

Workshop on Use of International Instruments to Legally Enable End-to-End Digitalization of Trade

APEC Economic Committee

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01. Executive Summary

The Workshop on Use of International Instruments to Legally Enable End-to-End Digitalization of Trade was successfully held on 9 August 2025 in Incheon, Republic of Korea, during the third Senior Officials Meeting of the Asia-Pacific Economic Cooperation (APEC). The project overseer, the Hong Kong International Legal Talents Training Academy, in collaboration with the United Nations Commission on International Trade Law (UNCITRAL), conducted this one-day in-person workshop, bringing together experts, policy makers and stakeholders committed to advancing legal frameworks for digital trade in APEC and beyond. The workshop was proposed by Hong Kong, China and co-sponsored by Australia; Canada; Chile; China; Indonesia; Japan; Singapore; and Thailand.

This workshop drew 30 participants from 8 APEC economies to discuss the increasing significance of legal harmonization in digital transactions for trade, which aligned with APEC's long-standing priorities: facilitating an interoperable ecosystem for trade digitalization as highlighted by Aotearoa Plan of Action, the APEC Internet and Digital Economy Roadmap (AIDER) and the Enhanced APEC Agenda for Structural Reform (EAASR).

The workshop focused on practical applications of international instruments such as the UNCITRAL texts, through the whole business lifecycle that could facilitate the standardization and advancement of digitalization of trade in 4 sessions of panel discussions – from cross-border recognition of business identity, contract automation, paperless trade and electronic records for goods transfer, digital trade financing and digital assets, to dispute resolution and enforcement in digital economy.

Building on the existing significant regional uptake of the UNCITRAL framework supporting end-to-end trade digitalization, further adoption and implementation of UNCITRAL texts may promote broader use of digital and paperless trade, leading to improved efficiency, lower costs, and a boost in trade, potentially driving up trade volumes, employment, and real wages across APEC economies and beyond.

02. Detailed Project Summary

a) Overview

Index of UNCITRAL Instruments discussed by panel session

| Panel Session | Abbreviation/ short title | Full Title | Year Adopted | Link (url) |
|---------------|---------------------------|--|--------------|---|
| 1 | ECC | United Nations Convention on the Use of Electronic Communications in International Contracts | 2005 | https://uncitral.un.org/en/texts/e-commerce/conventions/electronic_communications |
| 1, 2, 4 | MLETR | UNCITRAL Model Law on Electronic Transferable Records | 2017 | https://uncitral.un.org/en/texts/e-commerce/modellaw/electronic_transferable_records |
| 1, 4 | The New York Convention | United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards | 1958 | https://uncitral.un.org/en/texts/arbitration/conventions/foreign_arbitral_awards |
| 1, 4 | CISG | United Nations Convention on Contracts for the International Sale of Goods | 1980 | https://uncitral.un.org/en/texts/saleofgoods/conventions/sale_of_goods/cisg |
| 1, 4 | MLEC | UNCITRAL Model Law on Electronic Commerce | 1996 | https://uncitral.un.org/en/texts/e-commerce/modellaw/electronic_commerce |
| 1, 4 | MLES | UNCITRAL Model Law on Electronic Signatures | 2001 | https://uncitral.un.org/en/texts/e-commerce/modellaw/electronic_signatures |

| | | | | |
|------|-----------------|--|--|---|
| 1, 4 | MLIT | UNCITRAL Model Law on the Use and Cross-border Recognition of Identity Management and Trust Services | 2022 | https://uncitral.un.org/en/mlit |
| 1, 4 | MLAC | UNCITRAL Model Law on Automated Contracting | 2024 | https://uncitral.un.org/en/mlac |
| 2 | NCD Convention | United Nations Draft Convention on Negotiable Cargo Documents | Pending adoption by the General Assembly | https://uncitral.un.org/en/working_groups/6/negotiablecargodocuments |
| 2 | Rotterdam Rules | United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea | 2008 | https://uncitral.un.org/en/texts/transportgoods/conventions/rotterdam_rules |
| 3 | MLST | UNCITRAL Model Law on Secured Transactions | 2016 | https://uncitral.un.org/en/texts/securityinterests/modellaw/secured_transactions |
| 3 | MLWR | UNCITRAL-UNIDROIT Model Law on Warehouse Receipts | 2024 | https://uncitral.un.org/en/mlwr |
| 3 | n/a | UNCITRAL Legislative Guide on Secured Transactions | 2008 | https://uncitral.un.org/en/texts/securityinterests/legislativeguides/secured_transactions |
| 4 | n/a | UNCITRAL Arbitration Rules | 1976, 2010, 2013, 2021 | https://uncitral.un.org/en/texts/arbitration/contractualtexts/arbitration |
| 4 | MAL | UNCITRAL Model Law on International Commercial Arbitration | 1985 | https://uncitral.un.org/en/texts/arbitration/modellaw/commercial_arbitration |

b) Summary of Sessions

Opening Remarks

Ms. Anna Joubin-Bret, Secretary of UNCITRAL welcomed participants and emphasized the long-standing partnership of the United Nations Commission on International Trade Law (UNCITRAL) with the Republic of Korea through the UNCITRAL Regional Centre for Asia and the Pacific (RCAP) in Incheon, Republic of Korea. She highlighted UNCITRAL's mandate to further the progressive modernization and legal harmonization of international trade and commercial law, noting its long-standing focus on digital trade and e-commerce, including co-hosting biennially since 2019 the Incheon Law & Business Forum – a regional flagship focusing on digital trade.

A main concern reiterated by regional stakeholders across the years was that the proliferation of regional and bilateral digital trade rules—the “noodle bowl” effect—risks creating costly fragmentation, especially for micro, small and medium-sized enterprises (MSMEs) and developing economies. To address this, UNCITRAL has developed uniform law instruments not only for the purpose of supporting the recognition and use of digitalized commercial documents by governments, but also to legally enable digitalization of trade across the board – from trade finance to transport, paperless trade, e-commerce, dispute resolution in the digital economy and digital asset tracing and recovery. The APEC EC Workshop on Use of International Instruments to Legally Enable End-to-End Digitalization of Trade would illustrate how UNCITRAL instruments, such as the UNCITRAL Model Law on the Use and Cross-border Recognition of Identity Management and Trust Services and the Model Law on Automated Contracting can standardize and advance digital transactions; how the UNCITRAL Model Law on Electronic Transferable Records (MLETR) and the United Nations Draft Convention on Negotiable Cargo Documents (draft NCD Convention) can support the shift to paperless trade, aligning with the digital transformation priorities of the APEC’s Putrajaya Vision 2040; how the UNCITRAL/UNIDROIT Model Law on Warehouse Receipts (MLWR) and the UNCITRAL Model Law on Secured Transactions (MLST) are providing clarity on the complexities of collateral digital assets while balancing efficiency and cross-border enforceability; and how UNCITRAL’s stocktaking exercise under its Dispute Resolution in the Digital Economy (DRDE) project examines how dispute resolution is also going digital and whether UNCITRAL dispute resolution instruments would need updating or whether new instruments would be needed .

Looking ahead, Ms. Joubin-Bret flagged UNCITRAL’s new legislative project on digital platforms, which invites consideration by APEC economies of new harmonized rules aimed at recalibrating the rights and obligations of participants to ensure fairness

and legal certainty. While governments may be at different stages of formulating policies and legal responses to digitization, these differences are themselves no impediment to striving to find harmonized solutions at an international level, and finding solutions at an international level can forestall the development of fragmented jurisdictional legal responses, which can constitute an obstacle to trade. Ongoing exploratory work on paperless trade is showing just how relevant UNCITRAL's legislative "toolkit" on electronic commerce can be to realizing true end-to-end trade digitalization, and UNCITRAL invites APEC economies to continue to actively engage in shaping the future of digital trade law.

