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I. Introduction

1. At its sixty-seventh session, the Working Group continued work on default rules for data provision contracts as mandated by the Commission at its fifty-fifth session, in 2022 (see chapter IV of this report).[1] The Working Group also reviewed a draft guide to enactment of the UNCITRAL Model Law on Automated Contracting with a view to its finalization and publication, as requested by the Commission when adopting the model law at its fifty-seventh session, in 2024 (see chapter III of this report).[2]

II. Organization of the session

2. The Working Group, composed of all States members of the Commission, held its sixty-seventh session in Vienna from 18 to 22 November 2024.

3. The session was attended by representatives of the following States members of the Working Group: Afghanistan, Algeria, Argentina, Armenia, Australia, Austria, Belarus, Belgium, Brazil, Canada, Chile, China, Czechia, Dominican Republic, Finland, France, Germany, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Japan, Kuwait, Malaysia, Mexico, Panama, Peru, Republic of Korea, Russian Federation, Saudi Arabia, Singapore, Spain, Switzerland, Thailand, Türkiye, Ukraine, United States of America, Viet Nam and Zimbabwe.

4. The session was attended by observers from the following States: Bahrain, Bangladesh, Egypt, El Salvador, Gabon, Guatemala, Malta, Myanmar, Oman, Pakistan, Paraguay, Philippines, Portugal, Slovakia, United Arab Emirates and United Republic of Tanzania.

5. The session was attended by observers from the European Union and the Holy See.

6. The session was attended by observers from the following international organizations:

(a) *United Nations system*: World Bank Group;

(b) *Intergovernmental organization*: Gulf Cooperation Council (GCC);

(c) *International non-governmental organizations*: Alumni Association of the Willem C. Vis, American Law Institute (ALI), China Council for the Promotion of International Trade (CCPIT), China International Economic and Trade Arbitration Commission (CIETAC), European Law Institute (ELI), European Law Students' Association (ELSA), International and Comparative Law Research Center (ICLRC), International Union of Notaries (UINL), Law Association for Asia and the Pacific (LAWASIA), Max Planck Institute for Innovation and Competition (MPI) and New York City Bar (NYCBAR).

7. The Working Group elected the following officers:

Chairperson: Mr. Alex IVANČO (Czechia)

Rapporteur: Ms. Ligia GONZÁLEZ LOZANO (Mexico)

8. The Working Group had before it the following documents:

(a) An annotated provisional agenda (A/CN.9/WG.IV/WP.184);

(b) A note by the Secretariat containing a draft guide to enactment of the UNCITRAL Model Law on Automated Contracting (A/CN.9/WG.IV/WP.185); and

[1] *Official Records of the General Assembly, Seventy-seventh Session, Supplement No. 17* (A/77/17), para. 163; see also *Seventy-eighth Session, Supplement No. 17* (A/78/17), para. 158.

[2] Ibid, *Seventy-ninth Session, Supplement No. 17* (A/79/17), para. 18(g).

(c) A note by the Secretariat containing a second revision of draft default rules for data provision contracts (A/CN.9/WG.IV/WP.186).

9. The Working Group adopted the following agenda:

1. Opening of the session and scheduling of meetings.
2. Election of officers.
3. Adoption of the agenda.
4. Guide to enactment of the UNCITRAL Model Law on Automated Contracting.
5. Data provision contracts.
6. Other business.

III. Guide to enactment of the UNCITRAL Model Law on Automated Contracting

A. General remarks

10. The secretariat introduced the draft guide to enactment set out in A/CN.9/WG.IV/WP.185. It was explained that the document reproduces the draft guide to enactment that was considered and approved in principle by the Commission at its fifty-seventh session,[3] with revisions to reflect the finalized text of the Model Law as adopted by the Commission, as well as amendments to the guide itself that were accepted by the Commission.

B. Revisions[4]

1. Introduction

11. Several proposals were made regarding paragraph 6. Different views were expressed on the use of the term “autonomously” and it was suggested that reference should be made instead to the corresponding notion of “varying degrees of human intervention”. In response, it was noted that the notion of autonomy was used in legislative definitions of “artificial intelligence” (AI).

12. After discussion, the Working Group agreed to delete the first sentence of paragraph 6 and to revise the second sentence thereof by replacing the text before the words “it may be difficult” with the following: “Automated systems are designed and programmed to operate with varying degrees of human intervention. For automated systems deploying AI techniques in particular”.

