Digital Assets and Private Law
Working Group

Fourth session (remote)
Rome, 2 – 4 November 2021

SUMMARY REPORT
OF THE FOURTH SESSION

(Videoconference, 2 – 4 November 2021)
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1. The fourth session of the Digital Assets and Private Law (DAPL) 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 2 and 4 November 2021. The Working Group was attended by 56 participants, comprising of (i) 15 Working Group Members, (ii) 32 observers from international, regional, and intergovernmental organisations, industry, government, and academia, and (iii) 9 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 fourth session.

3. The Chair declared the session open.

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


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


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

a) Summary of intersessional work

   i. **Summary of the work of the Sub-Groups**

   1. **Sub-Group 2 – Control and Transfer**

   **SG 2 – Scope, Definitions, and Control**

6. With reference to Annex III, Appendix 2 of the Revised Issues Paper, the Co-Chairs of Sub-Group 2, Charles Mooney, Jr., and Matthias Haentjens presented the draft principles on scope, definitions, and control.

7. The Working Group discussed the draft definition of “digital assets”. Working Group members flagged several issues with the commentary on the definition: for instance, it was remarked that the word “intangible” was too broad; it was also queried whether the word “electronic” should be added to the definition to further narrow the scope. On this latter point, it was noted that the addition of the word “electronic” would also have the benefit of being more closely aligned with the terminology employed in the UNCITRAL Model Law on Electronic Transferable Records.

8. A member of the Working Group presented a proposal for an amended definition of “digital asset”. Several important aspects were highlighted, including: (i) the need for a technologically-neutral definition; (ii) the terminological distinction between the words “electronic” versus “digital”; as well as (iii) the crucial concepts of integrity and immutability of signatures in this
arena. It was also noted that some jurisdictions did not consider digital assets to be property, which could create difficulties. It was specified that in this proposed definition, “digital asset” was meant to encompass cryptocurrencies, NFTs, as well as other tokenised items such as tokenised gold.

9. The Working Group discussed this proposal. Several experts intervened, noting that the issues in question had been discussed before and a consensus was previously reached regarding the most appropriate approach to the task of the definition of “digital assets”.

10. Several experts noted that the definition of “digital assets” put forward in the new proposal appeared to confine digital assets to merely monetary functions such as cryptocurrency, thus excluding the wider spectrum of functions performed by digital assets.

11. Furthermore, several Working Group members disagreed with the point raised regarding the difference in the definition between “digital” and “electronic”. They pointed out that in the UNCITRAL Model Law on Electronic Transferable Records, the word “electronic” encompassed all the points made by the proposal, and that, accordingly, there was no need to change to “digital”.

12. It was also noted by several experts that the point in the amended definition regarding authentication was already featured in the original draft definition.

13. There was agreement among the Working Group members regarding the importance of maintaining a focus on simplicity and concision in the definitions. A broad definition of digital assets should therefore be maintained, while allowing for the opportunity in future to make specific exclusions.

14. There was further agreement among the Working Group that the above points should be incorporated in the explanatory notes with appropriate commentary.

15. A member of the Working Group drew attention to the definition of “control” on page 46 of the Revised Issues Paper, cautioning that the use of the word “control” may have different meanings in different jurisdictions, e.g. English common law versus US common law, etc.

16. It was further emphasised that control in this context meant factual, not legal control. To avoid any confusion, it was proposed that the word ought to be substituted for “holding” as used in principle C.2.

17. Whereas several members of the Working Group agreed with this point, other members favoured keeping the definition and proposed addressing the issue in the commentary instead.

18. Sub-Group 4 Co-Chair Philipp Paech emphasised that the commentary on the principle should make it clear that insolvency law was included.

19. The issue concerning whether the definition of digital assets should include the term “transferable” or “controllable” was raised. While one Working Group member argued for the use of “controllable” to identify a specific subset of digital asset, another member raised the concern that “control” may be interpreted colloquially and therefore pressed the need to highlight the meaning of “control” as being defined in the control principle.

20. Discussion on this point followed, with members of the Working Group taking different positions. Concerns about ‘digital assets’ being too broad a term were raised; in particular, it was pointed out that some readers of the Principles may risk being confused by the definition.
21. There was agreement amongst the Working Group to keep the definition clear and simple, and it was agreed to retain the present definition, while allowing for the possibility to revisit it later.

22. Working Group members agreed that the difference between control and ownership ought to be more concretely laid out. One Working Group member noted the benefit of setting it out in detail in the commentary.

23. There was discussion as to whether positive and negative control should be elucidated in the Principles.

24. In this connection, it was remarked that doing so would be helpful to civil law jurisdictions, while there was some disagreement about its effect in common law jurisdictions. A suggestion to include an explanation on this specific point in the commentary was made by an expert.

25. Sub-Group 2 Co-Chair Chuck Mooney, Jr. noted that the notion of positive and negative control was reflected in relation to third party effectiveness within the UNIDROIT Convention on Substantive Rules for Intermediated Securities. While the Convention did not explicitly use the terms positive and negative control, it described the notion functionally. He noted this could be explored further in the commentary on shared control as well. It may then be evaluated whether this was sufficient, or if something more explicit should also be included in the text. He cautioned against changing the text as this could create unintended consequences.

