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SUMMARY REPORT

OF THE FIFTH SESSION

(2 – 4 April 2025)

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1. The fifth session of the Working Group on the Legal Nature of Verified Carbon Credits (the 'Working Group' or 'Group') was held in hybrid format from 2 to 4 April 2025 at the seat of UNIDROIT in Rome. The Working Group was attended by a total of 61 participants, including 11 members and 29 observers, with representatives from intergovernmental organisations, industry associations, and non-governmental organisations (the list of participants is available in Annexe II).

Item 1: Opening of the session and welcome

2. *The Chair* and the *Secretary-General* opened the session and welcomed all participants to the fifth meeting of the Working Group, acknowledging the diverse participation from in-person and remote attendees across various time zones. *The Secretary-General* introduced Ms Sharon Ong, member of the UNIDROIT Governing Council and Chair of the recently established Consultative Committee, who joined the Working Group remotely from Singapore.

Item 2: Adoption of the agenda and organisation of the session

3. *The Chair* introduced the Annotated Draft Agenda and the organisation of the session.

4. *The Working Group adopted the Agenda (Study LXXXVI – W.G.5 – Doc.1, available in Annexe I) and agreed with the organisation of the session as proposed.*

Item 3: Introduction to the new topics of interoperability and tokenisation

5. *The Chair* introduced the guest speakers on the topic of interoperability: Mr Chris Canavan and Mr Dinesh Babu from the Global Carbon Market Utility (GCMU) and Ms Ieva Steponaviciute from the Climate Action Data (CAD) Trust. He gave the floor to Mr Canavan and Mr Dinesh to proceed with the GCMU presentation.

(a) Interoperability

i. GCMU presentation

6. *The GCMU representatives* introduced the GCMU as a new initiative intended to establish financial market infrastructure for the market for verified carbon credits (VCCs), such that the market for VCCs would scale and resemble the commodities, securities, and derivatives markets.

7. With respect to interoperability, it was noted that the carbon market was currently fragmented in size and shape. The discussion around interoperability centred on how to bring all the players, stakeholders, systems, and facilities to have a common exchange of the information related to the carbon credits without requiring any specific intervention, thus achieving fungibility and increasing liquidity and access to the market. It was suggested that interoperability efforts should focus on allowing seamless transfer, recognition, and trading across different platforms, thereby facilitating and accelerating access to climate finance. The question was thus one of harmonisation of data, with various groups and initiatives attempting to address how this was to be achieved.

8. In terms of technology, it was noted that the registry providers were fragmented with no unification of data, which largely remained incompatible across providers. There thus was a need for accountability, accuracy, and transparency. Several efforts were underway, with the digital monitoring, reporting, and verification (DMRV) becoming critical in terms of showcasing the data. The need for a common legal framework was emphasised, especially in terms of understanding the proprietary rights associated with the carbon credits.

9. *The GMCU representatives* further noted the importance of leveraging the infrastructure to record encumbrances and evidence of title. Interoperability was also mentioned as a means of mitigating the risk of total loss in the case of the insolvency of a VCC registry, as well as a way to unlock debt financing by helping lenders be more comfortable with VCCs as collateral. Interoperability between the compliance and voluntary markets was also noted, given the reality of voluntary credits increasingly being transitioned into compliance markets.

10. At the conclusion of the presentation, *the Chair* opened the floor to questions from the Working Group.

11. *A Working Group participant* observed that interoperability was not a novel issue. For example, central banks had developed systems to allow interoperability between different Central Bank Digital Currencies (CBDCs). Further, in the private field there was an interoperability framework between a Swiss, a Singaporean and a Japanese bank on transactions and settlement of securities. The participant thus queried the extent to which there had been an effort to learn from these experiences.

12. In response, a *GCMU representative* stated that there had been very limited discussions with the central banks related to what they had developed. It was, however, emphasised that the technology that was emerging from the interoperability solutions was not just blockchain. The challenge in the VCC market was to first harmonise the data that was flowing out of the 50 registries maintained by 50 standards. The question that followed was which technology would be used for showcasing the harmonisation and achieve the desired scale.

13. *The HCCH Deputy Secretary General* noted that the Hague Conference on Private International Law (HCCH) had an Experts Group discussing the matter of CBDCs. She noted that CBDCs were not completely matched onto carbon credits because CBDCs were brand new and the idea was to put the private international law (PIL) considerations into the design of CBDCs. For CBDCs, she explained, the core features such as issuance, holding, transfer, collateralisation, and redemption, resembled *ordre publique* considerations, which significantly impacted how the substantive law would be applied. She offered to share the work of the HCCH in this context.

14. *Another participant* questioned how the transfer from one VCC registry to another was supposed to work in practice. He noted that the system was very different to that of the securities markets, where securities were created by large banks that maintained a registry of the owners of the securities and where clearing systems such as Euroclear, Clearstream, and DTCC were used for clearing trades. In the securities context, there was a link between the clearing systems and the banks because the clearing systems had to have access to the system that created and monitored the security. But the securities did not need to be transferred between bank registries; it was all done through the clearing system. It was thus queried in what direction the VCC systems were developing; whether it was necessarily through actual interoperability from registry A to registry B to registry C, or through a more centralised clearing arrangement as seen in other markets.

15. *The GCMU representative* acknowledged the different dimensions of interoperability, one of these being simply a question of plumbing and connecting different markets and then facilitating the clearing and settlement of transactions that spanned different jurisdictions and markets. However, it was noted that focusing simply on technology solutions that, for example, connected different registries, did not deliver what was needed to the VCCs market because it still left much uncertainty about the nature of the exchange, the nature of the transactions, and the nature of what was being cleared and settled. This underscored the importance of the Working Group's work—the greater the harmonisation across jurisdictions, the easier it would be to deliver interoperability and eventually fungibility across markets.

16. *A member of the Drafting Committee* clarified that there were at least two situations where interoperability could be relevant to the draft Principles: (i) when a credit was used in a compliance system and had to be moved from a voluntary registry to a compliance registry; and (ii) where a registry became insolvent and the VCCs in that registry had to be moved somewhere else, perhaps to another registry. She emphasised the need to ensure that, at least in these two situations, it was the same VCC that was moved from one system to the other. She explained that if the VCC was to come with all the proprietary rights and security interests it had to be the same VCC rather than an entirely new asset.

17. *The Verra representative* encouraged the Working Group to determine what the scope of the Principles should be. She noted that, because the space was very dynamic and fluid, it was difficult to capture all the implications of interoperability in carbon markets. She suggested that rather than interoperability being a matter of international private law in itself, it was likely that the draft Principles could inform or facilitate interoperability. She also stressed that while the goal of scaling for fungibility was important, it was also critical that the underlying mitigation had integrity; in other words, the VCC not only had to remain the same asset, but it had to continue representing the inherent underlying value.

18. *A Working Group participant* proposed that the technology aspect of interoperability was not within the scope of the Principles and noted that there were a number of other fora addressing that issue. On the other hand, whether there was a clearing house was one of the issues that affected the regulatory and legal frameworks that were squarely within the Principles. It was explained that currently there was no clearing house. Rather, there was an associated removal of the project in its entirety from one registry and transfer of that project to another registry, often with different quantification rules to create further emission reductions or removals from the same project.

19. It was suggested that having a unique identifier could help in resolving issues relating to transfer and interoperability. However, it was noted that the serial number at the moment was unique to the registry where the VCC was recorded and was not currently transferable.

ii. CAD Trust presentation

20. *The Chair* thanked the GCMU representatives for the excellent presentation and gave the floor to Ms Steponaviciute, the CAD Trust representative.

21. *The CAD Trust representative* introduced the CAD Trust noting that it was established in 2022, building on three years of work under the World Bank Climate Warehouse Program, focusing on carbon markets infrastructure and enabling elements for scaling carbon credit markets with high integrity and trust. The CAD Trust maintained a decentralised blockchain platform to link, aggregate, and harmonise data on VCCs across different carbon registries. It had a public ledger of carbon market activity to ensure the transparency and auditability.

22. She clarified that the CAD Trust had pioneered a common data model for carbon credits to enable interoperability by developing common definitions and a common language to describe underlying assets. She noted that this common data model was one of the key enabling elements for interoperability and was used on the CAD Trust's platform, contributing to ongoing data model standardisation work in the market. She further highlighted that the CAD Trust operated as a not-for-profit entity governed by policymakers from various countries and main crediting programs. Such a collaborative governance model fostered industry-leading conversations on data models and market integrity.

23. An overview of the CAD Trust's technology and interoperability efforts was provided. The infrastructure was built on a decentralised blockchain platform and its primary purpose was to link, aggregate, and harmonise data on VCCs from various carbon registries without necessitating the

transfer of these assets into a centralised system. It was explained that the platform integrated data from different registries, including major crediting programmes like Verra and Gold Standard, as well as national registries from countries such as Bhutan and Switzerland. Additionally, it incorporated data from registries managed by the United Nations Framework Convention on Climate Change (UNFCCC), such as the Clean Development Mechanism (CDM) registry. These registries harmonised their data according to a common model and voluntarily shared it on the transparency platform provided by the technology. The decentralised blockchain platform maintained an auditable ledger of carbon market activities and functioned similarly to a clearing house. It aimed to empower various use cases within the carbon market by increasing transparency and supporting trusted accounting and verification processes. In particular, the market currently had over 60 crediting standards, leading to data fragmentation and decentralised issuance. The CAD Trust sought to avoid information asymmetries and address double counting by providing transparency and common data frameworks.

24. Although implementation remained limited, the relevance of using common terms, definitions, and formats was highlighted. Scaling those common practices and using standard identifiers would be key to addressing new questions such as who was issuing the units and where. It was further clarified that interoperability meant making transfers possible, which could mean moving things between systems.

25. She explained that many countries were now trying to keep track of activities under multiple programs within their borders, noting that some countries might authorise credits or Article 6 trades, or declare that credits issued by independent credit programs were eligible for compliance purposes, such as the Singapore carbon tax. She emphasised that compliance was managed at the national level. She discussed another model pursued by some countries, where the national registry also had issuance and transaction functions. She mentioned that this model was requested in Baku to have the UN International Registry primarily function as a pull and view registry, but also include issuance functionalities. She explained that this meant units used for compliance or transferring were held, moved, or integrated into trading flows by the national registry itself.

26. The CAD representative illustrated how some Verra credits could be moved into the national registry and then further traded. She noted that some national programs might issue credits directly, which represented a different type of interoperability. She clarified that the CAD Trust was not a compliance program but provided common data frameworks to integrate the information. The CAD Trust connected registries issuing VCCs to be traded and integrated national programs to reflect a global picture of carbon market activity.

27. It was emphasised that the law affecting VCCs and registries should consider global connectivity needs, given the international nature of carbon markets. In particular, the importance was highlighted of implementing unique and universal IDs for VCCs to help identify and implement interoperability between jurisdictions. Lastly, it was explained that VCC registries currently performed two main functions: certifying projects to become VCCs and issuing credits. However, the single entity role in these functions could split in the future. Universal credit issuance technologies could emerge, potentially increasing or decreasing interoperability needs.

28. *The Chair* thanked the presenter and opened the floor to questions and interventions.

29. Clarification was sought on the situations in which a VCC would be moved from one registry to another. Three scenarios were identified: (i) where the VCC was registered in a voluntary registry but used in a compliance market and, in certain jurisdictions, would be moved to a national registry—in such instances the VCC would be the same, but it would be used for different purposes; (ii) possible movements between registries although, currently, these were rare occurrences; and (iii) in the event that a registry became insolvent and the titles had to be transferred elsewhere.

30. The Working Group was asked to elaborate on the concept of an omnibus account reaching across multiple registries. It was clarified that what was being referred to was an overlay rather than an omnibus account spanning registries. Reference was made to the Regional Voluntary Carbon Market Company (RVCMC) which provided a trading platform for various different types of carbon credits. While users would be able to log onto the platform and trade different types of carbon credits, there was no interconnectivity between the registries which remained separate from each other.

31. *The HCCH Deputy Secretary General* agreed that there was an interconnectivity issue, which was more of a portfolio-type situation rather than an omnibus account-type situation. She suggested that the Working Group contemplate the extent to which the role of intermediaries should be considered as this would make a significant difference in terms of the choice of forum and the choice of law and would also determine the characterisation of what was being discussed.

32. In response to questions from the Working Group regarding how the Working Group could contribute to interoperability efforts, *the CAD Trust representative* noted the need for common principles in treating VCCs under private law. She explained that some commonality or a clear definition of what was being traded and how that fit into broader legal frameworks on a global scale could then inform what could be aggregated from a data perspective. *A GCMU representative* added that financial intermediaries needed confidence in perfecting security interests in collateral as well as in understanding what amounted to a true sale.

(b) Tokenisation

i. Mr Cameron Prell (World Bank Consultant) presentation

33. *The Chair* thanked the presenters for their helpful suggestions and explanations on interoperability and turned to the topic of tokenisation, for which there were two guest speakers: Mr Cameron Prell, World Bank Consultant, and Dr Dominik Skauradszun of the TOSCA Research Group of the Centre for Responsible Digitalisation ('TOSCA'). *The Chair* gave the floor to Mr Prell.

34. *Mr Prell* introduced the topic of tokenisation. He noted that the issue of tokenisation needed to be explored in terms of stress testing the underlying architecture in which the VCC was being defined. Indicating where in the VCC life cycle tokenisation was currently being pursued, *Mr Prell* noted that there was no single tokenisation model currently used in the VCM. He explained that tokenisation writ large, understood as creating a digital asset as defined in the DAPL Principles, was occurring at various stages in the existing VCC life cycle and this created different implications as to the architecture and where the market could be headed. He clarified that he was not going to address the tokenisation of a carbon project but rather focus the discussion on the existence of the VCC itself and its transactability post creation.

35. <u>Tokenization Path 1 – Digital MRV Data Token</u>: Mr Prell explained that, in relation to the project implementation and verification stage in the life cycle of a VCC, what was being tokenised was the MRV data. He noted that there were several attempts to put the MRV data on chain by creating tokenised data-sets. He described the line between refined MRV data-sets and data NFTs being the break point between what was occurring off chain and what was being put on chain in an immutable record context effectively creating a digital asset—a record of information capable of being controlled. He further clarified that those data NFTs were not being treated as the VCC per se; they were just being treated as immutable records of the information. The VCC still existed in the registry, but entities, like Verra or others, were creating what they were calling 'Project Hub'. This was a set of digitised information, which may or may not ultimately be on chain. These data tokens or NFTs provided the buyer of a traditional VCC some measure of digital access to the substantiating information underlying the VCC.

36. Mr Prell indicated that other initiatives were instead attempting to link digitally those data NFTs to a digitised or tokenised VCC and presented the variations of those types of digitised products:

- Tokenisation Path 2A – Reference Asset Token: '**Path 2A**' referred to the reference asset token; i.e., the concept where the token was a representation of an underlying VCC. A reference asset token did not replace the underlying VCC. Rather, it was the creation of a digitised token that was made available for ease of transaction, or to enable the linking of data sets. Once that digital asset was created, the VCC within the registry was frozen. It was unable to move, be retired or otherwise sold, because the digital asset, i.e., the reference token, was active in the marketplace. Transactions and the subsequent retirement would take place through the reference token—any action taken on the reference token would affect the underlying asset in parallel.

