INTERNATIONAL INSTITUTE FOR THE UNIFICATION OF PRIVATE LAW
INSTITUT INTERNATIONAL POUR L'UNIFICATION DU DROIT PRIVE

EN

Digital Assets and Private Law Working Group

Second session (remote)
Rome, 16 – 18 March 2021

UNIDROIT 2021
Study LXXXII – W.G. 2 – Doc. 3
English only
April 2021

SUMMARY REPORT

OF THE SECOND SESSION

(Videoconference, 16 – 18 March 2021)

TABLE OF CONTENTS

1. The second session of the Digital Assets and Private Law Working Group (hereafter the "Working Group" or "WG") took place via videoconference between 16 and 18 March 2021. 48 participants attended the WG: (i) 15 Working Group Members, (ii) 25 observers from international, regional, and intergovernmental organisations, industry, government, and academia, and (iii) 8 members of the UNIDROIT Secretariat (the List of Participants is available at Annex II).

Item 1: Opening of the session and welcome by the Chair of the Working Group and the UNIDROIT Secretary-General

2. *Mr Hideki Kanda (Chair) opened the session and welcomed all the participants.*

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

3. *The WG adopted the draft Agenda as proposed (UNIDROIT 2021 – Study LXXXII – W.G.2 – Doc. 1, available at Annex I).*

Item 3: Adoption of the Summary Report – First session of the Working Group (Study LXXXII – W.G.1 – Doc. 4)

4. *The WG adopted the summary report of the first session of the Working Group.*

Item 4: Consideration of substantive issues (Study LXXXII – W.G.2 – Doc. 2)

(a) **Summary of intersessional work**

i. Update on the composition of the Working Group (I. F)

5. *The WG took note of the update provided by the Secretariat regarding the new members who have joined the Working Group as observers (the List of Participants – including observers – is available at Annex II).*

ii. Update on the establishment of a Steering Committee (I. H)

6. *Ms Monika Pauknerová,* Member of the UNIDROIT Governing Council and Chair of the Steering Committee on Digital Assets and Private Law, summarised the role of the Steering Committee, noting its composition of experts from different technical and legal fields reflecting a diversity in terms of legal systems background and geography and its establishment to support the work of the WG in a consultative capacity. The *Secretariat* confirmed that nearly twenty-five (25) Member States had nominated experts so far. *Mr Ignacio Tirado (UNIDROIT)* explained that the Chair would decide when to convene the Steering Committee's first meeting and that the Committee would provide comments on the WG's progress in due time.

7. *The WG took note of the Secretariat's update regarding the establishment of a Steering Committee on Digital Assets and Private Law.*

iii. Presentation of Revised Issues Paper

iv. Summary of the work of the Sub-Groups

1. Sub-Group 1 – Control and Custody (Appendix 1)

8. *Ms Louise Gullifer* drew the WG's attention to the preliminary draft Principle Y – Custody on pages 21-24 and its related appendix on pages 43-44 of the Revised Issues Paper. She clarified that

only endogenous digital assets (DAs) like Bitcoin had been considered so far and that so-called "digital twins" would be considered later. The definition of control had been kept as a "black box" to further refine later. She noted the need for close coordination between SG1 and SG2, as SG1 would refer to the notion of control produced by SG2, while also needing to develop its own definition in the context of holding of DAs and particularly by custodians. She clarified that control was factual rather than legal; it was a question of who actually had the ability within the system to transfer the asset, implying a separation of factual control from legal control (i.e., the obligation to act on the instructions of someone else). She noted that SG2's treatment of power dealt with factual power (i.e., technological fact) rather than legal power. She noted the following four ways to hold a DA (and various subcategories thereof):

a. Direct Holding – a node or where one has downloaded the whole of the system on one's computer;

b. Noncustodial Wallet – of which various types existed such as hot (i.e., online) and cold wallets (i.e., offline);

c. Custody – a custodian controlled the DA usually by holding the key (akin to what was described in the *Cryptopia* case);

d. Outright Transfer Model – the client transferred the DAs to a legal person (exchange) and the exchange only owed a personal claim to their clients. Akin to a bank situation with the same legal analysis.

9. The custody situation only described category (c), between the wallet and the outright transfer models. SG1 was attempting to define what was meant by custody and ascertain the consequences of a holder being a custodian. In direct holding (a) and the noncustodial wallet (b), the holder would be the person with control of the assets and that person would normally be the owner of the asset. However, the person might not be the owner (e.g., a thief or a secured creditor, or other situations). A holder could be a direct holder or client of a custodian who held for someone else like in an investment fund, which would not be tantamount to custody. Custody was not the only situation in which a holder would hold for someone else. In an outright transfer situation, the exchange would be the holder and would not hold for anyone else. A noncustodial wallet or exchange service provider would only have a contractual relationship with clients, implying that if these providers were to become insolvent then the client would only have a personal claim. In an outright transfer case, clients would only have personal claims for equivalent assets, whereas for service providers there might be other contractual claims.

10. SG1 took the view that custody had other consequences: firstly, there were duties owed by the custodian to the client and secondly, if the custodian was insolvent then the assets that were held for the client would not be a part of the custodian's assets for distribution to creditors (see para. 7 of Principle Y). SG1 needed to adequately describe a "holder" and a "custodian" and then concentrate on the consequences of custody. This posed a challenge. For instance, what was to be made of a situation where more than one person had control. SG1's solution was that a holder was a cumulative term that included everybody with control. For example, in the case of custody, if there were several people in one organisation with access to the private key, then the organisation was the holder. In contrast, there were other situations where multiple people had access to a DA who were not part of the same organisation, where both the custodian and the client had control (see page 22 for comments on multisig wallets). One pending issue for further discussion within SG1 concerned the situation where the client could on their own control the DA without any input from custodian; if the client had sole control of the asset at any point, then that may exclude the possibility for the custodian to discharge its duties and would not therefore qualify as a custody relationship (which was problematic).

11. Para. 2 of Principle Y stated what SG1 considered to be a custodian. A custodian owed duties to the client regarding the safekeeping of the asset. Para. 3 of Principle Y concerned those cases

when a holder held for another person but was not a custodian; for instance, where third parties might have rights against the holder, but also a situation where a custodian held for a client and other people had rights against the client in respect to the DA (e.g., an investment fund using a custodian to hold DAs). There were issues regarding a sub-custodian which were probably not captured within SG1's definition. If the client had a relationship with someone else, then that was likely not within the definition of custodian. Para. 3 stated that a custodian could hold for a client even if the client had its own clients or other people who had rights against that client in relation to the DA. Para. 2 only addressed the relationship between the holder and the person for whom the holder held, as anything beyond that was deemed to be out of scope. Para. 4 set out a non-exhaustive list of the duties which may be owed by a custodian to its client, but these were not deemed to be mandatory, nor to be integral to the definition of custodian. The duties described were derived from the UNIDROIT Geneva Convention. Para. 5 stated that a custodian could have a security interest over a DA held for a client. Para. 6 concerned the outright transfer scenario and clarified that in that scenario the holder was not deemed to be a custodian (e.g., where assets were transferred to an exchange and the only rights the clients of the exchange had were personal rights rather than proprietary rights, meaning a claim for equivalent DAs rather than the actual digital assets held, see *Cryptopia*). Para. 6 drew the line between holders who were custodians and holders such as an exchange which operated under the outright transfer model. Para. 7 stated that where there was a custody agreement, if the holder became insolvent, the DAs they held as a custodian did not form part of the holder's assets for distribution to its creditors.

12. *Mr Luc Thévenoz* noted that the outright transfer situation (d) was one in which the holder of the asset did not have a proprietary claim, only a mere personal claim against the exchange, citing the example where a person transferred a DA to an exchange or bought a DA through the exchange and it would be delivered at their request and the person was exposed to the credit risk or the counterparty risk of the other party. A big difference between situations (c – custody) and (d – outright transfer model) was that in (c) the client was not exposed to the counterparty risk of the custodian whereas in (d) the client was exposed. He noted a convergence between SG1's control principle and the control principle drafted by SG2, which was that holding could mean sole or shared control. This was a point to be verified throughout the Project, noting that there may be a point where if there was shared control between client and custodian it may tip to where the custodian cannot exercise its duties because clients can dispose of DAs on their own, in which case, the relationship would not constitute custody. The Project needed to decide on a threshold and state that where there was less control than the required threshold, the parties' relationship was not of custodianship.

13. The *Chair* opened the floor for comments and questions. *Mr Nicola De Giorgi (Central Bank of Italy)* requested a clarification regarding the situation contemplated in para. 6 – Principle Y – Custody and queried whether it would be preferable to create a third definition in order to differentiate between the two meanings of "holder": (1) the holder can be the owner of a DA with no relation to any other person, or (2) a third person who kept the account. *Mr Luc Thévenoz* clarified that para. 6 concerned a situation where a party owed DAs to different people and the fact that the party maintained accounts was not indicative that it was a custodian (e.g., the party could be a seller, an exchange trading or acting like a bank). There could be a personal claim against the party (but not a proprietary one granting protection in case of insolvency), and the party needed to maintain records, however, this did not imply it was a custodian.

14. *Sir Roy Goode (Observer)* suggested looking at Article 8 of the Uniform Commercial Code which dealt with control in some detail and indicated that control can be shared, that there were different methods of control, and gave ranking depending on the type of control. For instance, control where an asset was held in the name of a secured party was the stronger form; another method was where the asset was held by a third party who agreed to comply with instructions of the secured party. It was thus possible to have joint control and different levels of control ranked in order of strength.

15. *Mr Charles Mooney, Jr.* recalled that the Project was not attempting to codify or harmonise rigid legal principles but to set out a framework of principles that States could incorporate as they saw fit. He concurred with the idea of factual control as an analogue of possession. He sought clarity regarding whether a trustee holding the asset in trust for beneficiaries would amount to custody. *Ms Louise Gullifer* noted that para. 2 of Principle Y sought to define the scope of custodian within the ambit of the Project rather than define custodian for the wider world, as it was possible that in many jurisdictions someone who fell into para. 2 would be considered to be holding in trust for someone else. Principle Y was drafted to encompass those scenarios where someone could hold an asset for someone else and not be a custodian (e.g., if there was a family trust for a child which held all assets on trust, including DAs, then the parent would not be a custodian). *Mr Charles Mooney, Jr.* noted that it could be problematic if custody was defined factually and functionally, but it was then said that was not custody even if it met that definition. In terms of general principles, he suggested defining custody along with certain concomitant duties, while noting that a State may wish to treat differently under private law situations where the custodian was in the business of holding for the general public or others. For example, for bailment, it could say that if a person held for a child, that person could still be a bailee with some duties but might be treated differently under the law than a professional warehouse, even in private law.

16. *Mr Marek Dubovec* noted that SG3 had deferred some discussions of security rights and control subject to progress in SG1 and SG2 to build on their notion of control. He queried whether some of these custody principles were to apply even where the custodian had not satisfied all the elements of control as defined. He understood the word "holder" in this context to mean someone who was entitled to enforce certain rights like a holder of a negotiable instrument (bearer note) or a protected holder. The term holder was used primarily in the context of those who had certain rights that may be enforced and there may be different levels of holders (more and less protected holders). If holder was used in the context of acquisitions as it was in the USA, he queried whether the term holder that was associated with custodian might not create some overlap with the notion of holder in domestic or international conventions to designate those entitled to enforce certain rights.

17. The *Chair* remarked that the notion of control should be defined as factual and functional. *Ms Miriam Goldby (Law Commission of England & Wales)* recalled that this specific problem concerning the use of the word "holder" arose in the drafting of the UNCITRAL Model Law on Electronic Transferable Records; in the end, "holder" was avoided because of its connotations and the notion of control adopted was merely an analogue of factual possession so that the person in control was the equivalent of the person in possession. *Ms Louise Gullifer* noted that holder was a convenient word to mean the person who did this holding, directly or for someone else, whereas "person in possession" was potentially cumbersome. *Mr Luc Thévenoz* stated that "holder" simply denoted the person who had control and should not come with connotations, noting that in civil law, holder did not have much meaning except for possession. *Mr Steven Weise (ALI)* expressed support for using terms like "holder" that were broadly familiar to facilitate understanding given that the product of this Project would ultimately be read by an audience less familiar with the subject matter.

18. The *Chair* queried whether fungibility in terms of the custodian's obligation to hold specific DAs for the client had been considered as well. *Ms Louise Gullifer* noted that SG1 had discussed the question of a pooled account or omnibus account rather than a segregated account, but not in detail (see Principle Y, 2(c) and notes to 4(d)). SG1 had envisaged a situation either where the custodian held an identified asset for one client, or the custodian held a number of different assets that were themselves segregated and held for a number of clients. This was the case in Cryptopia where they had omnibus accounts for all on trust (similarly to intermediated securities). In situations where the assets were entirely fungible and where the holding of the custodian had no relationship to clients who had transferred assets to this person, then that was an outright transfer situation.

19. *Sir Roy Goode (Observer)* noted that a claim to a fungible asset was purely a personal claim (like against a bank) not a proprietary claim, specifying that in common law, fungibility was not a

factor in proprietary claims. *Mr Charles Mooney, Jr.* noted that in the US, whether dealing with securities or grain, the claim to the fungible good was a proprietary claim like a bailee and its creditors. *Mr Luc Thévenoz* observed that bank notes had serial numbers but to most users bank notes were purely fungible, implying that fungibility was not necessarily an intrinsic characteristic of the asset itself, but a subjective evaluation by users. Clients could have custodians hold assets treated as fungible as well as over specific assets identified to specific clients (fully segregated accounts). *Mr Steven Weise (ALI)* queried what it meant to segregate digital assets considering their intangible nature (i.e., whether via holding DAs in separate wallets, or via separate entries on a balance sheet, etc.). *Ms Carla Reyes* explained how different technological mechanisms could make assets fungible or nonfungible. A purchaser of e-gold did not necessarily know which part of the gold bar they were obtaining, and further, that person could divide that piece of e-gold. She cautioned against assuming that digital twins used nonfungible technology, or that one was always getting a specific DA connected to a specific thing.