26. Sub-Group 2 Co-Chair Matthias Haentjens noted that control included the exclusivity to prevent others from obtaining the benefit of the digital assets, which was effectively negative control in the abstract. He noted that specific examples of this could be included in the commentary.

27. There was general agreement amongst the Working Group that there should be more explanation regarding the principle of shared control.

**SG 2 – Transfer**

28. A summary of the draft transfer principle, including proprietary rights, shelter principle, good faith, and innocent acquirer rules was provided to the Working Group. It was also noted that the principle highlighted that some issues were left to applicable law.

29. The Chair invited the Working Group to provide feedback on the draft transfer principle and drew attention to point five on page 46 of the Revised Issues Paper. Several amendments to the wording of the transfer principles were suggested to increase clarity and concision.

30. An expert noted that the first sentence of sub-paragraph three may not be necessary as this point may already be provided for in the domestic legal regime.

31. A suggestion was made by an expert that the applicable law relating to rights of a transferor and transferee inter se may differ from the law applicable to the effectiveness of the transfer as against third parties.

32. It was also suggested that the word ‘successfully’ in paragraph 8.B. be removed, as it conflicted with the notion that “no rights may be asserted against the client based on a conflicting proprietary claim” in paragraph 10.

33. It was queried whether the reference in paragraph 8.E. to the timing of when notice and knowledge was measured, was a useful element which could apply to all examples of knowledge
and notice, and not just in relation to the UNIDROIT Convention on Substantive Rules for Intermediated Securities.

34. Minor edits were suggested to the text at para. 11 to address the fact that the underlying intellectual property law may be different from the law of the adopting State, or some other law, and that this did not affect the operation of the principle.

35. Sub-Group 2 Co-Chair Chuck Mooney, Jr., noted that in relation to shared custody, while control was an essential element of qualifying as an innocent acquirer, it did not imply that everyone in control necessarily had proprietary rights. Only the actual purchaser of the digital asset would acquire a proprietary interest, thus qualifying as an innocent acquirer because of the shared control. He noted that the commentary could be expanded in this regard.

36. Sub-Group 4 Co-Chair Philipp Paech proposed that the reference to the "applicable law other than law governing digital assets contemplated by these principles" in the first sentence of Principle X.2, para. 1. be simplified to refer to 'the law' for the time being, as previous experience had shown the difficulty in clarifying which law was being referred to, e.g. material law, substantive law, conflict-of-laws, etc.

37. Another expert proposed that the commentary should simply state: "the applicable law contemplated by these principles should specify which, if any, of its existing rules or standards of general application govern the acquisition and disposition of proprietary rights of digital assets". Taking this approach, the domestic legal system could then decide whether it wanted to do this via the general rules of application, or whether they contemplated specific rules for property in digital assets.

38. Several experts remarked that it was often impossible to determine the applicable law, especially within permissionless open systems. An expert suggested that in these instances, a court may simply adopt broad rules that apply to the area of law in question – a technique which already existed in France, among other legal systems.

39. Sub-Group 1 Co-Chair Louise Gullifer noted that the language in para. 10 may need re-drafting to reflect the following: whereas the control principle stated that to qualify as an innocent acquirer, the client must be in control, she noted that the client may not be in control where there was a custody relationship. This fact may give rise to some confusion because a client may still qualify as an innocent acquirer even where the digital asset was acquired through a custody relationship. Additional clarification or explanation may therefore be needed in the commentary to clarify this point.

40. A terminological point was raised regarding the use of the word 'tethered'; it was suggested that it be avoided because it carried connotations to the existing digital currency "Tether". The word "linked" as well as "referenced" asset were proposed as potential substitutes.

41. An expert encouraged the Working Group to agree on an appropriate term to describe this important category of assets, noting that the existing literature had not yet settled on any standard terminology. It was noted that a list of examples in the commentary could also be useful in this regard, a task which could perhaps be delegated to Sub-Group four on taxonomy.

42. There was consensus among the Working Group that the drafting style should be harmonised across all the various Principles as there was considerable difference between the drafting style used by the different Sub-Groups.
43. There was consensus among the Working Group that the scope of the Project was not intended to cover databases and email accounts. Where the delineation ought to lie was a matter that could be addressed in the commentary.

2. **Sub-Group 1 – Control and Custody**

44. With reference to Annex III, Appendix I 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.

45. It was noted that client protection and regulatory rules would fall outside the scope of this Project, and that changes should be made to accommodate the principle of sub-custody.

46. Specific changes to the provisions of the draft principles on custody were presented to the Working Group. The accompanying illustrations and commentaries were also reviewed.

47. The Working Group’s attention was drawn to the use of the word ‘hold’ instead of ‘control’ in cases where there was a sub-custody chain.

48. A member of the Working Group raised a point regarding section C.3 (c) that a conclusion had not been reached on whether positive or negative control should be defined for the purposes of this section, or if it would be sufficient to refer to the control principle in this instance.

49. Working Group members expressed their collective thanks to the Sub-Group and the Co-Chairs, and commented on the changes, acknowledging the progress that had been made from the first iterations of the custody principles.

50. A comment was made regarding the purpose of the Principles, namely to provide States with advice on how to create a private law regime for the holding of digital assets – a “checklist” for States.

51. It was noted that many of the comments made by Working Group members were of a presentational nature – regarding drafting – rather than a substantive nature.

