



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

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**Digital Assets and Private Law  
Working Group**

***Third session (remote)***  
**Rome, 30 June – 2 July 2021**

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**SUMMARY REPORT**  
**OF THE THIRD SESSION**  
**(Videoconference, 30 June – 2 July 2021)**

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1. The third session of the Working Group (the Working Group) to prepare the Principles and legislative guidance on Digital Assets and Private Law (the Principles) took place in a hybrid manner both in person and via videoconference between 31 June and 2 July 2021. The Working Group was attended by 54 participants, comprising of (i) 15 Working Group Members, (ii) 27 observers from international, regional, and intergovernmental organisations, industry, government, and academia, and (iii) 12 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. The Chair of the Working Group and Member of the UNIDROIT Governing Council *Hideki Kanda* (Chair) welcomed all participants to the third session.

3. *The Chair declared the session open.*

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

4. *The Working Group adopted the draft Agenda as proposed ([UNIDROIT 2021 – Study LXXXII – W.G.3 – Doc. 1](#), available at Annex I).*

**Item 3: Adoption of the Summary Report – Second Session of the Working Group (Study LXXXII – W.G.2 – Doc. 3)**

5. *The Working Group adopted the Summary Report of the Second Session of the Working Group (Study LXXXII – W.G.2 – Doc. 3).*

**Item 4: Consideration of substantive issues (Study LXXXII – W.G.3 – Doc. 2)**

**Summary of intersessional work**

**a) Outcomes and reflections from the “Digital Twins” Workshop (31 May 2021) and future work**

6. The *Secretariat* reported on the Digital Twins Special Workshop held on 31 May 2021, summarising the presentations and the discussion that followed (Study LXXXII – W.G.3 – Doc. 3).

7. The *Chair* proposed that additional Special Workshops be organised to examine other cross-cutting matters which concerned multiple Sub-Groups such as the control principle and custody of digital assets, with the first to be held before the next Working Group session.

**b) Summary of the work of the Sub-Groups**

**i. Sub-Group 4 – Taxonomy**

8. With reference to paragraphs 37 – 63 of the Revised Issues Paper, the Co-Chairs of Sub-Group 4, *Elisabeth Noble* and *Philip Paech* presented the revised note on taxonomy, focusing on the following revised definition of the term “digital asset”: “digital representation of value which can be used for payment or investment purposes”. They explained that this proposal aimed to create a universal definition against which the Principles could be tested. They noted that it was narrower than the previous definition, taking into account the discussion during the previous Working Group session.

9. During the ensuing discussion, *several experts* remarked that the proposed definition was potentially too narrow for various reasons.

10. *Several experts* noted that the language “for payment or investment purposes” had the effect of excluding digital representations of services or vouchers of commercial goods that were not used for such purposes (i.e., digital assets representing intellectual property rights, documents of title that were not payment instruments or assets used for investment purposes, etc.).

11. *Jeffrey Wool* queried whether credit purposes were understood to be included in the word “investment” and, if not, whether the definition should be updated to include “for payment, credit and investment purposes”.

12. *Several experts* further queried whether digital assets must necessarily be representations of “value”, questioning the use of “value” as an *a priori* feature of digital assets. A number of alternatives were proposed: one being the removal of “value” entirely or the addition of “supposed to have” or “aimed at having” value.

13. *Several experts* suggested returning to the basic definition of an asset to capture a broader range of what may be encompassed by “digital asset”, specifically noting the definition found in the [International Financial Reporting Standards \(IFRS\)](#).

14. On Day 3 of the Working Group Session, the Sub-Group 4 *Co-Chairs* presented a re-drafted note on taxonomy on the basis of the feedback received from the Working Group on Day 1. The re-drafted note proposed the following revised definition of “digital asset”: “A digital asset is an **electronic record** which **gives a right or interest** and is **capable of being subject to control.**”

15. The Working Group discussed the re-drafted definition.

16. *Several experts* queried whether the use of the term “electronic record” would have the effect of extending the scope to private commercial data sets.

17. *Several experts* queried whether the Project would be limited only to assets which clearly gave rights or interests, especially if rights or interests could be temporary or too subjective a qualifier.

18. *Several experts* questioned the meaning of “subject to control”, especially in regard to exclusivity.

