuals. They guarantee the authenticity and integrity of data.
6. **Electronic timestamp:** Electronic timestamp attests that an electronic data exists at a given time, thus ensuring the temporal validity of transactions.
7. **Electronic archiving:** eIDAS defines requirements for electronic archiving services, allowing electronic documents to retain their evidential and legal value over time.
8. **Security and privacy:** eIDAS emphasizes security and privacy of personal data when using electronic identities and trust services.

In summary, eIDAS aims to establish a trusted environment for cross-border electronic transactions by providing a harmonized framework for electronic identities and trust services across the European Union.

eFTI

LEGISLATION

The European regulation for the digitization of transport documents aims to make the multimodal logistics sector in Europe more competitive. Starting from 2024, it will require member states to accept information related to goods for the mobility of goods, presented in digital form, especially during checks.

The eFTI regulation, published on July 15, 2020, provides a harmonized European legal framework for the exchange of information relating to the transport of goods between economic operators and administrations (B2A), for control purposes.

According to the European Commission, the implementation of Regulation 2020/1056 would cost economic operators 4.4 billion euros, 270 million euros to Member States for an expected benefit of 25 billion for economic operators, thanks to the reduction of administrative procedures. The checks will be facilitated, faster and more efficient by the possibility of targeting.

In more detail, the European regulation for the digitization of transport documents is a significant step towards modernizing and streamlining the logistics sector across Europe. By requiring member states to accept digital information related to goods for the mobility of goods, the regulation aims to reduce the reliance on physical paperwork, thereby increasing efficiency and reducing errors.

The eFTI regulation, which was published on July 15, 2020, sets out a harmonized legal framework across Europe for the exchange of information relating to the transport of goods. This information is exchanged between economic operators and administrations, primarily for control purposes.

The European Commission has estimated the costs and benefits of implementing Regulation 2020/1056. It is expected to cost economic operators 4.4 billion euros and Member States 270 million euros. However, the expected benefit for economic operators is significant, at 25 billion euros. This benefit is expected to come from a reduction in administrative procedures, which can often be time-consuming and prone to error.

Furthermore, the regulation will facilitate checks, making them faster and more efficient. This is due to the possibility of targeting specific areas or issues, which is more difficult with physical paperwork. This increased efficiency could lead to cost savings and improved operations for businesses involved in the transport of goods.

EU Digital Product Passport

TECHNOLOGY | PROPOSED LEGISLATION

The EU Digital Product Passport (DPP) is a significant initiative by the European Commission aimed at promoting transparency and unlocking circularity. It is a digital tool designed to share product information across the entire value chain, including data on raw material extraction, production, recycling, and more. The DPP is part of the Ecodesign for Sustainable Products Regulation (ESPR), which was published on March 30, 2022. The ESPR establishes a framework to set eco-design requirements for specific product groups to significantly improve their circularity, energy performance, and other environmental sustainability aspects.

The Digital Product Passport will provide information about a product's environmental sustainability. This information will be easily accessible by scanning a data carrier and will include attributes such as the durability and reparability, the recycled content, or the availability of spare parts of a product. It is intended to help consumers and businesses make informed choices when purchasing products, facilitate repairs and recycling, and improve transparency about products' life cycle impacts on the environment. The EU plans to roll out the DPP in phases, starting with a pilot program focused on specific industries. The full implementation is expected by 2025, giving businesses ample time to adapt. Recommendations based on the lessons learned for the deployments of DPP in other value chains are expected.

Here are some key benefits of the EU Digital Product Passport:

- **Promoting Sustainable Consumption:** The DPP will enable consumers to make more informed choices about the products they purchase and promote sustainable consumption.
- **Encouraging Sustainable Production:** The DPP will encourage sustainable production by providing businesses with a clear and comprehensive understanding of their products' environmental impact.
- **Promoting Transparency and Accountability:** The DPP will promote transparency and accountability by providing a clear and comprehensive record of a product's environmental impact.
- **Compliance and Traceability:** The DPP will help businesses comply with environmental regulations and improve traceability by providing a clear and comprehensive record of a product's environmental impact.

In conclusion, the EU Digital Product Passport is a significant initiative that aims to promote a more sustainable and circular economy by providing comprehensive and transparent information about the environmental impact of products. By 2030, the new sustainable products framework can lead to 132 mtoe of primary energy savings, which corresponds roughly to 150 billion cubic meters of natural gas, almost equivalent to EU's import of Russian gas. This initiative is expected to revolutionize the way businesses manage their products and contribute to the EU's goal of achieving a climate-neutral and circular economy.