Dr. James Ding, Chair of the APEC Economic Committee framed the Workshop within APEC's wider economic agenda, noting that the APEC Economic Committee has been advancing efforts to facilitate legally enabled cross-border digital trade flows through policy dialogues and capacity-building workshops. While digital transformation is advancing, trade documentation remains paper-heavy and fragmented. New opportunities for MSMEs could be unlocked through leveraging international instruments to expand their access to credits, and build a resilient, future-ready trade ecosystem across the region.

He stressed that in addition to technology, legal certainty and harmonized frameworks are essential. He also stressed that adoption of international texts and standards could enhance interoperability. These efforts can be critical to supporting MSMEs, enhancing access to credit, and fostering a resilient, future-ready trade ecosystem across the Asia-Pacific.

Session 1: Towards End-to-End Digital Trade Transactions

The opening session discussed the importance of harmonized legal frameworks to achieve seamless, end-to-end digitalization of trade. Speakers highlighted how UNCITRAL instruments—such as the United Nations Convention on the Use of Electronic Communications in International Contracts (ECC) and the MLETR, the UNCITRAL Model Law on the Use and Cross-border Recognition of Identity Management and Trust Services (MLIT), and Model Law on Automated Contracting (MLAC) — can enhance legal certainty, interoperability, and efficiency for APEC economies and beyond. The discussion also addressed rapid technological change, including the rise of artificial intelligence, and emphasized the urgency of coordinated reform at the regional and international levels.

Dr. Alan Davidson, Chair of UNCITRAL Working Group IV and Senior Lecturer at the University of Queensland (Australia) delivered a comprehensive overview of UNCITRAL's digital trade instruments, from the UNCITRAL Model Law on Electronic Commerce (MLEC) enabling functional equivalence in e-commerce, to newer tools like MLETR, MLIT, and MLAC addressing digital records, identity, and AI.

Dr. Davidson highlighted UNCITRAL's long-standing efforts in harmonizing international trade law, noting that the MLEC, adopted by 170 jurisdictions, laid the groundwork for legal certainty in electronic commerce. He further explained that this model law established functional equivalence between electronic and paper documents, ensuring electronic communications and signatures were not denied validity solely because of their medium.

Dr. Davidson then focused on newer instruments, particularly the MLETR, which addresses a key challenge: digitizing “documents of title” like bills of lading. Unlike standard electronic documents, these records require transfer of possession to convey rights, and MLETR resolves this by equating electronic “control” to physical possession and by equating transfer of control to physical delivery. He cited an early application where an Australia-China contract explicitly chose Singaporean law (which implemented MLETR) to enable a fully digital bill of lading.

He also discussed the MLIT and the MLAC, which address digital identity verification and AI-driven contract formation, respectively. These instruments respond to emerging technologies like blockchain and AI, which were unforeseen when earlier model laws were drafted.

Dr. Davidson referenced an APEC report projecting USD2 trillion in savings over the next decade if the MLETR and related legal instruments are widely adopted, emphasizing the economic rationale behind legal harmonization. He concluded by

stressing that adoption by APEC economies is encouraged as it will lead to savings in both time and effort.

Mr. Kyoungjin Choi, Director of the Center for AI Data and Policy at Gachon University (Republic of Korea) highlighted Korea's progressive implementation of UNCITRAL instruments—including the MLIT, MLAC, and the ECC Convention—through laws such as the Electronic Signature Act and Framework Act on Electronic Document and Electronic Transaction (FAEDET). He encouraged APEC economies to adopt frameworks to enhance interoperability, harmonization, and legal certainty in digital trade.

Mr. Choi traced Korea's long engagement with UNCITRAL instruments related to electronic commerce: the UNCITRAL Model Law on Electronic Signatures (MLES) was first implemented through domestic legislation via the Electronic Signature Act in 1999; UNCITRAL's guidance on cloud computing informed Korea's Cloud Computing Act; the ECC prompted amendments to FAEDET; and the adoption of the MLIT led to a full revision of the Electronic Signature Act.

He stressed that these reforms have strengthened the stability of Korea's transactions framework. On AI, he noted that Korea's adoption of the MLAC provides a legal foundation for automated contracting by enshrining principles of technology-neutrality, non-discrimination and party autonomy. According to him, this ensures that contracts retain equal legal validity regardless of whether they are concluded through automation, and that parties remain free to choose the technologies employed. More broadly, he suggested that the APEC region could draw from Korea's experience – where domestic legislative reforms were guided by functional equivalence, technology -neutrality and acceptance of international norms – principles central to UNCITRAL instruments. He further emphasized the value of encouraging competition between certification bodies, promoting interoperability, and harmonizing standards across borders.

He concluded by affirming that Korea's legal values align with UNCITRAL's objectives and expressed hope that more APEC economies will adopt UNCITRAL instruments to reduce legal uncertainty and support the growth of e-commerce.

Mr. Kah Wei Chong, Senior State Counsel at the Attorney-General's Chambers (Singapore) outlined Singapore's adoption of UNCITRAL instruments, highlighting the ECC's application to domestic, consumer, and financial transactions under an opt-out model, and the MLETR's role in enabling digital bills of lading through the concept of "exclusive control." He also highlighted "change-of-medium" provisions as a practical tool to ensure interoperability while awaiting broader international implementation of the MLETR.

He noted that Singapore has long aligned its laws with UNCITRAL standards, — becoming the first jurisdiction to fully implement the ECC domestically in 2010 and incorporating the MLETR into its Electronic Transactions Act in 2017. Also, Singapore extended ECC beyond its original scope to cover both domestic and consumer contracts thereby avoiding a dual legal regime and simplifying compliance for businesses. Although the ECC excludes consumer contracts and financial transactions, Mr. Chong explained that jurisdictions may extend its provisions to these areas, and Singapore did so, including financial market and B2G transactions such as customs submissions. This approach also allows ECC provisions to complement other treaties such as the New York Convention and the CISG, enabling electronic documents under these frameworks without requiring treaty amendments.

Mr. Chong remarked that the application of ECC provisions can either be done by an opt out or opt in approach – and the opt out approach was chosen for Singapore, with the opt out not having been exercised to date.

On the MLETR, he explained that before its adoption there was no legal solution to digitize bills of lading, which require possession of a unique original to convey rights. The MLETR resolved this by equating electronic “exclusive control” with physical possession, allowing electronic transferable records (ETRs) to function as legal equivalents of paper originals. He concluded by noting that while global enactment of MLETR will take time, interim reliance on “change of medium” — converting between electronic and paper formats — can bridge gaps and facilitate use in cross-border trade.

Ms. Khanit Phatong, Executive Advisor and Head of the Digital Trade Facilitation Team, Electronic Transactions Development Agency (ETDA), Ministry of Digital Economy and Society (Thailand) outlined Thailand’s multi-pronged digital legal framework, covering digital government, digital trade and finance, and trusted environments. She emphasized that Thailand’s reforms align with UNCITRAL standards and support its goal of joining regional paperless trade initiatives.