- Tokenisation Path 2B – Native Asset Token: '**Path 2B**' referred to the native asset token. Unlike the reference asset token, in the native asset token the verification process and/or the issuance of the VCC itself was occurring in a way that replaced or rendered unnecessary the traditional registry system—rather than living in a registry, the VCC lived in a digital environment. Native VCCs thus raised issues in relation to the role of the registry operator, of the custodian, and of the asset itself, including what was the VCC on-chain when the blockchain was effectively functioning as a registry since it recorded things and was transacting across the marketplace.

- Tokenisation Path 2C – Native NFT + Fungible Reference Token: '**Path 2C**' referred to a native VCC, or native NFT, plus a fungible reference token. The asset was recorded on-chain as a native VCC, without the need for a registry system. One of the current approaches, it was explained, involved attempting to create, effectively, a fungible asset token—a digital asset on top of a digital asset. One was transacted in the marketplace and the other one was just on-chain as a record of the asset and its ownership in a dedicated wallet.

- Tokenisation Path 3 – Fungible Native Token Post-Retirement: '**Path 3**' referred to one of the original use cases, which entailed helping scale the marketplace by retiring the VCC and taking the underlying reduction, the achievement, into a digitised universe. In effect, what was being created was, after the fact, called a 'zombie VCC'.[1] Path 3 was also presently occurring not in a zombie VCC context, but in a tokenisation of a retirement certificate sense. There were use cases from some of the carbon accounting platforms that were endeavouring to create an immutable record of retirements that a company might take action on. What was being retired in that sense was the retirement certificate, not the VCC.

37. Mr Prell concluded by noting that the above was not meant to be an exhaustive list, but was intended to provide context for the different models because they raised different issues associated with what a VCC was, what the digital asset was (native or reference), and how the market architecture could evolve going forward. *The Chair* opened the floor to questions.

38. *The Working Group* considered the extent to which the multiple pathways to tokenisation fell within the scope of the Principles and required any amendments to the draft instrument. The discussion centred mostly on Path 2A (reference asset token), Path 2B (native asset token) and Path 2C (native NFT + fungible reference token). There was general agreement that Path 1 (digital MRV data token) and Path 3 were outside the scope of the Principles.

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[1] In this respect, a *Working Group participant* alerted the Group to the fact that IETA had struck a digital carbon task force and came up with ten recommendations in light of the extraordinary challenges that were happening with the creation of zombie credits.

39. In relation to Path 2B concerning the native asset token, a question was raised as to who in this context would be responsible for the verification, creation, and issuance of the native token. In response, it was noted that in practice it had been done both with an entity and without. In one use case, there was a standards body with a methodology being used by a project to measure the achievement of the removal reduction. The verification report was generated and a third party verifier was brought in to provide that verification report. Up to that point, it was relatively similar, if not identical, to the traditional process. However, at the point of the verification report, the verifier was providing more than just the verification report—it was effectively a trigger for a tokenisation engine entity to mint a native token. The market was trying to figure out whether it was absolutely necessary to have a standards body act in the middle to bless or ratify the achievement of the verification report.

40. A follow up question concerned whether the verification process was carried out by smart contract and who was setting up the system providing that if there was a positive verification report, the token would be issued. *Mr Prell* clarified that, in the two existing use cases he had been involved in, the standards body had been consulting as part of the establishment of the parameters for the smart contract. However, due to the lack of domain expertise on the technical side, the tokenisation engine entity was the one actually setting those parameters into the system.

41. One view shared by a *Drafting Committee member* was that Path 2B was already accommodated, albeit constrained, by the Principles, since the Principles laid out certain requirements and called for registration but remained neutral regarding technology. If there was a registry set up as a distributed ledger that was on a private blockchain completely controlled by that entity—where each account was in the form of a wallet, and at the moment of issuance the VCC registration was technically carried out as the minting of a token which was then credited to a participant's wallet—that process would be consistent with Path 2B and would be accommodated by the Principles, provided the substance requirements in the Principles were satisfied.

42. While agreeing that Path 2B was probably covered by the Principles, *other participants* suggested that the Group examine the term 'registry operator' since this likely needed to be adjusted to consider whether there could be a scenario where no registry operator existed and yet ensure that the duties of a registry operator were still covered. However, concerns were raised to the extent that Path 2B considered public permissionless blockchains and *participants* queried how involuntary cancellations of VCCs could work on a public permissionless blockchain.

43. With respect to Path 2A and Path 2C, it was suggested that these were not currently covered by the Principles. In these scenarios, the VCC existed in a registry as a recorded registration somewhere. Then someone would mint a token or NFT on a blockchain and claim that digital asset represented the VCC in the registry. The Working Group was asked whether the instrument should address the digital representation of the VCC. Including this in the Principles would entail the creation of a layer of rules, the most fundamental of which would concern the legal nature of that link. In particular, the link between the digital asset and the VCC would need to be defined in private law and rules would be need to be developed to determine what happened if, at any moment, the two uncoupled.

44. In response, it was noted that, if the position was that the VCC was the VCC in the standard registry and that the digital VCC was something else, then it was suggested that Path 2A was essentially covered in the sense that what happened after tokenisation fell outside the scope of the instrument. If instead the Group wanted to provide for Path 2A in the instrument, then the Group needed to decide if an additional duty should be included for the registry operator concerning the standard VCC that underlay the digital one, such as freezing the underlying VCC to make sure that once it transferred from a regular VCC to a digital VCC only one could circulate in the market and be retired. Further, regarding Path 2A and the digital VCC, it was suggested that the Group decide how the retirement process worked. For example, in the case of retirement of the digital VCC, whether

an instruction would then be provided to the registry operator of the regular VCC to record that retirement.

45. In relation to Path 2A, *Mr Prell* explained that some sort of 'umbilical cord' from a regulation perspective had to be maintained between the underlying VCC and the digitised version. He noted that, conceptually speaking, how that tether was maintained was not too dissimilar from metals receipts in warehouse structures. Indeed, some practitioners considered the reference token to be that kind of instrument: a receipt, a representation. He emphasised that the reference token was not the VCC but rather a representation of the VCC created for the purpose of enhancing the VCC's transactability and the transparency of the information associated with the transaction.

46. *Several participants* agreed that the Working Group should remain focused on the legal nature of the underlying VCC and ensure that the Principles defined the pathway rather than the other way around. It was noted that the situation envisioned by Path 2A—a token representing an already issued VCC—was something different to a VCC and should therefore not be covered by the Principles.

47. *The Secretary-General* acknowledged the position expressed by Working Group members in relation to the difference between VCCs and reference tokens but noted that the Group needed to determine whether it made sense to cover tokenisation or not, bearing in mind that the goal of the project was to help the scaling of the markets.

48. In response to questions from Working Group participants, *Mr Prell* addressed the scenario in which an existing standards body, which operated its own registry, decided to replace its technology with blockchain. Upon that standard body's issuance of a 'unit' of a VCC, that unit would be minted rather than issued into a registry account. Such minting process would often involve a custodial relationship in a wallet, where either the project account had a wallet on-chain, or a company provided some measure of custodial services to somebody else's wallet or their assets in that wallet. He suggested that the Group discuss, at a minimum, the nature of that obligation for the DLT-based registry. With respect to governance and the cancellation of VCCs, he noted that, in the limited instances where there had been a retirement, the digital VCC, whether native or reference, was 'burned' such that a record was made of it being taken off the chain as transactable. Then a record was made on the underlying legacy VCC to show that that unit had been removed from circulation. However, he clarified that he had not encountered the scenario where the tokenised VCC had to be replaced or revoked.

49. In relation to the analogy between Path 2A and warehouse receipts, *a Drafting Committee member* specified that warehouse receipts were not a contract creation but rather they existed and functioned because there was a law that underpinned the system. Therefore, if the Working Group wished to address Path 2A, there was a need for some kind of property rule in the Principles that operated in the same way in which warehouse receipt laws, bills of lading rules, underpinned that kind of document of title device.

50. In response, a *participant* observed that, if the digital VCC was simply some representation that traded and could be used only for speculation on the price of the VCC, then that would be outside the Principles. If, however, there was, in fact, a bridge that created some sort of a link, then the Group should consider how to incorporate that into the Principles or decide that it should not be incorporated because the existence of this structure should not be facilitated.

51. In relation to the link at Path 2A, a *Drafting Committee member* suggested that there were two ways of addressing it. One way was a derivative, meaning that the digital asset would provide some claim in relation to the value of the VCC. That would be done by contract and it would not constitute tokenisation. The other way would instead involve linking the property rights in the digital token to the underlying VCC, meaning that whomever owned the digital token owned the VCC. Two

problems with this approach were identified. Firstly, the underlying VCC would presumably be stuck in a registered holder's account and, as far as the registry was concerned, the registered holder was the one who appeared to have the ability to act on the VCC. Secondly, transfer of the digital token would have to transfer some kind of ownership right in relation to the registry. This could be achieved by either (i) including a rule in the Principles, following the warehouse receipts law example; or (ii) leaving this up to other law, including regulatory law, as was done in the UNIDROIT Principles on Digital Assets and Private Law (the 'DAPL Principles').

52. *The Verra representative* proposed that, while the Principles should not rule out any tokenisation pathway, they should neither regulate for any particular approach since this would entail making assumptions about the future direction of the market. She also stressed the importance of preserving the link to what that asset represented in terms of that project. The value of the asset was not just its transferability and transactability, but it was also what the underlying VCC represented.

ii. Dr Dominik Skauradszun (TOSCA Research Group) presentation

53. *The Chair* noted that some of the issues being discussed would be addressed by the next presentation. He thus invited Dr Dominik Skauradszun from TOSCA to present. The discussion would resume after his intervention.

54. *The TOSCA representative* thanked the *Chair* for allowing a report on the outcome of TOSCA, an interdisciplinary research group consisting of 15 experts from computer science, economics, and private law. He explained that the group spent 18 months on the tokenisation of VCCs, particularly native VCC tokens. He noted that TOSCA's project had a narrower scope compared to UNIDROIT's Working Group since TOSCA focused solely on the voluntary carbon market to avoid conflict with the EU Emissions Trading Scheme. He noted that TOSCA deeply admired the quality of the latest draft Principles and found many of the ideas cutting-edge.

55. The TOSCA representative noted that TOSCA's research referred to native VCC tokens, meaning a situation where there was no representation of a traditional VCC—it was rather only the VCC token itself that contained all the relevant data with respect to the VCC. On this basis, he compared the outcome of TOSCA's research with the latest draft Principles. He explained that TOSCA's general understanding with respect to tokenised VCCs was in alignment with draft Principles 2 and 3. He highlighted the unique identifier defined in Principle 2, understood in the tokenised context as the blockchain address, whether it was a segregated or omnibus wallet.

56. He noted that TOSCA felt certain that a native VCC token could be the subject of proprietary rights and that paragraph 3.2 in the draft Commentary supported TOSCA's conclusion that a person could hold an absolute right in a VCC token, since the VCC token was unique and could be controlled by the person holding the keys. This person was the only one who could, for instance, instruct a custodian in relation to that VCC token. He further explained that, in TOSCA's view, a VCC token did not represent a claim but rather could give rise to a claim—for instance, that the VCC token would, at a later time, be retired.

57. Regarding the pivotal players, the TOSCA representative found that TOSCA's understanding closely resembled the draft Principles. With respect to the project design document (PDD), he noted that TOSCA included this information either within the token itself or as a link in the token to a permanent website. With respect to draft Principle 3 and the distinction between Principles law and other law he described draft Principle 4 to be very plausible and enriching, as it introduced an explicit principle regarding the applicable law.

58. As to transfer and draft Principles 6 and 7, he explained that the decisive question was whether the transfer of proprietary rights in a VCC token was governed by Principles law or whether

it fell under national law. He stated that TOSCA, bound by the hard law of the European Union, had to consider the classification of a VCC token as a crypto asset under the Markets in Crypto Assets Regulation (MiCAR). He described how TOSCA had considered the transfer of proprietary rights and whether MiCAR, at least implicitly, provided that a VCC token, as a crypto asset, could be subject to a transfer of proprietary rights. He pointed out that Article 70 of MiCAR referred to ownership, meaning that a person, holder, or client could have ownership rights in a VCC token. Since MiCAR also regarded crypto assets as transferable, he suggested that the conclusion could be that ownership rights in a VCC token within the European Union were transferable. However, he cautioned that Article 345 of the Treaty on the Functioning of the European Union stated that ownership systems were subject to national law in all Member States. For this reason, TOSCA still needed to determine which national law should apply to the transfer of a VCC token.

59. The TOSCA representative turned to Principle 4 on applicable law. He noted that TOSCA had observed the waterfall structure of DAPL Principle 5 and had similarly considered a waterfall structure starting with the choice of law as the primary factor. Regarding a VCC token, TOSCA was of the view that the choice of law could be made either within the token itself or in the smart contract of the relevant blockchain. TOSCA then considered connecting factors similar to those in draft Principle 4 and believed that the seat of the issuer could serve as a strong connecting factor. The seat of the project developer was also seen as a fair and strong connecting factor, and, as envisaged in draft Principle 4, the seat of the registry operator could likewise be a very strong connecting factor. The TOSCA representative concluded that the waterfall structure should end with the principle of the closest connection, as this was a widely accepted principle. Regarding the contractual relationships, particularly between buyers and sellers in the secondary market, he noted that these relationships were governed by the Rome I Regulation of the European Union, which served as a specific regulation concerning private international law.

60. Turning back to the matter of transfer, he stated that TOSCA had confirmed the transferability of a VCC token. This, he noted, aligned with the understanding of MiCAR and reflected the technical reality. When it came to the transfer mechanism, the transfer should not be equated with the transfer of movable property, nor should it be seen as a simple change of control. Instead, it should be compared to the assignment of rights, with both parties agreeing that a VCC token, along with the proprietary right in the token, would be transferred, but with the important caveat that both parties would only recognise the transfer as valid if it occurred on the specified blockchain.

61. As to draft Principle 7 and innocent acquisition, the TOSCA representative found it persuasive that the DAPL Principles included a principle on innocent acquisition, and it seemed logical to develop a similar principle in the VCC context. He noted that MiCAR contained a loophole regarding the issue of potential innocent acquisition. Nevertheless, he found it convincing to verify whether the VCC token was recorded in a register and, if so, the acquiring party could indeed act in good faith and a good faith acquisition appeared justifiable.

62. With respect to draft Principles 14, 15, and 17 on custody, the TOSCA representative explained that, in their view, the necessity for a custodian increased significantly if the VCC was tokenised. He pointed out that if someone in the European Union provided custodial services for a VCC token, that individual was subject to strict regulation under MiCAR, specifically under Article 75.

63. He further agreed that a mere change of control did not equate to a change in proprietary rights, and that a custodian was only authorised to transfer the VCC token upon the client's instruction. However, he identified a weaker aspect in MiCAR and a related need to perhaps reconsider draft Principle 15(3)(a), which concerned the obligation to record the latest transfers. He explained that MiCAR only required custodians to update and send records to clients at least once every three months, as set out in Article 75(5). He expressed concern that, in the event of a custodian's insolvency, an insolvency practitioner might challenge the records as being outdated. Therefore, he suggested that draft Principle 15 could be strengthened.