19. *The Working Group agreed that “subject to control” denoted the correct proprietary aspect to the assets with which the Project was concerned.*

20. *The Working Group agreed that “has value” and “capable of being encrypted” should not be included in the definition because the “value” qualifier was too subjective and could be capable of great variation over time while the latter was too technologically specific and was deemed to be functionally equivalent to “subject to control”.*

21. The *Co-Chairs* also elaborated on the proposed sub-categorisation of digital assets for the purposes of taxonomy.

22. Category 1 was defined as a “transferable code constituting a representation of: (i) a moveable tangible; (ii) an immoveable tangible; (iii) a tokenised currency, (iv) an intangible financial asset, and (v) an intangible non-financial asset (e.g., IP).

23. Category 2 concerned assets which fell outside the boundaries of Category 1 (e.g., a Bitcoin). The *Co-Chairs* noted that intellectual property was included in the categorisation under the sub-category of “intangible non-financial asset” and confirmed the intention to include it within the scope.

24. The *Co-Chairs* suggested that, if the Working Group agreed that all pertinent digital assets fell within these sub-categories, the next step would be to develop rules against which these categories could be tested in order to ascertain if they achieved a satisfactory legal result when applied to the digital assets in question.

25. The *Co-Chairs* invited the other Sub-Groups to consider the examples provided in the table under paragraph 40 of the Revised Issues Paper to test the legal analysis and the draft Principles and contemplate whether there was a need to delineate any of the analysis or the Principles based on the proposed categories.

26. The *Co-Chairs* further clarified that the intention was not to endorse multiple sets of Principles for different categories of digital asset, but rather to emphasise that there may be a need for some variation in the Principles depending on the category of digital asset in question.

27. The Working Group discussed the proposed categorisation. *Jason Grant Allen* queried what distinguished the categories from one another, and whether the second category was simply intended to be a catch-all or was intended to refer to situations where the token was an asset which had market value rather than being a representation of something else.

28. *Charles Mooney, Jr.* queried the drawing of distinctions based upon the purposes and perceived characteristics of the digital asset types. He encouraged the Working Group to develop a hypothesis as a basis for categorisation of digital assets, i.e., that the transfer of the digital asset was going to be subject to different rules based on whether it was linked to a specific asset type.

29. *Several experts* endorsed the proposal made by *Louise Gullifer* to distinguish between two kinds of digital assets: the first being a digital asset which represented a right against the issuers, and the second which did not carry any such right (e.g., intellectual property and, potentially, source codes). This distinction was important because a different analysis was potentially required depending on which of the two kinds of digital assets was being considered.

30. The *Co-Chairs* agreed that this distinction was an important consideration that must be linked to the analysis and Principles.

31. Regarding the language of the proposed sub-categories, *several experts* suggested that the language “transferable code” may be limiting.

32. *One expert* queried whether the language was an attempt to exclude digital assets that could be held in a static manner and were not meant to be transferable or denoted an intention to exclude digital assets whose “transfer” occurred by way of an extinction of one code and creation of a new code rather than a transferable code.

33. *Several experts* discouraged the use of the term “code”, as it typically referred to programming in the technology field but was not used in this way in the definition.

34. The *Chair* requested that Sub-Group 4 revise the proposed sub-categorisation to consider – in addition to asset-based categorisations – both party-based and mechanism-based categorisations in this field.

35. *A representative of UNCITRAL* noted that the UNCITRAL taxonomy work sought to identify different tools that have been used in the context of digital trade and was therefore broader than the scope of the taxonomy workstream in UNIDROIT's Digital Assets and Private Law Project.

36. Regarding co-ordination with UNCITRAL on the taxonomy workstream, the *Secretary-General* noted the possibility of considering taxonomy work beyond that undertaken for the purposes of the Principles.

37. The *Chair* summarised the discussion.

38. *The Working Group* agreed that the words "right or interest" should be deleted from the definition of digital asset.

39. *The Working Group* further agreed that Sub-Group 4 would continue to refine the definition and work on the categorisations and sub-categories.

40. The *Co-Chairs* took note of the input provided and it was agreed that they would be addressed in future inter-sessional work on the taxonomy workstream.

## ii. **Sub-Group 2 – Control and Transfer**

41. With reference to paragraph 75 of the Revised Issues Paper, the Co-Chairs of Sub-Group 2, *Charles Mooney, Jr.*, and *Matthias Haentjens* presented the revised draft Principle on acquisition and disposition ("transfer") of digital assets.

42. The *Co-Chairs* noted that the Sub-Group had sought to consider the most basic building block principles of property law, referred to as proprietary interests, including interests which have proprietary effects under the relevant law, while questioning which of these building block principles the digital asset law (provisions of law dealing directly with digital assets) should address and in what manner. Moreover, this was considered with respect to law other than "digital assets law", i.e., the general law of the State which did not directly address digital assets.