2. Remarks on article 1

13. A proposal to revise paragraph 27 to include a statement that automated systems could be part of an “information system”, thereby clarifying that pre-existing UNCITRAL provisions on the time and place of dispatch and receipt of data messages could apply to the inputs and outputs of automated systems, was not taken up.

14. It was suggested that, in paragraph 31 and elsewhere as relevant, reference should be made to “action” not “task”, which was a broader and more abstract notion and usually referred to generative AI models in particular. However, it was observed that this would result in a reference to “predefined actions”, which was not correct, as AI systems were concerned with the achievement of “predefined objectives”. In response, it was observed that it might still be useful to refer to “predefined actions” simply to emphasize in lay terms how AI systems differed from other automated

[3] See A/CN.9/1179.

[4] References in this section are to the draft guide to enactment set out in A/CN.9/WG.IV/WP.185.

systems. After discussion, the Working Group agreed to replace the second sentence of paragraph 31 with the following: “In general terms, AI systems allow for the performance of actions to achieve predefined objectives, and not simply the performance of predefined actions”.

3. Remarks on article 2

15. It was recalled that the Model Law was not intended to interfere with the law on formation of contracts, and that the guide to enactment should be careful not to imply that the Model Law gave contractual force to “data messages” irrespective of the will of the parties. In response, it was noted that the issue was not unique to the Model Law, but also arose in the context of other UNCITRAL texts on electronic commerce, and it was felt that no revision to the remarks on the definition of “data message” in paragraph 32 was needed.

16. A suggestion to include “interpretation” in the list of actions in connection with the “performance” of a contract contained in paragraph 34 was not taken up. It was observed that neither the Commission nor the Working Group had considered the issue of contract interpretation as a stage of the contract life cycle, and that new issues should not be addressed at this stage of work. It was nevertheless noted that the list of actions in paragraph 34 was non-exhaustive.

17. A suggestion to revise paragraph 36 to expressly recognize the right of each State to regulate the use of AI systems was not taken up. It was recalled that the reference to “laws” and “rules” regulating the use of automated systems in paragraphs 36 and 37 comprised standards set by competent authorities, but it was felt that no revision was needed. It was also recalled that UNCITRAL texts had an enabling nature and did not affect any applicable regulation.

4. Remarks on article 3

18. It was observed that the guide to enactment should not be seen as equating the policy objectives cited by the Commission in its decision adopting the Model Law with “general principles” within the meaning of paragraph 2 of article 3. Accordingly, the Working Group agreed to delete the second sentence of paragraph 41 and to insert the following at the end of the first sentence: “including the fundamental principles of non-discrimination, technology neutrality and party autonomy discussed above”.

5. Remarks on article 5

19. It was observed that the second sentence of paragraph 47 was concerned with “model neutrality”, which engaged principles other than technology neutrality. Accordingly, the Working Group agreed to delete the words “consistent with the principle of technology neutrality enshrined in article 4” and to commence the sentence with the words “Article 5 does not presuppose”.

20. A proposal to revise the paragraph to explain that paragraph 1 of article 5 applied to the use of automation in all facets of contract formation was not taken up. In response to a suggestion, it was observed that the explanation in the first sentence of paragraph 51 regarding the concept of actions in connection with the formation of a contract, which was given in the remarks on paragraph 3 of article 5, did not need to be added to the remarks on paragraph 1 of article 5.

6. Remarks on article 7

21. Different views were heard on the illustration of the fallback rule contained in article 7, paragraph 2. It was noted that it was not appropriate to state in paragraph 67 that the rule presupposed either an awareness of how the system operated or control over its operational parameters. It was added that such a statement distracted from the crucial point in paragraph 68 that the rule called for an objective determination. However, it was also indicated that, to be a user, a person would have some expectation as to how the system operated and at least some degree of control over

its operational parameters. It was further noted that paragraphs 67 and 68 should be read together.

22. After discussion, the Working Group agreed to redraft and merge paragraphs 67 and 68 as follows: "Paragraph 2 refers to the 'use' of an automated system for the 'purpose' of carrying out an action. It is intended to attribute the action to the person with the strongest link to that action, and for that attribution to be determined objectively, in the light of all the circumstances. [*Second sentence of paragraph 68 remains unchanged.*] Paragraph 2 does not require that person to be aware of the individual operations carried out by the system flowing from the person's interaction with the system, nor does it require a determination of the person's actual state of mind in interacting with the system."