64. As to the undivided pool, he noted that this was especially relevant for tokenised VCCs where he expected that custodians would generally offer omnibus wallets as the standard practice. He agreed that it was prudent to include a draft Principle stating that other creditors would have no claim on the VCC token, particularly in the event of the custodian’s insolvency. The TOSCA representative explained that MiCAR aimed to maximise client protection by mandating triple asset segregation—technically on the DLT, operationally through internal bookkeeping, and legally by segregating the crypto assets, including VCC tokens. He suggested that the Commentary could highlight the option for States to directly and legally segregate VCC tokens held in custody.

65. Regarding the shortfall mechanism in draft Principle 17, which aligned with DAPL Principle 13, he observed that, despite its 149 articles, MiCAR did not provide a shortfall mechanism. The TOSCA representative noted that the draft Principles provided a justifiable and convincing shortfall mechanism, as it encouraged States to permit insolvency practitioners to use VCC tokens of the same nature in the event of a shortfall. He acknowledged that this could be detrimental to the general body of insolvency creditors; however, if a State wished to promote custodial services for VCC tokens, it was justifiable to allow for such a shortfall mechanism.

66. With respect to draft Principles 17 and 24, the TOSCA representative explained that, for those States subject to European Union law, consideration had to be given to the European Insolvency Regulation. He acknowledged that many experts were not bound by EU law, but he wanted to highlight that there had been significant challenges concerning the fundamental question of where to place VCC actors. Specifically, in an insolvency scenario, the question arose whether these actors should be treated as ordinary debtors—thus subject to general insolvency law, such as the European Insolvency Regulation—or whether VCC actors were so closely aligned with banks or investment firms that the specialised insolvency regimes for those entities should apply. He noted that TOSCA had concluded that, for example, a purchasing company investing in VCC tokens or a client of a custodian managing VCC tokens would fall under the European Insolvency Regulation. However, there remained uncertainty about whether MiCAR intended for electronic money institutions to easily provide custodial services for VCC tokens, and whether these institutions should be governed by general insolvency regimes or by the specific regimes designed for banks or investment firms.

67. Regarding insolvency practitioners, the TOSCA representative observed that the Working Group had considered the powers of insolvency practitioners in the event of insolvency, and that the Working Group’s conclusions were similar to those of TOSCA. On the topic of transaction avoidance, he mentioned that TOSCA had contemplated situations where a VCC token was transferred before the commencement of insolvency proceedings, but in a manner detrimental to the general body of insolvency creditors. In such cases, States should permit transaction avoidance. However, he pointed out that pseudonymisation could make it difficult or even impossible to pursue such claims.

68. Finally, with respect to the statements in draft Principle 13, particularly 13(5), where the registry operator might also face financial difficulties and become subject to insolvency proceedings, he noted that there was a desire for the registry operator to establish both a recovery plan and a dissolution plan. He believed this idea was influenced by MiCAR, since Article 46 required such players to establish a recovery plan, and Article 74 required custodians to establish a wind-down plan. He cautioned, however, that the effects of these plans remained unclear, and it was uncertain whether the resources required to create them could be justified.

69. The TOSCA representative concluded that the VCC draft Principles closely resembled TOSCA’s findings, and that the latest draft was sufficiently flexible to address tokenised VCCs. He expressed his gratitude for the opportunity to provide feedback on behalf of his project group.

70. *The Chair* opened the floor to questions and comments.

71. In response to a question raised by the Working Group, *the TOSCA representative* clarified that TOSCA's research focused on native tokens and that the conclusions would indeed be different if instead there was a traditional VCC and the blockchain token was merely a representation of the VCC. For example, there was a question as to whether a transfer was only valid if both were transferred or whether the traditional VCC remained the pivotal element. To avoid such complications, TOSCA deliberately focused on the tokenised VCC, meaning a token that contained the full set of data.

72. *A Drafting Committee member* observed that MiCAR was a regulatory instrument and, although it was good to know that there was considerable consistency between that and the draft Principles, this was not necessary since regulation sat on top of private law. With respect to the use of the term 'proprietary rights' in both the DAPL Principles and the draft Principles, she explained that this term was used to stay jurisdiction neutral but that it did not mean that there could not be an absolute interest; a proprietary right could be an absolute interest, a security interest, or something else, depending on the jurisdiction. As to the term 'claim' in paragraph 20 of the Commentary, she noted that it was used in a colloquial sense and that the Group had actually tried to say that there was no claim in a token or in a VCC generally. That said, the Commentary did outline that a contractual or another kind of right could be part of the VCC and that it transferred with the VCC—it depended on how the VCCs were set up. With respect to insolvency, she clarified that the language at draft Principle 24 was taken from the DAPL Principles and was purely a placeholder at this stage, since the Working Group had yet to discuss and decide whether to include a principle on insolvency. She explained that the Commentary provided that if a custodian, intermediary, or other party was a regulated entity and fell under a specific insolvency regime, then that regime applied.

73. In response to a question about how to handle changes in project documentation, *the TOSCA representative* noted that the PDD could either be placed in the token or there could be a link in the token to a permanent website and combined with a hash. The idea to combine it with a hash was to make sure that the content of the data was not changed and could be controlled. He noted, however, that a solution had not been identified to address the situation where there was a serious, justifiable reason why the set of data should be changed at a later time.

74. *Another Drafting Committee member* queried how reversal and revocation could be accommodated in the context of a permissionless public blockchain. *The TOSCA representative* noted that the project did not cover these aspects. However, with respect to retirement, he noted that the VCC token could be sent to a one-way blockchain address from which it would no longer be transferable.

75. *A Drafting Committee member* suggested that, if someone attempted to set up a VCC registry system using a DLT and they failed to create a system that accommodated Principles 8, 9, 7, or any one of the fundamental Principles, then what they created would simply not qualify as a VCC. He explained that a registry as advocated for in the Principles could be built as an L2 application on a blockchain like Ethereum, with a smart contract controlled by the registry operator to ensure compliance with the Principles. The L2 would serve as the registry; it would mint the tokens, the tokens would be coded in such a way that they could accommodate revocation, and the information in the token could be changed in real time. He noted that this was something that was already available in the context of electronic digital warehouse receipts. He also clarified that when people spoke of a blockchain system as being immutable, it meant that information could only be added—thus the blockchain could be updated to reflect new or different project data.

76. It was suggested that the Working Group may have to determine whether the private law system that was being set up required a registry operator, regardless of the technology. It was noted that there were certain people that could not be taken out of the system and not everything could be done via smart contract. There had to be somebody that set up the smart contract in the first

place. It was observed that the salient points included who was in charge of the threshold issue of tokenisation, who was in charge of and responsible for properly coding, and who was responsible for properly modifying or adding to the block.

77. *A Working Group participant* encouraged the Group to consider the possibility of a registry without a registry operator; this would function as a registry from a market perspective but would currently not meet the definition of registry in the Principles. It was noted that, even in such a context, there would be a person acting as a point of contact for any requests or requirements related to that particular VCC and should not negatively affect the existence of a VCC.

78. *The Chair* asked the Working Group to consider whether the issues of interoperability and tokenisation should be addressed in the Principles. He noted that challenges may be raised by situations in which the industry shifted across registry operators.

79. With respect to tokenisation, *the Secretary-General* acknowledged that at least one Working Group participant had expressed opposition to addressing this in the Principles. However, he noted that that was not enough to dismiss the topic altogether. Tokenisation helped scale the market and was related to the project. To the extent the Group was to address tokenisation, it would limit itself to the private law side of tokenisation; i.e., how to make sure that the instrument worked in cases where linked assets or VCCs were tokenised. If the Working Group was not inclined to address this, then it would have to provide a clear reason for its decision.

80. *A Working Group participant* clarified that the Group was not suggesting that tokenisation not be addressed at all. Rather, what was meant by tokenisation should be defined and then addressed. Others echoed the suggestion that the Principles should be broad enough to deal with a VCC whether it was tokenised or not.

81. *A Drafting Committee member* identified areas where guidance from the Working Group would be required. Going back to the nomenclature from Mr Prell's presentation, it was suggested that the Principles would likely only address Path 2A and Path 2B; the other options could be referenced just to clarify that they would not be addressed in the Principles.

82. With respect to Path 2B, it was suggested that this could be addressed in the Commentary by specifying that, so long as the structure was consistent with the Principles, the registry could be constituted on a blockchain. With respect to Path 2A, guidance was requested in relation to the link between the VCC and the token. The token represented a proprietary right and was linked to the VCC, which was recorded on the register. It was observed that the only link that needed to be addressed in detail was where, if the proprietary right to the token was transferred, it also transferred the proprietary right in the VCC. In order for this to be achieved, a valid legal process under applicable law was necessary. Two options were presented: (i) provide for a specific process in the Principles; or (ii) state that a process was needed but leave the specifics up to other law, as it would differ between national systems. Preference was expressed for the latter option, which had been adopted in the DAPL Principles and provided flexibility to enacting States.

83. *The HCCH Deputy Secretary General* noted that in October 2024 the Expert Group discussing digital tokens at the HCCH had addressed this matter and the topic of linked assets would continue to be considered by the Expert Group.

84. *The Secretary-General* noted that the present project was different to the digital assets project and necessitated different guidance. He specified that the Group needed to analyse a linked asset or tokenised VCC and provide some guidance on how that impacted the right to retirement as well as the cancellation processes.

85. The recommendation that the Principles remain technology neutral was once again emphasised. It was reiterated that the goal of the Group was to establish proprietary rights and enable transactions. In response, it was observed that the Principles would most likely not change and the definition of a VCC would not be altered. Rather, the issue of tokenisation would be primarily addressed in the Commentary which would note that the register could be on a blockchain and provide examples.

86. While not disagreeing with the proposed approach, *the Chair* cautioned that, in the near future, there would be more tokens in circulation, greater interoperability, and registries reaching across different territories. This could make parts of the Commentary no longer directly applicable.

87. The Drafting Committee was encouraged to critically review the draft Principles to ensure that there was nothing that precluded the tokenisation approaches that had been discussed. It was also observed that draft Principle 13 may need to be amended as it referred to the registry operator taking certain actions; however, there was no such entity in a permissionless blockchain. It was suggested that the Principles be amended to allow the possibility that the operator could be someone who set up a mechanism allowing for the registration. It would thus involve a slightly different notion of operator—either someone who directly operated and managed the registry or someone who set up a decentralised registry.

88. In response, it was noted that there still needed to be a person behind the registry operator. The infrastructure could be built on a blockchain, but there continued to be a need for a registry operator that maintained control. A completely decentralised VCC blockchain would not conform to the Principles, which instead envisioned a system in which someone stood behind the registry, especially for reversals and revocations and to maintain trust and reliability in VCCs. It was thus suggested that Principle 13 not be changed but rather that any technological solutions would need to abide by Principle 13. Others agreed and stressed the need to not undermine the substance of the Principles by trying to accommodate tokenised assets.

89. It was noted that the relevant substantive question for the Group was whether the Principles should provide for and allow disintermediated transfers of VCCs. *The Verra representative* objected to any kind of validation or certification happening on a decentralised basis, though accepted that subsequent transactions and transfers could take place in a decentralised manner. She observed that, as reflected and enshrined in the draft Principles, there were certain key stages behind which somebody had to stand which went to integrity and had to be maintained. These included how the VCC was created and how the proprietary right arose. Decentralisation could happen at other points in the chain. Others agreed with the proposed distinction between the creation aspect of the VCC (i.e., the primary market) and the trading aspect (i.e., the secondary market) where decentralisation could take place without impacting the Principles.

90. *Others* agreed. It was noted that CCBs were critical to the integrity of the market. While the draft instrument could be tweaked to acknowledge that technology evolved, the core of the Principles remained unchanged. The importance of Principle 5 concerning creation of a VCC was stressed. It was observed that the Principles or the Commentary should address the concept that a qualified party needed to stand behind the credits before they were entered into the system. Others added that the entire life cycle of a VCC was currently based on the assumption that a third party was necessary—indeed, the verification of the reduction or removal by a third party was the foundation to the entire system. It was queried, therefore, how far one could go with the blockchain before undermining the entire life cycle on which the Principles were premised.

91. While agreeing that the supervisory role performed an essential governance and regulatory function, *a participant* observed that there were different permutations of a system that could allow for that supervisory role without necessarily relying on a traditional CCB. Such a role could, for example, be handled by the registry operator. It was queried whether the Principles were

unintentionally locking in the legacy model without acknowledging that the governance role could be shifted from the traditional CCB to a registry operator.

92. *Participants* noted that if not technology neutral, the Principles should at least be technology 'open' and not preclude decentralised structures. It was suggested that to truly be technology 'open', the Principles should allow the blockchain to be used as a transfer mechanism from the outset. Others referred to 'system' neutrality rather than technology neutrality. *A participant* observed that the Working Group had yet to determine whether the Principles were going to address tokens that represented underlying VCCs. If such tokens were going to be addressed, then he queried why the Principles would be limited to digital representations of VCCs.

93. A question was raised as to whether the approval or acceptance of the verification could be handled by a CCB through a smart contract. If that were possible, the CCB and/or the registry operator would maintain control, although the process would be automated. It was suggested that the Commentary could specify that the registry operator was responsible for certain actions, but that those actions could be implemented in an automated manner via smart contracts or blockchain. That, it was noted, would not be a fully decentralised system without oversight.

94. *A participant* was of the view that the Principles should focus strictly on defining the legal nature of VCCs and not make determinations about integrity or quality, which should be left to the market. He cautioned against excluding segments of the market based on subjective views of integrity, maintaining that the Principles should apply to all VCCs and the market should ultimately decide the value and acceptability of different credits.

95. *The HCCH Deputy Secretary General* observed that the role of the registry operator was particularly relevant to PIL considerations. She noted that, when discussing a native VCC token that was completely decentralised, questions such as how close that connection was to the law of the State in which the registry operator had its central place of administration and where the registry was maintained needed to be addressed.

Conclusions

96. *The Working Group agreed that only tokenisation Path 2A and 2B would be addressed in the instrument. The substantive provisions would not change, but the Commentary would be enhanced.*

97. *The Working Group agreed that tokenisation Path 2A should be allowed under the Principles, but that the Principles should defer to other law for how the link would be construed. The instrument would include robust commentary addressing how the link should be construed to remain consistent with the Principles.*

98. *With respect to tokenisation Path 2B, this would be addressed in the Commentary by specifying that, so long as the structure remained consistent with the Principles, the registry could be constituted on a blockchain. However, to be consistent with the Principles, someone had to stand behind the registry.*

Item 4: Consideration of the revised draft Principles and Commentary

(a) Principles 8-11 (Cancellation, Reversal, Revocation and Retirement)

99. *The Chair* turned the discussion to draft Principles 8, 9, 10, and 11 addressing, respectively, cancellation, reversal, revocation, and retirement. He gave the floor to the Drafting Committee.