For more information:

1. *European Commission. Commission welcomes provisional agreement for more sustainable, repairable and circular products [\[link\]](#)*

Legal Entity Management (LEM)

LEGISLATION

Legal Entity Management (LEM) refers to the processes and practices used to manage legal entities such as companies, subsidiaries and partnerships in a consistent, compliant and operationally efficient manner. Here are some of the main aspects of Legal Entity Management (LEM):

1. **Registration and creation of entities:** LEM involves creating and registering new legal entities, whether they are new businesses, subsidiaries or partnerships. This may involve administrative formalities, legal documents and government approvals.
2. **Management of legal information:** LEM requires maintaining accurate and up-to-date information on entities, such as bylaws, constitutive documents, licenses, registered addresses and director details.
3. **Regulatory compliance:** Entity management must comply with the regulations and laws in force in the jurisdictions where these entities operate. This may involve keeping records, submitting regulatory reports and complying with tax requirements.
4. **Management of shares and holdings:** For publicly traded companies or those with multiple shareholders, LEM may include managing shares, holdings and voting rights.
5. **Management of contracts and agreements:** Legal entities are often parties to contracts and business agreements. LEM involves managing and tracking these contracts, including deadlines and obligations.
6. **Risk management:** Legal entities may be exposed to various risks, such as legal, financial and operational risks. LEM includes setting up processes to identify, assess and mitigate these risks.
7. **Change management:** Legal entities may undergo changes such as mergers, acquisitions, spin-offs or structural changes. LEM involves managing these changes while maintaining compliance and operational continuity.
8. **Document management:** LEM also involves effective management of the documentation associated with entities, including contractual documents, regulatory documents and financial documents.
9. **Intercompany relationship management:** In the case of groups of companies or affiliated companies, LEM may include managing the relationships and transactions between the different entities of the group.
10. **Use of software and management solutions:** Many organizations use legal entity management solutions to automate and simplify the processes related to LEM, thus improving efficiency and accuracy.

Legal entity management is essential to ensure compliance, minimize risks and maintain a clear organizational structure, especially for businesses that operate internationally or have a complex structure.

Digital Operational Resilience Act

LEGISLATION

The Digital Operational Resilience Act (DORA) requires financial institutions to comply with a number of obligations designed to ensure that their business lines remain operationally resilient against various risks.

This must include a dedicated and comprehensive business continuity policy, disaster recovery plans and a communications policy¹. The Act is expected to change the way financial institutions manage operational risks². It will require financial entities to embed digital resilience on all levels of their operations based on six pillars³.

The Act lays down uniform requirements concerning the security of network and information systems supporting the business processes of financial entities.

The regulation will enter into force in 2025.

Digital Services Act

LEGISLATION

The Digital Services Act (DSA) is a new European Union (EU) regulation that aims to hold digital platforms accountable for the content they host and to protect users from harmful content online.

The DSA is part of a broader package of EU digital regulations that includes the Digital Markets Act (DMA). The DSA will apply to all digital services that operate in the EU, regardless of where they are based. It will require companies to take steps to prevent illegal content from being posted on their platforms and to remove it quickly if it does appear. The DSA also requires companies to be more transparent about how they moderate content and how they use data.

The Digital Services Act (DSA) will require larger platforms and search engines to follow tougher obligations. The DSA is a groundbreaking law that will apply to any digital operation serving the EU, forcing them to be legally accountable for everything from fake news to manipulation of shoppers, Russian propaganda and criminal activity including child abuse. It will apply to large and small operators, but the rules are tiered, with the toughest obligations applying to 17 companies including Facebook and Amazon that have been designated as “very large online platforms”, and two “very large online search engines”: Google and Bing.

Those that do not comply face sanctions including large fines – which could run into hundreds of millions of euros – and a EU-wide ban. The DSA will put in force measures to moderate illegal content and prevent, for example, hate speech.

The regulation will come into effect on February 17, 2024, but some of its provisions will apply earlier for the largest platforms.