43. The *Co-Chairs* remarked that this pattern was previously adopted in the Geneva Securities Convention, where the impossibility of harmonisation of numerous legal principles relating to intermediated securities in a hard law document was noted. Accordingly, when such harmonisation was not possible, an explicit reference was made to so-called non-Convention law, i.e., the law of the Contracting State other than Convention law. As the DAPL Project was a soft law instrument, there was more flexibility in the development of the Principles.

44. The *Co-Chairs* also remarked that follow-up projects could be envisaged, potentially focusing on areas where there was no opportunity to give direct advice or provide an avenue of further advice to States, concluding that these Principles would provide the general framework which could subsequently be updated, adjusted, and supplemented from time to time.

45. The *Co-Chairs* reported on the shelter principle incorporated in Principle X.2, para. 5 and the notion of third-party effectiveness in Principle X.2, para. 8, noting that the format for innocent acquisition did not present a harmonised principle but rather a menu of options, with potential consideration for value-based analysis.

46. *Marek Dubovec* noted that the "value" question was considered in the ongoing UNIDROIT project for a Warehouse Receipts Model Law regarding the requirements that a person must meet in order to be a protected holder of that type of a document.

47. *The Working Group* agreed that having a value option was critical for certain jurisdictions.

48. *Several experts* noted how different jurisdictions did not have comprehensive innocent acquisition rules for traditional real-world assets, raising the question of whether a comprehensive rule on innocent acquisition for digital assets tethered to a real-world asset would create anomalies with the existing law.

49. The *Co-Chairs* noted that the preliminary draft Principles were written with regard to purely digital assets, meaning that in the case of tethered assets, the law of innocent acquisition for the physical asset would likely be the controlling law.

50. The *Co-Chairs* emphasised that the creation of a comprehensive innocent acquisition law for assets in general was beyond the Project's scope.

51. *Several experts* noted that the commentary might provide more explicit guidance on how different jurisdictions might implement innocent acquisition rules to reflect the best use of existing law and legal theories together with the technological realities.

52. With reference to paragraph 76 of the Revised Issues Paper, the *Co-Chairs* presented the revised draft Principle on control, emphasising that it referred to a general concept of control that was meant to function in the context of transfer and perhaps more limited to the context of an innocent acquirer and the perfection of security interests.

53. The *Co-Chairs* noted that control may be similar to possession, but the control Principle concerned factual control rather than legal control. A change of control was a necessary but not always sufficient element of transfer of ownership, given that change of control did not always coincide with change in ownership (e.g., theft, custodianship).

54. The *Co-Chairs* further specified that control required some exclusivity in the ability to change control of the digital asset to another person and prevent others from obtaining substantially all of the benefit. They nevertheless recognised that due to underlying technical realities, non-absolute exclusivity was a crucial element of control, and that there needed to be degrees of relaxation to reflect that reality.

55. The *Co-Chairs* also noted that change of control included ledger-based systems where "transfer" included transactions where an asset was destroyed and a new one(s) was/were created.

56. The *Co-Chairs* emphasised that the burden of proof would be two-fold: first, identifying the person in control and second, an exclusivity element in the ability to change control. However, they recognised that there were degrees of relaxation of exclusivity to reflect the nature of exclusivity in digital assets.

57. The Working Group discussed the revised draft Principle on control.

58. *Several experts* remarked that the use of the word "exclusive" in a very technical sense in the Principles might be problematic in relation to how the technology actually worked, suggesting, as an alternative, the term "often exclusive" at Principle X.1, para. (1)(a)(i).

59. *Several experts* queried whether, when presented with conflicting claims, the draft Principle would present an all-or-nothing finality scenario or some division of any award in a conflict.

60. The *Co-Chairs* explained that the Principles, as drafted, were broadly an all-or-nothing scenario with finality, while acknowledging that there may be some exceptions for knowledge of conflicting claims.

61. The *Co-Chairs* queried whether this clarification should be included in the commentary or in the Principle itself, remarking that it was for the Working Group to determine how much nuance should be allowed for in the legislative guidance portion of the instrument.

62. A *representative of the IMF* queried whether this Principle worked equally well for both token- and account-based systems (e.g., proposed CBDC 'Central Bank Digital Currencies' models). In the case of a token-based system, she noted there may not be any need to verify the identity of the person as holding the token key alone would be sufficient for making transfers.

63. The *Co-Chairs* agreed to further consider in intersessional work the matter of CBDCs and the identification of a controller.