100. *The Drafting Committee* explained the new proposed structure of the draft Principles: there was now a new 'master' Principle on cancellation followed by three Principles addressing the reasons

why a VCC might be cancelled and the different consequences of cancellation depending on the reasons. These were 'retirement', which covered voluntary cancellation, and then 'reversal' and 'revocation' which instead concerned involuntary or potentially involuntary cancellations.

i. Principle 8 (Cancellation)

101. *The Drafting Committee* asked the Working Group whether a definition of 'cancellation' was necessary and turned to draft Principle 8 which governed cancellation proper and provided at draft Principle 8(1) that cancellation meant that the VCC ceased to be the subject of a proprietary right. Draft Principle 8(2) provided the three reasons for cancellation: reversal, revocation, and retirement. Draft Principle 8(3) specified that the effect of cancellation was that, upon cancellation, the VCC registry must not comply with any instruction given by the holder or by any user authorised by the holder. Upon cancellation, the VCC registry no longer owed the duties set out in draft Principle 13, specifically 13(1)(d), and the VCC registry had to update its records to record that the VCC was cancelled. Draft Principle 8(4) provided that the effective time of cancellation depended on the reason for cancellation. Finally, draft Principle 8(5) stated that the effect of an erroneous cancellation would be a matter for other law.

102. The Drafting Committee underscored that draft Principles 8-11 were mostly concerned with property law rules and provided significant leeway to the various actors to define their contractual rights vis-a-vis each other.

103. A question was raised as to why a cancelled VCC could no longer be transferred so long as everyone was aware that it was a cancelled VCC. It was noted that a cancelled VCC could be later 'resurrected'; for example by a court that ruled that the cancellation was not valid. In response, the Drafting Committee noted that people could still contract to purchase 'revived' VCCs and draft Principle 8(5) addressed cancellation in error. It was thus suggested that there was no need to say that cancelled VCCs could be the subject of proprietary rights.

ii. Principle 11 (Retirement)

104. Retirement was described as the natural end of the life cycle of a VCC. As a matter of property law, the VCC ceased to exist. Whether the person cancelling the VCC could allocate particular rights to others (such as any tax benefits related to the retirement of the VCC) was a matter left to other law.

iii. Principle 9 (Reversal)

105. *The Drafting Committee* explained that both reversal and revocation were tied to the definition of a VCC. Reversal related to instances where one of the key characteristics of a VCC was subsequently lost. This usually occurred in the context of sequestration projects where the greenhouse gases escaped back into the atmosphere. If one of the key defining characteristics of a VCC was lost, then the credit ceased to be a VCC.

106. *A Working Group participant* observed that the definition of 'reversal' was construed differently from that of 'revocation' and 'retirement' and suggested that it be amended to be consistent. He also inquired as to the use of the term 'benefits' rather than 'environmental benefits' as used in the introduction, questioning whether the term 'benefits' was overly broad. As to the reference to the 'VCC registry' he queried whether this should be amended to 'registry operator', since the latter was the active person and the former referred instead to the system. He further suggested that the reference to 'ICCP' be changed to 'CCB', in order to mirror the definition of a VCC.

107. *Another Working Group participant* commented on draft Principles 9(2) and 10(2) which provided that "a VCC can be cancelled by reversal, by an ICCP in accordance with its rules, by a

court or by a regulatory body determined by other law". He noted that, if a dispute arose in this context, it would most likely be resolved or settled by online arbitration or arbitration library schemes, which did not fit neatly into the traditional understanding of courts and were not regulatory bodies. In response, it was noted that the concern could be addressed by referring to the rules of the CCB—if the CCB's rules provided for arbitration, then arbitration would be one of the means available. A clarification to this affect would be made in the Commentary.

108. In relation to draft Principle 9(2), a *Working Group participant* noted that the relevant actor was the CCB rather than the ICCP. In terms of cancellation and reversals and revocations, it was always the CCB that performed the action, even though the CCB might be acting on the order of a court or other entity with the force of law. Likewise in relation to draft Principle 9(3) it was the CCB that directed the VCC registry.

109. *The Drafting Committee* then addressed draft Principle 9(5)[2] explaining that it was a default risk allocation rule in the absence of a market solution. It was noted that it was up to market participants to allocate risk, such as through insurance or through the contractual provision of warranties of title. The Principles could not prescribe a particular solution, but would instead provide a default rule which would apply in the absence of a risk allocation by the parties. Such default rule, it was explained, was the standard property rule providing that risk followed property. The property owner bore the risk, unless it had been contractually allocated to someone else.

110. While applauding the revisions to the draft Principles, *a participant* strongly encouraged the Working Group to rethink the *pro rata* default risk allocation rule in draft Principle 9(5), as any VCC representing less than a one tonne reduction or removal would not be tradable and would not meet the definition of VCC in the draft Principles. He suggested considering a revision of the definition of a VCC, explaining that, in practice, each certificate with a denomination of one tonne represented an undivided interest in a pool that constituted a larger amount of reduction. That pool could expand (if, for example, in later years there was a further reduction) or it could shrink (if it was later discovered that there were issues with certain reductions or removals). In the case of a shrinkage, the question then became which of the issued VCCs should be cancelled. And, it was explained, this was addressed by the CCBs through the cancellation of the equivalent number of credits held in a buffer pool. It was acknowledged that a problem could arise if the amount of affected credits was greater than the amount of credits held in the buffer pool. However, it was stressed that a *pro rata* allocation of the loss would be detrimental to the market and that, in reality, the buffer pool operated as an insurance pool; CCBs could issue certificates from other projects so that globally the number of certificates was reduced by the lower amount of greenhouse gas benefits. It was thus suggested that contractual mechanisms be explored providing for the reallocation of greenhouse gas benefits from one project to another such that the same number of certificates could be maintained in the event of a reversal.

111. On the question of fractional VCCs, *the Drafting Committee* recalled that the Principles provided that the singular included the plural. On the buffer pool, it was clarified that the issue, from a property law perspective, was the idea of sacrificing one property to essentially 'resurrect' a separate property. It was suggested that it would instead be acceptable if, contractually, the CCB was required to offer an acceptable substitute.

112. *Another participant* encouraged the Working Group to consider practical alternatives to the proposed *pro rata* default rule in draft Principle 9(5), noting that pushing the risk onto buyers would be very problematic in a market that was trying to scale. It was noted that there were many contractual solutions that applied in the market that were distant from the proposed default rule.

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[2] Providing that "Unless otherwise agreed, any cancellation for reversal of the benefits of a carbon mitigation project should result in a pro rata reversal of VCCs among all registered holders".

113. In response, *the Drafting Committee* suggested mapping out the alternatives to the default rule in draft Principle 9(5) that could apply in the absence of a contractual agreement. Possible alternatives included providing that liability rested with either: (i) the project proponent; (ii) the verifier; or (iii) the registry.

114. *The Secretary-General* suggested adding a requirement of mandatory insurance. On this point, a *Working Group participant* noted that Japanese insurance companies were offering cancellation insurance, with cancellation understood as the extinguishment of the VCC. It was thus suggested that there could be different risk allocation schemes while accepting the property law framework. *A representative of Kita* explained that Kita specialised in carbon insurance with policies backed by syndicates of Lloyds of London. She noted that Kita had a number of products that addressed different risks and one of them was buffer depletion protection cover which insured the buffer pool of credits held by the carbon standard; if the buffer pool had been depleted beyond a certain threshold, the insurance policy would kick in.

115. *A Working Group participant* indicated the need to differentiate between the allocation of the loss that came from reversal or revocation, and the allocation of the cancellation itself among the registered holders. If the revocation or the reversal did not impact 100 percent of the certificates, then the challenge was first determining who's certificates had to be cancelled and, once that loss was allocated, then how to compensate the affected parties. It was underscored that the proposed rule at draft Principle 9(5) was a default rule and could also be construed as a penalty default rule that provided market participants strong incentives to find better solutions. Thus, the default *pro rata* rule could, in practice, be a rule seldom applied in the marketplace. Nonetheless, he encouraged completing the proposed default rule, noting that *pro rata* could mean either that each certificate became a fractional certificate, or that for each 10 certificates one was cancelled which was how it worked in the context of securities. Even if *pro rata* referred to the latter, however, the Working Group had to address the problem of remainders.

116. *The Verra representative* clarified that the buffer pool was not universally available for all projects. At least for Verra, the buffer pool was an account that contained non-tradable Agriculture, Forestry, and Other Land Use (AFOLU) buffer credits to cover the risk of unforeseen losses in carbon stocks across these types of projects. On draft Principle 9(5), she questioned how likely it would be that the default position would actually ever occur, given the significant layers of contractual provisions that preceded it. In terms of Verra's position, she explained that various deeds of representation provided that the project proponent was responsible under certain circumstances, such as where there was a material erroneous issuance of credits in relation to a project, due to, for example, fraudulent conduct, negligence, an intentional act, recklessness, misrepresentation, or mistake on the part of the project proponent.

117. In relation to draft Principle 9(5), the suggestion was made to establish a waterfall providing that, first, the effects of a reversal would be allocated among the VCCs relating to that carbon mitigation project in the manner specified in the rules of the CCB. Additional steps in the waterfall would need to be tested with market participants to assess their potential impact. It was suggested that, the current default provision would be less problematic if it was priority four or five in the waterfall.

118. *A Working Group participant* shared that she had seen at least five proposed legislative initiatives putting liability or requiring liability insurance for VVBs. However, she noted that the insurance coverage for a default would typically be quite low and not enough to cover a transaction. She added that States were also considering trusts or insurance pools with a significant trend in the United States to have these in both compliance and voluntary markets. The issue in these instances revolved around who paid, with proposed options including transaction fees, buyer allocation fees, and State contributions.

119. The securities entitlement in the United States under Article 8 of the Uniform Commercial Code (UCC) was identified as an example of something that lay between contract and property law. It was explained that purchasers of securities in the United States obtained a dematerialised security interest, based on the fact that the securities were always held by an intermediary registered with a Depository Trust & Clearing Corporation (DTCC). Thus the intermediary held the security on behalf of the owner, and the owner had a claim against the intermediary. In turn, the intermediary had an obligation to hold as many securities as they had credited for investors. This scenario was analogised to buffer pools.

120. *The Drafting Committee* noted the progress made in the discussion and proposed that the Drafting Committee revise draft Principle 9(5) to provide for a hypothetical waterfall for the Working Group's consideration, for the Working Group to discuss (i) the order of the waterfall; and (ii) whether certain things should or should not be included in the waterfall. It was noted, however, that the Group also had to address the bottom of the waterfall. It was observed that even in the case of UCC Article 8, when everything else failed, at the bottom of the waterfall there was a *pro rata* allocation of losses. It was suggested that it could be preferable to have the project proponent at the bottom of the waterfall. With respect to insurance, it was observed that a property rule was nonetheless needed to account for those instances in which insurance, even if mandatory, was not taken out. It was further noted that only people with VCCs to lose could be placed at the bottom of the waterfall.

121. It was clarified that there were two separate issues to be addressed: (i) a rule to cover the shortage in pieces of property (i.e., there were only 25 credits for 30 registered holders, who among the 30 did not get any VCCs?); and (ii) who would be liable to compensate those holders who did not get the VCCs. The importance of distinguishing provisions about proprietary interests from contractual liabilities for lack of a proprietary interest was stressed. Thus, it was noted, insurance could not be placed at the bottom of the waterfall since insurance was a way to compensate people who lost out because of the waterfall. It was also noted that if a CCB addressed the issues behind the scenes through, for example, a buffer pool, then draft Principles 9 and 10 would not be implicated since the VCC would not have to be cancelled.

122. It was agreed that the Drafting Committee would propose a waterfall in which the bottom layer offered a solution other than a *pro rata* allocation of loss.

iv. Principle 10 (Revocation)

123. As to revocation, *the Drafting Committee* explained that, if the VCC never had the characteristics required of a VCC in the definition, then it never existed and was considered void *ab initio*. A parallel was drawn to patents—if a patent was issued but it was later determined that there was no inventive step, the patent would be void *ab initio*. This was a matter of the law of property, but the related risk could be allocated by the parties on the basis of the law of contract and the law of unjust enrichment.

124. *Several Working Group participants* expressed concern with the concept of VCCs being void *ab initio*, noting that it would be highly problematic from a market perspective. It was noted that the property law issue related to the current definition of a VCC, which provided that a VCC represented the achievement of a reduction or removal. It was observed, however, that what a VCC represented was the fact that a verification and validation body (VVB) had issued a report saying that the achievement had occurred. That VVB report could or could not be accurate and could be adjusted at a later stage. If the VCC was defined as representing the verification of the achievement of a reduction or removal, then revocation did not have to be *ab initio*, because the revocation would not entail the initial fact underlying the VCC going away but rather it would concern the consequences of the verification report being erroneous.

125. In response, the *Drafting Committee members* noted that the VCC definition had changed in response to feedback from various Working Group participants who had stressed the importance of the fact of the achievement.

126. *A Working Group participant* recalled that, although the VCC did not fit neatly into existing categories of property law, this did not mean it was not property. Rather the Working Group was trying to create something new and develop a new paradigm. It was added that, in cases of revocation, the problem was being rectified behind the scenes. The concept of a single atmosphere was referred to; the issue that the greenhouse gas had been re-emitted into the environment, or that the carbon that was verified was, in fact, never removed from the atmosphere did not matter, because it had been mitigated behind the scenes and that allowed the VCC to continue being a VCC. In that sense, it was suggested that there was no difference between a reversal or a revocation. If the issue was rectified behind the scenes the VCC continued being a VCC—it just was a different molecule from the atmosphere. The suggestion was therefore made to provide for cancellation, noting that cancellation could happen for many different reasons but the effect would be the same with the VCC taken out of circulation. It was also noted that if a VCC was retired into a compliance scheme, the compliance obligation would be considered met if, at the time of retirement, there were no latent defects in the VCC. In other words, the retirement would not be undone should there later be a revocation event—it could not be retrospectively revoked on the basis that the VCC was void *ab initio*. The Working Group was encouraged to take this into account and avoid disrupting existing systems.

127. *Others* supported treating reversal and revocation in the same way from a property law perspective, since this was what happened pragmatically at the registry level with the key to both events being compliance with the CCB rules. In both instances the VCCs ceased to exist and it was suggested that the waterfall concept apply.

128. However, it was reiterated by the *Drafting Committee* that, under property rules, in instances where the achievement was never achieved in the first place, the VCC, if it was to be considered property, had to be void *ab initio*—this was consistent with every form of intangible property, including patents. The Working Group was thus asked to clarify why the void *ab initio* outcome in these circumstances was unacceptable to the market, since it was accepted for every other type of traded asset.

129. In response, it was noted that contrary to what occurred in other markets such as in the case of bonds, revocation or reversal events, such as the over issuance of credits, were not remote occurrences and were going to happen regularly. If the problems were discovered after retirement it would be a significant problem, since no one was going to undo their retirements. Also, if the market was to scale, then there would be potentially hundreds of trades related to a single VCC, making it impossible to unwind every transaction that happened prior to the revocation.

130. *Others* observed that, in the event of a revocation making the VCC void *ab initio*, it would not always be necessary to unwind every transaction. This would rather depend on contract and unjust enrichment and specifically on whether the seller made any warranties of title to the buyer. If none had been made then the loss would lie with whomever was the owner of the VCC at the moment of revocation. Nevertheless, industry representatives noted that it was standard to provide title warranties in the market, with the IETA transfer standard document providing that the seller represented, among other things, that the VCC satisfied each requirement of the VCC specification. It was emphasised that the problem with making the VCC void *ab initio* was that parties would be left with a considerable tail risk. This would prevent parties such as large financial institutions from entering the market.