52. Discussion arose relating to the use of the term ‘holding’ as opposed to ‘control’. There was some disagreement as to whether this change was necessary to describe the custody chain. It was also queried whether the Working Group’s decision to use ‘holding’ could have wider relevance to other principles and should thus be defined elsewhere.

53. Several experts encouraged the inclusion of more examples and definitions for explanatory purposes for some of the provisions. For instance, it was suggested that the term “fungible” ought to be defined.

54. It was also suggested that more examples be provided to further clarify the relationship between private law and regulation. Sub-Group 1 Co-Chair Louise Gullifer noted that the difference between private law and regulatory duties was mainly in how they were enforced, and that there may indeed be overlap in some cases.

55. A discussion arose around provision C.9 which concerned protection for the client in the case of a custodian’s insolvency. It was observed that there could be a preferential right for clients below secured claims.
56. It was highlighted that C.9’s protections would apply to service providers who behaved as custodians even where they did not refer to themselves as such, unless specifically stated in a contractual agreement. Examples from common law jurisdictions were given to illustrate this point.

57. The difference between a custodial service and a deposit account was raised and one Working Group member suggested that further explanatory notes on this difference could be provided to enhance legal certainty.

58. One Working Group member queried whether the word “deposit” might potentially generate confusion. Another Working Group member explained that “deposit” was what traditionally was done with a central securities depository and it contemplated the physical deposit of securities. The expert suggested that references to “personal claims” or a debtor-creditor relationship might be more illuminating.

59. A discussion arose about proprietary rights and whether they would be transferred in custodial arrangements.

60. Sub-Group 2 Co-Chair Chuck Mooney, Jr. noted that the control principle and its commentary made it clear that control was distinct from the transfer of any proprietary rights, and that it was the functional equivalent of possession. As for the transfer principle, it further clarified that issues of proprietary rights were governed by other law, not digital assets law. He noted that this needed to be made clearer.

61. Sub-Group 1 Co-Chair Louise Gullifer expressed the understanding that most States would take these Principles and apply them to their own existing proprietary private legal regime. While the Project’s Principles may have proprietary effects, the Working Group was not using that language to maintain neutrality as to legal culture.

62. A Working Group member commented on principle C.6.D. and its relationship with principle C.9, querying whether the duty to keep assets separate from the insolvency estate necessarily involved some sort of notice, publicity, or public availability to comply with this duty (i.e. whether the name of the company would have to include the word ‘custodian’ or ‘trust’, and if the separation under C.6.D. necessarily involved an account designated as a custodial account.)

63. The Sub-Group 1 Co-Chairs clarified that it was not deemed to be necessary for a service provider to be called a “custodian” as they may indeed provide services other than custodial ones.

64. It was explained that principle C.7 sought to address the fact that there could be other kinds of legal relationships under “other law” where the client would not necessarily be the full beneficial owner of digital assets held (e.g. where a client of a custodian was holding said assets on trust on behalf of another person).

65. With regard to principle C.8, it was explained that this provision overlapped with the security principle, and was intended to address situations where a custodian lent money to its clients, and wanted to retain a security interest over the right to hold for those clients.

66. It remained unclear how this right would become effective against third parties, and it was noted that this was a matter for Sub-Group 3 on secured transactions to consider further.

67. It was explained that principles C.10 and C.11 related to sub-custody. It was further explained that the issue of sub-custody was specifically dealt with upon the request of the Working Group, as it was not obvious how this legal relationship worked in practice.
68. The purpose of **C.10** was to equate the legal position of sub-custodians with custodians. In other words, the duties of the sub-custodian should be no weaker than the duties of a regular custodian.

69. It was explained that C.10. concerned a situation when a custodian may discharge its custodial duties, not by controlling the digital asset, but by being the client of another custodian. This was a basic provision reflecting the idea that if sub-custody was authorised by the law and, or by the client, this implied that the custodian may also be disallowed to hold through another custodian.

70. **Principle C.11.A** was intended to afford protection to the client to ensure that the use of a sub-custodian was not detrimental to them. If the sub-custodian entered insolvency proceedings, the sub-custodian would consequently lose control over those assets. The idea was that a custodian must then try to seize control of those assets to protect the client’s investment.

71. **Principle C.11.B** addressed the notion that if assets were held in custody by a sub-custodian on behalf of another custodian, and the latter custodian became insolvent, those assets would then not form part of the insolvency estate for distribution to its creditors. In this situation, the custodian did not retain any control over the assets, only contractual rights against the sub-custodian, similar to how a client might retain contractual rights against their own custodian.

72. It was explained that C.11. was ‘optional’ and was more directed at those who were not necessarily familiar with the functioning of custody chains. As suggested by an expert, this provision could be built into C.6.

73. It was further noted that C.11 may or may not be as relevant depending on the approach applied to intermediated securities in the given jurisdiction. Although C.11 may be considered superfluous (e.g. in the USA), it was still deemed important that the functioning of these different models be explained.

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

74. Sub-Group 3 Chair Marek Dubovec presented the work carried out by SG3 since the third session of the Working Group, highlighting that the draft principles had been refined as per the suggestions made in the last Working Group meeting.

75. **Principle A** was highlighted as a general statement of fact regarding the content of the principles on secured transactions, which the Working Group agreed could be useful to provide clarity for the other principles.