64. *Louise Gullifer* raised the issue of coordination between control as described and custody, noting that the draft control Principle indicated the ability to transfer control as being important, whereas custody could imply that the client lost control of the asset. She queried whether there should be some provision for the client to become an innocent acquirer in the case of custodianship.

65. The *Co-Chairs* considered that the best approach was the inclusion of a basic principle of benefits accruing to the client with the addition of extensive commentary that could provide options or illustrations of how to enact this without the Principle defining the doctrinal structure.

66. *The Working Group* agreed that further intersessional work was required on the issue of custodial transfer and the implications for control and the innocent acquisition rule.

67. *Several experts* raised concerns with the emphasis on exclusive control and its potential conflict with the reality of control within existing networks. *Other experts* observed that the limitations in most existing systems were sufficient to allow a certain level of exclusivity that matched the draft Principle.

68. *The Working Group* agreed that the inclusion of a degree of exclusivity was important to narrow down the assets with which the Project was concerned (e.g., to exclude photos and social media posts).

69. The *Co-Chairs* noted that in the absence of widespread agreement among experts regarding the technical limits, an appropriate solution could be to add explanations in the commentary to address the technology to overcome these objections.

70. *The Working Group* agreed on the need to maintain a functional approach and an exclusivity rule with degrees of relaxation.

### **iii. Sub-Group 1 – Control and Custody**

71. With reference to paragraphs 77 – 78 of the Revised Issues Paper, the Co-Chairs of Sub-Group 1, *Louise Gullifer* and *Luc Thévenoz* presented the revised draft Principle on Custody of digital assets.

72. The *Co-Chairs* explained the proposed definition of custody. The two normative reasons for the custody Principle were: (1) in case of a custodian's insolvency, the client had the proprietary interest, implying that the asset did not form part of the custodian's estate; and (2) to provide a recommendation of what private law duties the custodian should owe the client.

73. The *Co-Chairs* further explained that the Sub-Group considered that the Principles should include "minimal duties" which the custodian would owe to the client.

74. The *Co-Chairs* explained that the central question remaining was what the custody Principle ought to apply to and why. They provided illustrative examples to demonstrate the challenges inherent in resolving this question.

75. First, with reference to paragraph 114 of the Revised Issues Paper, they pointed to a selection of terms used in contracts showing there were situations where the assets of the client were entirely transferred to another party who was not a custodian.

76. Second, they further pointed to cases which implied situations of outright transfer, meaning that the client granted another party the rights to the digital assets, leaving the client with a personal claim against the other party, which was therefore not a case of custody.

77. Third, another scenario, which the Sub-Group did not consider custody, was when one person controlled the asset without the involvement of another party (e.g., the person had a node or a software which enabled direct holding, such as a hot or cold storage wallet).

78. The *Co-Chairs* also explained that the Sub-Group had discussed the implications of transferring an asset to DAOs (decentralised autonomous organisations), with the asset subsequently controlled via smart contracts, and how to assess whether it counted as custody when the assets were not controlled by any human or legal entity, and whether this "gap" in control would cause issues down the line.

79. *Several experts* explained that while there could be instances where the digital assets were put in control of the smart contract rather than a legal person, the existence of this "gap" in control over the asset during the transfer period did not constitute a problem, noting that code of the smart contract could always be modified.

80. *Another expert* concurred, noting that the purpose of the custody Principle was to determine what liabilities should be imposed on the custodian, which presupposed the existence of a legal person.

81. *Nina-Luisa Siedler* noted that the responsibility either remained with the person using that smart contract or was moved to another party which might be the service provider, the inventor of that smart contract, or the party who received some transaction fee. In case of the smart contract not working as it was supposed to, there was a claim against the service provider. If the contractual terms explicitly referred to the user's responsibility instead, then there was nobody against whom a claim could be made. She queried whether the Working Group wished to accept the existence of an "in between" situation.

82. *Several experts* discussed how possession was not the same as ownership, so that when digital assets were transferred into a smart contract, ownership may not necessarily be relinquished, but control was surrendered, analogising this situation to a lost real-world asset or asset placed in an irrevocable escrow. Accordingly, the smart contract transferring the digital assets would not create a gap in ownership but rather in possession/control of said digital asset.

83. The *Co-Chairs* noted that there were situations where no one, neither a legal nor a natural person, would have control over the digital asset, but this did not imply a rupture or suspension in ownership or proprietary interest. If control was suspended and transferred to another party, that could lead to a digital asset having no holder without affecting ownership.