For digital government, Thailand enacted the Act on Carrying Out of Public Service via Electronic Means (2022), a major initiative enabling government agencies to provide licensing and other services online. This built on Thailand’s earlier Electronic Transactions Act (ETA), which had not been consistently implemented across agencies. In digital trade and finance, the ETA, first enacted in 2001, has been repeatedly revised to reflect UNCITRAL principles. The 2008 amendment introduced mechanisms to transition between paper and electronic documents to address low public confidence. The 2019 update incorporated provisions from the ECC, such as rules on automated message systems and error rectification in electronic communications, well before Thailand formally ratified the ECC, in March 2025, becoming its 19th party. Further enhancements in 2022 enabled the use of digital ID. She also highlighted ongoing efforts to adopt additional UNCITRAL instruments, including the MLIT and the

MLETR. Thailand aims to pass legislation Thailand is now preparing legislation to adopt the MLETR by the end of 2025 and is actively studying the MLAC. Practical applications include digital ID systems for government services, e-filing in courts, and electronic tax submissions, which have streamlined administrative processes.

In trusted environment, Thailand has introduced measures to ensure security and to maintain users' confidence. They have enacted laws such as the Computer-Related Crime Act in 2017 and Personal Data Protection Act in 2019. Ms. Phatong concluded that these reforms have positioned Thailand to participate in regional initiatives like the Framework Agreement on Facilitation of Cross-Border Paperless Trade in Asia and the Pacific and that further alignment with UNCITRAL instruments will accelerate Thailand's digital transformation

Session 2: Digital Transformation in Transport

The second session examined the practical and legal dimensions of digital transformation within the transport sector, a vital artery for global trade. The discussion moved from broad strategies for digitalization to concrete challenges and innovations. Panelists examined both the digitization of traditional documents like the electronic Bill of Lading (eBL), and the development of entirely new legal instruments, such as the draft Convention on Negotiable Cargo Documents (NCD Convention), aimed at addressing long-standing gaps in multimodal transport. Panelists said there was a critical need for interoperability to prevent reliance on proprietary systems. Speakers emphasized that collaboration between private-sector initiatives, new international conventions, and academic research will be essential to building a seamless, efficient, and legally certain paperless transport ecosystem.

Ms. Pamela Mar, Managing Director, ICC Digital Standards Initiative (Singapore), presented a comprehensive strategy for advancing global trade digitalization built upon three essential and interconnected pillars: legal infrastructure, technical infrastructure, and human capacity. She explained that the Digital Standards Initiative (DSI), a public-private partnership founded by the ICC in collaboration with the Government of Singapore, the Asian Development Bank, and the World Trade Organization, seeks to accelerate a harmonized digital trade environment by addressing key barriers such as fragmented standards, limited digital trust, and enabling legal reforms.

On legal infrastructure, Ms. Mar reported that 61.5% of global exports now originate from economies that have either aligned with or formally committed to the MLETR. In the APEC region, this figure exceeds 80%. She added that the proposed NCD Convention would expand negotiability beyond maritime bills of lading to cover rail, road, air, and multimodal transport documents, thereby broadening access to trade finance. Without interoperable standards and human readiness, digital trade risks becoming a compliance burden instead of a driver of growth and inclusion.

On technical infrastructure, Ms. Mar emphasized the key challenge of harmonizing thousands of data elements across thirty-six core trade documents. To address this, ICC DSI has created a data hierarchy that prioritizes approximately 200 mission-critical elements to accelerate interoperability. Collaboration with ERP providers and the use of AI plug-ins are key to making this scalable, especially for SMEs. Progress is evident: eBL adoption has grown from about one-third of surveyed firms in 2022 to nearly half (49.2%) in 2024.

On human capacity, she stressed that legal and technical frameworks must translate into real world adoption, particularly for MSMEs. It focuses on enabling businesses to

participate effectively in digital ecosystems. To build this capacity, the DSI is developing standardized, cross-border credentials including the Digital Trade Readiness Credential, which would allow businesses to assess and signal preparedness in key areas such as data management and cybersecurity. Much like ESG certifications, this credential would act as a global “calling card,” enabling buyers, banks, and carriers to identify digitally capable partners. In parallel, DSI is piloting individual certification initiatives—including the Certificate in Digital Trade Strategy—aimed at equipping professionals with the knowledge and networks needed to advance digital trade. Together, these efforts recognize that while international legal instruments provide the scaffolding, interoperability and trust are what make digital trade usable at scale.

Ms. Mar also underlined persistent barriers that continue to impede adoption, especially for SMEs. These include doubts about legal validity, the commercial risk of being locked into proprietary platforms, and a capacity gap where one firm may be digitally prepared, but its supply chain partners are not. To address these challenges, the DSI is working with ERP providers, IT infrastructure companies, and emerging technologies such as AI to lower costs and reduce interoperability burdens. Overcoming these obstacles requires a collaborative approach: governments must enact enabling legislation, but sustained adoption will depend on strong advocacy from the domestic business community. Ms. Mar concluded that the private sector therefore has a dual responsibility—championing legal reform and investing in capacity-building to unblock these challenges and extend the benefits of digital trade across supply chains.

Mr. Bertrand Chen, CEO, Global Shipping Business Network (Hong Kong, China), described how his non-profit blockchain consortium—founded in Hong Kong, China in 2021 by major carriers and terminals such as COSCO, Hapag-Lloyd, and PSA—supports secure data sharing to make trade more paperless, accessible, and sustainable. Global Shipping Business Network (GSBN) hosts applications like IQAX’s eBL, providing immutability, verifiability, and audit trails.

Since its 2023 launch, GSBN has issued over 600,000 eBLs and onboarded 25,000+ customers. Bills of lading remain central to global trade, serving as proof of contract, proof of title, and collateral for finance; some 80–90% of trade depends on such financing, with letters of credit alone covering USD 4.1 trillion annually.

The main barrier to wider eBL use, Mr. Chen stressed, is lack of interoperability. Banks are reluctant to adopt multiple siloed platforms, slowing digital trade finance. To address this, GSBN ran a Q1 2025 pilot transferring an eBL between IQAX and ICE Digital Trade, using English law (MLETR-compliant) as the legal basis. The transaction, insured by the International Group of P&I Clubs, confirmed that eBLs can be treated like paper bills. GSBN also received reliability verification in February 2025, meeting the “reliable method” standard under MLETR.

Looking ahead, Mr. Chen emphasized two priorities: integrating banks into interoperable frameworks and ensuring customs acceptance, since many authorities still require paper. GSBN is piloting blockchain verification tools and QR codes to bridge this gap, while cautioning against practices where eBLs are printed for customs, as in Brazil. He pointed to stablecoins and CBDCs as tools that could further accelerate adoption by enabling instant settlement. He noted that with the top ten carriers controlling most global capacity, industry alignment could drive rapid, widespread uptake. Nonetheless he stressed that clear legal frameworks such as the MLETR and the proposed NCD Convention are essential for global consistency and certainty.

Ms. Nak Hee Hyun, Associate Professor, Sungkyunkwan University Law School (Republic of Korea) explained that the draft NCD Convention which began as a 2019 proposal from China, initially focused on railway consignment notes in the Eurasian corridor, which could not serve as documents of title and were unusable for trade finance. UNCITRAL studies confirmed the need for a new instrument, and after several years of negotiation, the draft Convention was finalized and submitted to the UN General Assembly.

Ms. Hyun noted the draft NCD Convention addresses a major gap: unlike maritime trade, where the bill of lading already functions as a negotiable document of title, other modes—road, rail, air, and multimodal transport—lack such an instrument. The draft NCD Convention fills this void by providing a medium-neutral negotiable document of title available in both paper and electronic form. Under the draft NCD, transfers occur by endorsement (paper) or through reliable methods of control (electronic), aligned with the MLETR.

Ms. Hyun highlighted the Convention’s dual track approach as a key innovation. The draft Convention focuses on regulating the document itself—its issuance, transfer, and legal effects—granting holders exclusive rights to demand delivery, bring claims, and dispose of goods. At the same time, it is designed to leave untouched the underlying transport contracts and liability regimes (e.g., Hague-Visby or Rotterdam Rules) and customs laws. This approach is designed to ensure that existing frameworks remain intact while providing legal certainty for negotiable documents across all modes of transport.