76. Following input from several experts in this regard, Sub-Group 3 Chair Marek Dubovec agreed that the functions of the sources of inspiration for the draft principles in the section on secured transactions could be clarified for the readers and proposed the inclusion of a statement of fact to include some of the principles that were common to all three global instruments in the area of secured transactions law.

77. Several experts emphasised the importance that the take-free rules and the transfer principles should align exactly with the priority rules in the secured transactions area. This was to provide certainty to parties to a transaction that regardless of whether it was an outright transfer or a secured transaction, the functional results would remain the same.

78. The Working Group noted the importance of closely aligning the principles regarding transfer and those on secured transactions.
79. **Principle B** clarified how secured transactions law addressed property aspects by relying on general property law, which provided that a digital asset may be subject to a proprietary interest and may be subject to an interest in the form of a security right. This was aligned with a similar statement in the transfer principle X.2, para 2.

80. Several experts agreed upon the importance of taking a careful approach to how the issue of ‘linked’ assets was presented, and that it should be clarified that the question of the effect on linked assets was based on the relevant applicable law, not the Principles of this Project.

81. Several experts suggested that **principle B.2** be redrafted to avoid confusion on account of there being some States that did not have secured transactions legislation to begin with. It was suggested that it be redrafted to clarify that those States which did have such legislation should ensure that said legislation covered digital assets as well.

82. A point of concern was raised about the use of the word ‘control’ in this context as some States may have laws that refer to control in a manner different from what was defined in the control principle. The Working Group agreed that this should be noted in the explanatory notes.

83. Discussion arose as to the effects of shared control and negative control on secured creditors. It was noted that it may be sufficient in the case of shared control for secured creditors to have negative aspects of control and the ability to prevent transfer of control by the debtor to be sufficient for effectiveness against third parties.

84. It was noted that it may not be necessary that the secured creditor alone have the positive aspect of transferring control, and that might be sufficient if the Project continued to use the concepts of positive or negative aspects of control.

85. An expert noted that different legal systems required different degrees of control in the case of securities so it may be unnecessary to be normative and the Principles could instead merely lay out the options, so that the Project needed not suggest that harmonisation relied on every jurisdiction applying the same level of control for effectiveness against third parties.

86. An expert commented that some of the use of the terminology (e.g. ‘custodian’, ‘creditor’, ‘debtor’, etc.) was potentially confusing and should be made more consistent.

87. It was noted that **principle E** on the acquisition by an innocent acquirer and the methods required to render security rights in digital assets effective against third parties were to some extent normative suggestions but were also intended to supplement existing secured transactions law at the national level.

88. Explanations were provided to the Working Group regarding **principle F** on effective enforcement of security rights in digital assets. This was a new principle which was developed in coordination with the UNIDROIT Best Practices on Enforcement Project. It focused on enforcement upon default, which was an important aspect of security rights.

89. It was explained that principle F attempted to exclude what was not covered, namely the general use of technology in enforcing security rights as this was within the purview of the UNIDROIT Project on Best Practices on Enforcement and other aspects of judicial enforcement.

90. Second, it was highlighted that under principle F, digital assets were treated as any other asset in the context of enforcement, which gave access to various remedies such as acceptance of collateral, satisfaction of the obligation, disposal, and other applicable remedies.
91. Third, it was noted that there may be challenges in relation to third-party protection (e.g. custodians) where digital assets were, by their nature, pre-programmed to effectuate certain actions automatically. Enforcement in general required balancing the rights of creditors and some third parties, and it may be that these pre-programmed actions did not actually comply with the applicable enforcement provisions.

92. Fourth, it was explained that the role of ‘control’ in the context of enforcement had been highlighted in the principle. If a person, i.e. a secured creditor, was in control, extra-judicial enforcement should proceed relatively swiftly. However, if a secured creditor had registered against a digital asset that was held by a custodian, for instance, a court order may have to be obtained.

93. Lastly, it was highlighted that exemptions from the procedural requirements were examined by Sub-Group 3, such as the provision of notification before an asset may be disposed of. It was asserted that digital assets would, for the most part, qualify for exemption on this point, due to certain characteristics of digital assets, such as the risk of rapidly declining value.

94. Regarding principle G which pertained to third-party effectiveness in insolvency proceedings, it was explained that it had undergone some revision, but still focused on two main aspects of treating security rights in insolvency, namely (1) the preservation of third-party effectiveness, and (2) the recognition of priorities, subject to the application of any preferential claims that may override such priority.

95. On this point, a discussion was recalled from the last session about covering other aspects related to security rights and their treatment in insolvency proceedings. These included automated enforcement of security rights after initiation of insolvency proceedings, and questions about proceeds, which may be explored further within the confines of the mandate of the Working Group and the Project.

96. Lastly, it was explained that issues of valuation were also discussed during intersessional work carried out by Sub-Group 3. It was maintained that valuation should apply in the context of digital assets. It was highlighted that this was not limited to valuation of secured claims within or outside insolvency, but applied more generally, and may therefore be moved to the introductory section.

97. It was pointed out that the commentary on insolvency had undergone some changes, notably pertaining to priority and recognition of preferential claims. Additional provisions on valuation of digital assets and secured claims had also been included.