MICA

LEGISLATION

The MiCA regulation has nine titles that cover different aspects of crypto-asset markets, such as:

- Definitions and scope
- Requirements for crypto-asset service providers
- Requirements for issuers of crypto-assets
- Supervision and enforcement
- Pilot regime for market infrastructures based on distributed ledger technology
- Amendments to existing EU laws
- Transitional and final provisions

The regulation also defines different types of crypto-assets, such as:

- Asset-referenced tokens, which are backed by a basket of assets or currencies
- E-money tokens, which are backed by a single currency
- Utility tokens, which are used to access a service or platform
- Crypto-assets that qualify as financial instruments under MiFID II

The regulation aims to provide legal certainty, consumer protection, market integrity and financial stability in the crypto-asset sector³.

More specifically:

- **Definitions and scope:** This title defines the key terms and concepts used in the regulation, such as crypto-assets, crypto-asset service providers, issuers, stablecoins, etc.
- **Requirements for crypto-asset service providers:** This title sets out the rules and obligations for entities that provide services related to crypto-assets, such as custody, exchange, trading, advice, etc. It requires them to obtain a license from a competent authority and to comply with prudential, organizational, conduct and governance standards.
- **Requirements for issuers of crypto-assets:** This title establishes the rules and obligations for entities that issue crypto-assets to the public or admit them to trading on a platform. It requires them to publish a white paper with relevant information about the crypto-asset, its issuer, its rights and obligations, its risks and its governance arrangements.
- **Supervision and enforcement:** This title defines the roles and powers of the competent authorities and the European supervisory authorities in relation to the MiCA regulation. It also lays down the procedures for cooperation, information exchange, consultation and coordination among them.
- **Pilot regime for market infrastructures based on distributed ledger technology:** This title introduces a temporary and optional regime for market infrastructures that use distributed ledger technology (DLT) to trade or settle transactions in crypto-assets that qualify as financial instruments. It allows them to test their innovative solutions in a controlled environment with certain exemptions and derogations from existing EU rules.

³ <https://www.amf-france.org/fr/actualites-publications/actualites/marches-de-crypto-actifs-le-reglement-mica-adopte-par-le-parlement-europeen>

- **Amendments to existing EU laws:** This title amends certain provisions of existing EU laws that are relevant for crypto-assets or DLT, such as the European Crowdfunding Service Providers Regulation, the Markets in Financial Instruments Directive II, the Market Abuse Regulation, etc.
- **Transitional and final provisions:** This title contains provisions on the entry into force and application of the MiCA regulation, as well as on the review and evaluation of its impact and effectiveness.

C4DTI

LEGISLATION

The text outlines the objectives and principles of the English Law Reliable Systems Assurance Model, which is aimed at implementing the provisions of the Electronic Trade Documents Act (ETDA). The model seeks to establish reliable systems compliant with the Act, assess their reliability, and promote international alignment. It aims to create a public register for such systems, allowing traders to benefit from the Act's digital provisions. The model will be developed in collaboration with the Centre for Digital Trade and Innovation, ICC Digital Standards Initiative, industry, and government.

Key principles include:

1. **Objective of the Model:** The English Law Reliable Systems Assurance Model aims to implement the provisions of the Electronic Trade Documents Act (ETDA) by establishing a framework for reliable systems compliant with the Act.
2. **Implementation Timeline:** The model is set to be established within a year of the ETDA coming into force, specifically by 20 September 2023.
3. **Components of the Model.** The model includes:
 - Creating a definition for "reliable systems" as described in the Act.
 - Developing a mechanism to assess systems' reliability according to the Act's terms.
 - Aligning with the ICC Digital Standards Initiative's interoperability framework.
 - Establishing a public register of reliable systems for traders to access easily.
4. **Collaboration:** The Centre for Digital Trade and Innovation (C4DTI) will collaborate with the ICC Digital Standards Initiative, industry, and government to create a framework aligned with existing standards and good practices.
5. **Global Legal Alignment:** The model's principles emphasize aligning with other jurisdictions that have implemented similar legislation, both through monitoring international developments and collaborating with organizations like the ICC's Digital Standards Initiative.
6. **Standards Reuse:** Existing standards in the market related to digital trade will be harnessed for ETDA reliability. The framework aims to work with the ICC's standards and engage other experts where necessary.
7. **Technology Neutrality:** The Act doesn't prescribe specific technological means for achieving its legal functions. The model will follow the principles of transitive trust and focus on factors like assured authentication, cybersecurity, and data integrity.
8. **Interoperability:** Reliable systems should ideally interoperate with other systems to ensure seamless international trade. The model will focus on protocols and frameworks to achieve multi-lateral interoperability.