131. *A Working Group participant* observed that, since the main use of the VCCs was for offsetting purposes, then the real issue with cancellation was whether a cancelled credit could still be retired—

which everyone agreed should not be the case—and whether a retired credit should be 'unretired' and cancelled if it was later subject to a revocation event. It was stressed that this was not just a reputational problem and the Group needed to address what happened to such VCCs. In response, it was noted that, in practice, it was unlikely that a retired VCC would be 'unretired' and then cancelled. There were instead contractual mechanisms to spread the risk, and someone in the contractual chain would most likely have to provide replacement credits.

132. *Another Working Group participant* indicated that what would validly constitute void *ab initio* would be instances where the project did not exist or there was a problem fundamental to the underlying project such as the forest did not exist. It was suggested that revocation and void *ab initio* be circumscribed to such cases and that instead instances where there was change in the compliance with the standard rules be treated as reversals. It was further explained that the sale contracts included clear title representations which were made on the basis of knowing that the VCC existed in an account. There was thus a concern with sellers being in violation of their title representation if it was provided at a time when the VCC existed and the later cancellation of the credit was the result of an action of an external body (the CCB) that caused what previously existed to no longer exist. It was stressed that the market dealt with these instances through cancellation and contractual claims.

133. *The Drafting Committee* agreed to include a waterfall provision also in relation to revocation. It was further suggested that there could be ways of bringing certain situations under reversal by way of definition and leaving revocation for a pool of remote scenarios, such as when there was no project to begin with. However, it was noted that this approach remained problematic from a property law perspective, with the void *ab initio* depending on the definition of the intangible. It was proposed that two revocation rules could be included, one addressing revocation on the basis of non-compliance with the CCB rules which would not necessarily cause the VCC to be void *ab initio*.

134. *A participant* noted that a consequence of the revocation provision as written could be that additional measures would be taken to make sure that the project did in fact exist and did comply with the standards as written and did not therefore present the downstream risk associated with a revocation. Another consequence could be an increase in retirements and in contractual clauses addressing this kind of risk. While acknowledging the potential impact on the demand for VCCs of revocation risk, it was stressed that the demand for VCCs would diminish if people acknowledged that there was the potential that no emission reduction was associated with the VCC. This too would affect the scaling of the market, with confidence in the market being very closely tied to the belief that there was an emission reduction connected to the credit—if there were no such link, there would be no reason to purchase VCCs in the first place, and thus no transactions to unwind. It was thus stressed that there would be no market if there was no link between the emission reduction and the asset. The Principles as drafted could bring about a market benefit by forcing due diligence on the primary instrument and a basic level of competence in and around the creation of the primary instrument before it was secondarily sold, therefore supporting the veracity of the secondary market.

135. It was, however, reiterated that this could be addressed by reserving revocation and void *ab initio* for a small class of extreme scenarios—the project never existed, or there was fraud so great such that it was as if the project never existed—with other instances instead falling within the reversal categorisation, since the CCB had to act for that to happen.

v. Social benefits

136. *The Drafting Committee* raised two questions with the Working Group based on comments received from *the ICVCM representative*. First, whether the instrument needed to account for the reversal of non-environmental benefits that may be included in a VCC, such as social benefits. Second, whether revocation should be available for reasons other than the VCC no longer meeting

the definition in the Principles, for example if the CCB rules provided for revocation in relation to violations of land rights.

137. *The Verra representative* explained that some standards included social and other benefits in addition to the environmental benefit. If those requirements were not met, that could impact the project, both from a carbon accounting perspective (which was covered by the Principles) and from a social benefits perspective. A project could be placed on hold, reviewed, possibly sanctioned and frozen because other aspects of the standard or the program were not complied with, including social elements. She further clarified that there was a degree of overlap between the environmental and social components of a VCC—if, for example, land rights were not complied with, that could affect the overall project area which would then impact the volume of credits issued. She noted that the VVB would be the entity determining whether the program rules were complied with and whether a project would be validated if the project proponent did not comply with all the aspects of the standard, regardless of whether they were specific to carbon accounting or to the social aspects.

138. *The Working Group* agreed that no additional wording was required to address specifically social benefits, and it was suggested that any noncompliance with the CCB[3] rules would constitute a potential for reversal or revocation. While issues such as compliance with the rights of local communities occurred before the VCC was issued, they were also part of the VCC creation process as provided in the Principles, since they were a part of the standard against which the VVB assessed the project that resulted in the issuance of the credits. It was however noted that the word 'approved' be used instead of the word 'accepted' and that draft Principle 2(7) be amended to refer to a verification statement in accordance with the applicable methodology and the CCB rules. It was observed that all of the standards currently had in their rules requirements regarding consultations with local communities. It was, however, suggested that the Group address the possibility that a future CCB came forward that did not have such requirements. In response, it was observed that this was a governance issue and not one of private law.

139. *A Working Group participant* observed that VCC buyers and sellers often gold plated what was in the standard rules via contract, agreeing for example that if it was later determined that the VCC was generated by a project that did not satisfy the standard rules then there would be a contractual remedy such as a repurchase or replacement of credits or, alternatively, damages or termination. It was suggested that more could be said about VCC sales contracts in the Commentary.

140. *Another participant* stressed the importance of social 'safeguards' rather than social 'benefits' for South American countries, suggesting that if the Principles left this out entirely it would be problematic. On the other hand, others suggested that the Principles strictly refer only to environmental benefits.

<u>Conclusions</u>

141. *In relation to reversal, the Drafting Committee would revise draft Principle 9(5) to provide for a waterfall for the Working Group's consideration. The bottom layer of the waterfall would likely not provide for a pro rata allocation.*

142. *A waterfall would be provided also in relation to revocation. Two rules could be included in the revocation Principle: one addressing revocation on the basis of non-compliance with the CCB rules which would not necessarily cause the VCC to be void ab initio and one providing for the VCC to be void ab initio for a pool of limited remote scenarios.*

[3] The Group also agreed that the term CCB could be used instead of ICCP, so long as it referred to the standard body.

143. *The Working Group agreed that no additional wording was required to address specifically social benefits. However, Principle 2(7) would be amended to refer to a verification statement in accordance with the applicable methodology and the CCB rules.*

(b) Principle 4 (Applicable Law)

144. *The Chair* moved the discussion to draft Principle 4 on Applicable Law, explaining that this was the first time the Working Group was presented with the document. He asked Professor Matthias Lehmann, who had prepared the document with input from Professor Antonio Leandro and the assistance of Ms Verena Wodniansky-Wildenfeld, to explain its contents.

145. *Prof Matthias Lehmann* introduced draft Principle 4, explaining that it addressed the PIL questions necessary to supplement the Principles. He identified the law of the registry as the preferred connecting factor, given that VCC registries recorded VCCs issued on the basis of projects carried out globally. He explained that basing the applicable law on project location would require marking each VCC's origin—an impractical or even unmanageable requirement for multi-jurisdictional projects. Further, Prof Lehmann emphasised that applying a single law to the entire registry ensured fungibility and ease of trade, representing a departure from, for example, the approach in the DAPL Principle 5 that allowed a choice of law for an individual asset. Under the proposed approach, market participants would not need to determine each VCC's origin or governing law—they simply applied the one law governing the registry.

146. Prof Lehmann further explained that, in order to make the provision more attractive to States, draft Principle 4 entailed a restricted rather than a completely free choice of law. Some choice was necessary to determine the location of the registry. This was limited to the following four options: (i) the law of the State where the registry was maintained; (ii) the law of the registry's place of incorporation or organisation; (iii) the law of the registry's statutory seat; or (iv) the law of the registry's central place of administration. He clarified that this choice of law was essentially unilateral, made by the operator in its bylaws or registry rules, with users effectively able to only accept or decline participation. In the absence of a choice of law, draft Principle 4(2) defaulted to the law of the operator's statutory seat, and, if the operator was not incorporated, to its central place of administration.

147. Draft Principle 4(3) addressed the common problem in PIL concerning a change in connecting factors. Under the draft provision, a change in connecting factor would not result in a change in applicable law, thereby protecting foreseeability and vested rights. However, the draft acknowledged that in certain limited circumstances—such as, for example, in the case of political instability—the registry operator could change the applicable law. The draft allowed this only with the unanimous consent of all registered VCC holders, who were deemed to have the authority to agree to such a change.

148. With respect to the scope of draft Principle 4, Prof Lehmann explained that the conflict of laws rule needed to be broader in scope than the Principles, covering precisely the property law areas where there was less harmonisation across jurisdictions and to which the Principles did not apply. A question for the Working Group was whether security rights should also be subject to the law of the registry. Under this approach, if a VCC was, for example, registered in Singapore under Singapore law, one could only acquire security rights over that VCC by following the steps that Singapore law provided to create collateral. An alternative approach would instead entail treating security rights differently and having the law of the State in which the security provider was located apply, as had been done in the UNIDROIT Convention on the Assignment of Receivables and the UNCITRAL Model Law on Secured Transactions.

149. Prof Lehmann then turned to custody and sub-custody arrangements, identifying two possible approaches for the Working Group to discuss: proprietary rights in custodied VCCs could

either be governed by the law of the registry or by the law specified in the custody agreement, or, in absence of an express choice, by the custodian's seat. As to insolvency, *Prof Lehmann* confirmed that opening insolvency proceedings did not alter the applicable law for determining proprietary rights in a VCC. However, all procedural and ranking issues arising from insolvency (e.g., creditor hierarchy and the enforcement of claims) would continue to be governed by the law of the forum where insolvency proceedings were opened.

150. Prof Lehmann concluded by noting that the provision spelled out the public policy exception at draft Principle 4(6). The Commentary also highlighted that overriding mandatory rules—such as sanctions regimes—would prevail over the registry's chosen law.

151. *The Chair* invited the HCCH Deputy Secretary General, Ms Gérardine Goh Escolar, to take the floor.

152. *The HCCH Deputy Secretary General* reported that the HCCH's Council on General Affairs and Policy (CGAP) had recently mandated the creation of an Experts Group (EG) to examine private international law issues arising from the carbon markets as a whole. She explained that the initial focus of the EG would be on the possible inclusion of an applicable law provision in the draft Principles, given that the membership of the HCCH had reaffirmed its belief that the HCCH should contribute to UNIDROIT's work, and recognised that the timeline for this work should take into account the projected timeline at UNIDROIT for its conclusion. The HCCH Deputy Secretary General noted that the working methods at the HCCH are different than at UNIDROIT. She also noted that the work of the HCCH relies on the HCCH members, States and a Regional Economic Integration Organisation, agreeing on and trusting in the framework relating to choice of the applicable law, jurisdiction, the recognition and enforcement of decisions across borders, and the international cooperation mechanisms that allow these sorts of interactions across borders to take place. The HCCH Deputy Secretary General noted that the EG would convene its first meeting in May 2025 and hold three sessions overall to accommodate UNIDROIT's expedited timeline. The HCCH Deputy Secretary General reported that there was a lot of interest from HCCH Members in this work, and that the EG members had been designated by the ministries and other regulatory authorities of HCCH members which comprised the stakeholders with the decision-making capacity to decide whether or not to apply the UNIDROIT Principles on VCCs once they were finalised. The HCCH Deputy Secretary General concluded by reaffirming the HCCH's commitment to coordinate closely with the Working Group.

153. *The Secretary-General* thanked the HCCH Deputy Secretary General and commended the exemplary and unique collaboration between the HCCH Permanent Bureau (PB) and UNIDROIT. He observed that blending the procedural requirements of two transnational organisations—each with its own member States, methodologies, and rules—could be very complex. He expressed particular gratitude for the rapid convocation of the HCCH EG, which was to take place in sequence with the meetings of UNIDROIT's Working Group to help ensure the discussions remained consistent and coherent.

154. The Secretary-General further emphasised that the value of the collaboration between UNIDROIT and the HCCH was not limited to the present project but rather, if successful, could prove instrumental for the international community. He thus encouraged the HCCH EG to have an open mind and to work towards the best available rule, rather than anyone's rule. As to the process and next steps, the Secretary-General noted that UNIDROIT and the HCCH had at least three rounds over about one year to reach a jointly-agreed outcome. He expressed his determination not to waste this opportunity and invited the Working Group to begin the substantive discussion, passing the floor back to the HCCH Deputy Secretary General.

155. *The HCCH Deputy Secretary General* thanked the Secretary-General and Prof Lehmann for the excellent draft. She noted that the HCCH PB would not at that time provide its technical expertise but would instead share the feedback it had received from the consultations it had had with its

members and industry stakeholders ahead of the HCCH CGAP meeting in March 2025. She explained that, going forward, the HCCH PB would act as a conduit between the HCCH members and the Working Group, and vice versa.

156. The HCCH Deputy Secretary General noted that the HCCH PB received strong feedback that an applicable law rule, especially for something considered a public good, like carbon credits, must take into account a holistic private international law analysis. She remarked that there are certain caveats to private international law, namely, *ordre publique* and *loi de police*, and noted the importance of multilateral consultations on an applicable law rule that may be incorporated into draft Principle 4, to ensure that the Principles were ultimately adopted by States and not disavowed under public policy exceptions.

157. In terms of substantive points, she highlighted the importance of the matter of the choice of forum and grounds for jurisdiction, noting that it was the law of the forum that determined the characterisation of the dispute as proprietary or otherwise. She noted that it was also the law of the forum that decided what public policy and overriding mandatory regulations may apply. Thus, she explained, the work being done at the HCCH in parallel with UNIDROIT ensured that the jurisdiction question was answered in alignment with the work on applicable law.

158. The HCCH Deputy Secretary General noted that her interventions rested on accepting the UNIDROIT Working Group's position that, first, the scope of draft Principle 4 was specific to proprietary issues, which meant that matters of characterisation were not included in the discussion, and second, that a single law would apply throughout the life cycle of the VCC. On the latter, she shared that certain HCCH members and industry stakeholders had provided feedback that a single applicable law approach proposed in draft Principle 4 would not work, stating that it mattered what was being done with the credit in question, and where in the VCC life cycle the dispute would arise. She underscored the importance of technology neutrality for a future-proof instrument, warning that natively issued tokens on distributed ledgers and decentralized autonomous organisations (DAOs) could pose a challenge to the prescribed connecting factors in draft Principle 4(1)(a)(d) and the location of the correct *situs*. She thanked the drafters for examining the Hague 2006 Securities Convention but noted that a registry-imposed choice of law would fall short of genuine party autonomy as the parties to the underlying transactions would not have a meaningful ability to choose the law. She also noted that the choice of law provision in the 2006 Securities Convention had faced challenges, in particular in the European Union.