20. *Ms Louise Gullifer* noted that SG1 had only looked at the first tier of holding (i.e., the person who controlled the assets and whether they held for another person/client), noting that there may be a longer chain. SG1 had considered that the relationship between a client who acted as a custodian and their client was not within the scope of the group. SG1 may need to examine some aspects of the relationship between the client of a custodian and their own clients where that relationship was overtly one of custody. Pointing to para. 4, she noted that if entities were custodians, then they not only held the asset (i.e., the blockchain entry) but they would have another record in a different medium listing what they held for clients. Para. 4 also included a duty to reconcile between the custodian's effective holdings and what they said they held for each client. She queried whether this was (a) done in practice, and (b) whether that obligation was one a State could impose on a custodian.

21. The *Chair* noted that custody implied that the custodian had the duty to hold or maintain the same amount of DAs rather than the specific DA delivered to him/her. The Project should state that certain proprietary relationships should be recognised, including trusts, and if not, then the State may develop its own legal rules to protect the clients. *Mr David Fox* pointed out that the requirement for the custodian to hold an equivalent number of assets was contemplated in paras. 4(b) and (c). While there could be some movement of assets in that pool, whatever assets were in that pool were not subject to the custodian's insolvency risk.

22. *Mr Luc Thévenoz* welcomed the views of the WG on para. 4(a) regarding the duty of the custodian to maintain records (whether on a computer or on a DLT, etc.) of which assets it held for which clients. *Mr Steven Weise (ALI)* and *Mr Matthias Haentjens* expressed support for the proposition that accurate recordkeeping should be a core duty of a custodian. *Ms Carla Reyes* noted that para. 4(a) did not prescribe how the custodian was to keep the record, querying whether the technology itself could serve as a record. *Ms Louise Gullifer* confirmed that the principle was not supposed to be prescriptive; the record keeping could be anywhere within the technology, but the point was that the record should be a separate piece of information from the actual record of the holding of the DA.

23. *Mr Haentjens* queried whether the appropriate sanction of a violation of this duty was to be found in private law or in the administrative sphere, noting that in many civil codes, there would be a specified custody contract with certain connected obligations. He queried whether a failure by a custodian to comply with those connected obligations might not imply that it did fall under the definition of custodian in the first place, thereby meaning that the mandatory rules would not apply either. *Ms Louise Gullifer* noted that the Project was concerned with private law duties, while recognising that meant that the private law would not be much help without regulatory enforcement if an entity failed to comply and then became insolvent. *Mr Thomas Trashler (UNCITRAL)* noted that UNCITRAL encountered similar issues in the drafting of the MLETR regarding obligations to maintain records of contracts concluded electronically and ultimately rejected this proposal due to its

regulatory nature and because such an obligation for digital contracts would discriminate against contracts concluded in a classic form. Finally, he noted there was no practical sanction available for a failure to comply with the proposed obligation. *Mr Jeremy Bacharach (Expert invited by SG1)* noted that in Switzerland, the question was whether the assets could be held off balance sheet, with the view being that they could be if there was a possibility to segregate them in the event of insolvency; the incentive to comply with private law was therefore the accounting benefit of not having these assets on balance sheet.

24. *Mr Luc Thévenoz* noted that SG1 had not reached a conclusion regarding whether the duties in para. 4 were mandatory or not. *Ms Louise Gullifer* noted that certain matters were definitional and certain matters concerned something that a State could decide. *Mr David Fox* expressed strong support for retaining the duty in para. 4(a) and characterised it as important, bordering on mandatory, and noted that it was a way of preserving the client's priority in case of insolvency and that without proper recordkeeping, there would be no way of identifying the client's assets in the custodian's insolvency, meaning that the client was reduced to being an unsecured creditor. He also noted that the recordkeeping was not essential to the definition of a custodian as a system could exist which did not impose this duty on a person still deemed a custodian. *Mr Steven Weise (ALI)* agreed that this should be a duty and not part of the definition, so that it will apply to anyone who fell within the definition. He suggested that a generic statement to the effect that the recordkeeping must be reliable allowed for great flexibility, but that the information could still be used in an insolvency. He noted some US court decisions under Article 8 of the UCC that had unfortunately found recordkeeping to only be a public duty enforceable by regulators, rather than as enforceable through both public and private avenues, which is the view held by many experts , particularly where the State may lack regulatory infrastructure to ensure adequate enforcement, thereby leaving enforcement up to private individuals. *Ms Carla Reyes* noted that when looking at real world offerings, there might be arrangements which the WG may want to call custody to protect the client. *Mr Charles Mooney, Jr.* noted that this presented a challenge as the Project sought to address private law where there may be no regulatory framework, requiring that the WG ascertain where private law ended and where it might wish to advise States to consider more regulatory frameworks for protections that were not addressed by the Project.

25. *Mr Ignacio Tirado (UNIDROIT)* drew a parallel with classic custodianship in intermediate securities and queried whether, given the technology in use, there was any specific narrative the Project needed to include which would ensure that keeping track of the record captured the types of assets used in the market. *Ms Carla Reyes* noted the wide variety in the market; some offerings were more traditional like intermediated securities, while others were not. Some custodian services updated every transaction in sidechains rather than zeroing out to the ledger directly. She queried whether the Project required that level of specificity, as well as how long the custodians would be required to keep those sidechain records. She noted there were service offerings which only used the ledger and no other records. *Ms Louise Gullifer* was aware there were many custodians who did operate a system and kept separate records other than the holding itself. Regarding the updating of the separate record, she noted that it seemed to be done automatically. *Mr Hin Liu (Expert invited by SG1)* clarified that there was the on-chain asset held on transfer for investors as defined in Fusang's custody agreement. He specified that Fusang kept records to show what investors owned, hence it was not a title transfer model but more akin to the trust model, while noting that it was not a perfect trust as they had discretion to reject the client's instructions.

26. *Ms Louise Gullifer* noted the Project needed to draw a line and ascertain whether certain entities were custodians or not. A first distinction was between a custodian and someone else (i.e., an exchange that operated like a bank) who did not hold any assets and just had a personal obligation; a second was between DA wallet providers or other ways of holding, with an important question being whether somebody else could be said to be a custodian or not. *Mr Luc Thévenoz* noted that SG1 would need to expand its work by discussing custody over digital twins as well as endogenous digital assets (e.g., Bitcoin), and by considering both direct and indirect holding. SG1

would further consider the connection between holding, as a factual situation, and the rights the holder had or did not have, thus addressing the relationship between possession and right, between control and entitlement, with great deference to national laws. The goal was for DAs to fit into the existing panorama of rights, both proprietary and personal.

27. The *Chair* noted that custody needed to be defined in a flexible way and that the desirable legal rules could then be proposed. He further noted two important distinctions: the first was the difference between DAs and intermediated securities in the traditional sense, noting that the situation with DAs was more flexible and presented more variety in the terms of recordkeeping, holding, control, and custody. The second was a line-drawing question about para. 6: where a person held 10 Bitcoins and outsourced recordkeeping only to a third party, the third party was not deemed a custodian, implying that the person would have to outsource something more to the third party.

28. *The Chair noted that SG1 would need to further consider the question of line-drawing regarding the definition of custodian*. *The Chair further noted that the WG had confirmed that recordkeeping should be defined in functional or factual terms and would be one of the core parts of Principle Y – Custody.*

2. Sub-Group 2 – Control and Transfer (Appendix 2)

29. *Mr Charles Mooney, Jr.* noted that the concept of control as was envisioned in SG2 may diverge from what the Project said regarding a custodian's duties. Control was viewed as the functional equivalent of possession with the working assumption it would be an element of qualifying as an innocent acquirer to take free. Implicit in that was that it would make an acquirer's acquisition effective against third parties. He drew the WG's attention to the footnotes to Principle X.1 "Control" which noted that States may wish to use a term other than "control" such as "possession." Footnote 2, for para. 2(a)(1), indicated that the reference to the transfer of control in Principle X.1 referred to the functional equivalent for DAs of possession and was not necessarily the transfer of proprietary rights. Para. 2 further specified what States should consider for DAs to be the functional equivalent of possession or control which involved certain exclusive powers. Para. 3 relaxed the term "exclusive"; one manner was that the protocol or system in which the DA resided may inherently involve a transfer of control and that would not disqualify a person from having control under para. 2. Secondly, the person in control may agree or consent to sharing these powers with other persons and that also would not destroy the exclusivity requirement.

30. *Mr Luc Thévenoz* queried about the use of the word "exclusive", noting that control meant, *inter alia*, the ability to provoke the transfer of the DA, but that control in the DA world could be exclusive or involve one or more other parties' consent. He queried whether an open-ended notion of control would be acceptable or whether the Project needed to specify the level of control required for different provisions throughout the Principles. *Mr Charles Mooney, Jr.* noted that the use of "exclusive" was not fixed and would conceptually start with the paradigmatic case of someone who acquired a DA and had all these powers, and then begin to relax the exclusivity to say that one could still have control even though these features existed. *Mr Matthias Haentjens* noted that exclusivity was meant in a factual way as exclusive power.

31. *Mr Marek Dubovec* observed that para. 1 contained a reference to "functional equivalent of possession" and queried what other types of language should be in the Principle due to the variable meaning of possession. He noted that several attributes referred to exclusive benefits and there were many instances where a person in possession of a tangible asset would not have exclusive powers or benefits (such as a leasee). He queried whether this needed to be explicitly stated in the Principles to avoid giving a false impression to some States. *Mr Charles Mooney, Jr.* noted that possession can be viewed as factual but there was a social element to that connection. For the same reason that many systems did not try to codify a precise definition of possession, SG2 did not attempt to do so beyond what was presented except to note that many legal principles started off with possession as

one aspect of third-party effectiveness, but there were other requirements that would go along with it. SG2 took a neutral position as to what relationships with a DA would be the equivalent of possession of movables.

32. The *Chair* queried what to make of a situation where one had a DA (set of data) representing a payment claim against someone, and whether this was subject to the Principle X.1 for the purposes of transferring. *Mr Charles Mooney, Jr.* viewed this as a clear application of the digital twin, in that it concerned power over electrons and a record that was electronic. The question was who had the power over that record. As to whether under some circumstances obtaining power over the record gave the equivalent of possession of another asset (e.g., a bar of gold or right to payment), SG2 had yet to determine this as it had started with endogenous digital assets (e.g., Bitcoin). *Mr Matthias Haentjens* noted that exclusivity as an element of control was more factual than the term control. *Ms Louise Gullifer* understood power as being a factual power, meaning the power the system gave (i.e., an ability or technological power) and not a legal power. This implied that if somebody controlled an asset, then they had the factual power to obtain that benefit even though they may be in breach of a legal rule or relationship (e.g., trust or contract). *Mr Mooney* and *Mr Haentjens* both confirmed this was correct.

33. *Sir Roy Goode (Observer)* noted that the decisions on the EU's financial collateral directive had created confusion because there was an attempt to stretch the concept of possession to cover intangibles, thereby rendering redundant control. He remarked that it ought to have applied possession to tangible financial collateral and control to intangibles. There was a difference because possession implied the transfer of the same asset (A to B) and this was not the case in blockchain where a value was moved from one person with features in another but it was not a transfer. He further noted the necessity to distinguish on-chain assets from off-chain assets. He viewed blockchain as establishing a series of new roots of title. As to exclusive control, there was no reason why exclusive control could not be shared by two or more people.

34. *Mr Jason Grant Allen* noted that "power" was perhaps ambiguous because it unwittingly implied factual and legal abilities; he was therefore in favour of using the term "ability." The terminology needed to distinguish between, on the one hand, the factual and legal ability to do something, and on the other, the legal permissions or prohibitions or being duty bound to do something. There were DAs that did not exist in an information repository and dealing with those DAs meant there was the ability to change those records. *Ms Miriam Goldby (Law Commission of England & Wales)* suggested using the word "ability" (perhaps adding the words "in fact", so "ability, in fact, to do…") instead of "power" because ability added a more factual nuance whereas power suggested authority. *Mr Steven Weise* expressed a preference for power because it was more specific, while noting that ability, properly defined, would be fine. He noted that power or ability was in the context of a person who did not have the corresponding legal right and it was important to make clear that it was possible to have both the legal right and the power and still have control so that the discussion of the exception did not obfuscate that the general circumstances and rule were that the legal right and the power or ability would reside in the same person.

35. *Mr Charles Mooney, Jr.* clarified that the power to do something was the ability to do it whether in a fact or act or in an entrustment; where someone had the power to do something even if wrongful. He requested that the Secretariat conduct some research regarding terminology used in analogous situations (i.e., in conventions or model laws) to look at terms like power and ability for guidance. The *Chair* noted that regardless of the notion of power, ability, or control, all of these could arise through a variety of means (e.g., by technology, consensus agreement, or by special legislation). Where a given situation amounted to the notion of power, ability, or control, then the Principle would apply.

36. *Sir Roy Goode (Observer)* sought clarification regarding the intention behind the meaning of control. *Mr Charles Mooney, Jr.* clarified that the control SG2 had in mind was the factual relationship

between the person and the asset; the set of powers or abilities, the control over the asset. The fact that the person had some other relationships with other people or other assets was not relevant, for example, an in-fact possessor who stole something and carried it away secretly where no one could find it. *Mr Marek Dubovec* noted this discussion arose in SG3 and security rights in the context of creation where a person may have a right or a power with respect to a DA. He pointed to Art. 6.1 MLST which referred to power, noting that the notion of power was broader in the context of secured transactions. The notion of power, like control, may vary depending on the context. *Mr Jason Grant Allen* noted that it was important to use the right terminology and remarked on the challenge of the articulation of how legal power and duties interacted with each other and how the determination of whether a person could factually and legally act in a certain way in a given context.

37. *Mr Steven Weise (ALI)* noted the importance of recognising that often the custodian would be the agent of the person with whom the custodian had the contractual relationship; even though the custodian had control, the custodian could have control on behalf of its client or customer so that the customer indirectly had control. For purposes of take free rules, the customer who transferred to another customer was able to transfer that agency relationship and the second customer ended up with the benefits of some of these provisions through agency law or other relevant statute.