The draft NCD Convention is designed to operate on an opt-in framework, applying only if parties expressly agree. The draft Convention will only enter into force once ten states ratify it, reflecting UNCITRAL’s practice of ensuring broad international support before implementation. Ms. Hyun noted that until this milestone is reached, the Convention remains a promising but prospective tool. Its eventual impact—closing the legal gap for multimodal documents of title, enabling electronic NCDs, and expanding access to trade finance—will depend on whether enough governments and business communities push for ratification and implementation.

Ms. Hyun described the maritime leg as a key challenge during negotiations. The final compromise was a reservation clause allowing states to opt out of applying the Convention to unimodal maritime transport already covered by another international convention. Ms. Hyun underlined that the draft NCD Convention is “not as scary as it sounds”: it operates entirely on party autonomy, meaning an NCD is only issued if parties agree. Traders will choose either an NCD or a bill of lading—not both—ensuring legal clarity.

In conclusion, she assessed that the draft NCD Convention will significantly enhance trade by filling a long-standing legal gap, enabling electronic negotiable documents, and supporting the digital transformation of supply chains, while minimizing conflict with existing regimes.

Ms. Meixian Song, Professor, Dalian Maritime University (China) discussed the evolution of electronic transport documents, comparing eBL with the proposed Negotiable Cargo Documents Convention. She outlined three phases of digital change in trade: digitization, which converted paper into electronic form; digitalization, which enabled data sharing and process improvements; and digital transformation, where electronic records now allow seamless, end-to-end automation.

She emphasized the continuing importance of the bill of lading in maritime trade, serving as a receipt, proof of contract, and negotiable document of title. Yet, adoption of eBLs has been slow due to concerns about platform reliability and interoperability, higher costs compared to paper, and gaps in the legal framework. Earlier efforts like the CMI Uniform Rules (1990), Rotterdam Rules (2009), and the UNCITRAL Model Law on Electronic Transferable Records (2017) provided a foundation but failed to cover all modes of transport or establish a new negotiable instrument beyond shipping.

Ms. Song identified this as a major legal gap: rail, road, and air transport documents are usually non-negotiable, making them unsuitable for trade finance since banks require negotiable documents as collateral. The NCD Convention addresses this by creating a medium-neutral negotiable document of title, usable across unimodal and multimodal transport, in both paper and electronic form. NCDs can be issued as standalone instruments, as annotated upgrades of existing documents, or as hybrids. Importantly, issuance requires the express agreement of the parties, ensuring party autonomy and preventing duplication—goods will be covered by either an NCD or a bill of lading, but never both.

A sensitive issue in negotiations according to Ms. Song was how to treat the maritime leg. Since bills of lading are already entrenched in maritime law, stakeholders often worry about duplication. The final text therefore allows states to reserve unimodal

maritime transport from the Convention's scope if another convention, such as the Rotterdam Rules, applies. This compromise preserves existing sea-carriage rules while still allowing the NCD Convention to apply to multimodal transport involving a maritime segment. Ms. Song also noted several practical market approaches, ranging from pure NCDs to annotated bills of lading or hybrids.

In conclusion, she described the draft NCD Convention as the “last piece of the jigsaw puzzle” in building a coherent framework for electronic trade documentation. By filling the gap outside maritime transport, it would provide legal certainty for negotiable instruments in multimodal trade, expand access to trade finance, and create a uniform global standard aligned with MLETR. At the same time, it avoids conflict with established maritime regimes. In this way, the Convention strengthens trade finance and supports digital transformation, making global supply chains more efficient, flexible, and trustworthy.

Session 3: Digitalization of Trade Finance and Digital Assets

Session 3 explored how digital assets and trade-finance innovations can be harnessed while ensuring the legal infrastructure provides more certainty and predictability. The discussion covered the macroeconomic case to support MSMEs, domestic and international reforms in secured-transactions law, the role of warehouse receipts in financing, and the potential of stablecoins and tokenized assets. A consistent theme was the mismatch between existing legal categories and the realities of new assets, underscoring the need for targeted reforms and coordinated international action.

Mr. Kobsak Duangdee, Secretary General, Thai Bankers' Association (Thailand) emphasized the urgency of end-to-end digital transformation for trade and payments. While digital payments have advanced, trade documentation remains “paper-heavy,” causing delays and high costs. This disproportionately harms MSMEs, which often lack fixed assets for collateral and are unable to access affordable financing under current systems.

He argued that new technologies—blockchain, APIs, and AI—can enable trusted, seamless data flows across B2B, B2G, and G2G transactions. However, the challenge lies in building interoperability and avoiding a fragmented “spaghetti bowl” of bilateral agreements. He called for adoption of international standards, notably the MLETR and the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific (CPTA), along with digital identity systems, to create legitimacy and trust. A fully digital, end-to-end system creates a trusted set of trade-related data that can positively change MSME financing. This trusted information enables what Mr. Duangdee termed “information-based lending.” Financial institutions, both banks and non-banks, can use this data for credit evaluation, allowing MSMEs to secure financing for growth and working capital based on their underlying trade transactions. Looking ahead, he pointed to the growing acceptance and utilization of digital assets.

Mr. Duangdee also pointed to the potential for tokenization of trade assets, which could broaden funding sources and reduce borrowing costs. He concluded that aligning legal frameworks, adopting global standards, and fostering regional cooperation through APEC and ASEAN are essential to achieving seamless, paperless trade.

Ms. Megumi Hara, Professor of Law, Chuo University (Japan) presented Japan’s 2025 secured-transactions reform, comparing it to the UNCITRAL Model Law on Secured Transactions (MLST). She explained that secured transactions law is designed to expand credit by allowing a wide range of assets to serve as collateral while ensuring transparency for third parties. The MLST does this through a unitary approach with one functional security interest and a single registry.

Japan's system, however, has been pluralistic, with multiple codes and no statutory regime for non-possessory security interests in movables—previously governed only by judge-made rules. The 2025 reform codified these practices, improving reliability and Japan's global ranking but stopping short of adopting the MLST's full unitary model. Turning to new forms of collateral, Ms. Hara focused on the challenges presented by digital assets. She noted that while courts in many economies have recognized digital assets as property, significant legal uncertainty remains, pointing to a Japanese court case that ruled a digital asset could not be an object of ownership rights. She highlighted the 2023 UNIDROIT Principles on Digital Assets and Private Law (DAPL), a soft-law instrument aimed at harmonizing legal treatment and reducing uncertainty. The DAPL recognizes that digital assets can support proprietary rights and establishes “control” as the key concept for determining third-party effectiveness and priority in secured transactions involving these assets.

Ms. Hara concluded by posing a critical question for Japan and other economies: whether the MLST and domestic laws need to be updated to create bespoke rules, such as adopting the “control” principle from the DAPL, to adequately govern the use of digital assets as collateral. Although Japan's new law does not restrict collateral types, the lack of a comprehensive registry for intangibles means security interests over digital assets remain unenforceable against third parties. This means that while a security interest can be created by agreement, it cannot be made effective against third parties, indicating a need for further discussion and development.

Mr. Woojung Jon, Associate Professor, Korea Advanced Institute of Science and Technology (Republic of Korea) addressed gaps in Korea's secured transactions law and the obstacles posed by tax treatment of stablecoins. Under Korea's Civil Code, “things” are defined as tangible property, which excludes digital assets. This prevents recognition of digital assets as collateral and exposes holders to enforcement risks. He recommended revising legal definitions to explicitly include digital assets as property, adopting the “control” concept for perfection, and extending Korea's registry to cover digital assets.