159. Emphasising the need to guard against the disapplication of Principle 4 on the basis of public policy, the HCCH Deputy Secretary General stressed the need for broad multilateral consultation. She noted that, for example, draft paragraph 4.7 of the Commentary contained a lot of prescriptive text which might be the best technical solution but could touch upon *ordre publique* and *loi de police*. With respect to the choice of the law of the registry as a connecting factor, she highlighted concerns raised over the fact that, despite the underlying climate mitigation projects being located all around the world, there were at the moment only about five major registries subject to the laws of the United Kingdom, United States, and Switzerland. She noted that litigation was currently pending in the jurisdictions of the HCCH's members and candidate members, including in Brazil, Peru, Colombia and Indonesia and noted the importance to HCCH members of safeguards.

160. The HCCH Deputy Secretary General further stated that, when discussing proprietary rights, the jural content of that right needed to be identified, including whether it referred to titularity or whether it concerned what one was entitled to do with the credit, as well as how proprietary rights interacted with contract and unjust enrichment rules. With respect to draft Principle 4(3), she warned that a change of registry may impact the fungibility of the credits; disagreement about the change of law could result in credits within the same registry being subject to different applicable laws. She queried whether this would affect the buffer pool's scope and whether the buffer pool itself fell within the scope of Principle 4.

161. The HCCH Deputy Secretary General concluded by confirming that the HCCH PB would present the draft Principles together with any further iteration of the Principles by the Working Group to the HCCH EG meeting taking place between 13 and 15 May 2025.

162. *The Secretary-General* thanked the HCCH Deputy Secretary General for the useful remarks and noted that perhaps the next iteration of the draft Principles would address many of the issues raised. He also noted that UNIDROIT had at least 30 Member States that were not member States of the HCCH, meaning that there was no full overlap between the constituencies of each organisation. UNIDROIT would soon be convening its Consultative Committee and thus also engaging in State consultations to add to the feedback received from the HCCH.

163. *The Chair* opened the floor to further interventions on the draft Principle.

164. *A member of the Drafting Committee* stressed the need for Principle 4(4) to dovetail with Principle 3 its description of the issues to which 'other law' applied. As to the term 'proprietary rights', it was recalled that the term was also used in the DAPL Principles to broadly cover proprietary interests and rights with proprietary effect, meaning rights or interests that could be asserted against third parties, including security rights. On security rights, it was explained that if there were certain jurisdictions where security interests had to be registered at the situs of the debtor, then it would make sense to provide that perfection—or 'third-party effectiveness'—of a security right would follow the law of the State where the security provider (debtor) was situated. This was, for example, the approach adopted in the DAPL Principles and the UNCITRAL Model Law.

165. *A Working Group participant* urged that the Group retain the proposed insolvency provision (confirming that the law of the registry governed the existence of proprietary rights in VCCs even in insolvency) for legal certainty. A clear preference for custodial VCCs to be governed by the law of the registry was also expressed, on the basis that allowing parties to choose an alternate law could undermine mandatory rules (such as harmonised AML requirements) and risk circumvention of local safeguards.

166. *Another participant* supported Principle 4(1)(a), providing for the application of the law of the State where the registry was maintained, noting the registry's status as a core actor. He recommended moving the language addressing the scenario in which a registry was maintained in several States from the Commentary (paragraph 4.16) to the Principle and suggested using the term 'general account agreement' rather than 'general rules of the registry' for consistency with market practice.

167. Conversely, a concern was raised with adopting a registry-based approach as this could raise complications when dealing with distributed systems or where there was no registry operator as defined in the Principles. It was suggested that the law of the seller or service provider be considered as an alternative connecting factor and that the definition of 'registry operator', be reconsidered especially given its central role in determining the applicable law.

168. Clarity was sought on the scope of the term 'proprietary issues' used in draft Principle 4(1). *Prof Lehmann* stressed the distinction between contractual and proprietary questions. While, for example, parties could choose the law applicable to a real estate sales contract, whether title passed would be a property question governed by a different law. Identifying the relevant law for proprietary questions required an external connecting factor. While the *lex situs* traditionally governed movables, registered assets such as planes or ships were commonly linked to the place of the register. That was why the registry had been identified as the main connecting factor for VCCs while allowing for the limited choice between the law of the operator's incorporation or central administration.

169. Regarding digital or blockchain-based registers, Prof Lehmann acknowledged the added complexity but argued that even in such cases there was ultimately an actor who set up and operated

the system thus representing the 'operator' who could provide the necessary legal connection. It was thus agreed that the proprietary issues addressed by draft Principle 4 were entirely separate from contractual matters, with the law of the seller not being a suitable connecting factor.

170. Prof Lehmann asked the Working Group whether the place of the climate mitigation project should be considered as an alternative connecting factor. In response, it was noted that using the law of the project's location would be materially problematic because the projects were often situated in jurisdictions unattractive to investors and such a choice would be contrary to the concept that the issued credit was quite different to the underlying activities of the climate mitigation project.

171. On this issue, *the HCCH Deputy Secretary General* noted the challenges concerning the characterisation of whether disputes were considered as ones relating to contractual or to proprietary rights. As to whether the law of the location of the project was an appropriate connecting factor, she recalled that it was the regulators and the competent authorities who would have to apply or disapply the UNIDROIT Principles, and hence multilaterally consulting on this matter was important. She warned that without proper buy-in, there was a risk that States would simply disapply the rule either by determining that the issues were not proprietary or by invoking the public policy exception. While acknowledging the concerns raised with the law of the place of the project, she noted the importance of asking the question rather than prescriptively telling member States with projects on their land that their law could not be the place of the connecting factor.

172. *The Secretary-General* stressed the importance of the point made and that it had to be taken into consideration. He proposed the best way forward would be to come up with the best rule technically speaking. He acknowledged however the concerns raised and suggested that, while not ruling out the possibility of applying the law of the place of the project, it could be noted that the marketability of the instrument could depend on applicable law. He observed that most debt securities issued by developing jurisdictions were subject to the laws of a foreign country—Luxembourg, New York or English law—because it lowered the risk of issuance.

173. *A participant* stressed that the underlying project would in any event have to comply with the law of the place where the project was operated; the suggestion was not that a foreign law would apply to the underlying project. However, to raise financing, there was a need to apply a law that was not better than the law of the place of the project, but one that was more familiar to investors. *Another participant* noted that, in practice, when considering questions such as who owned the VCC or how it could be transferred, practitioners in the market always looked at the law of the location of the thing—i.e., the place of the registry operator. It was added that the law of the State in which the security provider was located would not be used for the purposes of the security, although it would be used for perfection purposes. In relation to the custody agreement, the market would look immediately to the location of the account that evidenced the custody arrangement. That would be separate from the agreement governing the custodial services.

174. *A Drafting Committee member* observed that the question of which parts of the life cycle could be carved out for States was not a legal problem but rather an issue of buy-in. He suggested providing that transfer and retirement be dealt with in accordance with the law of the registry location, while allowing States to choose to have creation, reversal and revocation be governed either by the law of the place of the project or of the registry.

175. In response, however, it was noted that there could be different cases of revocation; it could stem from violations of indigenous rights or from technical failures by registries or certifiers. It was thus suggested that the Group spend some time going over the various scenarios.

176. *The HCCH Deputy Secretary General* emphasised that, to many of the HCCH's members, the scaling of the carbon markets was not simply an end in itself, but rather, it fell close to sovereignty questions. For example, she noted that Brazil had legislation that established credits originating from

land in Brazil as a civil fruit. By way of example, she commented that, if a dispute about the creation or extinction of property rights of a VCC in relation to a land-based project in Brazil were to arise, and a foreign law were requested to be applied in that case, such a decision would create a conflict of laws issue. Therefore, issues like these needed to be ventilated with States, and canvassed with the authorities and regulators in the different jurisdictions. *A participant* acknowledged that several countries were now starting to establish additional controls and legislative frameworks around how a project developer may develop a project on their ground, and how the benefits of that project should be distributed. However, it was noted that that represented a different aspect to how the VCC was treated once it was in a registry, and it should be made clear that the Principles were not trying to override that.

177. *A Working Group participant* expressed concern about the practical implications of the draft rule on applicable law, based on her experience in the UNFCCC negotiations. She noted that referring to the place where the registry was 'maintained' could create difficulties in practice. Using the example of Verra, she explained that while the technical infrastructure was often outsourced (e.g., to platform providers like Xpansiv), the actual management of entries and registry operations remained with the standard body.[4] She emphasised the need to revisit the fundamentals of Principle 12(1), 12(2) (providing the definitions of 'VCC registry' and 'registry operator').

178. The Working Group participant also highlighted the complexities that arose when registries were operated by international organisations—as in the case of the UN-operated Paris Agreement Crediting Mechanism (PACM)—which were governed by international law and protected by sovereign immunity. Finally, she cautioned that courts or tribunals might disregard the Principles altogether if they did not align with domestic or international legal realities, citing the legal uncertainties that emerged in a recent ICSID arbitration case.

179. *Prof Lehmann* clarified that the intent of draft Principle 4 was to tie the applicable law not to the location of servers, but to the jurisdiction from which the registry was functionally operated—for example, the place where entries were made or managed. He acknowledged that sovereign States retained the choice to reject the Principles altogether, but he emphasised that the public policy exception was a standard feature of PIL which was typically applied restrictively and cautiously. He agreed that the Principles could further clarify that public policy exceptions would only be invoked in exceptional circumstances.

180. *The HCCH Deputy Secretary General* noted that some of the issues raised could be addressed through the question of jurisdiction since it was the law of the forum that determined what constituted public policy and whether something was characterised as property. She further noted that public policy was not a template into which one could simply place VCCs or other kinds of assets; it was rather something that was shaped through multilateral discussions among States, thus the importance of multilateral stakeholder dialogue. She also reiterated that the relevant PIL rules depended not on the credit itself, but on what was being done with the credit. For this reason, the HCCH was focusing on carbon markets as a whole, since the applicable law varied depending on whether the issue was insolvency, cancellation, revocation, etc. The HCCH Deputy Secretary General concluded by advocating for a holistic view that included jurisdictional analysis.

181. However, in response, *a participant* questioned the need to determine jurisdictional principles. He noted that what was being discussed was the law that determined whether the VCC had been created and who owned it and that was a question that could come up in many different forums, depending on where the dispute arose.

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4 *The Verra representative* confirmed that while the technical platform was provided by APX Xpansiv, Verra was the registry operator, as it was the entity making or enabling the actual entries.

182. *A Working Group participant* highlighted the judge's role in applying public policy and overriding mandatory provisions, noting that a judge may reject foreign law or affirmatively apply domestic law to safeguard fundamental interests. He expressed agreement with including custodians in the general rule, for reasons of consistency—particularly since custodians were already recognised as registered holders in draft Principles 12(4), 12(6), and 14(3).

183. Further, a question was raised regarding insolvency. It was pointed out that while the draft Principle stated that the existence of property rights in VCCs should be governed by the applicable law designated in Principle 4, the Commentary appeared broader, referring to "all proprietary issues with respect to any event that has occurred before or after the opening of the insolvency proceedings" as falling under the governing law. It was thus queried which of the two should prevail and whether the discrepancy was substantive or merely a matter of wording.

184. *Prof Lehmann* agreed that draft Principle 4(5) should be better aligned with draft Principle 4(3), 4(4) and 4(6). He supported including broader wording in the Commentary on proprietary issues, though he flagged the need to clarify the borderline with avoidance actions, which could remain under insolvency law.

185. In relation to draft Principle 4(3), a *participant* stressed the importance of the fungibility of VCCs—not necessarily among all VCCs or even all VCCs within a registry, but at least among the VCCs issued by the same project, or that otherwise the market would treat as fungible. He thus suggested that, instead of requiring unanimous consent to change the governing law in the event of a change in registry, each VCC holder be given the option to move their VCC to the new registry. *Prof Lehmann* agreed with the idea that parties could choose to remain under the old law or opt into the new regime. A further suggestion was made to provide that everyone holding VCCs from the same project must agree to the change.

186. *Another participant* suggested that the Group clarify what the term 'is maintained' effectively meant under draft Principle 4 and how this concept would be applied if the register 'maintenance' was outsourced to one or more parties along a chain of outsourcers. It was also questioned whether the expression 'the State FROM' was clear enough and whether it could be clarified further in the commentary.

187. In response to concerns raised by participants in relation to draft Principle 4(4) concerning the scope of the applicable law provision, *Prof Lehmann* proposed an open-ended formulation followed by illustrative (non-exhaustive) examples.

<u>*Conclusions*</u>

188. *The draft Principle would be further discussed and refined in collaboration with the EG of the HCCH.*

(c) Principles 6 and 7 (Transfer and Innocent Acquisition)

189. *The Chair* gave the floor to a Drafting Committee to introduce the revised draft Principles on transfer.

190. *The Drafting Committee* noted that the presentation of the rules had slightly changed. There now was a Principle that fleshed out the fundamentals of transfer (Principle 6) and a second Principle that covered the innocent acquisition rule (Principle 7). There was also a new draft Principle that dealt with a variation or an expansion of the innocent acquisition rule when the acquirer was relying on a custodian (Principle 16).

191. As to Principle 6, paragraphs (1) and (2) presented the *nemo dat* and shelter rule. They were deemed essentially approved by the Working Group. One question was raised by *a Working Group participant* in relation to the use of the term 'power to transfer' as used in draft Principle 6(2). It was noted that the term intersected with regulatory and treaty requirements under Article 6 of the Paris Agreement as to whether or not one had the power to transfer a VCC. In response, it was clarified that the term as used in the draft Principles had a very different meaning; it was used in a traditional private law sense to denote, under common law, that even though a transferor may not have rights to give because they held the property through a defect, they could nevertheless have the power to transfer certain rights. It was noted that this phrasing was consistent with other instruments of international private law and the suggestion was made to offer clarification in the Commentary that it was not meant to cover any regulatory concerns in relation to the ability to transfer VCCs.

192. The discussion thus moved to draft Principle 7 on innocent acquisition. It was recalled that the purpose of the rule was to introduce a regime whereby an innocent acquirer of a VCC took free from any competing claims because in the vast majority of jurisdictions there was no innocent acquisition rule with respect to intangibles and it needed to be specified in law. It was explained that the core of the provision was in draft Principle 7(4) which provided the requirements for taking free. The registry played a role as a form of public notice. The Commentary addressed the concerns raised by the Working Group at its previous session by explicitly stating that no liability, no duties, no responsibilities, were placed on the registry. To make the functioning of innocent acquisition rule even clearer, Illustration one had been added to the Commentary which addressed how the innocent acquisition rule worked as well as the non-role of registries in terms of duties and liabilities.

193. It was noted that use of the terms 'registry' and 'registry operator' needed to be checked throughout the draft, since one referred to the system and one referred to the person that did things. Further, in response to comments from the Working Group, it was agreed that the draft Commentary at paragraph 7.8 would be expanded to provide examples of the take free rules of various States including the concept of good faith familiar to most continental European jurisdictions. It was also agreed that the wording in draft Commentary 7.4 would be clarified.

194. Finally, the Group agreed to clarify the wording at draft Principle 7(5) to make it clear that the granting of a security right would not be treated as gratuitous. It was suggested that the provision be split into two sub-paragraphs (a) and (b) as had been done for draft Principle 7(4).