38. *Ms Louise Gullifer* noted that Principle X.1 dealt with control generally in the context of transfer rather than custody, and that it would have to be tested in the context of custody to see whether it worked in all situations. The approach was to have a factual concept of control which had nothing to do with legal rights and then build on top of that the legal rights in relation to the controller. The holder (person who controlled) could either be a custodian or a non-custodian while the rest of the Principle described the link between the holder and someone else without exploring the definition of control. Principle X would also work for custody, but it worked well for thieves and no legal rights.

39. *Mr Charles Mooney, Jr.* concluded that further work was necessary on the relationships and corresponding use of different terms for different purposes. He theorised that a custodian could have a legal entitlement to those assets when another legal or regulatory scheme provides sufficient protection (e.g., regulated securities depository). The question was what to require a custodian to do to protect investors. Another question concerned the appropriate analogue of possession for third-party rules. The *Chair* noted that the possession analogy was simple in the private key situation with blockchain technology as holding the private key created exclusive control over the DA (factual or by technology). *Ms Nina-Luisa Siedler* remarked that the relationship between the custodian and its customer needed to be described along with the obligations owed by custodians. From the financial regulatory perspective, the requirements for custodians were already laid out, meaning there was overlap with the private civil law features; the Project needed to consider how the Principles would fit into the existing rules.

40. *Ms Hannah Lim* remarked that the work of SG2 fit with what exchanges did, noting that from a computer science perspective, the real problem in terms of bad actors were the exchanges who were the biggest custodians. *Ms Louise Gullifer* noted that SG1 had tried to define a custodian in such a manner that on their insolvency the assets they held for clients would not form part of their assets to be distributed to their creditors. In other words, if the exchange became insolvent, its assets would not form part of the assets distributed to creditors. But if the exchange operated the way the Coin Exchange operated, then the assets were held on an outright transfer basis and would not be available for distribution to creditors. That was the line SG1 had tried to draw, rather than regulations for exchanges. SG1 had avoided using the term proprietary right but talked about situations where clients had proprietary rights which, if not existing under private law, would derive from other legal sources. The *Chair* remarked that if exchanges caused particular problems then the Project might consider having specific provisions concerning exchanges distinct from custodians, recalling that this would need to be discussed from a private law perspective.

41. *Ms Hannah Lim* sought clarity regarding whether Principle Y – Custody, para. 6 described exchanges. The *Chair* clarified that para. 6 said that exchanges were not custodians. He queried whether the Project ought to consider exchanges as a distinct category. *Ms Carla Reyes* noted that the word "exchange" encompassed various service models and that one exchange could offer a variety of them, one of which might not be custodian and one of which might be. Considering this important degree of nuance, she queried whether the Project ought to focus on functional business models rather than the word exchange. *Mr David Fox* concurred and noted that the term "exchange" was neither a legal term of art nor technical term; rather, it was simply a business term that covered all types of relationships – some of which may be custodial in nature – and that these needed to be distinguished. *Mr Klaus Löber (ESMA)* noted there was a significant blurring of the lines between traditional categories in the way the structure of new business models. For instance, it was not easy to disentangle trading and settlement, and perhaps not fully possible to separate the functions into two neat categories which tied into different underlying categories of DAs.

42. The *Chair* queried whether innocent acquisition rules ought to be recognised in the context of digital assets. *Mr Matthias Haentjens* confirmed that SG2 had formulated an innocent acquisition rule in Principle X.2, para. 5, and used functional language without imposing legal terminology to state that innocent acquirers should be protected. *Mr Steven Weise (ALI)* noted that in the US the innocent acquisition rules did not apply to most kinds of DAs unless they were held inside a securities account, in which case one might indirectly obtain those benefits. He supported the draft Principle. He queried whether that protection ought to apply to all kinds of DAs or to a more limited subset thereof (i.e., digital twins). This begged a question concerning a scenario in which the twinned asset were something which, if held directly would not be subject to innocent purchaser rules, and whether it then ought to become subject to those rules just because it was tethered to a digital token. *Mr Marek Dubovec* concurred with Mr Weise, noting that further consideration was required regarding the types of DAs to be covered by the Principles. He noted there were all kinds of NFTs (non-fungible tokens) where the innocent acquisition rule may or may not be appropriate, and he queried whether the Project covered negotiable documents were, concluding that certain exclusions from the Principles were perhaps necessary. He agreed with the structure of the Principles, particularly that they first invited the States to consider whether they should extend certain existing rules to DAs.

43. *Mr Jeremy Bacharach (Expert invited by SG1)* noted the Lichtenstein blockchain act contained an innocent acquisition rule. In Switzerland, the rule was limited to DAs that were akin to securities. *Mr Jason Grant Allen* noted there were good reasons for treating certain DA classes as subject to the innocent acquisition rule, such as central bank digital currencies (CBDC). He noted there were also good reasons for treating other classes as not being subject to innocent acquisition. *Mr Matthias Lehmann (EBI)* noted that France had a good faith acquisition rule for DAs but only for those that were backed by securities. In Germany, the rule only covered bonds and not DAs.

44. *Sir Roy Goode (Observer)* raised the question of insolvency, noting that an account holder could only have a personal right to delivery and not a property right, but upon insolvency the person who had the obligation of all those rights were in-fenced against general creditors. In certain jurisdictions personal rights converted to proprietary rights upon the insolvency of the obligor and there was sometimes a disconnect between the nature of the right before and after insolvency. *Mr Luc Thévenoz* noted that under Swiss law the right to delivery on trade was set aside from the bankruptcy of the broker for a certain time.

45. Regarding Principle X.2 on transfer, *Mr Luc Thévenoz* noted there were two levels of transfer: para. 1 dealt with the transfer of rights in DAs, and para. 2 appeared to deal with the DA itself and not the rights therein. *Mr Charles Mooney, Jr.* pointed to the distinction made in footnote 2 which explained that the transfer of control was distinguished from the transfer of proprietary rights. A transfer of control may or may not be associated with the transfer of proprietary rights. SG2 wanted the transfer rules in general to apply not only to cases where "A transferred to B" but also as a result of A's disposition when the asset may disappear, and another resulting asset appeared (e.g., Bitcoin).

This was to emphasise that regardless of how the technology worked, the transfer rules would apply in general so the person with the new asset was protected.

46. *Mr Jason Grant Allen* noted there was an assumption behind a lot of law in the commercial paper space to the effect that the transfer of control carried with it the transfer of proprietary right. The WG needed to decide this question. *Mr David Fox* noted this was the double effect. In a typical delivery of an item of property the ordinary rule was that in order to transfer the ownership, one needed to deliver physical possession, with two legal consequences of that physical act. A movement in control from one person to another can be operative in and of itself. A person can be in control of an asset and not necessarily have any legal right in relation to it. There were many other situations where that transfer of control took place intentionally, and we could assume the transaction would be derivative in its effect and that there would also be a transfer of the legal right. In a typical transaction the change of control was a condition to implementing the change of the transfer of the right, but they did not always move in sync with each other. The idea of control as a proxy to possession made a sort of analogy with the way real rights were transferred in relation to property. *Mr Charles Mooney, Jr.* noted that questions about proprietary rights between transferor or transferee ought to be left to other law. However, in para. 5(c) of Principle X-2, an innocent acquisition rule needed to be accompanied by a shelter principle. *Sir Roy Goode (Observer)* and *Mr Steven Weise (ALI)* supported Mr. Mooney's proposal on a shelter rule as support for take free rules.

47. *Mr Jeffrey Wool* remarked that where there were conceptual problems with property law the Project could address those regarding an *inter se* transaction. *Mr Charles Mooney, Jr.* noted that since DAs were intangible, a special rule was needed to include proprietary rights in that *inter se* transaction. The *Chair* noted that most civil law jurisdictions distinguished double transfer from innocent acquisition. For example, if A transferred to B and then A also transferred the same assets to C, there would be no *inter se* transaction between B and C if B and C were to litigate this matter. However, between A and B there remained the question if any power remained with A after A transferred to B. On the other hand, the innocent acquisition rule applied if the acquirer was an innocent acquirer and the take-free rule would protect B. Some other private law rules might be considered in terms of DAs.

48. *Sir Roy Goode (Observer)* remarked that if these third-party situations were removed, all that remained were the relations between the parties which was the Project's focus. He saw no value in analysing property rights, noting that the parties would have contractual rights between them. *Mr Steven Weise (ALI)* noted that as between A and B, the question as to whether it was a contractual or property right was a matter for a dispute between A and B. In the US, in the terms of A to B and then A to C it was viewed as a priority innocent purchaser analysis or effectiveness against third parties analysis so that the rules on transferees and remaining power came within either innocent purchaser or rules applicable to priority of rights. In any dispute between A and B, if A had transferred to C in a way where B lost some rights, then A and B could go to court and litigate.

49. *Mr Jeffrey Wool* noted that other Sub-Groups were examining these questions relating to transactions *inter se*. SG3 dealt with the creation of a security that was a transfer *inter se* between A and B; SG4 was also considering transactions *inter se* and more generally the relationship between the applicable law and systems that applied and did not make distinctions between transactions *inter se* and third-party transactions. *Mr Jason Grant Allen* queried what civil law systems made of this. He noted there was debate in every legal system about how far party autonomy could go to create new objects of property rights or create new property rights in objects that were accepted to be fitting objects of property rights, which was obviously an issue with DAs. In practical terms it only came to light when parties created a new property right that went to a third party and we did not have the *inter se* situation and the disjunction between property and contract became evident. *Mr Matthias Haentjens* noted that SG2 had civil law systems in mind when drafting these Principles. He queried whether enough attention has been devoted to the control principle to help civil law systems to fit into this more restrictive system of interests in DAs.

50. *Mr Charles Mooney, Jr.* and *Mr Luc Thévenoz* agreed that the best approach was to revisit the discussion of transactions *inter se* after SG3 and SG4 had advanced in their work. Mr Thévenoz agreed that civil systems had a more dogmatic approach to the distinction between personal and proprietary claims. Confronted with DAs or intermediated securities, the civil law systems adapted in different ways to recognise significant proprietary protection for those assets but often shied away from saying they recognised them as property. Accordingly, the Project needed to stick to a very functional approach in drafting the Principles.

51. *Mr Matthias Lehmann (EBI)* noted that the French legal system drew a distinction between relative property or interpersonal property and rights against third parties. Germany did not distinguish between these two aspects as there was only one conception of property and property can only pass in relation to everyone or it did not pass at all. In addressing only the relation to third parties, the German legislator would also deal with the interpersonal relationship. Given that there was only one conception of property, it was valid to everyone, even the transferor. The German legislature created in the area of intermediated securities a fiction that a certificate that was registered electronically would be considered tangible and bridged the gap to property law for digitally registered rights. He noted the importance of this Project for German law.

52. *Mr Klaus Löber (ESMA)* noted that the future framework for DAs would have implications for the interpretability with existing structures based on the more traditional forms of securities and payments. He noted two approaches seen in practice regarding digital currencies: (1) seeking to integrate the cash and securities aspect into a single platform, trying to align the cash aspect and the tokenised version to the securities part; (2) a payment vs. payment, and the connection between a digital currency platform to payments infrastructure which was linked to a traditional payment system. There were cases where a token-based payment system had been structured to resemble economically, operationally, and legally, traditional clients. He emphasised the need for having a brokered tailor-made solution for both. The further one stepped from the comfort zone of payments considered as claims, the more issues were created. He sought to draw attention to the consequences which certain limitations of the scope of the exercise could lead to.

53. *Mr Steven Weise (ALI)* noted that the Project was looking at results and functional conclusions and was not to directly focus on property or proprietary rights. The ELI-ALI Principles for a Data Economy Project decided at the outset not to deal with the question of what was property but rather to look at the results and describe what were the desired results without using the word property to avoid conflicts with different systems. *Mr Jeffrey Wool* noted that there were systems with more restrictive concepts of property than the common law system, and that at multiple junctures throughout the Project these questions arose, pointing to SG3 treatment of *inter se* party transfers within a platform. He noted that in the Cape Town Convention, Art. 7 created the property interest, and Art. 5 dealt with the transfer *inter se*. He encouraged taking an outcome-based approach. *Mr Charles Mooney, Jr.* remarked that any doctrinal discussion of property should only be explored when necessary. He noted that the Cape Town Convention spoke about a power to dispose rather than the debtors' rights in the property as other law covered debtors' interests. Finally, he noted that regarding transfers on a platform, the control concept would fill the necessary gaps. *Mr Luc Thévenoz* noted that the WG needed to make recommendations rather than engage in academic discussions. *Sir Roy Goode (Observer)* observed that the property question only mattered when the question arose in the exercise of the remedies for default. For example, for tangibles like goods, a party could repossess. The question was whether it was necessary to address property rights in order to provide remedies of a proprietary nature between parties and what the implications were when dealing with tangibles vs. intangibles.

54. *The Working Group reached a consensus on para. 5(c) of Principle X.2 that States should adopt (or retain) a shelter principle in support of the innocent acquisition rule if the Principles adopt such a harmonized innocent acquisition rule. The Working Group further reached a consensus that*

the scope and goal of the Principles was to create results and functional conclusions so that individual jurisdictions could use their own legal frameworks to reach those results and conclusions.

3. Sub-Group 3 – Secured Transactions (Appendix 3)

55. *Mr Marek Dubovec* presented the work of SG3 (pp. 24–35 of the Revised Issues Paper). Some Principles were very simple with added value found in the comments and illustrations. Several use cases were identified as collateralised transactions(pp. 25-27), even though, functionally, a security right under UNCITRAL rules might not be created. The illustrations covered (i) actual and (ii) hypothetical scenarios. Some were classic secured transactions (STs) and others mimicked the function of secured transactions (e.g., Illustration 1: Digital Assets Securing a Stablecoin, p. 26). *Ms Louise Gullifer* queried whether the use cases were documented in agreements between the parties explicitly aiming at the creation of a security interest, or whether what the parties activities presented the appearance of a security interest without necessarily being the parties' explicit aim. *Mr Marek Dubovec* confirmed that SG3 did not look at the agreements' actual language to determine what sort of transaction the parties had intended but would dig deeper.