98. A presentation was given by an observer to the Working Group reporting on preliminary research on certain aspects pertaining to valuation of digital assets. The following three issues were identified which could form the basis for discussion on elements for inclusion in the insolvency principle.

99. The first issue was the assessment of the existing valuation standards, upon which specific guidance could be provided in the principle. Valuation applied to all assets of the insolvency estate usually based on going concern value, or liquidation value. However, insolvency laws generally did not provide specific guidance on how to achieve this, with the result that this was left to the discretion of the courts and insolvency practitioners. Determining the correct valuation approach for digital assets was deemed to be particularly difficult due to: (1) their volatile nature (e.g. crypto assets), and (2) the lack of any standardised valuation approaches for digital assets.

100. In light of these challenges, it was explained that it might be useful to explore and assess how – and whether – existing valuation standards and valuation approaches may apply to digital
assets. It was clarified that ‘international standards’ in this context referred to standards that had been developed by internationally recognised private sector organisations, such as: the International Valuation Standards Council (IVSC); the International Financial Reporting Standards Foundation (IFRS), and the International Accounting Standards Board (IASB).

101. The second issue of potential relevance for the Project concerned the valuation date. Given the high volatility and uncertainty attached to the value of digital assets, guidance could be provided on how to determine the valuation date to ensure the highest recovery in insolvency.

102. The third issue was whether such valuation should be made in fiat currency, or in other virtual currencies. It was explained that where certain digital assets were valued and converted to fiat currency, creditors might receive the cash value of the assets, but may also lose any further rights or any future appreciation of the digital assets.

103. Lastly, it was noted that while some of these issues could be perceived to be touching on public law or regulatory issues, they were nevertheless considered as important for the Project.

4. Sub-Group 4 – Taxonomy & Private International Law

SG4 – Taxonomy

104. With reference to Annex III, Appendix 4 of the Revised Issues Paper, Co-Chair of Sub-Group 4 Elisabeth Noble presented the working definition of ‘digital asset’: “A digital asset is an electronic record which [gives rights to the holder] is capable of being subject to control.”

105. It was recalled that this definition reflected the following considerations: (1) the general desire to avoid functional terms or any regulatory classification; (2) the general desire to maintain a wide scope, including the general view of the Working Group that intellectual property and other tokens representing data should be within the scope if capable of being subject to control; and (3) the importance of control as a limiting term in the context of what was otherwise a very broad definition.

106. The following points were also noted from the earlier discussion of Sub-Group 2’s draft principle X.1C regarding a definition of ‘digital asset’: (1) that the concept of ‘electronic’ might need further elaboration in the commentary; and (2) whether the definition ought to include a reference to ‘rights’ or ‘value’. On this point, attention was drawn to paragraphs 4–6 on pages 73-74 of the Revised Issues Paper, which provided examples drawn from other contexts where the notion of value had been included in the definition of ‘digital assets’, as well as instances referencing ‘rights’.

107. The Working Group was encouraged to consider the use of terminology, namely the distinction between ‘value’ and ‘right’, and to consider definitively whether it was sufficient to refer to the concept of control, or if there was a need for something else, e.g. reference to rights, value, etc. The Working Group was also invited to note the use of the word ‘electronic’ within the definition, and to confirm suitability and understanding in a ‘digital asset’ context.

108. A representative of the ULC replied in the negative to the question of whether references to ‘rights’ or ‘value’ should be made in the definition, noting that several tokens did not presently give rights against anything. As for ‘value’, he cautioned that this may create problems where a token suddenly lost value, to later regain that value. Several experts expressed strong support for this position.

109. A member of the Working Group elaborated that while digital assets like Bitcoin could be the subject of rights, those rights were conferred upon them by their property status under the
general law, rather than being something which was inherent in the asset itself. He further noted that the concept of ‘value’ was not an inherent feature, as it was merely a relational concept that referred to quantities of one thing in reference to another. More important was the possibility of exclusive control, as without that exclusive control, the assets could not become subjects of value; however, the value was not in and of itself the precondition to having that asset status.

110. Several experts expressed support for the position that references to ‘rights’ and ‘value’ should be avoided.

111. It was also queried by a representative of the Law Commission of England and Wales whether the definition would work in the context of centralisation / decentralisation of digital assets. It was confirmed that it would as the definition was ‘neutral’ as regarded mode of issuance/ecosystem in which the asset existed (subject to there being the capability of ‘control’ over the asset).

112. With reference to paras. 13 – 24 of Annex III, Appendix 4 of the Revised Issues Paper, the Working Group was presented with the results of the information gathering exercise of October 15, 2021 which, using a sample of digital assets, sought to explore these digital assets in the context of the Principles developed to-date within the Project and to map any features that could be relevant for the Project’s scope of action and the application of those Principles.

113. In total, 23 tokens were considered, and the main takeaways from the study were as follows: the majority of tokens were classified as category I, but several tokens were harder to categorise.

114. It was noted that just because a party was identified as the creator of a digital asset, did not necessarily mean that they were the issuer, nor that there was any particular issuer. Indeed, in some cases, there was no issuer as it was simply the application of an algorithm that created a token. Even where there was an issuer, this did not mean that a token holder had a specific right against that person. The DM X Libra token was provided as one such example. Accordingly, the general impression was that for the purposes of the Project, it did not seem relevant whether there was an issuer.

