

# Digital Economy Council of Australia

## Submission to The Attorney-General's Department

October 2024

Consultation to inform options for implementing the  
Model Law on Electronic Transferable Records in Australia

### **About the Digital Economy Council of Australia (DECA)**

The Digital Economy Council of Australia (DECA) is the peak industry body representing Australian businesses and professionals driving innovation in the digital economy through the use of blockchain technology, tokenised assets, and digital assets. DECA advocates for responsible adoption and regulation of these technologies, working closely with government and industry to ensure Australia remains a global leader in innovation and economic growth.

The Digital Economy Council of Australia (DECA) welcomes this opportunity to provide input on the implementation of the Model Law on Electronic Transferable Records (MLETR). While we recognise the foundational role that distributed ledger technology (DLT) can play in Australia's digital economy, we suggest a flexible, phased approach to integration. This approach would allow industries to adopt DLT as readiness grows and as the benefits to each sector become clear, supporting a sustainable, scalable pathway to digital transformation that aligns with Australia's 2030 vision.

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## **1. DLT for Identity Management and Trust Services**

The UNCITRAL Model Law on the Use and Cross-border Recognition of Identity Management and Trust Services (MLIT) offers a complementary framework to Australia's digital identity reforms. A gradual approach to incorporating DLT in this area would allow the technology to integrate organically, maximising impact as each part of the digital identity framework matures. Using DLT for identity management will help ensure immutability and secure cross-border recognition, aligning with the government's commitment to privacy and security as outlined in the Data and Digital Government Strategy 2023.

## **2. A Whole-of-Government Approach to Digital Reforms with DLT**

The Data and Digital Government Strategy 2023 underscores the importance of a cohesive, whole-of-government approach to digital transformation. DECA recommends an adaptable DLT integration across government functions, aligned with each department's evolving needs and strategic priorities. By progressively incorporating DLT as core infrastructure across areas such as MLETR, digital assets, digital identity, and financial services, the government can illustrate the practical benefits of DLT while fostering regulatory clarity and interoperability. This flexible approach supports a seamless digital economy strategy that aligns with Australia's vision for 2030, allowing each department to advance at a pace that best meets its operational goals.

## **3. The Role of DLT in Australia's Global Digital Leadership**

As Australia strengthens its position as a global digital leader, DLT can serve as foundational infrastructure across various sectors. However, an adaptive approach, allowing for gradual implementation, will enable each sector to realise DLT's benefits according to its readiness and strategic goals. This flexibility will help Australia establish a reputation for digital leadership while promoting innovation across high-security industries, including finance, supply chains, and digital identity.

## **Question 1 - What types of documents are predominantly used in industry activities and leverage DLT?**

### **Bills of Lading:**

DLT presents a significant opportunity to enhance bills of lading within Australia's international trade sector by enabling secure title transfers and minimising dependence on centralised registry systems. Blockchain-based bills of lading replicate traditional features such as seamless ownership transfer, data integrity, and operational reliability, aligning with industry standards and addressing risks inherent in paper documentation. This approach streamlines trade processes while enhancing security.<sup>1</sup>

### **Warehouse Receipts:**

DLT can significantly improve the security of warehouse receipts by ensuring tamper-resistant, verifiable ownership trails, minimising disputes, and clarifying asset transfers. Through real-time status updates, DLT enhances both trust and efficiency, which are essential for effective inventory management and custody integrity.<sup>2</sup>

### **Transferable Insurance Certificates:**

Digital insurance certificates can harness DLT to uphold integrity and verifiability throughout the transfer process, aligning seamlessly with MLETR principles and supporting reliable, legally robust digital documentation in trade. By using DLT for these certificates, fraud risks are minimised, as every modification and transfer is securely recorded, ensuring transparency and trust in high-stakes transactions.

### **Promissory notes:**

DLT's immutable ledger establishes a robust digital foundation for promissory notes, delivering traceability and resistance to forgery—features particularly valuable in cross-border transactions where stringent legal and financial compliance are essential. This modernisation enhances security and transparency, aligning with industry standards and regulatory expectations. Takahashi (2023) highlights DLT's role in creating a tamper-proof ledger that supports the secure transfer of negotiable instruments, making it particularly beneficial for cross-border transactions. Similarly, Gesmann-Nuissl (2019) asserts that blockchain's distributed architecture is suited to handling promissory notes in international trade, enhancing both traceability and compliance.