56. *Ms Marianne Bechara* (IMF) noted a parallel between Illustration 1 and a discussion in SG4 regarding the nature of the contractual relationship between the parties in which it was concluded that the contract could be the code or the protocol; as the parties had agreed to work or deploy those networks, this indicated their agreement on the rules in the protocol. The operating models for various types of so-called stable coin were very different (e.g., pegged to an external asset; backed by assets; and fully collateralised). *Mr Marek Dubovec* confirmed that SG3 was primarily concerned with the use of a stable coin once it had been created in a collateralised transaction rather than how a stable coin was created (especially considering the different stabilisation mechanisms). *Ms Marianne Bechara (IMF)* agreed the WG should not examine the global stabilisation of coins, although certain characteristics of stable coins could merit further consideration by the WG. For example, the backing could be full, fractional, or sometimes over collateralised like MakerDAO. Dependent upon the kind of redemption rights that the holder might have, there could be prerequisites to be able to trigger the right or not. Sometimes the redemption was not with the issuer, but with the intermediary which facilitated the asset transfer. She noted the difference between pegging (i.e., a promise to fix the price), backing (i.e., issuer promised to hold certain assets which cannot be claimed by the holder), and collateral (i.e., issuer held those reserves for the holder which can be claimed).

57. *Mr Klaus Löber (ESMA)* pointed to the securitisation of stablecoin arrangements, suggesting further examination of the use of collateral in free posts and secure lending and how this tied in with existing standard market documentation. Noting the existence of transactions where DAs have been used for both traditional legs of repos (repurchase agreement) (i.e., cash and securities) in which the parties used standard master agreements out of familiarity, he welcomed any examples to see whether such master agreements fit in the Project. He highlighted the use of digital currencies as margin in the clearing space, noting this could facilitate and automatise certain margin calls; in the centralised area this was perhaps hypothetical given the regulatory scrutiny, however, in the bilateral space applications to support margin calls on a more automated basis could be arriving shortly.

58. *Mr Marek Dubovec* noted that SG3 considered two levels of collateralisation: (i) an asset that was taken as a collateral and (ii) the potential right supporting the value of that asset. The supporting right might take different forms, such as general or personal guarantees and there may be assets that underly the value of the DA, which may be like warehouse receipts. Another category of DAs were tethered assets, which the WG had yet to consider. A third category concerned assets that may be set aside to support the value of the DA, with respect to which a secured creditor or the holder of the DA may have some claim which may be the asset itself or against the issuer of a stablecoin. This was one example of supporting rights which would be considered throughout the Project.

59. *Mr Charles Mooney, Jr.* queried what the WG envisioned as the scope of the Principles: whether the goal was to include a fuller ST law for DAs (akin to work on the Cape Town Convention which delved into issues of ST and set out the framework of creation and enforceability of the international interests, perfection, third party effectiveness, priority, default, and remedies) or to only examine areas that would build on the rules of acquisition and disposition and areas where States' existing secured transactions regimes might not be fit for purpose for various types of DAs. *Mr Steven Weise (ALI)* suggested considering where DAs fit in well and where they did not, considering it unnecessary to undertake a complete analysis similar to the CTC because the existing secured transactions law should be sufficient. *Mr Marek Dubovec* noted that SG3 had focused on clarifying how the existing principles and standards would apply, pointing out that the pathbreaking issues were being considered in SG2 (control), which would need to be incorporated in SG3 with respect to perfection of security interests and the law applicable to the perfection by control. SG3 had deferred consideration of tethered assets, i.e., DAs linked or connected to a real-world asset, pending further discussions by SG1 and SG2. *Mr Steven Weise (ALI)* queried whether the existing general rules of secured transactions could apply to DAs or whether changes were needed due to the unique nature of DAs. *Mr Marek Dubovec* confirmed that SG3 would consider use cases which presented certain aspects of a secured transaction and consider whether secured transaction law or general law ought to apply. He cautioned against formulating recommendations that departed from the UNCITRAL Model Law or Geneva Convention as these were new instruments which many countries were considering for adoption.

60. *Ms Carla Reyes* noted that once DAs were identified as intangibles the industry struggled with perfection. If the Project covered a scenario like MakerDAO, the filing system lacked the about the debtor needed for a perfection analysis. She noted the importance of assessing the relationship between free take and encumbrance clearance for DAs.. She noted that in the USA, the industry had seemed to conclude that their only option was to file, but that was not always possible, and there were sometimes philosophical reasons for the industry not wanting to. On the other hand, the industry saw their only other option as the intermediated securities custodian model. Fringe cases like MakerDAO forcing the industry to work through a custodial model was antithetical to the ostensible purpose of decentralised finance. In the case of MakerDAO, users gave up control of their cryptoassets in order to obtain Dai. The question for the WG was whether it intended for the control Principle to encompass decentralised autonomous organisations (DAOs). For instance, whether the DAO became the person in control, even though a DAO was not a legal person. A similar question concerned whether a DAO could be considered as a custodian. A DAO lacks the information required to file in the US as its only identifier is an IP address.[1] She queried whether the WG wanted to decide that this dearth of information disqualified these operations from being amenable to perfection.

61. *Mr Marek Dubovec* noted the industry's challenges with respect to perfection under existing mechanisms. SG3 was mindful of the diversity of legal traditions as some did not require any form of public notice where a security right might become effective against third parties without any form of registration. However, many systems provided for registration and in this case, the difficulties that Ms Reyes was explaining would apply outside the USA as well. Some systems, such as Japan, may also require detailed descriptions, posing yet other difficulties. Referring to CDBCs, Mr Dubovec suggested that CDBCs could be a use case for further consideration of this matter. He noted there were different models for CBDC (i.e., issuance as a token or an account-based instrument) and that

[1] Ms Reyes provided additional information regarding recent legislative developments in the state of Wyoming which had already adopted changes to secured transactions law to deal with the perfection by filing or via custodial arrangement issue, as well as also trying to deal with super-negotiability. Three other states have recently introduced draft legislation that are near copies of the Wyoming law. Regarding the question as to the status of DAOs and whether they can be considered as people, Wyoming recently introduced a bill that would alter their LLC statute to create new rules for DAOs, including where the DAO smart contract can be the LLC operating agreement (i.e., MakerDAO, LLC.) However, even without the new law, a variety of DAOs and protocols were entities. For example, DASH was a New Zealand Business Trust; dOrg was an LLC, and MetaCartel Ventures was a Delaware LLC (under regular LLC law). In summary, the DAOs can be people and might count as a holder, a custodian or a "person" in control even if the rule were to be limited to "persons."

many secured transaction laws defined money as a value sanctioned by the government. CBDC would clearly fit into this definition. However, the structure of the law may be set up in a way which could pose some challenges to CBDC. For example, take free rules were set up in a manner that would require the transferee to take possession of money and the application of such a rule was problematic when transferring CBDC. CBDC first needed to be understood within the larger context of money and its equivalents, followed by analysis of the perfection mechanism for which control had been provided for bank accounts but not for money, and then analysis of the resulting difficulties for transferees of CBDC to take free. SG3 had not elaborated specific principles as it dealt with a great variety of digital assets, however, he acknowledged there may be a need to provide DA specific rules to a particular subset within the broader subcategory of DAs.

62. *Mr Jeffrey Wool* highlighted the importance of focusing on the applicable law governing third-party effects of a transfer, which may also be applicable to perfection and priority of a security right. He also noted the problems in international transactions involving this type of asset as being perfection, priority, and insolvency. He encouraged the WG to examine the recognition of perfection by use of international registries or platforms. *Mr Marek Dubovec* confirmed that SG3 would consider issues of conflict of law but were awaiting SG4's guidance on private international law implications. He noted that conflict of law rules would be considered in a limited fashion for transfers that created security rights, with a distinction in that context between *inter se* and third-party effects of a transfer, focusing primarily on the latter. He further noted that insolvency did not fit squarely in the mandate of SG3 (noting that SG1 was looking at the insolvency of custodians), other than ensuring that where a security right had been properly perfected, it was recognised in insolvency, which was a principle of the MLST. He suggested that the WG may wish for the Principle to apply irrespective of the nature of the underlying collateral, noting that was a broader issue of insolvency. He recognised other issues present within the Project regarding the law applicable to security rights in intangibles. Mr Dubovec identified approaches that were recognised, such as the location of the grantor of the debtor that determined where to file or register a notice. He highlighted that if the WG were to recognise control as an alternative or as a sole perfection mechanism for some DAs, it should also clarify what law governed perfection and priority. Moreover, within those broader discussions of how one achieved control, the Principles setting out the general parameters of how one constituted a control system and how one acquired control over a DA should be clarified. Within those general parameters, he recommended that registration systems would be one example of how control could be created. This was likely a matter of providing some explanations and illustrations as to how control for the perfection may be implemented through one or another mechanism. Further explanations could be included as to how these international or domestic registries – not classic secured transaction registries – may play a role in the perfection by control.

63. *Mr Marek Dubovec* noted that Principal A was a general statement aimed at explaining what was intended by law and secured transactions (i.e., not limited to one type of ST law). It also aimed to nudge States in the direction of modernisation regarding secured transactions law reform and to consider coherence and a broad commercial law framework. The *Chair* noted the two illustrations and queried whether clarification or legal certainty in applying traditional, existing secured transactions law or international principles in these two situations was needed.

64. *Mr Luc Thévenoz* remarked that Principle A should include more elements familiar to civil law jurisdictions as well as common law. He queried the adoption of control as the equivalent of possession, explaining that DAs were amenable to the traditional possessory security interests and, as control was a very flexible concept, it would allow for all sorts of technical possibilities to give the secured party the power to dispose, sell, etc. He further noted that the first example in the illustration, which was a secured transactions by filing, pointed to where noncommittal jurisdictions that did not have a filing system would get lost, as they would consider such a filing system to be a prerequisite to having secured transactions with DAs. He suggested that the WG may wish to start with a very traditional, possessory type of transaction where control either transferred full title or a limited security interest. *Mr Marek Dubovec* agreed that the WG first needed to start out broadly,

considering what might be expected from every legal regime to have in place in terms of a particular security device. He therefore suggested that the order of those illustrations be reversed, amplifying what was now the second illustration. The purpose of the first illustration was to show that even if so-called modern secured transaction law was implemented, there may be some areas in the implementation to which more attention should be paid, because it might not go as far enabling these types of transactions.

65. *Mr Charles Mooney, Jr.* queried to what extent the Principles should repeat principles of the secured transactions law, epitomised by the MLST, and whether the WG should consider and restate all of these principles. For example, creation was discussed in the notes to Principles B and C. He sought clarification as to whether the point was that the MLST did not allow the creation, perfection, and enforcement of a security right in DAs. If so, he queried whether every point that needed to be changed in the MLST needed to be considered and identified, or whether it was sufficient to emphasise the bottom line that all of these should be allowed. *Mr Marek Dubovec* remarked that the draft Principles may appear to be stating a general principle and then giving further explanations as to how the principle applied to DAs, rather than formulating a new principle. This was different to the approach of SG1 and SG2 as the WG wanted to provide the kind of background to set it in a certain framework for a reader to understand where this principle fit in within the secured transaction principles. He affirmed that SG3 was open to the restructuring of the principles and narrowing down the focus to only those areas where the WG considered the principles ought to be changed, rather than restating the principles and explaining how they might apply.

66. *Mr Steven Weise (ALI)* cautioned against recreation of the MLST which worked well for most of these issues. The Principles could point out specific provisions, transactions, or mechanics, and address any concerns about the use of this kind of asset as an encumbered asset, but it should be to confirm that the MLST and other secured transaction law did apply to this kind of asset; the fact that it was conceptually new did not mean it was not covered, noting that many laws were designed to accommodate future kinds of assets. The WG would have to address some supplemental ideas, such as adapting provisions of the model law applying to possession to comparable ideas for control but cautioned against going beyond that. The *Chair* agreed, noting that SG3 was attempting to show the possibility of uncertainty in applying existing international instruments of secured transaction law. He noted that these two illustrations demonstrated the point quite well.

67. *Ms Louise Gullifer* concurred that the WG should not rewrite secured transactions law, but rather show where there could be problems. She commended the work of the SG3 as it took a neutral approach to the type of law under consideration, encompassing both common and civil law regimes, which would lead to more buy-in from regimes that had not reformed their law. *Mr Charles Mooney, Jr.* suggested that the MLST would point out the problems in the creation, perfection, and priority of security interests that other regimes had, which could be an extensive listing if the identification of what needed to be cured was required. The point was for States to be informed of what they needed to do to solve these problems.

68. The *Chair* queried about the applicability of these two illustrations concerning the hard drive or the private keys in the WG members' respective jurisdictions, and the existence of any uncertainty in applying the given ST law. *Mr Steven Weise (ALI)* suggested that the point of the second illustration of the delivery of the hard disk with information on it was intended to identify conceptual issues that might arise in different States. He noted that in the USA it was like when people thought that the delivery of a CD with data on it gave an individual possession of the data, classifying it as a good rather than an intangible transaction. He disagreed with this approach, considering it to be a strenuous effort by some people to force existing structures to work for this. This was one of the situations the Principles could discuss further, pointing out that a security right in the virtual currency should be addressed by the types of rules that the Project was considering, primarily being public registry or control. He suggested that this was the analogue of possession to control but physical possession itself was not going to matter and it would help States further consider the point. This

raised a question that the Project could answer in a helpful way, avoiding States coming to an answer too grounded traditional notions of possession.