115. Co-Chair of Sub-Group 4 Elisabeth Noble further noted that the rights of persons who acquired the token differed substantially from one token to another. A token holder may have a single right, multiple rights, or even rights that changed during its life cycle. The Lofty token was provided as an example of the latter, where a holder retained rights or privileges which were conditional. In this instance, the right or privilege did not exist now, but would in the future, such as a shop loyalty scheme where one might be entitled to certain products at certain times.

116. An observer offered additional insight into the functioning of Beeple, Binance, NBA top shot and Swisscoin: four examples of tokens which had been specifically chosen to try and challenge the Category I and II distinctions. It was noted that Beeple and NBA top shot, which were similar in nature, could be categorised as both Category I (because a holder had no entitlement, claim, or right to use the artwork) and Category II (as there were some very limited IP rights that were attached to them). Swisscoin was seen as less significant in the grand scheme of the Project.

117. Co-Chair Elisabeth Noble summarised the discussion by noting that some of the tokens existed in ecosystems where nothing was promised; one simply owned a vessel to which other things may attach or arise at some unspecified future date. Someone else might be willing to acquire that vessel for some price in the future, in the expectation that it might be worth something more at a later stage. Noting that the majority of digital assets were classified as Category 1, while some other tokens presented difficulties in terms of categorisation, she queried whether Category
assets could – and if so, whether they should – be further sub-categorised, on the basis of features of relevance for the purposes of the Project. She noted that additional types of tokens were also being considered (e.g. token insurance topic contracts, real estate tokens, tokenised diplomas, etc.)

118. The Working Group was also invited to revise the proposed categories of digital assets (Category I and Category 2). A representative of the IMF replied to the question on sub-categorisation of Category I assets, noting that while the legal nature of the right over the asset, whether it was a contractual right vis-à-vis the issuer, or a property right over the asset itself, was very important, fungibility may also prove to be a useful categorisation.

119. Regarding the sub-category of ‘tokenised currency’, it was proposed by an expert that this be referred to as ‘e-money like’ rather than ‘tokenised currency’, to account for the fact that these were e-money existing as a cryptocurrency (e.g. Tether or Paxos USD) which generally incorporated a claim against the issuer.

120. A query was raised on the matter of digital assets representing intellectual property; it was maintained that such digital assets were within scope of the definition (and should come within scope of the Principles).

121. It was also noted that while Category 2 sub-categories were helpful for illustrative purposes, they were not deemed to be significant from the perspective of the scope of action of the Project, and from the perspective of the application of the Principles developed to-date within the Project. Additionally, none of the mapping work had identified the need for additional categories – instead the work had confirmed that the critical distinction in terms of application of the Principles developed to-date was the ‘endogenous’/‘exogenous’ distinction as already reflected in the taxonomy (Category 1/Category 2).

122. Members of the Working Group were encouraged to continue to apply the template developed in the context of the information-gathering exercise to consider the application of Principles and guidance to further digital assets as a means to broaden the sample and ensure that in all phases of the Project development adequate consideration was given to the issue of whether the Principles applied to all digital assets, to Category 1 or 2, or simply needed additional explanatory text to explain application in specific cases.

123. A member of the Working Group raised a point in relation to the custody principle and ‘linked’ assets (i.e. digital assets linked with another, non-digital asset), noting that whether the effect of custody was ‘linked’ depended on how that link was made. Noting that Sub-Group 3 had already done some work on this question, she encouraged the taxonomy Sub-Group to develop a list of examples showing how this link could be established. Co-Chair Elisabeth Noble took note of the point and remarked that real estate tokens should be considered in the first instance.

124. Working Group members thanked the Sub-Group and the Co-Chairs for the progress made. It was agreed that the Working Group did not want to change the approach to the definition, nor to the Categories 1 and 2 and strong support was expressed for the existing approach. It was also agreed that the reference to ‘electronic’ should be retained. It was agreed that commentary text should be further developed.

125. Co-Chair Elisabeth Noble noted that there was a clear consensus among the Working Group that the existing definition did not require any addition (e.g. references to ‘rights’ and ‘value’), and there was support for creating an illustrative list for Categories 1 and 2.
126. There was also support to the suggestion for each Sub-Group to test the application of the Principles under development to additional examples of digital assets in order to broaden the sample.

127. It was also agreed that NFTs should be further explored – starting with a sample of those representing real estate – to identify, for illustrative purposes, how (in legal terms) they functioned. Working Group members were invited to identify examples of such NFTs in their jurisdictions and refer these to the Co-Chairs.

**SG4 – Private international law**

128. With reference to Annex III, Appendix 4 of the Revised Issues Paper, Co-Chair of Sub-Group 4 Philipp Paech presented a series of four draft rules regarding applicable law and enforcement in the context of insolvency.

129. He began by noting that the draft rules would likely have important implications for national insolvency laws, and further noted that these drew inspiration from existing instruments on insolvency, namely: the Hague Securities Convention (HSC), the Geneva Securities Convention (GSC), the EU Settlement Finality Directive (EU SFD), and the EU Winding Up Directive for Banks (EU WUDB).

130. The general objective of the insolvency rules on digital assets was to encourage the adoption of a common policy approach concerning DLT blockchain networks. Specifically, they were intended to ensure that – regarding the proprietary aspects, the transfer, the encumbrance, and similar – their functionality was not severely disrupted by uneven application of national laws, in particular national insolvency laws.