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<sup>1</sup> Koji Takahashi, *Blockchain-based Negotiable Instruments*, Brill, 2023, pp. 496-497.

<sup>2</sup> Dagmar Gesmann-Nuissl, *Blockchain Technology in International Trade in Goods*, *Journal of Physics: Conference Series*, 2022, Vol. 2311, p. 184

**Bills of Exchange:**

DLT enables bills of exchange to achieve high levels of traceability and forgery resistance, essential for cross-border transactions where strict legal and financial compliance is crucial. This technology reinforces security and transparency, aligning with regulatory expectations and bolstering trust in international trade. Knutsen et al. (2022) note the increased reliability and security DLT brings to financial documents, supporting its alignment with compliance needs in international finance contexts.<sup>3</sup>

**Question 12 If the MLETR were implemented, what issues (if any) do you anticipate in its application to any of the laws referenced under this section (including any laws identified by yourself in Question 11)?**

The implementation of MLETR may present certain interoperability challenges with established frameworks such as the PPSA, Corporations Act, and Electronic Transactions Act (ETA). Key considerations include:

- **Defining Possession:** Legal adjustments may be needed to clarify how digital possession, potentially established through technologies like DLT, can be equated with physical possession. This would ensure clarity and enforceability for electronic transferable records.
- **Consistency in Terminology:** Variations in definitions and terminology across different legislation could lead to interpretational challenges, underscoring the need for harmonisation to minimise legal ambiguities.
- **Compatibility with Legacy Systems:** Integrating digital records, including those maintained on DLT platforms, with existing registries and legacy systems may require significant upgrades to ensure seamless operability.

**Recommendation:** Targeted legislative amendments and strategic technological integration, including options like DLT where suitable, will be important to align MLETR with existing legal frameworks. A flexible approach to digital technology adoption can help ensure secure, consistent, and efficient application across the regulatory landscape, allowing sectors to adopt solutions that best meet their operational and legal needs.

**Question 13 Please describe any views, suggestions or issues which the department should consider, to ensure that electronic transferable records are an identifiable form of possessable property under Australian law, including under the PPSA.**

DLT facilitates the recognition of electronic transferable records (ETRs) as identifiable and possessable property within Australian law by enabling cryptographic keys to signify control and ownership, creating a digital equivalent of legal possession. This approach aligns with the

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<sup>3</sup> Knutsen, K.E., et al. (2022). Containerised immutable maritime data sharing utilising Distributed Ledger Technologies, *Journal of Physics: Conference Series*, Vol. 2311, p. 5

principles of MLETR, as DLT provides an immutable, transparent ledger that supports clear, verifiable records of ownership and transaction history.

To ensure compatibility with the PPSA, DLT can tokenise ETRs and employ smart contracts to manage security interests automatically, enhancing both compliance and security. Recognising private key control as a form of legal possession would further strengthen this integration, providing legal clarity and enforceability in a digital context. Establishing regulatory standards for tokenised ETRs would also clarify the treatment of digital property and streamline trade across sectors. In combination, MLETR and DLT present a comprehensive framework for secure, transparent digital asset management and facilitate a seamless transition to a digitally-enabled trade environment, enhancing both operational efficiency and legal certainty.

**Question 14 What other evidence or regulatory requirements relating to transferable records are you aware of, under Australian law?**

AML/CTF Act (2006): Requires transparency and traceability in transactions, which DLT inherently supports through auditable records.

**Question 15 We would welcome any preliminary comments from stakeholders regarding the applicability of the Uniform Australian ETAs towards electronic transferable records.**

The Uniform Australian ETAs establish an essential framework for recognising electronic transactions; however, closer alignment with MLETR would enhance their applicability to electronic transferable records. While the ETAs primarily address digital signatures and record authenticity, MLETR introduces the concept of digital possession, which DLT can effectively support through cryptographic key management.

Potential discrepancies in terminology and definitions between the ETAs and MLETR could lead to interpretative inconsistencies, potentially complicating compliance for digital records. To address this, harmonising the ETAs with MLETR would provide a cohesive legal foundation, ensuring that electronic transferable records are both securely manageable and legally enforceable.

**Recommendation:** Amending the ETAs to incorporate MLETR-aligned terminology and provisions would facilitate smoother integration. DLT solutions, such as tokenised documents and smart contracts, can support compliance and enhance interoperability, creating a more robust, future-proof framework for digital transactions across both regulatory regimes.