69. *Ms Nina-Luisa Siedler* supported Mr Weise's comment, suggesting that Germany had the same issues, as only physical things were capable of being possessed. Only the disc or the drive where the data was saved could be possessed and not the data itself. She agreed that the law must be taken a step further and deviate from the historical viewpoints. The *Chair* queried whether the private key blockchain was classified as a tangible or intangible in Germany. *Ms Nina-Luisa Siedler* pointed out that the private key blockchain was neither a right nor an object from the perspective of German law. She suggested that it would be a so-called "another subject", comparable to know-how, as you could not own it or possess it, but just sell it. She emphasised that it was not protected as an absolute right in Germany.

70. *Mr Marek Dubovec* noted that SG3 would implement the suggestions to enhance appeal to the civil law world by way of altering the illustrations. He further noted the point about being clearer about what the ultimate outcome was, while ensuring that the WG remained tradition neutral throughout. *Mr Ignacio Tirado (UNIDROIT)* remarked that the divergence that could occur in civil law jurisdictions would not be the case in the European Union; while most of the principles applicable here were derived from common law systems – and therefore alien to European civil systems – they had been incorporated throughout the EU due to their inclusion in the financial collateral directive.

71. *Mr Marek Dubovec* noted that Principle B was a scope principle similar to the ALI and ELI Project, urging States to clarify their notions of moveable property without limiting the use of DAs in secured transactions, as their laws should not exclude DAs. *Mr Luc Thévenoz* queried whether all DAs were capable of being collateralised, as the Principle spoke of using "any DA" as collateral. He expressed concern about certain DAs not having economic value, not being capable of being realised on a market, but having more personal value to it. He questioned whether the use of the word "any" was too broad, as everyone was still unaware of the immense world of DAs. *Mr Nicola De Giorgi (Central Bank of Italy)* concurred with Mr Thévenoz's point regarding the use of the word "any" in Principle B. He further noted his preference excluding personal digital data – which had no economic value and could not be transferred – as collateral. *Mr Marek Dubovec* agreed that refinement was needed on the scope of this Principle and how ST law interacted with the other laws that may limit the possibilities legally or factually of prospective creditors to take certain assets as collateral. Regarding capability of control, if this was understood to determine the scope of the Project, then only those assets that were controllable were part of the Project. If a State analogised control only to possession, then this Principle would need to be refined. SG3 was envisaging those scenarios where the requirements for control might not have been strictly satisfied, in which case the DA may still be some object in which a security right may be created, and perfection would occur by registration or other method. Accordingly, the fact that there was no control over a particular DA would not disqualify as collateral for a loan as there might be different mechanisms in ST law that would enable its use.

72. The *Chair* raised a query regarding fungible assets, seeking clarification on whether the pool of these DAs would be subject to or be eligible to be collateralised, if an individual had a pool of these DAs that changed from time to time. *Mr Marek Dubovec* suggested that the WG deal with pools of assets in a different context. For example, Principle C addressed one aspect of pooling, which dealt with creation. The *Chair* raised the problem relating to some laws, such as Japanese law or civil law regimes, which required specification of the collateral in the security agreement. *Mr Dubovec* noted that if, in the agreement, the law required the collateral to be specified individually by a serial number or equivalent in a DA, one could create a pool which would be quite complicated. However, this would also preclude the possibility to extend to future DAs that might be acquired by the debtor, meaning that the constitution of a security right over pooled assets would be quite complicated, which was a general principle of UNCITRAL. To address this point, the WG could provide an illustration as to how this might be complicated if there was a law requiring provision of the description, limiting the ability

to create a security right over a pool. *Mr Steven Weise (ALI)* noted that the MLST had provisions on comingled assets, noting that the Project could usefully examine this and try to evaluate whether that would work well in this context or whether there should a rule which was modified that would apply in the context of pooled DAs, which were coming in and going out.

73. *Mr Marek Dubovec* noted that, when considering the very broad reach, there was a mention of some other laws that may limit the use of DAs as a collateral for different reasons. One example would be the existence of specific laws, such as for derivatives, where the use of DAs may be covered by a specific regime. The concerns expressed by Mr Thévenoz were more focused on different kinds of assets not used in a financial transaction, but rather had the kind of features like household assets as collateral for a loan and laws took different approaches with respect to whether one could assign wages or use household items as collateral for a loan. SG3 recognised the existence of those laws that limited the breadth of this Principle, which did not stand on its own, but was limited by the application of other laws, such as consumer protection laws. He suggested inserting a note to avoid the impression that anything could be taken as collateral. He further queried the type of assets that could be made subject to a law, and, if subjected to it, what would be the point if these had no value. The point of the Principle was to leave it open-ended, because the task of the WG was not to judge whether some assets had value for A, but not for B, as this process was left to the bank or institution that might lend against an asset. The Principle was more about the ability to use DAs as collateral and making sure the law was available for the transaction the parties may wish to enter into. However, if there was no secondary market for a particular token, there might be very little collateral value in that DA. This point could be included in the comments.

74. *Mr Jeffrey Wool* raised the question of property rights *inter se*, observing that there was no analytic or functional difference between Principles B and C and the transfer of property rights *inter se*. He suggested that Principle B should state "transfer any DA as collateral", whereas Principle C should state "transfer rights in a DA." *Mr Marek Dubovec* noted that the WG had expressed that it would be useful to clarify the potential problem which had emerged due to the variety of laws that might apply to the use of DAs as collateral. Both in the context of Principles B and C, SG3 had attempted to clarify what it considered to be the power to transfer and how that applied in the context of secured transactions. The goal was to further clarify and illustrate to States how the existing principles applied in the context of DAs, highlighting the issues that a State might wish to pay attention to, rather than formulate a new principle. Principal C was not a novel concept, but rather an explanation as to what the complexities were with this type of collateral. The second sentence was a general statement of what a good secured transaction looked like. The function was therefore to provide a nudge towards a good regime of secured transactions law. He explained that the final element was power to transfer control, which was building on the general principal.

75. *Ms Louise Gullifer* pointed out that the Principle referred to the power to transfer control, which was intended to mean the power to encumber. The WG was contending with the disjunct between the purely factual idea of control (Principle X) and what might be needed in the ST context, where the idea of power was different because it included some legal power. *Mr Nicola De Giorgi (Central Bank of Italy)* expressed reservations regarding the comment of Principle B that something could be given as collateral even without giving control to the collateral taker. He pointed out that the WG concurred that, in this case, possession was substituted by the transfer of control. He pointed out that Principle C was construed in such way to suggest that it was enough for a collateral giver to have the power to transfer control of the digital data, rather than the property of the DA. He recommended further clarification on this part of the comment and queried whether this power to transfer control could not *per se* include the power to transfer the right to realise the collateral.

76. *Mr Marek Dubovec* pointed out the differences in the legal and factual power to transfer, noting that the Principle itself might require some revision as the comments and the illustration did not show clearly what SG3 had meant in this context. He explained that the legal power may arise by way of operation of agreement or law: whether by the ST law, including priority rules, or by

operation of some other law, such as sales law, where the object could be sold by an individual, but the possession of such object retained, and then sold again. He explained that even though a person to whom the property was sold initially may acquire ownership, the transferor would retain certain powers under some laws. This was not a generalisation that may enable one to pass certain rights to another person that would essentially cut into that person's rights. He acknowledged a need to clearly distinguish between the power to transfer in the legal and the factual sense in this context and what sort of powers were cast as between the two parties when there was a transfer.

77. *Mr Marek Dubovec* explained that Principle D was a work in progress because it connected to work of SG4. He clarified that some assets had issuers, and some did not, while some assets had higher levels of negotiability. Even though there may be asset-specific rules, he noted that the WG did not clarify what those were. Whatever taxonomy was created, it needed to be the same for the ST law. *Ms Louise Gullifer* queried whether the sort of special law SG3 had had in mind was something like the financial collateral directive, which related to financial instruments and cash (money in bank accounts), where there were specific requirements in order to not have to register or specific requirements for treatment in insolvency. *Mr Marek Dubovec* noted that SG3 had considered two sets of distinctions. First, the one SG3 had already alluded to, as it was incorporated earlier where some special law may apply, such as the financial collateral directive. Second, SG3 considered a ST law which would have a set of specific rules, such as the ones in the MLST, where there were specific rules on the perfection and priority in negotiable documents, separating out negotiable documents from this larger body of tangible assets. SG3 was to further discuss the need of a special rule for virtual currencies within the broader subset of DAs, where that might be appropriate, particularly if such a rule was necessary in the context of CBDCs or not. He highlighted that this issue would require more in-depth consideration going forward, but the purpose was to think about categorisations within ST law, enabling the application of asset specific rules to that subtype of DAs.

78. *Mr Jeffrey Wool* explained that Principle D discussed effectiveness against third parties, which further brought into question the effectiveness on insolvency. He clarified that his point referred to the substantive, rather than applicable law, which was within the realm of SG4. *Mr Marek Dubovec* pointed out that the mandate of SG3 was limited in terms of the aspects of insolvency that fell under their realm. In the outline of issues, the WG had noted the question of insolvency only in the priority conflict as it pertained to the right of a non-consensual creditor which would have also included a bankruptcy situation. SG3 did not intend to go beyond stating that if a security right had been properly perfected under the law, it should be recognised in insolvency. He noted that would be the very general extent SG3 thought it could consider; he understood Mr Wool's query as referring to more substantive issues, which he considered as falling outside the mandate of the SG3. *Mr Philipp Paech* noted that, in the context of private international law, the WG could not avoid discussing the issue of insolvency. He identified the possibility to discuss not only the applicable law, but also the more substantive issues, such as avoidance powers.

79. The *Chair* pointed out that insolvency issues were not assigned to a specific SG. The *Secretariat* noted that several of the existing SGs featured aspects which touched upon insolvency and sought guidance from the WG regarding how to further work on this topic. *Mr Jeffrey Wool* affirmed that insolvency was an important point, particularly in the context of secured transactions. He urged further work on both the private international law and the substantive aspects and noted the cross-cutting nature. *Mr Steven Weise (ALI)* agreed that insolvency was a very important question, noting that secured transactions was tested in insolvency. He emphasised the need to coordinate amongst the groups how various concepts were dealt with, as consistency would be very important to make the Project as useful as possible. *Mr Charles Mooney, Jr.* concurred with Mr Wool and Mr Weiss that the WG should consider examining third-party effectiveness of an acquisition, and, as in other UNIDROIT instruments, this would include insolvency proceedings. He suggested that it should be a legitimising, rather than delegitimising rule, meaning that if a person acquired a DA, obtaining control, that should give third-party effectiveness including in insolvency. On the other hand, if under the applicable law some other method of third-party effectiveness would be sufficient

to protect an acquirer in an insolvency proceeding, then the Principles should not suggest taking that away, and that should also suffice as an effectiveness in insolvency proceeding. This issue required further consideration, suggesting that the factual control analogue to possession should, at a minimum, be sufficient to protect against third-party interests in an insolvency proceeding.

80. *Mr Ignacio Tirado (UNIDROIT)* agreed with Mr Mooney's intervention, suggesting the Project would be incomplete if the question of insolvency was not properly addressed. This examination needed to be undertaken thoroughly, in accordance with an express mandate to consider this issue. Such analysis could not happen in a vacuum, and it would have to take into consideration whatever had been said in the MLST and the UNCITRAL Legislative Guidance on Insolvency. He emphasised the need for compliance with these instruments, highlighting that every contradiction would need to be very-well explained as to why and how it differed from these instruments. He indicated his preference for the insolvency issue to be addressed in each of the sub-groups, rather than a separate group. *Mr Jeffrey Wool* suggested that a method be developed for coordination of different SGs on insolvency. *Mr Ignacio Tirado (UNIDROIT)* agreed. *Mr Phillip Paech* noted that the SG4 will consider the insolvency question during the discussion of private international law, with the most difficult part of the question being how to align, in an insolvency situation, the law that applied to transactions and the law of the forum.

81. *Mr Charles Mooney, Jr.* suggested that the UNIDROIT Secretariat conduct research into use cases regarding "digital twins" to provide a factual basis as to the actual products currently available in the market and how it fit with the work done so far. He recommended that the following meeting focus on defining DAs and ensuring it was not personal data or music. The *Chair* endorsed Mr Mooney's request, noting that examples should include one where the DA represented payment and another where the DA represented property (e.g., goods in a warehouse).

4. Sub-Group 4 – Taxonomy & Private international law (Appendix 4)

82. *Ms Elisabeth Noble (EBA)* noted that SG4 was tasked with developing the taxonomy as a navigational tool for readers of the Principles; it set out to articulate a general definition of DA (both technology neutral and future proof) with the possibility of additional sub definitions, asking whether anything could be excluded from the outset (i.e., air miles). It was deemed best not to differentiate by whom or how the asset was issued and there was a steer to avoid regulatory classifications. The term "asset" needed some significance and the thing needed to be constitutive of something: a claim, a right, or neither but a unit that financial value was given to. She queried whether all three of these elements were required, or whether others were missing. She queried what kind of subcategories were needed for the Project's work. Some noted sensitivity surrounding the use of terms such as "native" and "non-native" cryptoassets, remarking that some categorisation was needed in the presence of an off-chain implication involving entitlements. In the case of custodianship this was relevant to both categories. She queried whether the WG agreed with the general notion of the need for subcategories of DAs, and if so, what were the WG's views regarding the current split and whether any additional categories were required. She also queried whether digital currencies issued by central banks ought to be in the scope. Other open questions concerned whether to include a specific category for fungible and nonfungible tokens, as well as so-called stable coins, which she noted was primarily a marketing term used by issuers rather than a recognised term from a regulatory or legal perspective. She emphasised the need to take a neutral approach in terms of differentiating the examples under categories 1 and 2 identified in the note. She concluded by noting the need for continuous review as the Project evolved, observing that there may need to be new subcategories of DA. Regarding the need for as much consistency and coherence as possible with definitions used by others active in this field, she underlined that the Principles needed to be applied by actors in the industry familiar with some of these definitions, and that any deviations should be made clear in the eventual paper on taxonomy.