84. Referring to Open Question #2 at paragraph 78 of the Revised Issues Paper, the Working Group discussed the issue of NFTs in pooled accounts, asking whether a distinction needed to be made for fungible and non-fungible assets for custody in general.

85. *Several experts* concurred that both fungible and non-fungible tokens could be subject to the custody Principle. Regarding whether non-fungible tokens could be kept in a pooled account, *several experts* provided input to refine the understanding on this point.

86. *The Working Group agreed that the difference between fungible and non-fungible tokens should not be mentioned in the custody Principle, with the possible exception of the description of pooled accounts. It was further agreed that the Sub-Group would continue its work on this question.*

87. The *Co-Chairs* highlighted the need for a name for the person referred to in Principle C.1 which the Working Group could use consistently throughout the Principles to facilitate the drafting. They suggested the term “control person”.

88. The *Co-Chairs* clarified that C.1 may not be included in the final custody Principle and should possibly be placed elsewhere in the Principles, given that it involved control rather than custody.

89. The Working Group discussed the definitional boundaries of custodianship in relation to insolvency and minimal custodial duties.

90. Regarding the definition of the notion of custody, the *Co-Chairs* explained that a situation that fell within the custody Principle was one in which the custodian owed some duties to the client in relation to safeguarding assets. Sub-Group 1 had attempted to set out these duties in the custody Principle and it was believed that these duties were in some way mandatory and could not be entirely excluded.

91. The *Co-Chairs* further explained that whether services were custody services or other types of services relating to the holding of digital assets (e.g., providing the software to enable the safeguarding of a private key), the assets would not form part of the estate of the service provider upon insolvency.

92. The *Co-Chairs* emphasised the fact that the distinction between custody service and other types of services regarded the presence of nonexcludable duties.

93. *Chuck Mooney, Jr.* remarked that while the Working Group aimed to describe a notion of paradigmatic custody which ensured that certain objectives were met (e.g., minimal custodial duties, treatment of the assets in case of the custodian’s insolvency, etc.), there were many situations where, under the relevant applicable law, an owner may be blocked from access to their digital assets, and, under the applicable insolvency law, the beneficial ownership would have resided in someone other than the person who had certain powers or who had allowed access that was no longer available.

94. He further suggested that the Principles could recognise that it was not feasible to contemplate every aspect of property and insolvency law and provide conclusive functional recognition of the issue without requiring the Principles to explicitly recognise every hypothetical situation where this might arise.

95. *Matthias Haentjens* proposed that the Principles could provide States with a suggestion on the functional result that should be achieved so that the party who held/was in control was able to exercise that control in the case of insolvency of the person/entity who delivered such services and who was not a custodian as defined in the Principles. This could be achieved either through private law (e.g., whether property law or an insolvency law rule) or through regulatory law to be enforced by public authorities.

96. *Charles Mooney, Jr.* further suggested that Sub-Groups 1 and 2 work together to draft a number of proprietary rules to address the non-custody paradigm. The *Chair* endorsed this proposal.

97. The Working Group discussed the implications of an authorised officer involved in an insolvency proceeding taking an exchange provider's software offline or the software otherwise becoming unavailable, with *some experts* pointing out that the technology allowed for the theoretical possibility to unencrypt the assets, although this might not be practically feasible.

98. *Several experts* pointed out that in the case of non-custodial wallet software service providers, they were simply offering password repository services for customers to keep their passwords for the various websites they accessed. Accordingly, they should not be subject to custodian duties. They added that if such an entity became insolvent, one would enforce the contract requiring the entity to give the client access to their information.

99. *Several experts* encouraged the Working Group to seek further input from technical experts to explore the how control of digital assets operated and the implications for the drafting of the Principles.

100. *Several experts* agreed that the commentary to the Principles should include discussion of the potential ramifications of an authorised officer involved in an insolvency proceeding taking an entity's software offline or the software otherwise becoming unavailable, while recognising that the commentary could not possibly make note of all potential situations involving non-custodians.

101. The issue of sub-custodians and the attendant complexities relating to title, ownership, holding, and transfer was raised.

102. *Several experts* suggested that the custodial duty should be to "maintain control" rather than "obtain control" in C.3 (a) as the latter suggested duties which would be factually problematic as positive duties regarding sub-custodians and custodians.

103. *The Working Group invited Sub-Group 1 to consider redrafting C.3 (a) with a view to making the wording consistent with C.5 (b).*

104. In relation to C.3, the *Co-Chairs* explained the draft Principle reflected the consensus in the Working Group that the custodian must owe some duties in relation to safekeeping.