**Question 17 What comparative advantages or disadvantages can you identify in the approach to legal validity between the MLETR, and the approach enabled under the SCDA and the COGSA?**

MLETR offers notable advantages over SCDA and COGSA by recognising functional equivalence and enabling the use of tokenised digital records on DLT platforms. In contrast to

COGSA's reliance on physical documents, MLETR supports secure, real-time transfers through smart contracts, which enhances efficiency and cross-border compatibility. However, some challenges may arise in stakeholder education and achieving seamless interoperability between DLT-based systems and existing legacy frameworks.

Recommendation: Integrating DLT with MLETR offers superior flexibility, security, and alignment with global trade standards. A tailored approach to DLT adoption, allowing gradual adaptation across sectors, will ensure a smooth transition and maximise MLETR's benefits over traditional frameworks.

**Question 19 How do you assess the effectiveness of contractual frameworks to confirm the legal validity of electronic transferable records?**

The effectiveness of contractual frameworks in establishing the legal validity of electronic transferable records (ETRs) hinges on their practical implementation and the integration of appropriate technology. While contractual agreements can confer legal validity upon ETRs, their reliability is influenced by the consistency and rigor of application across various contexts.

Benefits: Contractual frameworks offer industry participants flexibility, enabling the customisation of agreements to fit specific transactional needs and use cases. This adaptability can be particularly beneficial in industries with diverse operational requirements.

Barriers: A lack of uniform enforcement across jurisdictions and limited interoperability with existing legacy systems may hinder the utility of contractual frameworks, especially in cross-border contexts. Variations in enforcement can lead to inconsistent recognition of ETRs, reducing confidence in their widespread application.

Risks: Without alignment to DLT standards, ETRs risk fragmentation, potentially leading to disputes over ownership and control. The statutory provisions within MLETR can mitigate these risks by providing a consistent legal foundation, supporting the enforceability of ETRs and ensuring that they retain legal standing across jurisdictions.

In summary, while contractual frameworks can support the legal validity of ETRs, alignment with MLETR and the integration of DLT principles are essential to enhancing their effectiveness and mitigating risks.

**Question 21 Please share your views about whether any other records should be specifically included or excluded from Australia's implementation of MLETR?**

From DECA's perspective, no specific records should be excluded a priori from Australia's implementation of MLETR, given that DLT offers the adaptability to manage a broad spectrum of electronic transferable records (ETRs) effectively. Inclusion of diverse records—such as

supply chain documents, insurance certificates, and carbon credits—would promote interoperability across sectors and support innovation in digital finance and trade.

**Risks of Exclusion:** Preemptively excluding certain records may limit Australia's capacity to respond dynamically to emerging markets and evolving financial products. This could constrain the country's competitive advantage in the global digital economy, as well as its ability to integrate new asset classes and applications into the regulatory framework.

**Recommendation:** To foster adaptability, Australia's MLETR framework should adopt an inclusive approach, remaining open to evolving technologies and future use cases. This inclusivity will allow the regulatory environment to keep pace with changing market demands and support the country's digital transformation agenda.

**Question 22 Should an Australian option for MLETR extend to documents like straight bills of lading, or other documents which must generally be physically possessed, but need not be transferable?**

Yes, extending MLETR to include documents such as straight bills of lading and other possessable but non-transferable records could provide considerable advantages. When supported by technologies like DLT, these documents can benefit from features such as immutability, digital possession via cryptographic keys, and enhanced auditability.

**Additional Possessable Documents:** Other examples that may be suitable within this framework include warehouse receipts, insurance policies, and certificates of origin. Incorporating these into an MLETR-aligned framework could streamline processes across industries where possessable but non-transferable records are integral to operations.

**Benefits of Inclusion:** Digital solutions, including DLT, can help promote efficiency and transparency by reducing fraud risks. Technologies offering secure, auditable records support greater trust and reliability for possessable documents, while MLETR's technology-neutral approach ensures stakeholders can choose solutions that best meet their operational needs.

**Question 23 Should an Australian option for MLETR be limited to transferable records which are used specifically in the context of international trade?**

No. Limiting MLETR to international trade would restrict the potential benefits of DLT-based electronic transferable records (ETRs) across domestic industries. ETRs can streamline domestic trade, supply chains, financial markets, and government operations by providing secure, tamper-proof documentation.

**Issues with Limitation:** Excluding domestic use could create regulatory fragmentation, forcing businesses to manage separate systems for domestic and international records, reducing efficiency.