83. *Ms Mimi Zou* noted that the definition of DA would always be a moving target, remarking on the range of use cases, which presented a challenge in determining the scope of which DAs to include and what categories of DAs the instrument would cover. She queried whether most of the key stakeholders had a common understanding of the term. *Ms Elisabeth Noble (EBA)* noted that while most of the government, finance ministries, or central bank discussions have centred around the notion of token related to the FSB's world of digital representations of value which can be used for payment or investment purposes, there was probably no such common understanding, making the Project so valuable. *Mr Ignacio Tirado (UNIDROIT)* remarked that DAs could not be treated as a moving target and the exercise consisted of making the Project as broadly encompassing and as neutral as possible. He also recalled the WG's double mandate: (1) Project on DAs; and (2) drafting a taxonomy that covered DAs jointly with UNCITRAL.

84. *Ms Louise Gullifer* sought clarification on the difference between rights and claims. *Mr Charles Mooney, Jr.* concurred, querying whether "right" meant any kind of interest in something. If so, this implied that any conceivable type of property external from the digital representation could be represented, in which case the Project needed to examine the issue of "digital twins". *Ms Elisabeth Noble (EBA)* noted the problem that existed in the distinction between the right and the claim. She suggested that the only justification was when the utility token cases were considered, where there was potentially no financial claim but a one-off capacity to access a good or service by virtue of holding that digital token, which represented a non-financial claim.

85. *Mr Marek Dubovec* queried the link between the scope of the taxonomy and the scope of the Project itself. He concurred with the three subcategories of DAs. He queried whether the taxonomy would also cover all kinds of DAs which were in use in different contexts like a trade transaction with an electronic bill of lading that might have been issued electronically with cryptography or some other technology, and whether this should be considered within the broad taxonomy or this was sufficiently covered by some other instrument. He considered that DAs should represent value rather than be purely evidentiary (e.g., e-bill of lading). He discouraged making cryptography the defining characteristic because then it would mean that some DAs issued within particular systems were covered by the Principles and others not.

86. *Mr Luc Thévenoz* noted the difficulty of putting a limit on scope given the constant evolution in the sphere of DAs. He shared several observations on terminology: in "digital representation" the word "digital" was not a defined word (i.e., electronic form, on a computer, on a distributed ledger, etc.); he understood "financial value" as being something of value which became financial when it was being dealt with in financial markets or intermediaries. He noted there were things of value which were DAs but were not necessarily financial or were not yet financial but maybe would become so. For example, commodities were materials with value but were not financial. However, financial markets had invented ways of dealing with their value in a financial way (futures, options, etc). Regarding the word "code", he noted that transferrable code meant instructions or algorithms, but not data or information. He noted the difficulty in finding the proper word for category 1 or category 2, etc., while noting that the use of the word category would hamper the acceptance of the Project because it was so abstract that people would not buy into it, noting a similar issue was encountered with intermediated securities. The question was how to make it accessible. Tokens were units of information which did not have value by themselves, but which were used to trace or describe some physical asset such as tracing some agricultural product. The token was not meant here as a unit of value or some sort of claim of right but more as evidence of the identity.

87. *Ms Elisabeth Noble (EBA)* explained that the term "digital representation" aimed at technological neutrality by not referring to something like distributed ledger technology to convey the sense of this being some sort of electronic unit that attached certain things. She noted that the SG decided to use "digital", as this word could often be seen in the international standards. She further explained that financial value was included to distinguish between sentimental value and financial value. In the international standards only "value" was used, not "financial value". The SG

differentiated in the note how it referred to "value" and "financial assets", the latter being included within the subcategories but not within the headline definition of DA. She suggested that the use of categories was not very elegant, as the SG was trying to be neutral, avoiding the use of native and non-native. She further recommended that the point about evidentiary tokens needed to be kept under review, depending on the scope of the work.

88. *Mr Charles Mooney, Jr.* concurred that there was a difference between thinking about a taxonomy of the universe of DAs and coming up with a definition of DA that defined the scope of the Project. He queried the possibility of this digital being a representation of something that could not be subject to what the Project was working on, as a concept of control, meaning it could not be captured in a way that made it susceptible to the acquisition and disposition of proprietary effects with respect to the asset. If susceptibility of control was not a characteristic of the assets the Project was dealing with, a radical rethink would be required. *Ms Elisabeth Noble (EBA)* noted the differences between scope and taxonomy, remarking that challenge laid preparing definitions of terms which would frame the scope of the Principles and outputs. She noted that if the WG were to divide the world of DAs, it would probably identify eight or nine different general categories that could constitute the taxonomy. She further queried whether the method of creation of a definition of a DA or its subcategories was required for the work of the WG.

89. *Mr Jason Grant Allen* agreed with the suggestion of separating taxonomy and scope, while noting the importance of maintaining consistency between scope and the broader taxonomy and the other instruments existing in this space. He noted that "financial" was a difficult word as it connoted rights against other parties. He noted that, in the taxonomic exercise, on one hand, there were digital representations of legal rights in things and against other parties, while on the other hand, digital objects existed that ascribed value even though they did not represent rights against a person. He expressed concern about the word "representation" due to its connotations. He queried whether a DA, such as Bitcoin, was a digital representation of value or a digital representation or object, representing a digital phenomenon to which people ascribe value. He noted that in the case of digital twins there was a representation of something else but was uncertain if the DAs falling into the first category represented anything. *Ms Elisabeth Noble (EBA)* suggested that the interaction of the Project with other instruments needed to be tested throughout the whole project, ensuring that the WG was considering the tokens that were constituted of something rather than just being evidentiary. She urged the WG to think carefully about other notions, such as electronic records work, making sure that in the WG's focus there was not something which had been covered elsewhere. *Mr Philipp Paech* recommended first determining the Project's scope and then giving the categories of DAs a neutral name.

90. The *Chair* suggested that DAs had value because they represented legal rights, claims, or something else. He noted the importance of coordination with UNCITRAL regarding the taxonomy project. Regarding the distinction between private law and public regulation, he noted that the reasoning behind the Project itself was that, from the private law perspective, guidance was needed. He further noted that the public regulators discussed this area as they believed there was a concern and a call for regulation. He emphasised that the WG was considering the certainty question in applying the private law schemes, meaning that the question, such as whether this was a property or personal right, was not entirely clear. He observed that DAs appeared to present three basic characteristics: value, control, and tradability. He further noted that the value should be economic, rather than financial value, as it was a broader definition.

91. *Mr Alexander Kunzelmann (UNCITRAL)* remarked that the taxonomy was more than definitional. He noted that the comments were mostly focused on the definition, while there were also other aspects of taxonomy which required further examination. He recognised that taxonomy was a guide, a mapping exercise to guide the audience through the different legal issues that they confronted, which would further identify all the various legal regimes which then referred back to what the Principles were doing regarding control. What UNCITRAL had previously done in the MLETR

defined DAs simply as an electronic record representing a bundle of data. This instrument did not use the term "digital", but rather solely the term "electronic", with other conventions defining "electronic". He noted that the rules of the system conferred on the DA some kind of representation, rather than it doing anything to represent. This was the case because the rules made a connection between the DA and whatever it was, essentially that right or that claim. This created space for confusion when saying that DA itself was a representation, when it was rather just a bundle of data, and the rules of the system gave it that quality. He agreed with Mr Mooney regarding control, questioning whether it was necessarily definitional and if a DA could only be a DA if it was capable of being controlled (thus eliminating from scope photos and the like). He further noted that, when the US and Canada looked at DAs from an inheritance point of view, they had a very broad definition covering access to online accounts, photos, and other things in digital form, without the requirement of an additional element of control. Accordingly, he queried whether control was definitional or not, but rather the WG applied a particular legal regime requiring that additional element of control. When secured transactions were considered, something capable of control was necessary, but when the rule of property was applied, if there was a need for the property to attach, then the additional element of control was required. He pointed to the usefulness of the Bermuda DA Business Act of 2018 (Bermuda DA Act) regarding this issue, which had a very broad definition of DA, but excluded gaming tokens, etc. He queried whether the issue of rights and claims was a uniform law question. He noted that UNCITRAL had come across this when it examined Russian law, specifically Art. 141.1 of the Civil Code, which had introduced the notion of digital rights which was designed to cover tokens, referring to obligatory rights. He recognised that he was not familiar with this idea which was a particular type of right as there was a counterparty against whom you could claim that right. He queried whether the WG needed to keep both rights and claims, rather than removing one, as different legal systems considered these things differently.

92. *Mr Jeremy Bacharach (Expert invited by SG1)* pointed out that utility tokens were tokens that were attached to an explicit or implicit claim or a right to use the platform or service of the issuer, comparing them to gift cards. He further referred to the absence of utility tokens from the Bermuda DA Act. He clarified that this notion appeared when there was an examination of whether tokens were a means of payment or a security/financial instrument, even though it was just a token attached to a right. He noted that they were attached to a claim or right, but they were not a means of payment because their economic function was not to make payments, but rather to access the service. He pointed out that, while examining whether they were securities, it was also discovered that this was not the case as they did not have a function of investment, they had the function of accessing a particular product. From a purely private law perspective, his understanding was that most utility tokens were tokens attached to a claim. *Ms Marianne Bechara (IMF)* suggested that a claim was a legal right against someone, so it should be included within the broader set of rights. She agreed with Mr Bacharach regarding the fact that most regulators excluded utility tokens. She queried whether, instead of trying to define DAs broadly, the WG should instead define those assets it wished to exclude.

93. *Mr Matthias Haentjens* noted that in Dutch law a claim was a more specific concept than right, as the latter could be anything. On the other hand, a claim was a monetary right which had some value and that could be transferred. A Dutch lawyer would feel there was a distinction between those two concepts. He suggested that the issue could arise regarding transferability and control because if a claim was considered as something that could be transferred and had value, then the definitions became circular as a claim would be transferrable. He further noted that the WG should be aware of this when talking about a claim in relation to the control Principle. *Ms Elisabeth Noble (EBA)* suggested that the WG could remove the terms "claim" and "right" altogether, relying just on value. She noted that the comments on whether the WG should use electronic rather than digital, and that the exclusion regarding utility tokens could be considered as a part of the limiting narrative attached to the definition, rather than within the top definition. She agreed that the WG should be looking to definitions that were used elsewhere for consistency and that it should also produce its own definition for the purposes of the Project. She noted there was a balancing act to strike, which

might be accomplished if the WG solely focused on the value element, further considering whether the representation aspect was needed, and then reverting to electronic over digital.

94. *Mr Philipp Paech* pointed out that the representation aspect was an important point, which had been used alongside incorporation to distinguish whether something was just evidencing something or whether it was the same. He agreed that the WG had been using it without enough care, and it should be neutralised for the time being in order not to exclude anything which should not be excluded. He further noted that the term "asset" was absorbed by the general definition of DA, particularly if it was read within the interpretation the Chair proposed, namely value, control and tradability. He agreed on the point regarding the term "electronic" as "digital" meant stored in ones and zeros. The *Chair* noted that representation was created by technology, by consensus agreement, legislation, or by a combination thereof. Utility tokens and investment tokens were classifications primarily made by public regulatory bodies rather than private law. He noted the suggestion that the SG first include everything and then proceed to exclude things like electronic warehouse receipts.

95. *Mr Luc Thévenoz* proposed using the term "electronic" record, suggesting that the value element was not under consideration, but rather its transfer. What was specific to the scope of the Project was the fact that it can be transferred not by someone who maintained the account but through control of the person who was entitled to it. The difference between having a physical bank note that one can transfer through possession and 10 euros in one's account was that one cannot transfer without the help/operation of the bank who maintained that account. The way to define control was in distinguishing those units of values the Project was concerned with from other units that were stored/recorded in some other way. He queried how the Project's scope was different from UNCITRAL's work on electronic transferable records. *Mr Charles Mooney, Jr.* agreed with Mr Thévenoz regarding the scope, suggesting that the WG considered there was a common understanding of electronic records, which was that DAs were susceptible to control and that they could be captured and used in a way that other electronic records could not. He recommended that the word value could be used as it gave it meaning, but that the WG should refrain from creating a private law structure which would impose prerequisites to obtaining such value and be governed by this law, and as soon as it acquired value, the law would be applicable. He noted that if the WG were to exclude a long list of things; it would probably find it overinclusive.

96. *Mr Klaus Löber (ESMA)* pointed out that the WG was slightly comingling technology, which came from a regulatory perspective that had come from more substantive law. He noted that was one area where there was a bit of clarity as regulators tried to classify the issues according to the purpose, and decided on utility tokens, payment tokens, investment tokens, etc. However, some substantive law linked to that, particularly surrounding all the notions that had a bearing on the payment token classification. Many of the discussions regarding a claim were triggered by reflections that came from monetary values and money held in various forms on electronic records. He noted that digital in the past was used to provide a certain distinction from the more traditional meaning of electronic records, which was accounts (i.e., bank accounts). Ultimately, it was a scoping issue and to what extent the Project was dealing with an environment connected with means of payment. He noted the existence of many permutations where something was tokenised but still held on a traditional account-based system, or the presence of layered structures which was actually just a pro rata claim in a holding that was in a traditional bank account. He queried at which point this moved from being a claim into being something else and how one segregated, because a pro rata holding could not be completely disentangled from what was under consideration in this Project, looking at something which was transferrable, from having to consider the underlying legal structure of the claims. The strictness of the separation would bear on the scope. He concluded that the scope of the Project ought to be as broad as possible, noting that the practical consequences could be significant.

97. *Mr Philipp Paech* sought clarification regarding whether the code was transferable, and whether the WG was considering (talking about) this term. He further queried whether he was referring to the Chair's approach to defining this using value, control, and tradability. *Mr Klaus Löber*

(ESMA) noted that the Chair's approach was the all-encompassing one, which had a potential of triggering certain issues regarding monetary values and means of payments. He suggested that if a definition of the token was more limited or precise, this could allow for reduction, but could also lead to it losing the appeal of the more abstract law approach the WG was trying to create. He urged the WG to further examine whether this created fictions for the very practical issue of ensuring that the effective payments were still possible with what consumers would expect.