9. **SME Inclusion:** The model will consider the needs of small and medium-sized enterprises (SMEs) to ensure their access to reliable systems for international trade.
10. **Pilot Testing:** The model will be pilot-tested in sandbox environments to address technical and legal questions. The focus will be on jurisdictions where digital transactions' legal consequences are well understood.
11. **Governance and Consultation:** The development of the model will involve consultation with stakeholders, open calls, and monthly updates to ensure consensus and transparency.
12. **Stakeholder Engagement:** Stakeholders, including the public, private, domestic, and international sectors, will be engaged throughout the process to ensure the model's acceptance as a "voluntary scheme or industry standard."
13. **Timetable:** The development timeline spans from the present to the first quarter of 2024, involving drafting, iteration, testing, and finalization of the model.
14. **Momentum and Change:** The Centre intends to leverage the momentum created by the change in law and collaborate with relevant organizations to drive digital trade forward.

The timetable spans development, testing, iteration, and finalization, with a focus on aligning with international efforts in digital trade and ensuring compatibility with other jurisdictions.

The model's success relies on stakeholder engagement and cooperation.

EBSI

INITIATIVE | EU BLOCKCHAIN TECHNICAL INFRASTRUCTURE | FRAMEWORK

The European Commission's European Blockchain Services Infrastructure (EBSI) initiative is a project aimed at developing a secure and resilient infrastructure for blockchain-based services across the European Union (EU). Brief overview:

1. Purpose:

- o The primary goal of EBSI is to establish a blockchain infrastructure that enhances the efficiency, transparency, and trustworthiness of various cross-border and cross-sector services within the EU.

2. Key Objectives:

- o Interoperability: EBSI seeks to ensure interoperability between different blockchain networks and platforms, fostering seamless communication and data exchange.
- o Security and Trust: It focuses on implementing robust security measures to protect data integrity and user privacy, fostering trust in digital transactions.

3. Use Cases:

- o EBSI is designed to support a range of applications, including but not limited to supply chain management, digital identity verification, and notarization of documents.

4. Implementation:

- o The initiative involves collaboration with various EU member states, private sector partners, and other stakeholders to develop and deploy blockchain solutions that address specific challenges and opportunities.

5. Blockchain Technology:

- o EBSI utilizes distributed ledger technology (DLT) or blockchain to create a tamper-proof and transparent record of transactions. This technology is seen as a means to streamline processes and enhance data security.

6. Legal and Regulatory Framework:

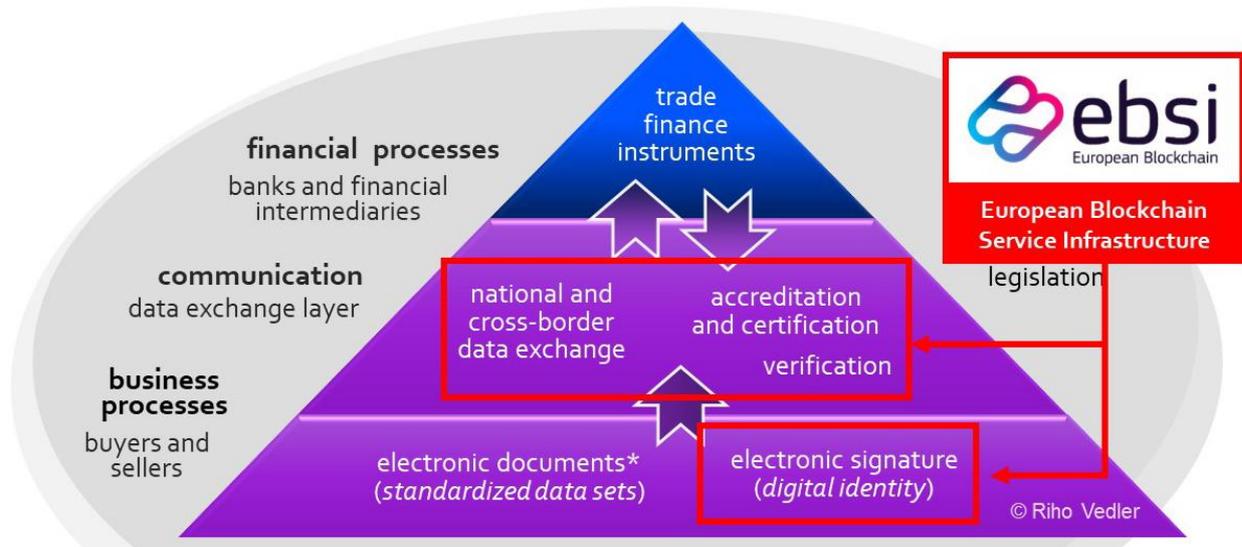
- o EBSI operates within the existing legal and regulatory framework of the EU, ensuring compliance with data protection regulations and other relevant laws.