Recommendation: A broader implementation of MLETR would allow seamless interoperability across both domestic and international trade, driving innovation and strengthening Australia's digital economy.

**Question 24 Would adoption of the MLETR in its current form provide you with confidence that electronic transferable records are just as legally valid as paper versions of those records for the purpose of Australian law?**

Yes, with some clarifications. The MLETR offers a strong framework for legal equivalence between electronic and paper records, but DLT integration is essential for ensuring security, transparency, and control.

Recommended Clarifications:

1. Private Key Control: Explicit recognition that cryptographic control over an ETR constitutes possession.
2. Interoperability with Existing Laws: Ensure alignment with PPSA, Corporations Act, and ETA to avoid conflicts.
3. Dispute Resolution Mechanisms: Define processes for handling key loss or compromise within a DLT framework.

These clarifications would build confidence in the legal validity of DLT-enabled electronic transferable records.

**Question 26 To what extent does the approach to reliability under article 12 of the MLETR appropriately balance stakeholder confidence (that is, confidence in the legal validity of a particular electronic method) and flexibility (that is, flexibility to use a technology or method of the stakeholder's choice).**

Article 12 of the MLETR strikes an effective balance by allowing stakeholders to select technologies that best meet their needs while upholding reliability through clear, objective criteria. DLT-based solutions, with their tamper-resistant records, cryptographic control, and potential for automated processes via smart contracts, can help enhance this balance by providing transparency and security.

Relevant Factors:

- Technology Neutrality: The MLETR's neutral stance on technology encourages innovation by supporting diverse technological choices rather than mandating specific solutions.
- Clear Standards for Reliability: Defined criteria such as integrity, accessibility, and traceability foster confidence in the system's reliability.

Recommendation: Promoting DLT frameworks as one pathway to meeting reliability standards can offer stakeholders greater transparency and security, while also allowing flexibility for industries to adopt technologies that align with their unique requirements.

**Question 27 In your view, do the factors under article 12 sufficiently promote stakeholders trust and security in the use of electronic transferable records (including the prevention of fraud and the security of data relating to electronic transferable records)?**

Yes. Article 12 promotes trust and security by emphasising data integrity, accessibility, and traceability, which align with DLT principles. Blockchain-based DLT further strengthens these aspects by ensuring tamper-proof records, cryptographic ownership controls, and transparent audit trails that reduce the risk of fraud.

Additional Factors:

1. Key Management Protocols: Ensure secure control over private keys for access and transfers.
2. Dispute Resolution Mechanisms: Address scenarios of key compromise or fraud.
3. Interoperability Standards: Facilitate seamless integration between DLT-based systems and legacy platforms for broader trust.

**Question 28 Please share any views you have about whether an Australian MLETR implementation option should utilise an accreditation system to specify that certain electronic transferable record management systems are sufficiently reliable?**

Yes. An accreditation system would enhance stakeholder confidence by ensuring that electronic transferable record (ETR) management systems meet defined standards of reliability, security, and compliance. DLT-based systems are well-suited for such accreditation due to their immutability, transparency, and cryptographic security.

Benefits of Accreditation:

1. Standardisation: Ensures consistent best practices across platforms.
2. Trust Building: Increases stakeholder confidence in ETR systems.
3. Fraud Prevention: Accredited systems can offer auditable records and smart contract automation, minimising risks.

Accrediting DLT platforms would further support secure and efficient ETR adoption in Australia.

**Question 29 To what extent do you consider that adoption of the MLETR would enable an internationally interoperable legal framework for electronic transferable records?**

To a great extent, the adoption of MLETR would establish an internationally interoperable legal framework for electronic transferable records by creating a globally recognised standard that

ensures functional equivalence between paper and electronic records. This standard promotes cross-border interoperability and offers a foundation for consistent legal recognition of electronic transferable records (ETRs) across jurisdictions.

Benefits:

- **Seamless Trade Integration:** MLETR supports cross-border transactions by providing a unified legal framework that enables the international recognition of ETRs, fostering smoother trade and regulatory alignment.
- **Transparency and Security:** Technologies such as blockchain can enhance MLETR's benefits, offering tamper-proof, auditable records that increase trust across global networks. While not mandatory, blockchain and similar technologies can support transparency and traceability in digital records.
- **Interoperability:** DLT can add value by enabling automated compliance through features like smart contracts, helping to streamline global trade and reduce friction where applicable. The MLETR's technology-neutral approach ensures stakeholders can adopt solutions best suited to their operational needs.