98. *Ms Hannah Lim* pointed out that "electronic" was the bigger umbrella term, including things, such as a credit card chip, which was considered to be electronic, but not digital. She noted that "digital" was a specific technology that computers ran on, consisting of zeroes and ones, as that was a machine-readable language. She cautioned against using "electronic assets" as that could imply even chips on credit cards and other electronic goods. She did not consider "digital representation" to be an issue as it stood alongside the phrase "of financial value. She pointed out that it was still representing in some abstract sense. Furthermore, she suggested that the terms "right" and "claim" could be omitted and concluded that utility token would not be excluded if right or claim was to be removed, because a utility token would still have financial value, as, even though it was a closed system, it was a digital representation of something with a financial value. *Mr Jason Grant Allen* agreed with Ms Lim's final point, suggesting that a Bitcoin was a unit which had attributed value. He recommended using "digital unit", which had ascribed value, making representation redundant.

99. *Mr Jason Grant Allen* pointed out that the definition of money and how the borders of that concept were drawn was currently being debated and he queried whether CBDCs ought to be included in scope. He queried whether there was indeed a robust difference between Bitcoins and conventional accounts, pointing that an argument could be made that Bitcoin was a single account database, and it could be appended, and there was a novel verification process, but all this consideration of tokens was slightly confusing. He concluded that this underlined the importance of the taxonomic exercise and defining terms in the Project. *Mr Philippe Paech* noted that the interventions showed the importance of the term control as a distinctive characteristic. He recognised that this supported Mr Allen's last point regarding distributed single account, as technically control over what happened on this account was possible. This ultimately confirmed the appropriateness of the definition proposed by the Chair (i.e., value, control, and tradability), which could also imply that rights and claims language could be removed. Regarding CBDCs, he noted that this illustrated the problem of keeping taxonomy and scope completely distinct.

100. The *Chair* explained that payment tokens were expressly avoided compared to investment tokens or utility tokens as drawing the line was difficult. He queried for future consideration as to how the systems described by Mr Löber had been developing. He suggested that due to technology, the bundling of functions was much easier than in last century where unbundling happened in financial services. He noted that there was more re-bundling nowadays, meaning that a traditional notion like custody was perhaps almost useless even for the legal discussion. He emphasised that the WG should be careful in observing these phenomena in the marketplace of how people took advantage of modern technology so that many platforms and other infrastructures were providing less custody than before. The Project was considering how these circumstances of infrastructure of re-bundling services created legal uncertainty in applying the traditional private law rules.

101. *Mr Philipp Paech* presented briefly the three questions to be addressed by private international law (see p. 38): (1) the law that applied inside the DA platform and, in particular, the law covering acquisitions and dispositions; (2) the question of insolvency and conflict of laws; (3) the case of an underlying asset and the conflict of laws. The *Chair* invited questions and comments. *Mr Marek Dubovec* questioned how far the SG had considered different types of collateralisations which might be captured in Principle A, which referred to acquisitions and dispositions, including collateralisation. He pointed out that there were those *inter se* relationships and relationships against third parties for which different conflict of law rules may be applicable. A choice was generally understood to be applicable as between the *inter se* relationships but there may be different rules

with respect to perfection and priority and third-party effects. He queried whether it was envisioned that the law of the platform would be applicable to all those aspects or whether it would need to be elaborated as to which aspects were covered.

102. *Mr Philipp Paech* clarified that SG4 was examining which law applied to the platform itself and within that platform; and whether different laws could possibly be applied within such a platform. The only solution leading to consistency was that one law applied to transfers and collateralisation on a given platform. Determining the applicable law was challenging and location based connecting factors were not helpful given (i) the international nature of these platforms, and (ii) that it may not be possible to know where the people or the nodes were (in particular un-permissioned networks). Were there a central entity which assumed responsibility for running the network, the location of that central entity would also be the location of the law that applied inside that network. However, this approach was unfeasible because there were types of networks without a central entity. Choice of law was therefore the most relevant criteria. Absent an explicit choice, one could look to an implicit choice; absent an implicit choice, there needed to be a replacement criterion. Networks like Bitcoin were conceived precisely to circumvent the application of any law/State authority; he queried whether the WG could accept those situations where a network node transacted on the basic assumption that code was law, or whether a court could accept that. Given that the code as law paradigm seemed unrealistic, it appeared that inside the network the chosen law should apply.

103. *Mr Steven Weise (ALI)* agreed with this approach, noting that "inside the network" appeared to address Mr Dubovec's question regarding a secured transaction in which the rights *inter se* between the parties to the secured transaction were governed by the law that governed the secured transaction. However, he noted that the rights vis-à-vis the asset would look to the law that governed the transactions inside the system, which he believed to be the right solution. He noted that there was a problem in the US where the courts had been considering a question of the ability to get a security right in a partnership, and the partnership was governed by Delaware law and the rights of the parties were governed by their contract choice, such as New York law. He believed the courts had incorrectly applied the law governing the contract between the parties to the rights within the system which was the partnership and that the right answer should be that these questions were to be divided depending on whether one was inside or outside the system.

104. *Mr Matthias Lehmann (EBI)* questioned whether the term "platform" was adequate, observing that blockchain networks could be seen as more akin to networks. *Mr Philipp Paech* noted that the words "platform" and "network" could be used interchangeably, suggesting that "network" would be a better choice. *Mr Matthias Lehmann (EBI)* observed that a rule was needed in order to ascertain whether the choice of law was valid. The WG could assume the choice was valid, and then check under the chosen law whether the choice was valid, but that would be susceptible to abuse, as one could choose a very exotic jurisdiction and thereby circumvent any requirements of consent. However, there were solutions to this problem. He further noted that the possibility to choose non-state law was recognised in some jurisdictions, and that, to an extent that some network had established rules that were recognisable and acceptable, the WG could consider adopting these rules. He agreed that the mere technology could not answer all the questions that came up, as the code was insufficient. However, he noted that the WG should be open to the possibility of electing non-state law, the UNIDROIT Principles of International Commercial Contracts (UPICC) being a prime example. *Mr Philipp Paech* agreed with the point regarding non-state law.

105. *Mr Marek Dubovec* agreed with the approach, suggesting that any location-based factors would be difficult to identify and the WG could not even use the Hague Convention which used a qualifying office. He noted there were different ways via which the third-party effectiveness may be achieved: one way being registration and the other control. However, he pointed out that this principle primarily applied to third-party effectiveness by control, whereas there may also be third-party effectiveness by registration for which the WG already had an established rule which was the location of the grantor for intangibles. He queried whether further consideration should be given as

to the meaning of collateralisation in this context, and whether the law of the platform would also determine where one needed to register, or the principle was limited to the application of control. *Mr Philipp Paech* queried whether the WG would need to discourage the practice of a chosen law which had a perfection requirement outside the network, such as registration.

106. *Mr Philipp Paech* noted that the second draft Principle was related to insolvency law. If a node became insolvent, it was either corporation or person, and if the law that applied to transactions inside the network was different to the one that applied to insolvency, there would be the usual tensions. He recognised that insolvency law usually prevailed, determining the creditor preference. However, he emphasised that this tension needed to be given specific thought, rather than just a normal commercial law perspective. He noted that, in banking, depending on where the insolvency occurred, the rules that determined avoidance would differ and therefore, there was significant legal uncertainty. He suggested that, to avoid the uncertainty, only the chosen law applied, not the forum; the need for acceptance of the chosen law was greater as the networks were international by definition. He noted a crucial policy concern arising if the parties chose a safe haven law that did not fit with the Principles, noting that the Hague Convention provided a solution that did not work in this case. To avoid subjecting the networks to the uncertainty of where the insolvency occurred, a solution was required that gave preference to the chosen law that governed the transactions inside the network over the law of the forum regarding enforceability, avoidance, suspect period, etc.

107. *Mr Matthias Haentjens* queried what the fallback rules would be absent an explicitly chosen law. He suggested the Rome Regulation could be used where there was more preference given to party autonomy but where certain rules that could be set aside on the grounds of public policy and on the grounds of super regulatory rules that may be applicable. *Mr Jeffrey Wool* considered the overarching goals and objectives to be twofold: one being uniform treatment and the other endorsing the validity of the transaction. He recommended urging platforms/networks to include express choice of law clauses, and that the WG should encourage a rule such as the Hague Convention on Recognition of Foreign Trusts to recognise that law, trying to strengthen the first rule. Applying the principles of seeking uniform treatment and validity of transactions, it would be a stretch to have a choice of law rule – especially one relying on party autonomy – to be able to displace avoidance aspects of high public policy content. He encouraged a bold approach by designing a system around the two critical issues: the finality of the transaction and that connected with matters *inter se* between the parties.

108. *Ms Louise Gullifer* suggested that, where the settlement finality laws existed, such as the European laws, these rules only displaced avoidance provisions insofar as necessary to maintain the integrity of the system. With U.K. insolvency law, where claw-back provisions existed, this would entail ordering the recipient to pay the equivalent value or make some other kind of recompense, without necessarily reversing the transaction, bringing some value back into the insolvent's estate. She cautioned against displacing the choice of law rules when dealing with a small subset of insolvency law which might undermine the integrity of the system as opposed to being a way of protecting creditors of the insolvent party. She concluded that a choice of law rule should not serve as a blunt instrument to achieve more than what was needed to protect the integrity of the system.

109. *Mr Marek Dubovec* noted that there might be some intersection with work being considered by UNCITRAL. He referred to the three categories of avoidance: lack of perfection, preference, and fraudulent transfer. If the MLST was considered, especially Arts. 35 and 94, the effect of these rules would be to conclude that the law determining the perfection must be recognised by the insolvency court or may not be displaced by the court to avoid a security right that was perfected under the law as determined in the ST law. Regarding the first type of avoidance, there was some precedent in this instrument to say the applicable secured transaction law continued to apply. However, the question regarding the applicable law in the insolvency context for the other two categories remained. He sought clarification as to whether SG4 intended to cover all three types of avoidance or to simply

extend the principle that already existed in the MLST to DAs, where the applicable law could be determined according to the Principle A (law of the platform).

110. *Mr Steven Weise (ALI)* queried whether a hybrid approach might be appropriate, where the insolvency law defined the core aspects of the avoidance provisions of the insolvency law and then answered some of those questions, in the end turning to the law that governed the transaction. He pointed out that there was a mix of the two approaches and the notion of finality, which was widely supported, was utilised as a policy question of what the choice of law rule should be as opposed to the choice of law rules creating a finality rule.

111. *Ms Gerardine Goh Escolar (HCCH)* relayed the latest developments at the Hague Conference regarding work on new technologies and private international law. Their mandate was to continue monitoring developments and to work with UNIDROIT and UNCITRAL in this area. Regarding applicable law, she noted that due to the multimodal aspect of these transactions, the issues to examine went beyond the validity of the transaction, also touching upon choice of law, the rules of choice of law, the choice of forum, and the enforcement and recognition aspects. *Mr Ignacio Tirado (UNIDROIT)* suggested that some of the rules may be biased or stem from the point of view of a bank going insolvent and may be systemic based. He cautioned against using an excessively European approach and analysis, suggesting that a global view should be taken. He noted that the ongoing project between UNCITRAL and the Hague Conference would be precisely on applicable law and that was one instrument the Project would need to coordinate with.

112. *Mr Peter Werner (ISDA)* noted that the Revised Issues Paper covered all the questions that were deemed to be important from a derivatives perspective. He encouraged the WG to seek to avoid eurocentricity, and to explore the idea of fallback rules. *Mr Klaus Löber (ESMA)* remarked that regarding eurocentricity, many of the aspects that the WG was looking at when it came to what may be necessary in a particular context to safeguard the financial or systemic stability more widely have been acknowledged as global benchmarks. He recognised this tied in with a more pragmatic question of settlement within infrastructures and the need to have a singleness of applicable law across the various aspects of the system, and to have certain specific treatments of insolvency that were merited from this overarching safeguard of systemic stability. He further noted the need to disentangle regulatory from private law considerations. Many of the existing arrangements for the holding and transfer of certain DAs resembled very closely traditional payment systems or settlement systems and they should be treated accordingly from a regulatory perspective, which would lead to an extension of the relevant safeguards. *Mr Ignacio Tirado (UNIDROIT)* pointed out that systemic issues were the key, alongside other issues, and the rules and principles could only be based on existing rules and principles which would currently be only regulatory in nature. He recognised that there was no clear-cut separation but highlighted that the systemic problems were not the only thing to consider when it came to insolvency.

113. *Ms Marianne Bechara (IMF)* agreed that account-based CBDC presented a similar legal status as electronic central bank money. However, she noted that it would be very important to distinguish between token-based and account-based when it came to legal status, pointing out that token-based legal status was still very uncertain. She noted this required clarity in both private and regulatory law. She suggested that this was going to be a major DA for the future, used by the parties, and as such, disagreed with excluding it from the Project's scope. *Mr Klaus Löber (ESMA)* clarified that he did not advocate for a blanket exception of CBDCs or specific forms of digital currencies, encouraging a further examination of the differentiation between money and currency in this context. He agreed with Ms Bechara regarding legal uncertainty surrounding the tokenised emanations, emphasising that the borderline was not clear as to what token-based and account-based was in practice.