On stablecoins, he highlighted their potential to transform trade finance by enabling instant cross-border settlement, improving financial inclusion, and serving as collateral for automated systems. However, Korea's tax treatment is a major barrier: classifying stablecoins as “virtual assets” means every transaction is taxable, unlike payments in cash or bank deposits. This “Korean Tax Paradox” creates heavy compliance costs—such as having to calculate capital gains on buying a cup of coffee—and discourages adoption.

Mr. Jon proposed three reforms: (1) reclassifying stablecoins as currency for tax and payment purposes, (2) introducing the minimum exemptions for small transactions, and (3) pursuing international coordination to harmonize tax and regulatory treatment. He

also noted Korea's pending Digital Asset Basic Act (2025), which would require 100% reserve backing and Financial Services Commission (FSC) authorization for won-backed stablecoins. While enhancing consumer protection, it would not address the collateralization gap unless private law evolves to recognize stablecoins as property. For trade finance, harmonizing tax, regulatory, and private-law treatment is therefore essential.

Ms. Dora Neo, Associate Professor, Faculty of Law, National University of Singapore (Singapore) discussed the UNCITRAL-UNIDROIT Model Law on Warehouse Receipts (MLWR), which modernizes warehouse receipts as financing instruments. A warehouse receipt acknowledges goods held in storage and entitles the holder to delivery, making it a key tool for trade finance. The Model Law makes it compulsory for an operator to issue a receipt if requested by the depositor and provides for the information that must be contained in it, its transfer, and the rights and obligations of the parties.

The MLWR is medium-neutral, applying equally to physical paper receipts and electronic receipts and allows for the medium to be converted from paper to electronic, or vice-versa, at the holder's request. For electronic receipts, it requires reliable methods ensuring singularity (a unique identifier), control (equivalent to possession), and integrity (unchanged authenticity). These requirements mirror the MLETR and are technology neutral.

Ms. Neo emphasized the importance of negotiability and the "protected holder" concept, which allows good-faith holders to acquire receipts free from prior defects such as fraud or mistake. This protection makes receipts highly attractive to lenders as secure collateral. A protected holder, who acquires the receipt in good faith and in the ordinary course of business or financing, is in a privileged position because their rights are generally not subject to any right, claim, or defenses of any person apart from those under the terms of the receipt or the MLWR itself. This protection holds even if a prior transfer involved a breach of duty, fraud, or mistake.

Ms. Neo noted that current warehouse operator practices often rely on central registries that are commodity-specific or geographically specific, which can impede data flow. If electronic warehouse receipts (eWRs) can instead be managed more centrally through a reliable method, they have the potential to enable end-to-end trade digitalization by embedding crucial data like quality, origin, and ESG standards directly into the document. This traceability throughout the supply chain is a strong contribution to fraud prevention. Ms. Neo emphasized that negotiability and the status of "protected holder" are critical features, enabling lenders to treat receipts as secure collateral even if prior transfers involved fraud or mistake.

She clarified that economies could adopt MLWR alongside MLETR or rely on

functional equivalence if one is already in place. For policymakers, MLWR offers a practical pathway to expand financing, increase transparency, and promote supply-chain integrity.

Mr. Giuliano G. Castellano, Director, Asian Institute of International Financial Law (AIIFL), University of Hong Kong (Hong Kong, China) concluded the panel by addressing the intersection of private law and regulation in digital assets. He noted that the cryptocurrency market is now worth USD 4 trillion roughly, with stablecoins serving as a “bridge” between traditional and digital finance. Tokenized real-world assets are projected to expand to nearly USD 19 trillion by 2033.

He explained that this growth is happening alongside significant international regulatory efforts from bodies like the Financial Stability Board, IOSCO, the Basel Committee, and the Financial Action Task Force, which operate under the principle of “same function, same risk, same rule.” This regulatory approach, which makes granular distinctions between assets based on their function and risk, often creates conceptual gaps and mismatches with the private law approach, which tends to treat digital assets more generally under the principle of technological neutrality.

He identified a mismatch: private law still struggles to define digital assets as property and establish security rights, while regulators already impose detailed prudential and consumer-protection rules. For instance, regulators treat stablecoins as equivalent to bank money, requiring one-to-one reserves and asset segregation by exchanges. This means regulatory safeguards may already provide protections that private law has yet to formalize. In many jurisdictions, it is still unclear whether digital assets constitute property and how security rights can be perfected. While private law grapples with the concept of the underlying “referenced asset,” financial regulation bypasses this by simply requiring a 1:1 redeemable reserve backing for stablecoins and segregation of client assets by exchanges. Regulators have effectively created property-like protections for stablecoins, effectively treating them like bank money or debt claims.

This mismatch produces uncertainty: should stablecoins be treated as currency, as claims akin to deposits, or as tokenized rights over reserves? Castellano argued that we need not prioritize new laws but instead focus on coordination between standard-setters (UNIDROIT, UNCITRAL) and regulatory bodies (Basel, FSB). Without such alignment, fragmentation will persist. He recommended that UNCITRAL build on its experience coordinating across domains (e.g., e-commerce and secured transactions) to harmonize legal approaches. At the domestic level, he recommended pilot projects to test tokenized trade instruments, identify gaps, and implement progressive reforms. He concluded that reforms should start from market practice and bridge existing gaps, rather than forcing digital assets into ill-fitting categories.

Session 4: Issues arising from Dispute Resolution in the Digital Economy

In the final session, speakers examined the intersection of dispute resolution and emerging technologies, drawing from the ongoing work of UNCITRAL Working Group II's Dispute Resolution in the Digital Economy (DRDE) project. The discussion centered on how tools such as electronic arbitral awards, platform-based dispute resolution mechanisms, video conferencing protocols, online dispute resolution (ODR) platforms, and frameworks for digital asset enforcement are influencing procedural rules, evidentiary practices, and cross-border enforceability. The panel underscored the importance of ensuring that legal frameworks evolve alongside technological advances to safeguard fairness, efficiency, and integrity in dispute settlement.

Mr. Kazuaki Takahashi, Attorney of the International Affairs Division, Japan Ministry of Justice (Japan) introduced the UNCITRAL DRDE project which represents a pivotal initiative aimed at identifying and analyzing issues and challenges relating to the development of dispute resolution procedures in the digital economy.

The DRDE project emerged from a proposal submitted by Japan amid the COVID-19 pandemic, which underscored the urgent need for legal frameworks to adapt to the rapid digitalization of global trade and commerce. Since December 2021, the UNCITRAL secretariat has been conducting a comprehensive DRDE stocktaking exercise to explore the impact of digital technologies and technology-enabled services on dispute resolution, with a view to identifying whether there is a need to update existing instruments, or to develop new ones as well as to suggest potential solutions.

Activities included a series of global engagements through 2024, which involved seminars and discussions with stakeholders and experts in jurisdictions with diverse legal traditions such as Austria; Hong Kong, China; Côte d'Ivoire; France; Germany; Guatemala; Japan; Singapore; and the United States. Key issues examined included the prevalent means of communications in arbitration, the practice of using electronic arbitral awards and issuance and enforcement issues, technological means to present submissions and evidence, the role of video conferencing in hearings, AI-assisted decision-making, and platform-based dispute resolution. UNCITRAL mapped the said issues, after which the governments of Germany; Israel; Japan; the Republic of Korea; and Spain submitted a proposal on the future work of DRDE. The proposal focused on the first two issues above, namely the means of communications and the use of electronic arbitral awards in practice. Building on this proposal, UNCITRAL has commenced work under Working Group II since July 2024 on the recognition and enforcement of electronic arbitral awards and electronic notices of arbitration.