105. In relation to the right of use (C.3 (b)), it was noted that the extent to which a custodian could have a right of use would be limited by law, and that parties would not be able to agree to extend the right of use beyond that limit. It was therefore agreed that the words 'or by the client' should be omitted from C.3(b). It was also pointed that if the agreement between the custodian and the client provided for a very extensive right of use, this would be a factor that would be taken into account in deciding whether the agreement was a custody agreement or one which fell within the ambit of C7.

106. Regarding C.3 (b), it was pointed out that regulatory law would likely deal with the extent to which right of use was permissible in a custody relationship, and it would not be possible for the parties to agree to extend this limit. Accordingly, the words "or by the client" should be deleted, leaving the only exception to C.3 (b) being "to the extent permitted by law".

107. The *Co-Chairs* further noted that a list of duties which a State could choose to include in the list of duties for a custodian were included in C.5, adding that this list was non-exhaustive.

108. *A member of the Secretariat* queried whether the duty to pass the benefits created by a hard fork was included in C.5(e) as currently drafted. The *Co-Chairs* agreed that this point would be further discussed by Sub-Group 1.

109. The *Co-Chairs* noted that C.6 was a statement that a digital asset controlled by a custodian may be subject to a security right granted to the custodian from the client.

110. The *Co-Chairs* explained that C.7 addressed the situation in which one controlled the digital asset and owed an obligation to another to transfer that asset or its equivalent. For example, this would be the case of a bank where the client transferred its assets to the entity, and the entity owned these assets (i.e., they were on the entity's balance sheet) and all the client had was an unsecured claim.

111. They further noted two new points in the accompanying explanation: the first highlighted the risks to clients in case of insolvency of the person (i.e., the non-custodian) mentioned in C.7. If this person became insolvent, the client only had an unsecured claim. Sub-Group 1 had agreed that a State might wish to consider whether regulations were required to protect all or some types of clients.

112. The second point introduced additional elements as to the relevant factors that could have been considered when deciding whether a particular situation was a custody service or an outright transfer. The text noted that this might be clear from the express agreement, or it might be a matter of contractual interpretation. One obvious factor could be, for example, if a non-custodian placed the assets on its balance sheet. However, there might be other indications as well.

113. *The Working Group recommended adding to the factors set out in the commentary to C.7 a reference to the economic substance of the transaction, rather than simply focusing on the contract language used and the other factors set out in that commentary.*

114. The *Co-Chairs* described C.8 as dealing with insolvency and explained that it was largely unchanged from the Second Session of the Working Group, except that the notion of holding was changed to controlling to fit with the control principle.

115. Regarding C.9, the *Co-Chairs* noted that the word "control" was intended to be consistent with the idea of purely factual control as defined in the control Principle.

116. Regarding C.10, they explained that it dealt with the insolvency of either the custodian or the sub-custodian.

117. *Several experts* expressed concern that many existing contracts were vague as to scope of duties and terms of use, and as to the nature of the relationship between the client and the counterparty, suggesting that the Working Group may wish to consider commentaries, which in the case of ambiguity, presumed the arrangement to be a custody arrangement.

118. *The Working Group agreed that it would be helpful for the Principles to provide guidance in the commentary regarding how to address ambiguous agreements, particularly by encouraging States to consider the use of presumptions in the case of an ambiguous agreement.*

#### **iv. Sub-Group 3 – Secured Transactions**

119. *Sub-Group 3 Chair Marek Dubovec* explained that Sub-Group 3 had begun exploring several issues concerning digital twins, particularly the legal aspects of digital twins where a State has recognised that an asset might embody rights to another asset and how that recognition occurred – through case law or statutory treatment.

120. With reference to paragraphs 85 – 96 (“Security rights and digital assets that embody real-world assets”) of the Revised Issues Paper, he explained that the special section considered issues regarding digital twins, in particular their use as a collateral in secured transactions.

121. It was noted that secured transactions law did not create, but rather recognised, the digital twin; otherwise, it was provided for in the relevant applicable law. Accordingly, if the relevant applicable law recognised the digital twin, the secured transactions law should have certain provisions to enable its use as collateral, ensuring that the secured creditor obtained the benefit of both the asset itself and the linked or tethered asset.

122. Noting that it would be useful to carry out a comparative law analysis to summarise how digital twins were generated and recognised by States, members of Sub-Group 3 had prepared a brief analysis as to the use of digital twins in this context for the Working Group to further consider their use as collateral.