114. *Mr Philipp Paech* noted that SG4's paper left the solution to these issues open, and that validity and uniform treatment goals were not mutually exclusive. He agreed that networks should be urged to choose a law to the extent these could be regulated. He expressed support for the Hague

Convention on Foreign Trusts, agreeing with Mr Wool that it would be a stretch to give preference to the network law. He recognised that this was important for the point of finality as this pushed the problem outside the settlement system, meaning that one would accept the settlement and then afterwards, outside, settle all accounts whether with or without the court (accepted for systemic stability). He queried whether the appeal of DAs was not that they were the databases where one could rely on transactions which had been done on them. He further queried whether the appeal of DAs would be reduced if it was accepted that inside the DA world the transaction was successful, but there existed the possibility that afterwards one might argue (outside of the DA system) that one only accepted it because of finality and that one was still owed money. He further noted the difficulty to enforce in highly international settings where it may not even be clear who the parties were (and nearly impossible with a permission-less network). He noted that the whole concept of finality was a perfect vehicle for a settlement system, which was a highly regulated environment where one knew who the counterparty was, but which was clearly not the case here. He questioned whether pushing the problem outside the network into the real world was a good solution, suggesting that the problem should be solved where it occurred or before it occurred by providing a solution that gave maximum legal certainty from the outset. He agreed with the concept of a hybrid system. He recognised that certain aspects would be governed by insolvency law and others would be governed by *lex contractus*, noting that it was uncertain whether this would be able to take away the transactional certainty within the network. He concluded that finality might not be the right solution, but that the WG should discuss what priority should be given to the transactional certainty in the network. He further queried if full certainty (100%) was not given, what implications would that have in practice, and if that would mean that the reversal mechanisms would need to be programmed into the network. *Mr Ignacio Tirado (UNIDROIT)* noted the need for a reference to systemic problems as some part of the analysis. *Mr Philipp Paech* commented that he was considering transaction certainty. *Mr Ignacio Tirado (UNIDROIT)* suggested that the transaction certainty, to the extent it affected the systemic risk imposed by the platforms, was in sync with contagion, which went together.

115. *Ms Louise Gullifer* queried whether there would be a choice of law as to what was happening within the network and that was inside the network where the parties could choose. She noted that the transfer group would say that one could have a transfer within the network, but an unauthorised transfer, so there could be remedies to order whoever it was to transfer equivalent assets back again or one could have take-free rules. She suggested that there could be a situation where somebody obtained an asset that was transferred but they did not have good title and the court could order retransfer. Due to the way blockchain worked, this did not stop the transfer from having taken place (in the system), but the court could only order another transaction (i.e., not a reversal of the transfer), which she perceived to be the same as insolvency. There remained the problem of identifying the counterparty, however, this was an evidential problem rather than a legal one.

116. *Mr Philipp Paech* noted there were two things to consider: (1) in the scenario where only one law, the chosen law, inside the network was applied, one could say that, under this law, the transactions were always valid and could not be reversed, even by claw-back provisions. Another possibility was to state that the rules under which one could reverse or avoid were the rules that existed for the scenario under the chosen law. If English law was chosen for the network and there was a French court insolvency proceeding, the French judge had to either apply French law or English law and typically they would want to apply the former. He noted that if this illustration was used, and it was assumed that insolvency could occur anywhere in the world in any given form, it would mean that the network participants would need to be prepared for the whole bouquet of different avoidance laws. He questioned if the WG should accept the situation where everyone would have to apply a chosen law regarding avoidance powers. The French judge would then have to consider English law regarding preferences, etc. He clarified that it could still be reversed, but, at least inside the system, everyone would know what to expect and not just be any avoidance laws from anywhere.

117. *Ms Louis*e *Gullifer* noted that if the insolvent party was in France, all the other parties to that insolvent party would be effectively taking the risk that the insolvent party had transacted on

networks that were governed by other insolvency laws. *Mr Philipp Paech* clarified that this could have the effect of hollowing out national insolvency policy by taking away some of the legislative powers from the sovereigns, notably to determine what should be inside insolvency estates ready for distribution to general creditors. *Mr Matthias Haentjens* agreed and suggested that this would be an insurmountable step to take and that a court would classify the issue as being a typical insolvency law question, as the problem of conveyance was typically qualified as such. He further pointed out that no legislature would set aside its sovereignty over this issue. He agreed with Ms Gullifer stating that this was not unjustifiable, but rather presented a practical difficulty. He suggested that there were rules out there that the WG could easily apply. The problem was that of localisation of the code in this type of scenario, which suggested to fall more within the typical insolvency law question rather than the question of which law was to be applied. Regarding whether a certain international transaction was valid was perhaps to be considered as a pre-insolvency law question.

118. *Mr Ignacio Tirado (UNIDROIT)* noted that it could not be assumed that avoidance actions were based on fraud, and in several countries, they were not based on fraud at all. He recognised that the rule could be disruptive of a transaction. He queried what was the difference as opposed to the classic solution to the problem in terms of intermediated securities. The *Chair* replied that there may be situations where finality was created by technology without any help of rules or regulations. Conversely, the finality may be destroyed by technology without any help of the law. If that happened and parties went to court, some laws would need to be applied. *Mr Steven Weise (ALI)* referred to the tension between sovereignty and finality, pointing out the need for a hybrid approach that allowed some hollowing out by referring to the system's choice of law while preserving sovereignty for the basic structure of how one approached this. No solution was perfect, but a hybrid system could achieve some balance, and the WG should consider how these lines were to be drawn, protecting both the interests of finality and sovereignty. *Mr Jeffrey Wool* pointed out, as a practical matter, that the insolvency law was based on a context analysis with the financial collateral directive running through bankruptcy and was driven by the need for stability in the financial system.

119. *Mr Philipp Paech* noted the attractiveness of a hybrid solution, especially if combined with an incentive to have internal rules in the network that resolved the relevant questions. This policy issue explained why the Geneva Convention and Hague Securities Convention had yet to gain sufficient traction. He noted the relative ease of creating legal certainty within the EU context. Regarding Principle C which concerned a tangible or intangible asset that was represented by a DA, he noted there were three questions to consider (page 39): (1) what occurred if the interface failed and there was a discrepancy between the DA inside the network and relevant assert outside the network; (2) what law governed the situation, which depended on how the rights to the non-native assets were understood (i.e., whether it was like a claim against the interface, or whether the chosen law applied, or some combination of both).

120. *Mr Luc Thévenoz* noted that the question was a traditional one found with bills of lading and other documents representing goods (i.e., a parallel to the DAs which represented an asset in the real world). Considering reasonable expectations of the parties, by transferring the DA, one would also be transferring the physical twin subject to the same rules. The problematic scenario was when an individual acquired an interest in the physical asset which was not sufficiently protected and that interest conflicted with the one acquired on the chain. He emphasised that, in this case, there needed to be a rule saying which law prevailed. He noted that, classically, it would usually be the individual acquiring the physical asset directly. *Mr Jeffrey Wool* concurred with the bill of lading analogy. He queried whether the starting point should not be that the same law governed, noting that the problem arose when there was a conflict with someone who was outside the system. Conversely, in a permissioned network where everyone was on the same system, he queried whether third parties would be deemed to have knowledge as to the existence and the effectiveness of the system.

121. *Mr Marek Dubovec* noted that this situation seemingly covered different scenarios for which the WG had some already established concepts and where some new concepts might need to be

considered. For bills of lading and warehouse receipts, he noted that the applicable law first needed to be determined to the characterisation of the asset, and then separate issues existed, such as where there was a law that applied to perfection which may not be the applicable law after the first stage determining whether the bill of lading covered the good which was the law of the location of the goods. For perfection, it would be the location of the document. He noted that this applied only when the asset was a tangible asset, and there were still no answers for when the real-world asset was something else like an intangible asset. *Mr Philipp Paech* questioned the analogy to a bill of lading, considering it to be more akin a custodian risk problem where someone had control of the underlying asset and the power to let it go or transfer it away. The outstanding question was what the person who had the DA had in terms of remedies (i.e., liability and damages) and the SG needed to ensure that the DA and the real-world twin did not start separate lives and should consider which law determined the remedies.

Item 5: Organisation of future work

122. The *Chair* requested that the four Sub-Groups continue their inter-sessional work and that they co-ordinate closely regarding the format of the draft Principles. He encouraged the Sub-Groups to identify a number of concrete examples of different categories of DAs to test the Principles and also suggested considering whether the traditional classifications of custodians, exchanges, and other service providers used in the context of intermediated securities were appropriate in dealing with DAs. *The WG confirmed that its third meeting would convene on June 30 to July 2.*

Item 6: Any other business

123. No further items for discussion were noted.

Item 7: Closing of the session

124. The *Chair* thanked all participants for their contributions to a very productive session and declared the session closed.

ANNEX I

AGENDA

1. Opening of the session and welcome by the Chair of the Working Group and the UNIDROIT Secretary-General

2. Adoption of the agenda of the meeting and organisation of the session

3. Adoption of the Summary Report – First session of the Working Group (Study LXXXII – W.G.1 – Doc. 4)

4. Consideration of substantive issues (Study LXXXII – W.G.2 – Doc. 2)

   (a) Summary of intersessional work

      i. Update on the composition of the Working Group (I. F)

      ii. Update on the establishment of a Steering Committee (I. H)

      iii. Presentation of Revised Issues Paper

      iv. Summary of the work of the Sub-Groups

         1. Sub-Group 1 – Control and Custody (Appendix 1)

         2. Sub-Group 2 – Control and Transfer (Appendix 2)

         3. Sub-Group 3 – Secured Transactions (Appendix 3)

         4. Sub-Group 4 – Taxonomy & Private International Law (Appendix 4)

   (b) Other matters identified in the Revised Issues Paper

5. Organisation of future work

6. Any other business

7. Closing of the session

ANNEX II

LIST OF PARTICIPANTS

CHAIR

Mr Hideki KANDA	Professor of Law Gakushuin University Japan

EXPERTS

Mr Jason Grant ALLEN	Senior Research Fellow Humboldt University of Berlin Australia
Mr Reghard BRITS	Associate Professor University of Pretoria South Africa
Mr Marek DUBOVEC	Executive Director Kozolchyk National Law Center (NatLaw) United States of America
Mr David FOX	Professor of Common Law School of Law University of Edinburgh United Kingdom
Ms Louise GULLIFER	Rouse Ball Professor of English Law University of Cambridge United Kingdom
Mr Matthias HAENTJENS	Professor of Law Leiden University the Netherlands
Ms Hannah Yee-Fen LIM	Associate Professor Nanyang Technological University Singapore
Mr Charles MOONEY Jr.	Professor of Law University of Pennsylvania United States of America
Mr Philipp PAECH	Associate Professor London School of Economics & Political Science *Germany*
Ms Carla REYES	Assistant Professor of Law SMU Dedman School of Law United States of America

Ms Nina-Luisa SIEDLER	Partner DWF Germany
Mr Luc THEVENOZ	Professor Université de Genève Switzerland
Mr Jeffrey WOOL	Senior Research Fellow Harris Manchester College, University of Oxford United States of America
Ms ZOU Mimi	Fellow University of Oxford *China*

INSTUTIONAL OBSERVERS

INTERGOVERNMENTAL and GOVERNMENTAL ORGANISATIONS

BANCA D'ITALIA (CENTRAL BANK OF ITALY)	Mr Nicola DE GIORGI Senior Lawyer Italy Ms Vincenza PROFETA Senior Lawyer Italy
EUROPEAN BANKING AUTHORITY (EBA)	Ms Elisabeth NOBLE Senior Policy Expert Banking Markets, Innovation and Products United Kingdom
EUROPEAN BANKING INSTITUTE (EBI)	Mr Matthias LEHMANN Professor Universität Wien EBI *Germany*
EUROPEAN CENTRAL BANK (ECB)	Mr Klaus LÖBER Head of Oversight DG Market Infrastructure and Payments Germany
HAGUE CONFERENCE ON PRIVATE INTERNATIONAL LAW (HCCH)	Ms Gérardine GOH ESCOLAR First Secretary Permanent Bureau The Netherlands
INTERNATIONAL MONETARY FUND (IMF)	Ms Marianne BECHARA Senior Counsel Legal Department United States of America

UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE LAW (UNCITRAL)	Mr Alexander KUNZELMANN Legal Officer International Trade Law Division Austria
	Mr Jae Sung LEE Legal Officer International Trade Law Division Austria
	Mr Thomas TRASCHLER Associate Legal Officer International Trade Law Division Austria

* * * *

NON-GOVERNMENTAL ORGANISATIONS

AMERICAN LAW INSTITUTE (ALI)	Mr Steven WEISE Partner Proskauer Rose LLP United States of America
ASOCIACION AMERICANA DE DERECHO INTERNACIONAL PRIVADO (ASADIP)	Mr Luis Ernesto RODRÍGUEZ CARRERA Secretario General Paraguay
INTERNATIONAL UNION OF JUDICIAL OFFICERS (UIHJ)	Mr Jos UITDEHAAG Secretary France
THE INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION (ISDA)	Mr Peter WERNER Senior Counsel United Kingdom
ISTITUTO PER LA VIGILANZA SULLE ASSICURAZIONI – IVASS	Ms Antonella ALTOMONTE Lawyer Italy
	Mr Simone CASTROVINCI ZENNA Lawyer Italy
KOZOLCHYK NATIONAL LAW CENTER (NatLaw)	Mr Bob TROJAN Senior Advisor United States of America
LAW COMMISSION OF ENGLAND AND WALES	Ms Miriam GOLDBY Professor of Shipping, Insurance and Commercial Law Queen Mary University London United Kingdom
	Ms Sarah GREEN Professor Commissioner for Commercial and Common Law

* * * *

INDIVIDUAL OBSERVERS

Mr Hin LIU	PhD Candidate Oxford University
Sir Roy Goode	Emeritus Professor of Law University of Oxford Consultee United Kingdom
Mr Andrew (Drew) HINKES	Attorney at Law Carlton Fields United States of America
Mr Alex IVANČO	Department Director Financial Markets III Department Ministry of Finance Czech Republic
Mr José Antonio MORENO RODRÍGUEZ	Attorney, Law Professor Paraguay *Member of the Governing Council UNIDROIT*
Ms Monika PAUKNEROVÁ	Professor Department of Business Law Charles University Faculty of Law Czech Republic *Member of the Governing Council UNIDROIT*

UNIDROIT SECRETARIAT

Mr Ignacio TIRADO	Secretary-General
Ms Anna VENEZIANO	Deputy Secretary-General
Mr Carlo DI NICOLA	Senior Legal Officer
Mr Hamza HAMEED	Legal Consultant
Ms Theodora KOSTOULA	Sir Roy Goode Scholar
Ms Aydan Alyarbayova	Intern
Ms Quwei WU	Intern
Mr Austin Enfinger	Intern