**Question 30 Assuming that Australia enacted legislation based on the MLETR: would you consider the legality of electronic transferable records in other international jurisdictions, before you adopted electronic transferable records into your business practices?**

Yes. The legality of electronic transferable records (ETRs) in other jurisdictions is crucial for cross-border operations. Businesses must ensure that ETRs will be recognised and enforceable internationally to avoid legal risks and disruptions.

Articles 17 and 18 provide a sound framework for transitioning between electronic and paper records, but businesses will need clarity on which jurisdictions recognise ETRs under MLETR-equivalent frameworks.

DLT-based solutions can streamline compliance by offering interoperability between digital and paper-based systems, ensuring traceability and legal continuity across borders.

**Question 31 Are you aware of, or have you ever used, an electronic system to issue or transfer a unique electronic document, in a way that maintains exclusive control of that document?**

Yes. DLT-based systems have been used to issue and transfer unique electronic documents, such as tokenised bills of lading and digital certificates, ensuring exclusive control through cryptographic keys. Control is maintained by associating ownership with a private key, and transfers are recorded immutably on the blockchain.

Challenges:

1. Key Management: Loss or compromise of private keys can result in access issues.
2. Interoperability: Integrating DLT systems with legacy platforms can be complex.
3. Legal Clarity: Aligning DLT practises with evolving regulations across jurisdictions requires continuous monitoring.

**Question 32 Please share any views on how the government can encourage interoperability between different technologies, and use of common data standards, under a MLETR-aligned legal framework?**

The government can encourage interoperability under a MLETR-aligned framework by promoting DLT-based systems that adhere to open standards and common data formats.

Recommendations:

1. Adopt Global Standards: Encourage alignment with ISO standards (e.g., ISO 17442 for LEIs) to ensure seamless data exchange across systems.
2. Interoperability Frameworks: Promote participation in international initiatives like TradeTrust for cross-border ETR compatibility.
3. Incentives for Adoption: Offer grants or tax incentives for businesses adopting standards-based DLT platforms.
4. Public-Private Collaboration: Facilitate stakeholder engagement to develop interoperability guidelines for diverse industries and technologies.

**Question 33 What challenges do you expect software vendors may face in developing technology to enable the use and transfer of electronic transferable records in compliance with the MLETR?**

Software vendors may face several challenges in developing MLETR-compliant technology:

1. Interoperability: Ensuring compatibility between DLT systems and legacy platforms can be complex.
2. Regulatory Compliance: Vendors must align with evolving domestic and international regulations, including AML/CTF laws and the PPSA.
3. Security Standards: Implementing robust encryption, key management, and tamper-proof features requires advanced expertise.
4. User Adoption: Educating businesses on the benefits and usage of ETRs may slow adoption.
5. Cost and Scalability: Developing secure, scalable systems that remain cost-effective will require significant investment and innovation.

**Question 34 How else can the Australian Government involve industry, and encourage industry readiness, to promote industry confidence in the usability of electronic transferable**

## records?

The government can foster industry readiness and confidence through the following actions:

1. **Pilot Programs:** Launch MLETR pilot projects with key industries to demonstrate ETR usability and benefits.
2. **Public-Private Partnerships:** Collaborate with DLT platforms and technology providers to develop interoperable solutions.
3. **Incentives for Early Adoption:** Offer grants, tax incentives, or regulatory sandboxes to encourage adoption.
4. **Education and Outreach:** Provide training programs and workshops to build awareness and technical expertise.
5. **Standards Development:** Involve industry stakeholders in setting data and interoperability standards to ensure practical adoption and seamless integration.

**Question 35 Finally, we would welcome any further comments or considerations which you consider may be relevant to our consideration of options to implement the MLETR in Australia.**

From DECA's perspective, the successful implementation of MLETR in Australia will require strategic alignment with DLT solutions to unlock the full potential of electronic transferable records (ETRs).

Additional Considerations:

1. **Global Harmonisation:** Align with international standards to facilitate cross-border trade and avoid fragmentation.
2. **Future-Proofing Regulations:** Ensure flexibility to adapt to emerging technologies like tokenisation and smart contracts.
3. **Inclusion of Digital Assets:** Explore how digital assets and tokenised financial instruments can integrate with the MLETR framework.
4. **Security and Governance:** Develop robust key management frameworks and dispute resolution mechanisms for DLT-based systems.

These measures will help position Australia as a global leader in digital trade and innovation.