123. It was also pointed out that the special section at paragraphs 85 – 96 was not unique to secured transactions, but rather provided an examination of more general aspects of proprietary interests in relation to digital assets; in particular, the question of what the nature of the legal relationship between the digital asset and the underlying asset was. This depended to a large extent on the different jurisdictions and their treatment of such assets. If the Working Group agreed, this section could serve as a useful background for the more general aspects of the Project itself.

124. *Reghard Brits* presented the research which explored how existing paper documents representing possession and title were useful analogies to digital assets tethered to real-world assets.

125. For a secured transaction to work in this context, the law needed to recognise the link between the digital asset and the underlying asset. He compared this with concepts relating to documents of title, as this was perhaps the closest analogy, considering different jurisdictions, especially English law bills of lading and how these came to be recognised as documents of title.

126. The basic conclusion was that there were two ways to envisage the current law to recognise a document or record that represented title, ownership, or some other proprietary interest in the underlying asset. The first was by codifying the principles as in German law, Dutch law, or the UCC. The second method entailed establishment of a practice as in English law in which a bill of lading, recognised by the courts, represented rights to goods.

127. In the current context, the easiest and most obvious solution would be for the existing law to recognise, through one of the two mechanisms, that certain assets could be represented by a digital asset in the same manner as bills of lading in many jurisdictions.

128. From the secured transactions perspective, the *Sub-Group 3 Chair* noted that a Principle would ultimately involve a statement suggesting that, if the underlying law recognised that certain digital assets could represent a title or some other proprietary interest in an underlying asset, then it should also be possible to create a security right in the “digital twin” that extended to the underlying asset.

129. He noted that there was a difference between the market developing a solution where a certain digital asset represented another real-world asset, especially a physical object, such as gold in a vault, and the question of whether a legal system would recognise that as truly representing rights in the gold.

130. The *Chair* noted that the document of title was brought into existence because a special statute recognised it as such. He observed that in the case of digital twins there would usually be no such special statutes and so he queried what the legal principles should be.

131. In the case of secured transactions, people may attempt to draft agreements creating a security right using existing law without the existence of a special statute covering the document of title. He highlighted that this was a task for the Working Group to tackle.

132. *Louise Gullifer* remarked that there was another method of analysis in addition to the document of title analysis, which was to consider the blockchain as effectively a type of register of who was entitled to the benefit of the digital asset and referred to a statute in Delaware which foresaw that there could be a share register on a blockchain.

133. *The Sub-Group 3 Chair* confirmed that other types of digital twins were not covered by this special section, but that it was presented as a starting point for the Working Group to ascertain what type of research would be useful for the States to highlight, and if they wished to recognise certain records as digital twins in this context or other contexts for other categories of digital twins. He noted that an additional introductory paragraph clarifying the context may be needed.

134. *Philip Paech* queried what would occur in the case of a divergence between the digital asset and the actual asset, especially where the two were transferred separately creating a conflict of priority.

135. *The Sub-Group 3 Chair* confirmed that the Principle did not directly deal with the question of priority between person A who might have acquired a tangible object and person B who acquired the linked digital asset. He suggested that Sub-Group 3 should clarify where the priority conflict may lie and how it might be resolved, depending on whether the State had recognised this type of a digital asset as a twin or not.

136. *The Sub-Group 3 Chair* recalled that there was discussion in previous Working Group sessions regarding transactions and applications within the DeFi (Decentralised Finance) space, and requests for Sub-Group 3 to analyse the transactional patterns within this space and more generally how these patterns may generate secured transactions.

137. With reference to paragraphs 97 – 122 of the Revised Issues Paper, he explained that Sub-Group 3 had prepared a summary of the various types of transactions occurring within the DeFi space, including depositing services which may be relevant to custody, lending services which may be relevant to the Sub-Group's work on secured transactions, and general trading services which were not quite relevant to the Project itself, or were only relevant in the context of transfers and acquisitions of digital assets.

138. He further noted that Sub-Group 3 viewed this as a good illustration of a cross-cutting example of various uses of digital assets in a single application allowing the Working Group to consider the various relationships, rights and duties of the parties, the labels given by the parties to these transactions, and the types of terminology used in the relevant terms and conditions.

139. With reference to paragraphs 97 – 114 of the Revised Issues Paper, *a researcher* presented an exploration of DeFi, providing an introduction and description of DeFi services of "depositing", lending, and trading, and citing examples DeFi terms of use.