Possible services to be developed:

- **Financial Services.** Speed up account opening by reusing existing verified identities. Improve KYC and fraud protection through richer identities.
- **eGovernment.** Increases efficiency and reduces manual processes by reducing in-person appointments. Automate data exchange between government agencies.
- **Travel & Hospitality.** Digitalize customer check-in and registration. Speed up processes and reduce manual labor through increased automation.
- **Mobility.** Automate customer onboarding and speed up driver license verification. Benefit of a European standard that works for various markets.
- **Telecommunication.** Speed up registration for prepaid cards by using existing verified identities. Improve fraud detection through richer identities.
- **eHealth.** Store health information and access other relevant information. Increase efficiency through reduced data handling and GDPR compliance.

- **Licenses.** Digital documents, such as identity and health documents, driving licenses, vehicle registration and voter cards, are always kept and carried in the safest and most convenient place possible.
- **Logistics.** Possible share different types of electronic documents between B2B and B2G.
- Etc.

Mapping key elements of the supply chain with EBSI



Source: Riho Vedler.

For more information:

1. European Commission. What is EBSI? [\[link\]](#)
2. European Commission. Experience cross-borders services with EBSI [\[link\]](#)
3. European Commission. Conformant Wallets [\[link\]](#)
4. European Commission. The European Digital Identity Wallet Architecture and Reference Framework [\[link\]](#)
5. EUBlockchain Observatory and Forum. Blockchain for Supply Chain Transparency [\[link\]](#)

CEFACT

TECHNOLOGY | VERIFIABLE CREDENTIALS | DIGITAL IDENTITY

UN/CEFACT, or the United Nations Centre for Trade Facilitation and Electronic Business proposed technical specifications include the use of Verifiable Credentials (VCs) and Decentralized Digital Identities (DIDs) to ensure widespread adoption and interoperability across platforms and national/regional efforts.

Verifiable Credentials and Digital Identity play a crucial role in the trade context, providing a secure and efficient way to manage and authenticate information related to entities involved in trade transactions.

Brief overview:

1. Verifiable Credentials:

- a. **Definition:** Verifiable Credentials are digital statements that attest to the truth of a piece of information about a subject (individual, organization, or device).
- b. **Structure:** They typically consist of claims, issued by a trusted party, and are verifiable by relying parties without the need for the verifier to contact the issuer.

2. Digital Identity in Trade:

- a. **Definition:** Digital Identity refers to the online representation of a person, organization, or device. In the trade context, Digital Identity is crucial for establishing trust and ensuring the authenticity of entities involved in transactions.
- b. **Key Components:** Digital Identity in trade involves attributes such as legal entity information, ownership details, compliance records, and transaction history.

3. Benefits in Trade:

- a. **Security:** Verifiable Credentials enhance security by using cryptographic methods to ensure the integrity and authenticity of information.
- b. **Efficiency:** Digital Identity streamlines trade processes by reducing paperwork and manual verification, leading to faster and more efficient transactions.
- c. **Trust:** Establishing trust is vital in trade, and verifiable credentials provide a reliable and tamper-resistant means of verifying the identity and attributes of involved parties.

4. Use Cases:

- a. **Supply Chain Management:** Verifiable Credentials can be used to trace the origin and authenticity of goods, ensuring compliance with regulations and quality standards.
- b. **Trade Finance:** Digital Identity plays a role in facilitating secure financial transactions, and Verifiable Credentials can be used to verify the creditworthiness of parties involved.

5. Challenges:

- a. **Interoperability:** Ensuring that different systems and platforms can recognize and verify the same set of credentials.
- b. **Privacy Concerns:** Safeguarding sensitive information while still providing enough details to establish trust is a delicate balance.

6. **Standardization Efforts:**

- a. **Verifiable Credentials:** UN/CEFACT and the World Wide Web Consortium (W3C) has developed standards for Verifiable Credentials to promote interoperability and security.
- b. **Decentralized Identity:** Efforts are underway to create decentralized identity systems that give individuals and organizations greater control over their Digital Identities.