131. **Rule 1** introduced some general principles to be observed by States. It was noted that the scope of the Principles needed to be clearly defined. The following limitations to the scope of the Principles were identified: first, that certain aspects of the rules would inevitably overlap with proprietary questions, and that the Working Group may not have a clear idea of which issues were proprietary and which were not. Furthermore, many of the rules could be seen as being regulatory in nature. It was maintained that the private international law rules and the choice of law rules should only refer to the proprietary aspects, as providing guidance beyond this scope would be too ambitious.

132. The second limitation of the scope was the distinction between on-chain and off-chain networks, specifically, which matters pertaining to digital assets fell within, and which fell outside of these networks. The changes introduced by the rules on insolvency would primarily address problems in relation to on-chain networks. It was not clear to what extent the same Principles applied to off-chain situations. Ideally, the scope would cover both on-chain and off-chain scenarios, however, this was deemed to be too ambitious. The rules should reflect a degree of subsidiarity, in that they should concentrate on harmonising those elements necessary to avoid a major disruption to proprietary aspects. However, this was open to discussion.

133. An explanation was provided concerning the distinction between *lex contractus*, *lex rei sitae*, *factual prima*, *consensual prima*, *lex fori concursus creditorem*, and *lex societatis*, noting that while these connecting factors operated slightly differently among all the relevant jurisdictions, the last element (*Lex societatis*) was deemed largely irrelevant for the purposes of the Project.

134. Another generality concerned the application of mandatory conflict of laws rules. It was explained that there were two additional aspects which needed to be reconciled: one concerned the law applicable to proprietary aspects, while the other concerned the law applicable to the
insolvency proceedings. Typically, parties were not to decide between themselves which States’ law should apply to these matters.

135. The mandatory application of these areas of law created a problem where these laws clashed. The question was therefore how the potential conflicts between these laws should be reconciled (i.e. which one should prevail). It was noted that the Hague Securities Convention provided a solution: the intermediated securities followed specific rules, with certain safeguards, with the proprietary effect prevailing over any local insolvency law. It was maintained that a similar solution should be adopted for the core rule on insolvency in the Project.

136. Another issue to consider were the difficulties pertaining to enforcement of legal outcomes in respect of proprietary questions. This was especially true in the context of DeFi and any other non-governed, un-permissioned network, partly because the identity of the other person to the transaction was often unknown, and, even when known, they were often situated in different jurisdictions. However, the fact that the issue of enforcement was difficult to address should not inhibit the application of the Principles. The Principles should simply state that legislators should take steps to create a level of certainty regarding the applicable law.

137. **Rule 2** concerned the law applicable to the network. It was maintained that the same law should apply to proprietary questions in respect of acquisitions and dispositions between the participants on a digital asset (DLT) network. It was noted that, as far as practically possible, States should either impose their own law, or require a clear choice of law from network participants. To that end, the instrument should provide guidance to legislators on how this applicable law could be determined.

138. The choice of applicable law was especially relevant where network operators were regulated, incorporated, or otherwise had a clear connection to a specific State. Different solutions could be found in the EU Settlement Finality Directive (i.e. the applicable law can be imposed by the court of the State in question) and the Hague Securities Convention (i.e. the parties may choose the law themselves, provided they have a factual connection to the place and the chosen law). It was important that a clear choice was made; otherwise, there would be no starting point for the choice of law analysis, leading to legal uncertainty.

139. Several experts expressed support for the position that the same law should apply to all proprietary aspects in respect of any given DLT network. Luc Thévenoz queried whether this referred to the law applicable to the network (e.g. Ethereum) or to the asset itself.

140. A representative of the EBI broadly concurred with Rule 2, adding that not all aspects were capable of being covered under the same law. For instance, issues of capacity were subject to other laws, such as the nationality of the party. It was queried whether this issue needed to be carved out in the Principles.

141. **Rule 3** concerned recognition in insolvency and was taken directly from the Hague Securities Convention. It stated as follows: notwithstanding the opening of an insolvency proceeding, the law applicable in accordance with the previous rule governed all proprietary aspects with respect to any event that had occurred before the opening of that insolvency proceeding.

142. This provision aimed to prevent the law of the insolvency forum from rendering void transactions having occurred prior to insolvency (i.e. ‘avoidance’ or ‘claw back’ under the law of the forum State of the insolvency were excluded).
Lastly, it was emphasised that this rule applied only if the relevant States have adhered to the UNIDROIT Digital Assets Principles. This section was intended as a ‘sweetener’ for States (Rule 3.C.).

An expert of the Working Group queried the addition of the ‘sweetener’ provision in Rule 3.C, arguing that the effect of Rule 3 should be limited by virtue of the connection between two particular States in this international context. He also cautioned against excluding avoidance powers as they may be integral to the system and may therefore need to be addressed.

Rule 4 concerned the law applicable outside the network, addressing specifically the dichotomy between on-chain and off-chain assets. It was held that the focus should be on on-chain assets due to the increased risk of disruption. It was noted that the risk of systemic disruption to off-chain assets was lower, but there were nevertheless other risks regarding off-chain networks which could lead to unexpected legal results. Different laws could also apply to these networks, complicating matters, especially where there was a link to a claim, such as a property interest. In these instances, it may be more consistent to have such claims governed by the off-chain law.