7. Remarks on article 8

23. It was observed that the notion of "unexpected action" was not sufficiently illustrated in the guide to enactment. Suggestions were made to fill that gap. In response, it was noted that article 8 was an optional provision that attracted significantly different views in the Commission, and that illustrations of its operation should reflect that.

24. After discussion, the Working Group agreed to insert the following sentence at the end of paragraph 83: "During the preparation of the Model Law, it was stated that unexpected actions refer to outcomes where the party would not have concluded the contract or would have done so only on fundamentally different contract terms should it have been aware of the action from the outset (A/79/17, para. 226)".

8. Remarks on article 9

25. It was indicated that paragraph 88 contained policy statements and should be revised to better accommodate different national approaches to information disclosure. In response, it was noted that transparency in the use of automated systems was a widely shared principle, which could apply with respect to all stages of the contract life cycle. It was added that transparency was relevant whenever automated systems were used, and that information disclosure should take place prior to that use. It was also recalled that article 9 contained no obligation to disclose, which was to be found in other law.

26. After discussion, the Working Group agreed to delete the words "at all stages of the contract life cycle" in paragraph 88 and to replace the words "throughout the 'AI life cycle'" with the words "relating to the design, operation or use of automated systems, particularly those deploying AI techniques" in paragraph 89, noting that information disclosure was not an issue unique to AI systems.

9. Other revisions

27. The Working Group agreed to the following other revisions:

(a) In paragraphs 5 and 7, replace the word "enable" with "facilitate";

(b) In paragraph 5, replace the word "computers" with "automated systems", in keeping with the principle of technology neutrality;

(c) In paragraph 6, final sentence, refer to the validity of "contracts formed and performed using automated systems" rather than to the validity of using automation to form and perform contracts, to align with paragraph 45;

(d) In paragraph 9, insert the words "or other" between "AI" and "technologies";

(e) In paragraph 13, replace the word "future-proof" with "compatible with technologies that are not yet foreseen";

(f) In paragraph 25, replace the word “served” with the following: “the ECC was in force in 18 States while its substantive provisions had been enacted in more than 30 States. Together, these legislative texts served”;

(g) In paragraph 27, replace the word “reduced” with “lesser degree of”;

(h) In paragraph 30, replace the words “more unsophisticated” with “other systems that do not deploy AI techniques”, as non-algorithmic systems could also be sophisticated;

(i) In paragraph 35, second sentence, replace “deterministic systems” with “some systems”;

(j) In paragraph 51, third sentence, delete the words “or permitted by law outside the contract”, to better reflect paragraph 61 of A/CN.9/1132;

(k) In paragraph 55, replace the first sentence with the following: “A data message as defined in paragraph 1(b) of article 1 can include a data message comprising computer code”;

(l) In paragraph 59, insert the words “the availability of” before “contract terms”;

(m) In paragraph 61, delete the words “or object” and the final sentence;

(n) In paragraph 65, delete the words “as that term is understood in other UNCITRAL texts on electronic commerce”;

(o) In paragraph 75, replace the word “accepted” with “stated”;

(p) In paragraph 92, replace the words “is primarily focused on” with “encompasses”;

(q) Correct references in paragraphs 13 (article “4”), 16 (article “4”), 47 (article “5” not “4”), 58 (article “6” not “5”, third reference only) and 60 (article “7”).

C. Next steps

28. It was explained that the text of the guide to enactment would be finalized with the revisions agreed by the Working Group, and published together with the text of the Model Law, the decision of the Commission adopting the Model Law, and any forthcoming resolution by the General Assembly. It was observed that, having reviewed the guide, the Working Group had completed its work on one of the two topics mandated by the Commission.

IV. Data provision contracts

A. Preliminary observations

29. The secretariat introduced the draft default rules for data provision contracts set out in A/CN.9/WG.IV/WP.186. It was pointed out that the Working Group last considered the topic at its sixty-sixth session (16-20 October 2023) and that, since then, there had been developments in initiatives in other international forums on data governance and cross-border data flows, such as the adoption of the Global Digital Compact, that might inform or intersect with the work of the Working Group.

30. The Working Group agreed to proceed with an article-by-article read-through of the draft rules.

B. Article 1. Definitions

31. There was broad agreement that the definition of "data" in paragraph (a) and the concept of "using" data as described in paragraph (b) provided useful working definitions, but might need to be revisited as the Working Group proceeded through the draft rules.