In summary, Verifiable Credentials and digital identity solutions are instrumental in enhancing the security, efficiency, and trustworthiness of trade transactions, offering a promising avenue for the future of global commerce. Technology also compliant with the United Nations recommendations - MLERT, MLIT and UNCITRAL Model Law.

For more information:

1. UN/CEFACT. *White Paper eDATA Verifiable Credentials for Cross Border Trade* [[link](#)]
2. UN/CEFACT *Web Vocabularies* [[link](#)]
3. UN/CEFACT. *Digital Identity Standardization for Trade Facilitation* [[link](#)]
4. W3C. *A vocabulary for traceability in supply chains (unofficial draft)* [[link](#)]

TradeTrust

INITIATIVE | SINGAPORE BLOCKCHAIN TECHNICAL INFRASTRUCTURE | FRAMEWORK

TradeTrust is a Singaporean initiative that aims to facilitate the digitization and interoperability of trade and logistics documents. According to the first search result, TradeTrust consists of two main elements:

- A framework of standards that defines the formats and protocols of digital documents, as well as the rules for validating and verifying their authenticity and integrity.
- A set of software components that enable actors in international trade and logistics to connect to TradeTrust and exchange digital documents. TradeTrust aims to reduce costs, delays and risks associated with international trade, by replacing paper documents with secure and interoperable digital documents. TradeTrust relies on blockchain technology to ensure the traceability and trust of digital documents⁴.

To go further:

- The TradeTrust framework of standards complies with the United Nations Convention on the Use of Electronic Communications in International Contracts (CUECCI), which provides a legal framework for the validity of electronic negotiable documents.
- The TradeTrust framework of standards also defines the formats and protocols of digital documents, such as the OpenAttestation format, which uses blockchain technology to create self-verifiable digital documents.
- The TradeTrust accreditation framework aims to certify that technical solutions meet the legal and technical requirements of the framework of standards. There are three levels of accreditation: TradeTrust Recognised Partner, TradeTrust Registered Service Provider and TradeTrust Certified Service Provider.
- The TradeTrust software components include tools and services that enable users to create, verify, store and exchange digital documents. For example, the TradeTrust Document Creator allows users to create digital documents compliant with the OpenAttestation format.

For more information:

1. TradeTrust. Trade Digitalisation [[link](#)]
2. WCO/WTO webinar: The Role of Advanced Technologies in Cross-Border Trade: A Customs Perspective [[link](#)]
3. TradeTrust. accelerating the digitalization of international trade [[link](#)]
4. Stephenson Harwood. TradeTrust-enabled Electronic Bills of Lading [[link](#)]

⁴ <https://www.amf-france.org/fr/actualites-publications/actualites/marches-de-crypto-actifs-le-reglement-mica-adopte-par-le-parlement-europeen>

Unified Payment Interface (UPI / India)

TECHNOLOGY

UPI is a smartphone app that allows users to make instant and secure payments or transfers between two bank accounts using a virtual payment address (VPA) or a QR code. Users do not need to enter their bank details or other sensitive information for each transaction. UPI is regulated by the Reserve Bank of India (RBI) and developed by the National Payments Corporation of India (NPCI). UPI is widely used for peer-to-peer (P2P) and person-to-merchant (P2M) transactions in India. UPI has processed over 48 billion transactions in 2021, making India the global leader in real-time payments⁵.

More specifically:

- **UPI VPA:** A virtual payment address (VPA) is a unique identifier that you can create and link to your bank account for UPI payments. A VPA can be in the format of yourname@bankname or yourname@upi or any other name of your choice. You can create multiple VPAs for different purposes or accounts. You can also use your mobile number or Aadhaar number as your VPA. You can manage your VPAs through your UPI app and add or delete them as per your convenience⁶.
- **UPI collect request:** A collect request is a feature that allows you to request money from another UPI user by sending a notification to their VPA. The other user can accept or reject the request through their UPI app. You can use this feature for bill splitting, reminders, donations, etc. You can also set an expiry time for the request, after which it will be cancelled automatically⁷.
- **UPI scan and pay:** Scan and pay is a feature that allows you to scan a QR code displayed by a merchant or another user and pay them instantly. You can also generate your own QR code and share it with others to receive payments. This feature eliminates the need to enter the VPA or bank details of the recipient and makes the payment process faster and easier.
- **UPI PIN:** UPI PIN is a four or six digit personal identification number that you need to enter to authorize a UPI transaction. You can set or change or reset your UPI PIN through your UPI app by using your debit card details. You should not share your UPI PIN with anyone and keep it confidential.
- **UPI transaction limit:** UPI has a transaction limit of Rs 1 lakh per transaction and Rs 2 lakh per day for most banks. This limit is higher than other modes of digital payments such as wallets or cards. However, some banks may have lower limits depending on their policies. You can check the transaction limit of your bank through your UPI app.
- **UPI cost:** UPI is cost-effective compared to other forms of digital fund transfer, such as IMPS, RTGS, or NEFT. Many banks provide UPI services for free, while others charge a nominal fee of 50 paise or less per transaction. The fee may vary depending on the type and amount of transaction. You can check the fee details of your bank through your UPI app.