<u>Conclusions</u>

195. *The Commentary would be amended: (i) to clarify that the term 'power to transfer' was not meant to cover regulatory concerns; and (ii) to provide examples of the take free rules of various States.*

196. *The wording of draft Principle 7(5) would be amended as described above.*

(d) Principle 16 (Innocent Client)

197. *The Drafting Committee* introduced the new draft Principle 16 which was developed in response to the Working Group's request to include a principle extending the innocent acquisition rule to instances where the acquirer was relying on an intermediary. If an acquirer could be an innocent acquirer when acquiring the VCC directly, they should be able to arrive at exactly the same result in law if they were relying on a custodian.

198. The drafting, it was explained, attempted to clearly cover the various scenarios that could arise in this context. These included: (i) when the custodian already had VCCs in their account and then acquired a new client, and those VCCs were then credited to that client; (ii) when the same custodian had multiple accounts and the VCC was moved from one account of the custodian to

another account of the custodian; and (iii) when the custodian had an omnibus account and multiple clients of that custodian moved VCCs to each other. It was thus noted that drafting an innocent client rule required language that was more functional and more expansive.

199. In terms of structure and approach, the draft built on the innocent client rules developed by UNIDROIT in other instruments such as the Geneva Convention and the DAPL Principles, while carrying out some tweaks to benefit the VCC landscape.

200. The Drafting Committee explained that draft Principle 16(2) provided the Working Group with two options in relation to the standard sought of the acquirer operating through a custodian. The first formulation, 'actually knows, or ought to know,' reflected the language in the Geneva Securities Convention and therefore had the strength of building on that tradition. The alternative formulation was instead closer to what was provided in draft Principle 7 and provided that, to be an innocent client, a transferee had to satisfy whatever standard the enacting State typically applied for these situations. A State should specify requirements equivalent to those found in its relevant good faith acquisition. It was observed that the weakness with this proposal was that some jurisdictions did not have good faith acquisition in their tradition and that good faith acquisition provisions could vary across jurisdictions.

201. Finally, with respect to draft Principle 16(3), it was noted that it effectively made sure that the innocent client rule also covered situations in which VCCs were maintained by a custodian for two or more clients in an undivided pool. In such situations a transferee could still be an innocent client provided they satisfied the standard.

202. It was observed that in many instances Principle 16 would not be necessary. Under one scenario, the custodian would acquire the VCC from the market and would itself count as an innocent acquirer under Principle 7 and, pursuant to the shelter principle in Principle 6(2), the client would take free. Under another scenario, the custodian would be acting as an agent for the client and, as an agent and representative of the client, the client could be an innocent acquirer under Principle 7. One circumstance where Principle 16 would instead be required would be where the custodian was not an innocent acquirer but the client was innocent. In relation to the two proposed options it was noted that the words 'actually knows' or 'ought to know,' were used in the DAPL Principles, with the commentary noting that a State could modify that language if they had a slightly different standard.

203. *A Working Group participant* inquired as to whether there was any diligence standard that could be more expressly imported into the 'ought to have known' language. In response, it was noted that, although functionally they tended to arrive at the same result across jurisdictions, structurally the way in which the standards were described and construed across jurisdictions varied significantly. This was why the language was proposed in square brackets in both draft Principle 16 and draft Principle 7, so that an enacting State could insert the wording and concepts that it normally utilised for innocent acquisition or good faith purchases. It was thus suggested that the wording remain loose in the Principle, and that the reasoning be addressed in the Commentary.

204. A question was raised as to whether either draft Principle 16 or draft Principle 7 covered the situation in which a buyer purchased a VCC but rather than taking it into their account the buyer simply instructed the seller to retire it on the buyer's behalf. It was suggested that this scenario be addressed in the Commentary by noting that either (i) the registered holder was the owner and they merely owed personal, contractual, or agency obligations to the buyer to retire; or (ii) ownership, or some kind of proprietary right in the VCC passed to the buyer, effectively rendering the seller a custodian.

<u>*Conclusions*</u>

205. *The Working Group agreed that the Commentary would be expanded as described above.*

(e) Principles 18-22 (Secured Transactions)

206. *The Chair* turned the discussion to draft Principles 18-22, addressing secured transactions. He gave the floor to the Drafting Committee.

207. *The Drafting Committee* introduced the draft Principles by providing first a general overview, since the provisions were being presented to the Working Group for the first time. The draft Principles dealt with certain core elements of VCCs as objects of property, starting with the fact that they were a suitable object of property. It followed that if VCCs were considered property, then they could be used as collateral. Draft Principle 18 thus provided this statement of principle stating that a VCC could be the subject of a security right. The subsequent draft Principles attempted to provide asset-specific rules to simplify the use of VCCs as collateral.

208. Draft Principles 19 and 20 focused on perfection—i.e., how to make a security interest effective against third parties. The provisions espoused the view of secured transactions adopted by the UNCITRAL Model Law on Secured Transactions ('UNCITRAL Model Law'), thus dividing the steps of creation and perfection. It was clarified that draft Principles 19 and 20 were not meant to be exclusive; they were not being presented as the only way in which a security interest could be made effective against third parties. Instead, whatever method of perfection existed in a jurisdiction (such as through a secured transactions registry) continued to be available, provided that it was compatible with VCCs as an intangible form of property.

209. Draft Principle 21 built on draft Principles 19 and 20 and addressed priority—i.e., the ranking of competing claims over the same asset. Draft Principle 21 attributed a certain priority ranking to secured creditors who had perfected their security interest following the methods presented in Principles 19 and 20, thereby effectively elevating and strengthening Principles 19 and 20.

210. Draft Principle 22 covered enforcement and, consistently with other UNIDROIT instruments, referred fundamentally to other law.

211. *The Secretary-General* observed that, while the instrument should not contradict the UNCITRAL Model Law, it should also be useful for countries that had not adopted the UNCITRAL Model Law.

212. *The UNCITRAL representative* noted that the draft provisions were a good starting point. He observed that draft Principle 21 gave priority to perfection through transfer or a control agreement rather than registration of a security notice in a security rights registry and queried whether the Working Group supported this approach.

213. *The Drafting Committee* clarified that the Principles did not intent to suggest that transfer was the preferred method. Rather, the Principles identified two additional ways in which perfection could be achieved and then provided those methods with special priority, consistently with what was done in many instruments, including the UNCITRAL Model Law. It was noted that the Principles did not provide that the registered holder was necessarily a transferee; the registered holder could be the owner or a custodian. The draft Principles followed the approach adopted by many jurisdictions in which the taking of 'control' trumped registration in terms of priority. It was further explained that the language at draft Principle 19 had to be read together with the innocent acquisition rule: a secured creditor focused on the VCC as collateral and mindful of the innocent acquirer would want to have the VCC credited to their account or the account of their custodian.

214. *The HCCH Deputy Secretary General* asked how the draft security provisions worked with the options presented in draft Principle 4. She queried whether security rights in VCCs should be addressed in the present principles or in Principle 4 in terms of applicable law.

215. *The Drafting Committee* explained that one option was to provide that everything was governed by the law of the registry operator. However, it was explained, there was a concern that, if everything in relation to a security right was made subject to the law of *lex situs* or the registry, or whatever law was chosen as the law relating to the proprietary rights in relation to the asset, it would create difficulties in jurisdictions providing for database registries. That was why the draft instrument provided for perfection by control—either through a control agreement or registration. Where there was registration in the VCC registry then there would not be a need to go to where the security provider was located.

216. It was observed that, in practice, there was the taking of a security interest over the VCC itself as well as the taking of a security interest over the registry account to affect security over the VCCs. It was queried whether the proposed language covered both scenarios.

217. In response, it was noted that the Principles as drafted did not cover taking security over the account and it was questioned whether this was something that was within the scope of the instrument since it would require delving into the nature of the account as a relationship. *The Verra representative* agreed that if the instrument was focused on the legal nature of VCCs then security over an account was different and it would require going back to definitions, defining an account, and potentially adding several layers to the Principles.

218. *Working Group participants* clarified that, in practice, the security would be taken both over the VCCs in an account and over the account itself. Rather than open its own account with the registry, the secured party would want to freeze the secured assets and have the sole right to instruct the registry or the custodian in relation to those secured assets. Security over the account would be taken to avoid issues of commingling. In addition, if there was an insufficient number of VCCs in an account, this could be proactively addressed by having the VCCs transferred into a segregated account over which security was taken.

219. *A Drafting Committee member* noted that whether one could take security over assets that were identified generally depended on the applicable law. If what was meant by taking security over the account was taking security over the VCCs in the account, then that would not be a problem. If, however, the intention was to take security over the account agreement or account relationship then that would essentially entail taking security over a contract.

220. It was stressed that the Terms and Conditions of most CCBs and VCC registries did not currently permit any type of security arrangement without the consent of the registry, which no registry would provide. At the moment, the registries favoured simple setups and did not want to address secured creditors, competing claims, enforcement, etc. It was also noted that it would be customary for the registry operator to have a lien or other security arrangement which would be a priority security arrangement for the purposes of payment of any fees or other amounts due to the registry operator, and would not block the taking of other security.

221. *The Verra representative* noted that account segregation may help but queried how it would affect the registry operator's right in relation to the actions it could take on the account—such as suspension, freezing, etc—since the relationship of the registry operator was with the original account holder. She thus asked whether the registry operator should be part of the control agreement. She emphasised that, before the registry operator could take any action or recognise any rights, it had to be clear how the registry operator interacted with the original account holder and the holder of the security interest.

222. *A Working Group participant* noted that the taking of security over the account would be dependent on jurisdiction since, for example, it would be difficult to do in civil law systems. It was suggested that this question be left to other law.

223. *The HCCH Deputy Security General* observed that two possible security-type situations were being discussed: (i) proprietary interest over the VCC; and (ii) security over accounts, which might be a contractual issue. With respect to the latter, she noted that there was a chapter dedicated to accounts in the UNCITRAL Model Law and accounts were also addressed in the 2006 Hague Intermediate Securities Convention. She noted that, if the Working Group decided that VCCs were something special necessitating particular security rules, then that ought to be explained and made clear. She further added that, from a PIL perspective, the rules and the matrices of the relationships mattered, including questions concerning the instances in which a registry operator became an intermediary, what was meant by custodian, and why there was a separate section for custodians versus security rights holders.

224. *The UNCITRAL representative* noted that the UNCITRAL Model Law provided that security rights extended to the proceeds of whatever asset was the subject of the security right. He thus asked the experts what types of proceeds would arise from VCC transactions. In response, it was noted that if security over VCC would have to be triggered, then the VCCs would be liquidated and any amount over the amount of the security would be returned. This would usually be addressed in the security agreement and the loan agreement.

225. With respect to the taking of security over a VCC account, *the Drafting Committee* noted that VCC accounts were very different to securities accounts and bank accounts. According to the system of rules that was being built, VCCs were not held in an account; rather, there was an account that recorded certain VCCs. If the industry wanted to take security in the relationship, then the relationship had to be defined as a special relationship.

226. The Drafting Committee also expressed concern with the way the registry account was defined in the draft Principles, since it was defined in the same way as an account with any other asset-based registry. The account was a way of denominating the information. However, because it was not run by a government but by private parties, there had to be a relationship and the only way that could be done was by a contractual agreement. Thus, security could be provided over one's contractual rights against the registry operator. With respect to the proceeds of security, it was noted that this was a matter of applicable law. As to liens of the registry operator, it was recalled that draft Principle 13(2)(c) provided that a registry account holder could grant a security right in favour of a registry operator.

227. The Drafting Committee further noted that traditional types of accounts were not relevant in the context of VCCs, where the accounts did not have underlying assets and security would be taken over what were essentially rights. It was explained that trying to take security over accounts would create significant complexities because the contractual rights in the accounts were basically rights to give instructions to the registry operator to, for example, retire a VCC. Thus, if a debtor were to default, all the creditor would obtain would be the right to instruct the registry—the debtor would not reach the VCCs.

228. *The Chair* referenced his experience as the chair of the drafting group of the Geneva Securities Convention. He noted that, after a long discussion as to whether the collateral should be an account, securities, or both, the drafting group in that case took the position that the collateral was the securities being credited and debited from time to time in a particular securities account.

229. *A Working Group participant* observed that control over accounts had been taken by lenders through a power of attorney structure that provided that, if certain specified events were to occur, the registry could take instructions only from the secured entity. *Another participant* noted that what mattered were the things in the account; the account was simply a method of segregating the VCCs over which security was being taken.

230. *The Chair* clarified that what had emerged from the discussion was that, legally speaking, the collateral should be the individual VCCs being credited and debited. Control over the collateral could come in the form of an agreement between the registry operator, the secured creditor and the debtor, providing not to move the collateral without the consent of the secured creditor. He noted this was the mechanism that the practitioners referred to as taking security over accounts and the practice had to be explained in the Commentary to draft Principle 18 and draft Principle 20 which addressed the control agreement—i.e., the mechanism of taking control of the account.

231. It was further specified and agreed that the security was over the VCC, it was just the manner in which that was achieved which at times involved taking control over the account—security was over the asset within the account and taking control simple meant that no one could dispose of the secured asset.

i. Principle 19 and Principle 20 (Perfection)

232. *The Drafting Committee* explained that draft Principle 19 should be understood on the basis of general practice in secured transaction law providing that a secured creditor achieved the intended result of taking security in tangibles by taking possession. Draft Principle 19 was effectively recognising that a variation of that could be achieved by having the VCC credited to the secured creditor's account. It was clarified that this was not an outright transfer or a sale. It was further explained that the provision was necessary because it was broadly understood across jurisdictions that taking possession of a tangible achieved the outcome of perfecting a security interest. However, there was no similar broad understanding for intangibles and therefore draft Principle 19 was functionally arriving at that result. In addition, having the collateral credited to their account gave the secured creditor complete control over where effectively the VCC went from that moment onwards. It was noted that this was especially important in light of the innocent acquirer rule whereby a transferee who had the VCC transferred to their account and satisfied the other criteria took free from any competing interest.

233. The Drafting Committee turned to Principle 20 explaining that this was the second asset-specific method of perfection contemplated by the Principles. It was based on the idea that, if a person maintained a VCC through a custodian, it should be possible to perfect a security interest through a control agreement. Draft Principle 20 spelled out what a control agreement entailed: it was an agreement in relation to a VCC made between the grantor (the person who granted the security interest), the custodian (who held the VCC for the grantor) and the secured creditor pursuant to which the custodian agreed to follow instructions from the secured creditor with respect to the VCC without further consent from the grantor.

234. *The Chair* intervened to note that the Principle should also reflect the simpler scenario in which a custodian was not involved. In such cases, the creditor and the registry operator could agree to place a freeze or similar restriction on the VCCs in a particular account or sub-account. Such a restriction should have effect vis-à-vis third parties. *A Drafting Committee member* noted that there might be a need for an additional paragraph stating that the control agreement could be between the registry operator, the grantor, and the secured creditor, this being just another example of a custodian or form of control.

235. A question was raised in relation to retention rights. It was noted that in most civil law countries, custodians had retention rights which could take priority over those of security holders. It was queried whether such retention rights were addressed in the Principles or whether they fell under draft Principle 22 as a matter of enforcement left to other law. *The Drafting Committee* explained that, at the moment, the Principles did not introduce statutory security interests—they did not include provisions stating that, when a custodian offered certain services, they automatically acquired a security interest. However, should a jurisdiction have such rules, nothing in the Principles prevented them from applying. Parties also remained free to contractually enter into such an agreement.