Mr. Jae Sung Park, Prosecutor, International Legal Affairs Policy Division, Korea Ministry of Justice (Republic of Korea) discussed the challenge of enforcing electronic arbitral awards under the New York Convention, which predates digital formats. He presented UNCITRAL Working Group II's deliberation on three solutions: interpretive guidance, revision of the UNCITRAL Model Law in International Commercial Arbitration, or treaty amendment. He discussed how the recommendation of interpreting "original award" to include electronic arbitral awards may be preferred to avoid legal uncertainty and ensure global consistency.

Mr. Park set the scene using a hypothetical example of two different jurisdictions resolving a dispute by arbitration and the tribunal issued a decision/award electronically, later noting that the New York Convention, the cornerstone of international arbitration enforcement, does not explicitly address electronic awards. Article 4 of the New York Convention requires parties seeking enforcement to submit a "duly authenticated original award" or a certified copy, but this provision predates digital advancements, creating ambiguity about whether electronically issued awards qualify. This ambiguity has led to inconsistent practices globally: some economies accept electronic arbitral awards as valid, while others remain hesitant due to concerns about data manipulation or misalignment with domestic legal frameworks.

To address the gap not covered by the New York Convention, a survey was conducted with varied responses as some jurisdictions found the use of electronic awards problematic while some have already utilized them for arbitrations domestically. Mr. Park highlighted that the overarching goal is to ensure electronic arbitral awards are not discriminated against, provided their integrity and authenticity can be verified.

To resolve this, UNCITRAL Working Group II is exploring three potential solutions. First, issuing a recommendation to interpret the New York Convention as encompassing electronic awards within the definition of "original award." This approach is favored for its practicality, as it avoids the complexity of treaty revision, though it lacks binding force. Second, revising the UNCITRAL Model Law on International Commercial Arbitration to provide explicit guidance on electronic arbitral awards, which would rely on domestic adoption to take effect. Third, amending the New York Convention or developing a new protocol—a more impactful but time-consuming option, as treaty revisions require ratification by member states and risk creating a two-tier system between adopters and non-adopters.

The first approach was generally favored amongst the delegates of Working Group II and the future development would require a balance of not creating new legal obstacles, while not creating uncertainty that discourages the use of electronic arbitral awards.

Ms. Teresa Rodriguez de las Heras Ballell, Professor, Universidad Carlos III de Madrid (Spain) delivered via video, examined platform-based dispute resolution under

the UNCITRAL DRDE project, covering the legal structure of platforms, governance challenges, and use of AI. She addressed issues like impartiality, user consent, procedural fairness, and AI explainability —emphasizing that platforms now play a central role in resolving disputes across the digital economy.

Ms. Rodriguez de las Heras began by outlining her presentation in three parts: 1) delimiting the notion of dispute resolution in the digital economy in the context of a platform economy, 2) discussing the importance of the governance of those platforms and 3) addressing the use of AI and automation in the context of platform-based dispute resolution.

On the first aspect, Ms. Rodriguez de las Heras noted the platform economy requires an understanding not only of the important role and relevance of platforms in the digital economy, but also of their legal anatomy, which she said is fundamental to identifying risks, understanding challenges, and formulating adequate principles and rules for governing dispute resolution platforms. Platforms are described as contract-based organizational models, formed through agreements between platform operators and users, which may include businesses, consumers, or non-professional users. These agreements govern all relationships and activities within the platform, making the operator a regulator and supervisor, and potentially a provider or facilitator of dispute resolution mechanisms.

Dispute resolution in the digital economy includes mechanisms already present in platforms, as well as platforms created specifically for dispute resolution services. Existing features include content moderation (platform-to-business or platform-to-user), complaint handling mechanisms (typically platform-to-user), and internal, ad hoc systems adapted to the platform model. Platforms may also integrate online arbitration or mediation services. Governance is crucial, especially when legal effects are attributed to outcomes.

Platform operators may be traditional dispute resolution institutions creating digital platforms, entirely new institutions developed through platforms, or digital intermediaries from unrelated sectors providing dispute resolution access. Governance structures depend on the type of operator. Two scenarios raise different legal implications: one where dispute resolution remains internal (e.g., within an e-marketplace), and another where platforms generate settlements, awards, or decisions intended for recognition and enforcement outside the platform.

Moving to platform governance, Ms. Rodriguez de las Heras said the first group of challenges relates to how to ensure the impartiality and independence of the platform operator. This varies depending on whether the platform is for internal dispute resolution or produces decisions with effects outside the platform. Governance is also different if the platform is operated by an existing arbitration or mediation institution,

or by a trusted third party, such as a digital intermediary outside traditional dispute resolution. The second group of problems concerns the membership agreement, which governs platform activities. Questions arise whether these terms and conditions qualify as procedural rules and whether they could constitute applicable law for dispute resolution proceedings. The third group of challenges involves user access to the platform: identity verification, data protection, confidentiality, and valid consent to the dispute resolution mechanism. Finally, there is the issue of whether decisions can be appealed or if there is any redress available to users dissatisfied with the outcome.

Lastly, on AI and automation, in the context of platform-based dispute resolution, there is a need to consider the extent to which the automation and artificial intelligence (AI) systems can be used. Drawing from existing principles on automated decision-making, three aspects are particularly relevant: whether it is explainable, whether it has proper reasoning, and whether it is subject to judicial review. These are important according to Ms. Rodriguez de las Heras because AI-driven systems are often opaque, adaptive, and continuously learning, making it challenging for third parties to understand the rationale behind decisions.

Despite these concerns, platforms offer opportunities to implement technology-enabled smart remedies and to use AI not only for fully automated dispute resolution but also to support traditional human-driven processes such as arbitration or mediation. The evolving nature of AI, especially the emergence of AI agents, highlights its increasing relevance. Ms. Rodriguez de las Heras said key principles must be considered: the extent of control the human decision-maker retains, the proper understanding and assessment of risks posed by AI, and the prevention of those risks. Ms. Rodriguez de las Heras added that issues of procedural integrity, confidentiality, traceability, and the reasoning behind decisions also need to be addressed.

Ms. Young Shin Um, Senior Counsel, KCAB International (Republic of Korea) presented on remote hearings in international arbitration, with a particular focus on the Seoul Protocol on Video Conferencing in International Arbitration, and KCAB International's initiatives to advance technological integration in dispute resolution. Her analysis underscored the critical need for structured frameworks to ensure procedural fairness, confidentiality, and technical reliability in remote proceedings, which have become increasingly prevalent in the digital economy.

Ms. Um started with the Seoul Protocol on Video Conferencing in International Arbitration, which was developed during the 7th Asia Pacific ADR Conference in Seoul in 2018, and emerged as a key reference point. Initially designed to guide remote witness examinations, the protocol has evolved into a comprehensive set of guidelines applicable to broader remote hearings.

Ms. Um highlighted its core provisions, such as Article 1.3, which mandates that witnesses testify at an empty desk or lectern with clear visibility of their face to preserve the credibility of testimony. Article 1.7 empowers tribunals to pause or terminate video conferences if technical issues or unfairness arise, a safeguard critical to upholding due process. She also elaborated on how the protocol addresses issues concerning arbitral awards following remote hearings, such as situations where a party, due to technical difficulties, cannot properly present its case, potentially undermining the process and leading to challenges during or after the proceeding, or against the award itself. She added that the protocol recognizes risks in using online technology in arbitration, particularly regarding due process, confidentiality, and technology-related issues. Due process is crucial for legitimacy, fairness, and enforceability. It involves more than the right to be heard—also including security, document exchange, confidentiality, identity verification, and reasonable technology accommodations to ensure a valid proceeding.