140. *An expert observer* presented the structure of liquidity pool tokens, explaining in greater depth what was described as exchange protocols or trading services.

141. The *Sub-Group 3 Chair* remarked that this illustration demonstrated the actual practice of “locking up” the digital asset as collateral, where the control Principle was key in providing protection for the parties who seek to perfect a security right.

142. He noted that Sub-Group 3 considered that this illustration would provide a good background for the Working Group to test the Principles that had already been created, especially the Principle of perfection by control in Sub-Group 2.

143. *Several experts* noted important differences in the terms and conditions of the examples of DeFi agreements and asked whether DeFi required its own set of principles or was encompassed by the overall Principles.

144. *Several experts* queried what level of attention should be paid to DeFi. *Other experts* highlighted that users could engage with DeFi systems without contracts or merely agree to open-source license agreements with broad disclaimers and no identifiers. They also indicated that the DeFi ecosystem lacked clearly identifiable intermediaries akin to those found in the more traditional intermediated securities systems.

145. *The Sub-Group 3 Chair* noted that the DeFi discussion was relevant as the Working Group would need to know what the parties were doing in order to determine whether law was adequate to provide legal certainty.

146. He further highlighted that the focus was not on DeFi, but rather on how the digital asset was used within the DeFi application (i.e., where it moved from one party to another and then was re-pledged, re-hypothecated, returned, etc.), so the Working Group could determine which provisions of the private law framework applied to these transactions and services.

147. The *Secretary-General* remarked that the final product of this Project would contain both Principles and commentary and that there could be added value in providing numerous examples and sufficient explanations of areas such as DeFi, particularly where they were to be used by less developed markets.

148. With reference to paragraphs 80 – 81 of the Revised Issues Paper, the *Sub-Group 3 Chair* explained that a number of changes were made to the draft Principles, focusing on Principles C (perfection), X (priority), and E (insolvency aspects).

149. Principle C included a recommendation for States to recognise notions of control as a perfection mechanism in addition to registration.

150. *Several experts* raised the issue of coordination between the factually-based control principle and the third-party effectiveness principle.

151. The Working Group explored issues arising from the interplay between the priority principle, custodianship, and factual control and the challenges that digital assets pose vis-à-vis practical control concepts derived from the more traditional intermediated securities systems.

152. Regarding Principle X, *several experts* raised the need to consider the Principles in light of innocent acquisition rules and the issues which may arise where the Principles as articulated may present inconsistencies with any specific provisions regarding priority included in a contract between the parties.

153. The *Chair* noted that even if the Working Group defined the notion of control as factual control, the situation where there were two creditors in sequence, both having factual control, could not be avoided, and there should be a rule on that.

154. *Several experts* raised a concern regarding the assertion that registration ought to always be trumped by control, remarking that this was not the best approach in all situations, particularly with pre-existing systems.

155. *The Working Group agreed to look further into existing systems with different priority regimes for kinds of control to examine their relevance for digital assets.*

156. Regarding Principle E (insolvency aspects), the *Sub-Group 3 Chair* noted that it broadly represented issues of valuation and other ideas adjacent to insolvency proceedings along with background information regarding security rights. The draft drew on the Geneva Securities Convention and UNCITRAL text on insolvency but re-stated them to incorporate digital assets.

157. The *Sub-Group 3 Chair* further noted that the Working Group needed to have a broader discussion as to where the insolvency aspects should fall and how they should be presented: whether as a stand-alone principle, or connected with other Principles (e.g., perfection, priority, etc.).

158. The *Secretary-General* encouraged the Working Group not to consider itself as constrained by the relevant UNCITRAL texts as these emphasised the role of an insolvency administrator which did not closely reflect insolvency infrastructures in many countries. He noted the need to clarify the limits of the Principles in relation to the insolvency question, and, if included, the previous texts should be modernised and updated, without contradiction with the existing UNCITRAL texts.

159. The *Chair* emphasised that further coordination was needed between the various Sub-Groups on insolvency issues.

**Item 5: Organisation of future work**

160. 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.

161. The *Chair* further encouraged the Working Group and Sub-Groups to identify a number of practical illustrations and case studies to be used across the various preliminary draft Principles in order to ensure close coordination between the Sub-Groups and achieve consistency in terms of application of the Principles to real-world cases.

162. *The Working Group agreed that its fourth session would be held between 2-4 November 2021.*

**Item 6: Any other business**

163. No further items for discussion were noted.

**Item 7: Closing of the session**

164. The *Chair* thanked all participants for their contributions the third session.

165. The *Chair 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

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