⁵ https://en.wikipedia.org/wiki/Unified_Payments_Interface

⁶ <https://sbi.co.in/web/yono/bhim-upi>

⁷ <https://www.cashfree.com/blog/upi-payments-for-businesses/>

Economic Crime and Corporate Transparency Bill

INITIATIVE

The UK is making the fight against financial crime more connected than ever by implementing new initiatives and regulations that aim to enhance collaboration and data sharing among different stakeholders. Some of these initiatives include:

- The National Economic Crime Centre (NECC), which was launched in 2018 to coordinate the UK's response to economic crime and foster public-private partnerships.
- The Joint Money Laundering Intelligence Taskforce (JMLIT), which was established in 2015 to facilitate information exchange between law enforcement agencies and financial institutions on money laundering threats and cases.
- The UK Financial Intelligence Unit (UKFIU), which is responsible for receiving, analyzing and disseminating financial intelligence reports from regulated entities and other sources.
- The Economic Crime Plan, which was published in 2019 and sets out seven strategic priorities for tackling economic crime in the UK, such as improving transparency of ownership, strengthening the supervisory regime, and enhancing the capabilities of law enforcement and the judiciary.
- The Financial Action Task Force (FATF), which is an inter-governmental body that sets global standards for combating money laundering and terrorist financing. The UK underwent a mutual evaluation by the FATF in 2018 and received a positive assessment of its anti-money laundering and counter-terrorist financing framework.

These initiatives demonstrate the UK's commitment to fighting financial crime and protecting its reputation as a global financial centre. However, there are also challenges and opportunities for improvement, such as:

- Balancing the need for data protection and privacy with the need for data sharing and analysis.
- Leveraging new technologies such as artificial intelligence, blockchain and biometrics to enhance detection and prevention of financial crime.
- Addressing the emerging risks and vulnerabilities posed by crypto-assets, online platforms and new payment methods.
- Enhancing international cooperation and coordination to combat cross-border financial crime.

The article concludes that the UK is on the right track to make the fight against financial crime more connected than ever, but it also needs to keep pace with the evolving landscape and adopt a proactive and innovative approach⁸.

⁸ <https://www.fintechfutures.com/2023/08/how-the-uk-is-making-the-fight-against-financial-crime-more-connected-than-ever/>

TReDS

INITIATIVE | TECHNOLOGY

The Trade Receivables Discounting System (TReDS) is an online platform that allows Micro, Small and Medium Enterprises (MSMEs) in India to sell their invoices to financial institutions and non-banking finance companies (NBFCs) at a discounted rate⁹. The Reserve Bank of India launched TReDS in 2018.

The main purpose of TReDS is to provide MSMEs with easier and quicker access to finance while reducing their dependence on traditional banking channels¹⁰. The platform operates as a marketplace where MSMEs can post their invoices, and financial institutions and NBFCs can bid for the right to purchase them.

Here are some key features and benefits of TReDS:

- **Online Platform:** TReDS is a fully digital platform, providing MSMEs with a convenient and efficient way to access working capital financing.
- **Multiple Participants:** The TReDS platform brings together MSMEs, financial institutions, and NBFCs, creating a diverse and competitive marketplace for the discounting of trade receivables.
- **Transparent Bidding Process:** It provides a transparent bidding process, where financial institutions and NBFCs can bid for the right to purchase MSMEs' invoices.
- **Quick and Efficient:** The TReDS portal provides MSMEs with quick and efficient access to working capital financing, helping them to manage their cash flow and grow their businesses².
- **Reduced Dependence on Traditional Banking:** It reduces MSMEs' dependence on traditional banking channels, providing them with a new source of financing.
- **Improved Data Management:** TReDS provides a secure and efficient system for managing and tracking financial data, reducing the risk of errors and fraud.
- **Increased Access to Financing:** TReDS enables MSMEs to access financing from a wider range of sources, increasing their options for securing working capital financing.
- **Streamlined Process:** The TReDS platform streamlines the process of discounting trade receivables, making it simpler and more efficient for MSMEs to access working capital financing.
- **Minimal Paperwork Required:** MSME sellers do not have to follow up with the buyer¹¹.
- **No Onus in Case of Default:** MSMEs do not have the onus in case of default in payment by the buyer.
- **Right to Determine the Best Bid:** MSME sellers have the right to determine the best bid.
- **Quick Payment:** MSME sellers can get the payment on T+1 on a successful auction.