Several experts agreed that issues concerning off-chain assets and so-called ‘digital twins’ should be left aside as a matter for the applicable law.

Sub-Group 2 Co-Chair Chuck Mooney, Jr. welcomed the four draft rules on insolvency. He suggested that some reorganisation of the sub-groups take place to dedicate more time to the insolvency workstream. In the meantime, he encouraged the Working Group to give priority to one area of choice-of-law in the insolvency context that was somewhat harmonised, which was when the matter came to the insolvency court.

He further suggested that the Sub-Group may wish to consider pursuing the avenue of the law of the system (i.e. the system of laws embedded into the specific asset itself) with which several experts agreed.

Several experts expressed strong support for carrying out further work on insolvency.

A representative of the EBI pointed out that either the participants of a certain system choose an applicable law, or the State imposed its own law on the providers of certain crypto services based within its territory. It was queried what the situation would be where there was no chosen law by the participants in the system, and the provider was established abroad.

An expert queried whether there was a need for different rules regarding secured transactions and transfers, respectively; and if so, how these could be reconciled with registration.

Sub-Group 3 Chair Marek Dubovec agreed that some clearer distinction could be provided as the Issues Paper only referred to collateralisation in general terms. A further distinction should be made between third party effectiveness achieved (1) by control and (2) by registration.

An expert noted that this might be important to the extent that secured transactions involved a control question and maintained that the internal coordination of the meaning of ‘control’ and the law applicable to questions of control should be the same, whether an outright transfer or transfer for security purposes.

A point was raised about whether succession should be discussed as well as insolvency, as it also had proprietary effects. The Working Group deemed this to be a sensitive area of national law and therefore best left outside the scope of the Project.
155. A query was also raised about whether off-chain assets should be within the scope of the Project. *There was agreement amongst the Working Group on the fact that it would be too large of a scope and too ambitious to attempt to do so.*

156. The Chair raised a query concerning the term ‘linked’ digital asset, observing that it might seem confusing if the law applicable to the link was different from the law applicable to the proprietary interest of the digital asset. He queried whether it would make more sense if the applicable law was identical.

157. Co-Chair Philipp Paech responded by observing that, at present, no references to the question of the application of on-chain / off-chain situations, or ‘linked’ assets outside the insolvency context were made elsewhere in the instrument, and that this ought to be addressed.

158. He further noted that in off-chain situations, problems frequently arose, whether due to operational risk, or some other reason, and the law could not prevent the loss of those assets. It must therefore be accepted that off-chain assets could be lost, and that this ‘link’ was broken as a result.

159. The question, however, regarded what law dealt with the consequences of this link being broken, in which case he confirmed that the law that governed the off-chain asset would be the same as the law governing the link.

160. Sub-Group 1 Co-Chair Louise Gullifer noted that in the context of sub-custodianship, it was generally presumed that the on-chain situation would apply. She further cautioned that a custodian-client relationship could also exist completely off-chain, in which regard it was queried whether a different conflict-of-law analysis should be applied to deal with those specific off-chain sub-custody situations.

161. Co-Chair Philipp Paech noted that it may be possible to have a law applicable to both on-chain and off-chain custodianship, but that one might end up applying different laws within the network, which could be counter-productive.

**Item 5: Organisation of future work**

162. *The Working Group agreed that its fifth session would be held between 7-9 March 2022.*

163. Regarding the organisation of inter-sessional work leading up to the next session of the Working Group, the Chair made the following three suggestions:

164. First, that a small Drafting Committee be organised in the interest of producing more consistently formatted texts to be presented at the fifth session of the Working Group. The Chair invited the Sub-Group Co-Chairs to participate in this small Drafting Committee.

165. Second, that the Sub-Groups be invited to present revised versions of the explanations and illustrations accompanying the draft Principles at the next Working Group session.

166. Third, that more "ad-hoc" special workshops be organised to facilitate progress on specific areas of the Project (e.g. private international law, etc.).

167. The Secretary-General endorsed the importance of beginning to bring together the work of the different Sub-Groups, to which end the establishment of a Drafting Committee would be key to ensuring proper coordination.
168. He further emphasised the importance of making progress on the draft instrument before the next Governing Council session, noting that the Working Group ought to endeavour to have a first full draft of the Principles with some adequate level of commentary by April 2022, to be presented to the Governing Council the following month.

169. He further elaborated that the Working Group could then work on the further refinement of the draft instrument (e.g. enhancing the commentary, making the draft text available for public consultation) as well as sharing the draft with the Members of the Digital Assets and Private Law Steering Committee, before the finalised instrument was presented for final approval at the Governing Council in 2023.

**Item 6: Any other business**

170. No further items for discussion were noted.

**Item 7: Closing of the session**

171. The Chair thanked all participants for their contributions to the fourth session.

172. 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 – Third session of the Working Group (Study LXXXII – W.G.3 – Doc. 4)

4. Consideration of substantive issues (Study LXXXII – W.G.4 – Doc. 2)
 
   (a) Summary of intersessional work

      i. Summary of the work of the Sub-groups

         1. Sub-group 2 – Control and Transfer
         2. Sub-group 1 – Control and Custody
         3. Sub-group 3 – Secured Transactions
         4. Sub-group 4 – Taxonomy & Private international law

   (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

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