Elaborating on confidentiality, Ms. Um observed that despite the sophistication of today's video conferencing technology, concerns remain about the confidentiality of remote arbitration proceedings. Without appropriate measures, breaches or intrusions may occur, allowing non-parties to access dispute details, trade secrets, or other confidential information, which may undermine the integrity of the arbitration proceedings. These are addressed through stringent requirements in the protocol, including the use of secure cross-border connections (e.g., IP-to-IP encryption) to prevent interception. Recordings of proceedings are prohibited without tribunal approval, and any authorized recordings must be shared with all parties within 24 hours. Ms. Um also addressed practical and technological matters, noting that disruptions such as delays, power outages, and disconnections during video conferencing can affect hearing momentum. Resource disparities between parties may further create imbalances in the final award. The protocol addresses these by setting guidelines for test conferencing and audioconferencing backup to enable quick recovery from communication failures. Technical reliability is ensured via mandatory pre-hearing tests—conducted at least twice, including once in advance of the commencement of the hearing, and once immediately before the video conference—and backup systems (such as cable internet and teleconferencing) to mitigate disruptions from connectivity failures or power outages.

In addition, Ms. Um outlined KCAB International's upcoming reforms, which aim to formalize the use of digital tools in arbitration. These include updates to its arbitration rules to explicitly permit remote hearings via dedicated online platforms, integrating features such as e-filing, electronic evidence management, and AI-powered tools.

Mr. Albert Leung, Executive Officer and Chief Technology, eBRAM International ODR Centre (Hong Kong, China) presented eBRAM's ODR platform, showcasing AI-driven multilingual tools, blockchain-secured evidence, and robust identity verification. He stressed the platform's role in ensuring reliable digital communication

and secure document handling. He alerted that AI is used to support—rather than replace—human decision-makers, assisting with tasks like summarization, translation, and case management while preserving transparency.

Mr. Leung emphasized the key features of eBRAM's platform, designed to streamline end-to-end dispute resolution. These include real-time multilingual transcription supporting over 25 languages, AI-powered document translation, video conferencing facilities, blockchain-based evidence storage, and electronic signature functionality.

Digital platforms matter because they ensure a valid service of arbitration notices. In a 2023 Hong Kong, China case, the court held that service by agreed methods is valid even if the respondent claims non-receipt. However, in the case, notice was emailed to an incorrect address—xyz@chinat.hk instead of the agreed xyz@china.hk. The court found the service invalid and set aside the enforcement order. This highlights the importance of ODR platforms like eBRAM, which ensure proper electronic communication, automated notifications, timestamped evidence handling, and blockchain storage, helping parties submit documents securely and reducing risks from communication errors in online mediation or arbitration.

To prevent fraud and verify identities, the platform employs electronic know-your-customer (e-KYC) protocols, combining facial recognition with cross-checks against government-issued identification documents. Blockchain technology is utilized to secure evidence, with hash values of documents stored on a distributed ledger to detect tampering—an approach validated by rulings from courts such as the Hangzhou Internet Court, which have recognized blockchain as a reliable method for preserving evidence integrity.

Mr. Leung also noted that the platform adheres to international standards such as ISO 27001 for information security, ensuring confidentiality, integrity, and availability of data. Regular cyber security assessments and compliance with global data protection regulations, including the GDPR, further mitigate these risks.

Mr. Leung stressed that AI serves as a supportive tool rather than a replacement for human decision-makers. For instance, AI assists in summarizing hearings, analyzing evidence, and managing case workflows, but final rulings remain the responsibility of arbitrators or mediators. Transparency is maintained by informing parties of AI tools used and verifying outputs to ensure accuracy. Mr. Leung concluded with a practical tip that when using AI, the user shall provide specific instructions (e.g., “FTC antitrust rulings from 2022”), limit scope, request sources (case name, date), and require the AI to admit when it doesn't know, rather than generating potentially incorrect answers. This helps ensure accuracy and reliability.

Mr. Danny Ong, Managing Director, Setia Law (Singapore) shared insights from a practitioner's perspective, and focused on the complex realities of enforcing judgments involving digital assets across borders. He described how legal uncertainty, blockchain anonymity, and fragmented jurisdictional approaches hinder enforcement. He explored remedies like token burning and advocated for a UNCITRAL model law to modernize enforcement in the digital age.

Mr. Ong's presentation focused on the critical challenges of enforcing judgments involving digital assets within the context of end-to-end trade digitalization, as highlighted in the afternoon session of discussions. He emphasized that while digitalization has advanced across various stages of trade, enforcement is still problematic due to the unique nature of these assets and inconsistent legal treatments across jurisdictions.

Mr. Ong pointed out that digital assets—such as cryptocurrencies—do not fit neatly into traditional legal categories of “property” or “tangible assets,” creating ambiguity in their enforceability. This ambiguity is compounded by jurisdictional differences: common law jurisdictions like Hong Kong, China and Singapore, often rely on the concept of “control” to determine rights over digital assets, while other jurisdictions may not recognize such assets as legally enforceable collateral or subject to seizure, undermining cross-border enforcement.

Mr. Ong also pointed out that anonymity in blockchain transactions makes identifying counterparties difficult, and assets held in private wallets (rather than through intermediaries like exchanges) evade traditional enforcement tools such as freezing orders or receivership.

Mr. Ong then identified challenges such as determining applicable law across jurisdictions, varied recognition of digital assets, freezing assets held by unknown parties and adapting traditional enforcement methods for control-based digital assets. He proposed harmonized principles for asset tracing, enhanced disclosure obligations, and innovative remedies such as token burning and reissuance to effect enforcement.

Mr. Ong concluded by suggesting that these issues could be addressed through a new UNCITRAL Model Law on Digital Assets Enforcement, enabling consistent and effective cross-border enforcement practices.

Closing Remarks

Ms. Queenie Wu, Deputy Director, Hong Kong International Legal Talents Training Office, Department of Justice (Hong Kong, China) highlighted the importance of joint efforts of economies for continued dialogues and collaboration among experts, policy makers and field players to develop a harmonized, enabling legal environment for MSMEs to seize digital trade opportunities. While digital trade had become more common, the transforming landscape was complex and multi-dimensional. The Workshop would serve as a catalyst for continued dialogues and collaboration among economies. She also shared Hong Kong, China's announcement in February 2025 that the government would make reference to the MLETR and consider legislative amendments to facilitate digitalization of trade documents.

She stressed Hong Kong, China's role as a hub for international legal services and capacity building, noting the commitment of the Hong Kong International Legal Talents Training Academy to supporting APEC economies in building the expertise to apply digital trade frameworks in practice. She also welcomed future collaboration with economies in organising other capacity building initiatives.

c) Result of Evaluation Survey

Following the workshop, an evaluation survey was distributed to participants to assess satisfaction, knowledge gains, and recommendations for future activities. The survey covered key aspects such as the workshop's objectives, the comprehensibility of content, the organization, the sufficiency of gender issue addressing, the preparedness and expertise of speakers, the usefulness of distributed materials, the adequacy of time allocation, and the relevance of the workshop to participants and their economies.

From the evaluation survey conducted after the Workshop, 100% of feedback received strongly agreed or agreed that —

- a) the objectives of the Workshop were clearly defined;
- b) the Workshop achieved its intended objectives,
- c) the agenda items and topics covered were relevant;
- d) the content was well organised and easy to follow;
- e) the speakers/experts were well prepared and knowledgeable about the topic;
- f) the materials distributed were useful; and
- g) the time allotted for the workshop was sufficient;
- h) participants' self-rated knowledge and skills were improved after the workshop.