In conclusion, TReDS is a significant initiative that has the potential to revolutionize the way MSMEs manage their finances in India. By providing a platform for MSMEs to quickly and efficiently access working capital, TReDS is helping to fuel the growth of small businesses across the country.

⁹ <https://blogs.jrcompliance.com/posts/treds-portal-in-india-benefits-meaning-registration-working>

¹⁰ <https://www.msmex.in/learn/treds-trade-receivables-discounting-system/>

¹¹ <https://www.clear.in/s/trade-receivables-discounting-system-treds>

G20

INITIATIVE

The G20, or Group of Twenty, is a forum for international economic cooperation that brings together major advanced and emerging economies. Its members include 19 individual countries and the European Union. The G20 aims to address global economic challenges and promote sustainable development through policy coordination.

Trade digitalization has become a significant topic within the G20 discussions as technology continues to reshape the global economy. By G20 defined high level principles for digitalization of trade documents¹², compatible with UNCITRAL Model Law on Electronic Transferable Records (MLETR):

PRINCIPLE 1: NEUTRALITY. Digitalization initiatives for trade documents should remain unbiased towards any specific technology, software or system. The initiatives should ensure the immutability and interoperability of data for seamless communication and exchange across diverse systems.

PRINCIPLE 2: SECURITY. To ensure the security of data related to electronic trade document(s), the utilized technologies, including their related digital infrastructure should adopt robust encryption and other security protocols to protect data and the infrastructure concerned against physical damage and information security threats or data theft.

PRINCIPLE 3: TRUST. Technologies/frameworks based on transparent domestic rules and procedures should enable confidence, accountability and authentication for the generation and exchange/transfer of the electronic trade documents.

PRINCIPLE 4: INTEROPERABILITY. The utilized technologies, including their related digital infrastructure should aim to ensure interoperability and seamless exchange of electronic trade document(s) and related data between or among the transacting parties and other stakeholders. The desired interoperability should enable the use of a variety of existing technological systems, standards, document formats and frameworks.

PRINCIPLE 5: DATA PRIVACY. The utilized technologies should implement privacy enhancing technological features/solutions, and share the minimum data necessary for the generation/exchange of electronic trade document(s) and execution of business transactions between the transacting parties. Also, utilized technologies should comply with applicable data privacy rules/norms.

PRINCIPLE 6: RELIABILITY. The utilized technologies, including their related digital infrastructure should ensure the authenticity, immutability and validity of electronic trade documents.

PRINCIPLE 7: VOLUNTARY SHARING OF DATA. Sharing of electronic trade documents and related data should be voluntary with the informed consent of economic operators supplying data and only limited to the minimum data exchange necessary for the generation and exchange of documents, and

¹² Outcome Document and Chair's Statement of the G20 Trade and Investment Ministerial Meeting <http://www.g20.utoronto.ca/2023/230825-trade.html>

execution of business transaction between the transacting parties in compliance with applicable domestic rules and regulations.

PRINCIPLE 8: COLLABORATION. The utilized technologies should provide adequate flexibility to facilitate reliance on the same electronic trade document by governments and competent authorities concerned, financial institutions, transacting parties, technology providers and other stakeholders.

PRINCIPLE 9: TRACEABILITY. The utilized technologies should provide a comprehensive audit trail of the transaction(s), in accordance with domestic regulations of electronic trade documents.

PRINCIPLE 10: SCALABILITY. To accommodate growth, shifting trade conditions and new technological developments, utilized technologies for the exchange of electronic trade documents must be scalable, and should be able to handle extensive data volumes and transaction numbers.

In summary, the G20 acknowledges the transformative impact of digitalization on global trade and endeavors to create a conducive environment for inclusive, efficient, and secure digital trade practices. The forum provides a platform for member nations to collaborate on policies that harness the benefits of digital technologies while addressing associated challenges.