236. The Drafting Committee recalled that the draft Principles provided for a security right granted to a registry in a situation where the registry would have a proprietary right in VCCs registered in the registry. The Principles acknowledged that the registry operator could take a security interest—whether that was granted by agreement or arose by operation of law would be a matter for national law. It was queried whether something similar needed to be specified in the custody principle and whether the Group should consider how this interacted with draft Principle 21, particularly regarding priority. If the registry operator was going to have a security interest, it would need to be made effective against third parties so there was a question as to how this interacted with Principle 21.

237. *The Chair* observed that, as far as Principle 20 was concerned, there could be an additional rule for a two-party agreement, where the custodian or the operator was the creditor. In that case, the agreement would likely have the same effect, making it effective against third parties. However, he observed that interaction with Principle 21 was be more controversial and needed to be discussed further.

238. On the basis of the UNCITRAL Model Law, *a participant* queried (i) whether entering into a control agreement was the same as the conclusion of a control agreement; (ii) whether it should be specified in the Principles that the control agreement needed to be in writing; and (iii) whether the possibility of negative control should be included as a minimum requirement for control. The first point was answered affirmatively. As to the second point, the Principles did not currently include a requirement that the agreement be in writing but one could be added if the Working Group deemed it necessary. On this point, the *Secretary-General* noted that, without pre-empting the experts' views on whether there was a need for a written agreement, it should be acknowledged in the Commentary that the best practices guide—i.e., the UNCITRAL Model Law—provided this requirement. Support was expressed for specifying that the agreement should be in writing.

239. On the final point, it was noted that in the Geneva Securities Convention, for example, there were both positive and negative formulations. The UNCITRAL Model Law used only the positive formulation. UCC Articles 8 and 9 were a bit of a mix, but mostly provided the positive formulation. It was explained that, with the current formation, the Drafting Committee had aimed for simplicity but if there was a practice of including negative control it could easily be added.

240. On the registry operator being a party to the control agreement, *the Verra representative* specified that this could be an option but warned against requiring that the registry operator be a party in all instances. In particular, she raised concerns with implying that custody was being assigned to the registry since currently the registry tried to avoid that scenario or had terms in place to avoid that possibility.

ii. Principle 21 (Priority)

241. *The Drafting Committee* explained that draft Principle 21 needed to be read together with Principles 19 and 20. Principle 21 suggested that enacting States give special priority to the secured creditors who perfected their security interest pursuant to the methods indicated in Principles 19 and 20. The idea was that a secured creditor who made their security interest effective against third-parties by either directly having the VCC credited to their account or through a control agreement should be viewed to come before competing secured creditors who had perfected in a different way, regardless of whether they did so before or after the secured creditor who perfected by having the security interest credited to their account or through a control agreement.

242. It was explained that favouring the secured creditors who perfected their security interest in the VCC by taking, effectively, control of the VCC—either directly or through a control agreement—would facilitate the VCCs' circulation in the market and their use as specific collateral to support and bolster climate financing. It was noted that this was not a novel rule. It was a typical priority rule

that applied to assets that were traded in markets that tended to have either high velocity or were international in nature.

243. A question was raised as to whether the draft Principle should also provide for priority within the same lineages. In response, it was noted that, while it could be expressed, it would be something typically left to other law and usually addressed through a 'first in time, first in right' approach. It was further clarified that if the secured creditor was having the security interest credited to their own account, because they were a transferee, and they had the innocent acquisition rule, they were taking free from other competing interests. There would thus be no competing claim in that case. Instead the primary case in which a priority conflict could arise was one in which the VCC was held with a custodian and there were multiple control agreements. In that case, it was acknowledged that there could be the need to specify a way in which those security interests would be ranked.

244. *The UNCITRAL representative* queried whether the possibility of registering a notice in the VCC registry of a security right had been discussed or intentionally left out. In response, it was explained that this had been left out because it was not done and the registries did not want to do this—however, the Working Group was encouraged to consider this option.

245. *Working Group participants* stressed that simply having a label to give the world notice that the VCC was subject to some form of encumbrance or security interest would help facilitate the financial flows that were desired from the market. It was specified the label would serve as a notice to any transferee that the asset was already encumbered; once the security arrangement was released, then the label would also be released. The label would be placed at the time the control agreement became effective. Others noted, however, that while useful, such a label was a commercial service that registries might consider offering but not something that had a place in the Principles.

246. *The UNCITRAL representative* raised a question in relation to how priority conflicts between Principle 19 and 20 would be resolved. *The Drafting Committee* observed that a priority conflict was unlikely to arise in practice. If someone had perfected via a control agreement and subsequently the VCC was moved to someone else's account for the purpose of perfecting a security interest, one of two things was going to happen, either (i) the later secured creditor was taking free because they were an innocent acquirer; or (ii) if they were not an innocent acquirer and the control agreement continued to perfect the security interest despite the fact that the VCC left the account, then they took subject. If, on the other hand, the first secured creditor perfected by having the VCC registered or credited to their account, but then, for whatever reason, the credit ended up in the custodian's account and then became subject of a control agreement, perfection was lost the moment the VCC left the first creditor's account.

247. The only scenario that might require such a rule was where two secured creditors perfected via control agreement over the same VCC held in the same account by the same custodian. This was not explicitly mentioned in the draft Principles, which followed the approach of the DAPL Principles by leaving it to intra-creditor agreements. However, if the Working Group preferred, it could be expressly stated in the draft Principle that, in such circumstances, the first in time, first in right would govern.

248. *The UNCITRAL representative* sought clarification on whether the rule in draft Principle 7 would apply and the innocent acquirer would have priority over any secured creditor that had priority under Principles 19 and 20 after they had perfected their security. *The Drafting Committee* outlined that a secured creditor who perfected their security via the method described in Principle 19 was considered an innocent acquirer, as long as they met the requirements for innocent acquisition. An innocent acquirer must have the VCC credited to their account. Perfection under Principle 19 also required the VCC to be credited to the secured creditor's account. Both could not happen at the same time, meaning that there could not be a conflict between an innocent acquirer and someone who had

perfected their security under Principle 19. It was further noted that paragraph 21.5 of the Commentary addressed these scenarios.

249. *The Secretary-General* queried whether there was a possibility of registering a security interest in the VCC registries and whether that would change anything in the current draft of the Principles, such as the priority rules.

250. *A Drafting Committee member* observed that there were several possibilities, ranging from the least to the most interventionist:

- First, some registries might offer the ability to include a combination of words on the registry, similar to what was called a 'notice' in the United States, indicating that there could be a security interest. This would be akin to a notice filing—putting up a flag to say there might be a security right. Whether or not the right was actually in place would be a separate issue. It was suggested that this could be modelled on the kind of functionality that existed in the International Registry under the Rail Protocol of the Cape Town Convention. If that functionality was present, it meant that anyone subsequently acquiring a security interest (or any other interest) in the VCC would be on notice that something was already there. So it would work in conjunction with the innocent acquirer rule. The proposed functionality would not affect whether the interest was effective against third parties; it was not a perfection requirement but rather just a public notice or 'red flag' function. While this flag did not have a legal effect of perfection, it could have consequences depending on how the innocent acquirer rule was applied in a particular jurisdiction.
- Second, the registry filing could serve as a means of perfection against third parties alongside the methods outlined in Principles 19 and 20.
- Third, the registry filing could be treated not only as a method of perfection, but also as a priority rule. This would start to turn the registry into a secured transactions registry.

251. Concerns were raised with respect to the second and third options. *The Verra representative* stressed that the VCC registry would not want to set up a transaction registry which should instead remain the source of truth in the event of any disputes. She clarified that the VCC registry reflected the information it was provided; if the registry was provided with information there was a security interest over credits in an account, it could reflect that. This was not something that Verra currently did, but it was a possibility provided they had the capability and proper mechanisms in place.

252. *A Drafting Committee member* expressed support for the first option, noting that if this was a voluntary practice, something registries offered as an added service, then it would be fine and could be captured in the Commentary. Over time, jurisprudence might develop around it, and those kinds of flags might come to be recognised as valid notice. However, he warned that if the Group started formalising this, then the complexity of the rules would increase tenfold with, for example, the need to lay out criteria for how such a flag should or should not be made, what would happen if the flag was placed incorrectly, and who would be responsible.

iii. Principle 22 (Enforcement)

253. *The Drafting Committee* moved to draft Principle 22, noting that it recognised the sensitivities across jurisdictions around enforcement. So, as a general rule, the provision referred to other law in relation to the enforcement of a security right in a VCC. It was emphasised that it was incredibly hard to impose specific methods of enforcement across jurisdictions because enforcement practices were treated very differently. This lack of harmonisation left limited flexibility, which is why the DAPL Principles followed the same approach.

254. That said, it was explained that Principle 22(2) introduced a rule that was generally seen as acceptable. It provided that if a security right in a VCC maintained by a custodian was made effective against third parties by a method other than that in Principle 20 (i.e., through a control agreement), then the secured creditor could only enforce its right through a court order or other public authority, unless the custodian agreed otherwise. The draft provision was thus opening the door for enforcement without a court order, provided there was agreement from the custodian.

255. It was queried whether the protection afforded custodians in draft Principle 22(2) should be extended to the registry operator.

256. It was also suggested that the phrase 'unless the custodian agrees otherwise' be moved to the front of the paragraph to make clear that it was possible to enforce through a control agreement, except where that agreement was absent, then a court order was needed.

<u>*Conclusions*</u>

257. *The Drafting Committee would consider to revisit, and expand the Commentary to, draft Principle 18 and draft Principle 20 to reflect the discussion concerning the taking of security over accounts.*

258. *The Drafting Committee would consider whether the Principles would include that a control agreement should be in writing.*

(f) Principles 23 (Enforcement) and 24 (Insolvency)

259. *The Chair* noted that draft Principles concerning enforcement and insolvency had yet to be developed but he asked the Working Group whether there was anything unique or specific to VCCs that should be explicitly included. As to draft Principle 23, he explained that it was expected to state that enforcement was governed by other law, subject to the exception laid out in Principle 22. Similarly, draft Principle 24 was a general rule about insolvency subject to two special cases: (i) the insolvency of the custodian; and (ii) the insolvency of the registry operator.

260. It was suggested that the Working Group review DAPL Principle 18 (Procedural law including enforcement) and DAPL Principle 19 (Effect of insolvency on proprietary rights in digital assets). In the DAPL Principles, the rule itself provided that other law applied, but the commentary explained the kinds of issues that States should ensure were covered by their legislation. The Working Group was thus asked to consider: (i) whether there should be specific rules for VCCs; and (ii) what would be useful to include in the Commentary.

261. A question was raised in relation to whether the registry had standing in the event of notice requirements or in the case of insolvency affecting assets that were under its control or to which it had access, particularly with respect to buffers or elements held in an account that fell under the registry's custodianship. *A Drafting Committee member* suggested that the wording on registry standing in the Mining, Agriculture and Construction (MAC) Protocol to the Cape Town Convention might be helpful in this regard.

262. *The Working Group* discussed the extent to which there were proprietary rights in buffer pools. It was noted that if the buffer pool was recorded in an account in the name of the CCB, and if the CCB was the first registered holder of those credits, then pursuant to draft Principle 5(2)(a) the CCB would have a proprietary right in those credits. If instead the buffer pool was held by a custodian, then it would depend on the custody setup and likely fall under draft Principle 5(2)(b).

263. However, the *Verra representative* clarified that volume equivalent credits were in the buffer pool but were not considered VCUs because they had not been issued in the same way and had not

yet been allocated to anyone. The credits had to be issued from the buffer pool before they became available and they might be issued directly into the account holder's account. She clarified that, at the moment, security interests in VCCs did not touch at anything in the buffer pool.

264. *A Drafting Committee member* observed that the buffer pool was possibly an example of a current market practice that might need to evolve as market participants came around to the view that VCCs were objects of property. If proprietary consequences were to start flowing to and from the buffer pool, the buffer pool needed to be managed in a way that VCCs held in those buffer pools rose to the necessary level to be objects of property. It was observed that the difference may be a question of timing—buffer credits would not be issued at the same time as the rest of the credits but, if the need arose because of issues with the underlying project, they would be both issued and cancelled at the same time. *The Verra representative* agreed to look into this. She also reminded the Working Group that buffer pools were only relevant to certain methodologies and projects. She agreed to provide a list of the types of projects that had buffer pools so that this information could be included in the Commentary.

265. *The Chair* suggested that whether the buffer pool could be the object of a security interest would depend on other law. *A Working Group participant* noted that the market contractually accounted for and transferred access to the allocation of the buffer pool, should something go wrong in relation to nature-based projects. *The Kita representative* observed that, from the insurance perspective, for there to be an insurable interest in the buffer pool, ownership would need to be established, or there would need to be some other liability for the CCB to replenish the buffer pool.

<u>Conclusions</u>

266. *The Working Group agreed to address draft Principles 23 and 24 via written comments and at the next Working Group session.*

(g) Principle 2 (Definitions)

267. *The Chair* then moved the discussion to draft Principle 2 concerning definitions and gave the floor to the Drafting Committee.

268. *The Drafting Committee* sought the Working Group's feedback in relation to the definition of a CCB at draft Principle 2(10). It was noted that the CCB had been identified as the person 'approving' the verification report and it was currently defined broadly to encompass VCCs issued by a government body or an intergovernmental body such as the United Nations. Specific feedback was requested on the language concerning the functions of the CCB.

269. *Working Group participants* observed that the ICCP was the programme and the CCB was the entity administering it. It was suggested that the language be amended to state that 'in relation to a VCC created pursuant to the ICCP that it administers' to make it clear that the CCB was the administrator of the standard or ICCP. Participants agreed that a CCB performed all of the functions listed in the draft definition at subparagraphs (a)-(d). Another proposal was made to simply refer to an ICCB intended as an independent carbon crediting body. It was stressed that a standard could only be administered by a carbon crediting body.

Item 5: Organisation of future work

270. *The Chair* noted that the sixth Working Group session was scheduled to take place from 10 to 12 September 2025 and the seventh session from 17 to 19 December 2025. He noted that the Secretariat would commence Member State consultations through the convening of a Consultative Committee chaired by Ms Sharon Ong, member of the UNIDROIT Governing Council. The Member State consultations would be followed by industry consultations, with feedback from both processes to be

incorporated into the instrument. The final Working Group session would be held in March or April 2026 and the instrument would then be presented to UNIDROIT's Governing Council in 2026.

Item 6: Closing of the session

271. *The Chair* expressed his deepest thanks to the Working Group members and observers and to the members of the Drafting Committee, thanking everyone for the engaging and constructive discussions. He also thanked the Secretary-General, the Deputy Secretary and the Secretariat team.

272. *The Secretary-General* joined the Chair in thanking all of the participants and thanked the Chair for his excellent leadership. The session was closed.

ANNEXE I

AGENDA

1. Opening of the session and welcome
2. Adoption of the agenda and organisation of the session
3. Introduction to the new topics of tokenisation and interoperability
4. Consideration of the revised draft Principles and Commentary
5. Organisation of future work
6. Closing of the session

ANNEXE II

LIST OF PARTICIPANTS

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