From the feedback, 76% strongly agreed or agreed that the gender issues were sufficiently addressed during implementation.

d) Conclusion

Harmonized legal framework such as UNCITRAL texts could be useful reference in the whole trade lifecycle to enable “end-to-end” digitalization of trade, including paperless processes, digital collateral & cross-border enforcement, with legal certainty. Besides, international collaboration is important to facilitate MSMEs to achieve economic potential and meet APEC’s digital transformation goals.

Looking ahead, economies are encouraged to—

- a) **consider making use of the international instruments** to align domestic regimes with international standards;
- b) **strengthen capacity building** to engage MSMEs, trade platforms and policymakers across borders; and
- c) **leverage technology advancement** taking into account interoperability, the need for trusted data and digital capabilities to support digital trade.

Annex A: Programme

UNCITRAL-APEC Workshop on Use of International Instruments to Legally Enable End-to-End Digitalization of Trade

Date: Saturday, 9 August 2025

Location: Room 118, Songdo Convensia, Incheon, Republic of Korea (in-person only)

| Time | Programme |
|---------------|---|
| 9.00-9.30 AM | Registration |
| 9.30-9.45 AM | Opening Remarks <ul style="list-style-type: none">• Ms. Anna Joubin-Bret, Secretary of UNCITRAL• Dr. James Ding, EC Chair |
| 9.45-9.50 AM | Group Photo |
| 9.50-11.00 AM | Panel 1: Towards End-to-End Digital Trade Transactions <p>A set of legal frameworks developed by UNCITRAL contributes to the standardization and advancement of digital trade transactions, such as trust services and automated contracting. With the rapid development of digital technologies, particularly the unprecedented development of artificial intelligence, the need for further regulatory efforts at both international and domestic levels has become increasingly pressing.</p> <p>This panel will examine the overarching end to end trade digitalization matters, including how relevant UNCITRAL instruments, including UNCITRAL Model Law on the Use and Cross-border Recognition of Identity Management and Trust Services (MLIT) and UNCITRAL Model Law on Automated Contracting (MLAC) can facilitate the end-to-end digitalization of trade transactions.</p> <p>Moderator: Ms. Athita Komindr, Head, UNCITRAL Regional Centre for Asia and the Pacific</p> <p>Speakers:</p> <ul style="list-style-type: none">• Dr. Alan Davidson, Chair of UNCITRAL Working Group IV and Senior Lecturer, TC Beirne School of Law, University of Queensland (Australia)• Mr. Kyoungjin Choi, Law Professor and Director of Center for AI Data and Policy, Gachon University (Republic of Korea)• Mr. Kah Wei Chong, Senior State Counsel, Attorney-General's Chambers (Singapore)• Ms. Khanit Phatong, Executive Advisor and Head of Digital Trade Facilitation Team, Electronic Transactions Development Agency, Ministry of Digital Economy and Society (Thailand) |

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| 11.00-11.10 AM | <i>Coffee Break</i> |
| 11.10-12.20 PM | <p>Panel 2: Digital Transformation in Transport</p> <p>The shift from paper-based documentation to paperless trade aligns with the long-term digital transformation priorities outlined in APEC's Putrajaya Vision 2040. Legal Instruments such as the Model Law on Electronic Transferable Records (MLETR) and the draft convention on negotiable cargo documents play a significant role in facilitating this shift.</p> <p>This panel will examine the implementation and impact of these instruments on APEC economies and highlight efforts to harmonize legal frameworks to advance paperless trade and support digital transformation in transport. Panelists will also discuss the importance of targeted capacity-building initiatives to support these efforts.</p> <p>Moderator: Mr. Jae Sung Lee, Senior Legal Officer, UNCITRAL Speakers:</p> <ul style="list-style-type: none"> • Ms. Pamela Mar, Managing Director, ICC Digital Standards Initiative (Singapore) • Mr. Bertrand Chen, CEO, Global Shipping Business Network (Hong Kong, China) • Ms. Nak Hee Hyun, Associate Professor, Sungkyunkwan University Law School (Republic of Korea) • Ms. Meixian Song, Associate Professor, Dalian Maritime University (China) |
| 12.20-02.00 PM | <i>Lunch Break</i> |
| 02.00-03.10 PM | <p>Panel 3: Digitalization of Trade Finance and Digital Assets</p> <p>In the digital era, digital assets play an increasingly vital role in end-to-end digitalization, driving efficiency, transparency, and financial accessibility while reshaping trade, payment systems, and investment landscapes.</p> <p>The discussion will draw on the intersection of trade finance and fintech, focusing on the legal instruments including the UNCITRAL/UNIDROIT Model Law on Warehouse Receipts (MLWR) and security interests instruments in digital assets, such as the UNCITRAL Model Law on Secured Transactions (MLST). Panelists will explore how these frameworks address the complexities of collateral digital assets, while balancing efficiency, risk mitigation, and cross-border enforceability. Key insights from the recent UNCITRAL Colloquium on Navigating the New Era of Digital Finance (February 2025) will also be shared.</p> <p>Moderator: Mr. Jae Sung Lee, Senior Legal Officer, UNCITRAL Speakers:</p> <ul style="list-style-type: none"> • Mr. Kobsak Duangdee, Secretary General, Thai Bankers' Association (Thailand) • Ms. Megumi Hara, Professor, Chuo University (Japan) |

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| | <ul style="list-style-type: none"> • Mr. Woojung Jon, Associate Professor, Korea Advanced Institute of Science and Technology (Republic of Korea) • Ms. Dora Neo, Associate Professor, Faculty of Law, National University of Singapore (Singapore) • Mr. Giuliano G. Castellano, Associate Professor, University of Hong Kong (Hong Kong, China) |
| 03.10-03.30 PM | <i>Coffee Break</i> |
| 03.30-04.50 PM | <p>Panel 4: Issues arising from Dispute Resolution in the Digital Economy (DRDE)</p> <p>This panel will feature UNCITRAL's project on the stocktaking of developments in dispute resolution in the digital economy, a project which has been implemented to explore the impact of digital technologies and technology-enabled services on dispute resolution so as to update existing instruments or develop new ones.</p> <p>The panel will discuss the latest developments on the implementation of the project, including the ongoing work in Working Group II on the recognition and enforcement of electronic arbitral awards and the work on platform-based dispute resolution, and further discuss whether a closer look into the phase of enforcement as part of the project is warranted, drawing ideas from the work carried out in the area of insolvency on digital assets.</p> <p>Moderator: Ms. Athita Komindr, Head, UNCITRAL Regional Centre for Asia and the Pacific</p> <p>Speakers:</p> <ul style="list-style-type: none"> • Mr. Kazuaki Takahashi, Attorney, International Affairs Division, Ministry of Justice (Japan) • Mr. Jae Sung Park, Prosecutor, International Legal Policy Division, Ministry of Justice (Republic of Korea) • Ms. Teresa Rodriguez de las Heras Ballell, Professor, Universidad Carlos III de Madrid (Spain) • Ms. Young Shin Um, Senior Counsel, KCAB INTERNATIONAL (Republic of Korea) • Mr. Albert Leung, Acting Chief Executive Officer and Chief Technology Officer, eBRAM International Online Dispute Resolution Centre (Hong Kong, China) • Mr. Danny Ong, Managing Director, Setia Law (Singapore) |
| 04.50-05.00 PM | <p>Closing</p> <ul style="list-style-type: none"> • Ms. Queenie Wu, Deputy Director, Hong Kong International Legal Talents Training Office, International Law Division, Department of Justice (Hong Kong, China) |