32. It was acknowledged that the definition of "data" was closely connected to the scope of the draft rules as defined in article 2. It was suggested that the requirement of "machine-readability" should be clarified. In that regard, it was noted that the requirement was essentially concerned with the suitability of the data for processing by a computer and not by physical or other mechanical means. It was also noted that the requirement was connected with the format of the data. The example was given of a computer file containing a scanned image that might not be considered "machine-readable". It was queried whether machine-readability was a definitional matter or a matter of conformity of data. It was observed that there was a link between machine-readability and the conformity of data.

33. It was suggested that the meaning of other concepts used in the draft rules might need to be further elaborated, such as "providing" data and "accessing" data under article 5. In particular, a question was raised as to whether the concept of "providing" data covered a scenario in which a person merely authorized another person to access data (e.g. data generated by a connected device that was owned or operated by the person), and thus whether the person would be a "data provider" despite the "passive" role that they played in the transaction. The Working Group was encouraged to consider the issue in terms of the different "roles" played with respect to data (see A/CN.9/WG.IV/WP.186, para. 16). In that regard, a distinction was drawn between the role of "data provider" and the role of "data enabler" (i.e. a party enabling the collection of data). It was noted that a definition of "providing" data could be legally consequential in that it would entail or imply the characterization of the contract for the provision of data as one or several particular types of contract.

C. Article 2. Scope of application

34. Support was expressed for retaining the bracketed text in paragraph 1, noting that it clarified that the draft rules accommodated different business models, including data provided via an online platform operated by third-party intermediaries.

35. Support was reiterated for excluding from scope transactions in "functional data" and "representative data" (A/CN.9/1162, para. 65). With regard to software, it was suggested that paragraph 2 should be reformulated to refer to contracts for the supply of software. Alternatively, it was suggested that a general exclusion of functional data should be formulated. It was noted that the concept of "other supplies" in paragraph 2 was not clear, and a question was raised about the inclusion of video content.

36. Support was expressed for excluding contracts for the supply of services with respect to data.

37. The Working Group engaged in an exchange regarding the application of the default rules to consumers. A distinction was drawn between contracts to which a consumer was a party ("consumer contracts"), on the one hand, and contracts for the provision of consumer data, on the other hand. It was noted that contracts for the provision of consumer data were a common type of business-to-business (B2B) data transaction and should not be excluded from scope. It was acknowledged that consumer data could include personal data. The view was reiterated that it would be impractical to exclude personal data from scope (A/CN.9/1093, para. 88), and that it was preferable to address potential overlap with data privacy and protection laws by preserving the application of those laws under paragraph 4.

38. A further distinction was drawn with contracts involving consumers, which included transactions in which a consumer played the role of data provider. It was observed that, in its present form, paragraph 3 implied that consumer contracts only involved consumers playing the role of data recipient.

39. It was recalled that paragraph 3 had been inserted to reflect the prevailing view at the sixty-sixth session of the Working Group to exclude consumer contracts from scope (A/CN.9/1162, para. 70). There was broad support for the view that it was premature for the Working Group to take a decision on the issue. It was noted that paragraph 3 presented one option for addressing consumers, and that other options were available. One alternative was to include consumer contracts within scope, remove paragraph 3, and reinsert a reference to laws related to the protection of consumers in paragraph 4 so as to preserve the application of those laws. A variant to that alternative was to include contracts where the consumer played the role of data recipient but to exclude those where the consumer played the role of data provider. Another variant was also to include contracts where the consumer played the role of data provider, but to limit their responsibility under the default rules where they played a "passive" role in the transaction (see para. 33 above).

40. Support was expressed for the option presented by paragraph 3, which reflected an established exclusion clause found in other UNCITRAL texts. It was questioned whether consumer contracts were within the mandate of UNCITRAL, although it was noted that other UNCITRAL texts on electronic commerce were applicable to consumer contracts, such as the Model Law on Electronic Commerce and the Model Law on Automated Contracting. It was added that the line between business user and consumer was blurred in the digital economy (see also A/CN.9/1093, para. 65). Either way, it was suggested that, if the default rules were to take the form of a model law, it was more appropriate to leave it to the enacting jurisdiction to decide whether to extend the rules to consumer contracts. A concern was also expressed about characterizing a person as a "data provider" merely because they consented to the collection and further processing of data.

41. Support was expressed for expanding paragraph 4 to cover other mandatory laws.

D. Article 3. Party autonomy

42. Support was expressed for retaining article 3 as drafted. An example was given of a law enacted to protect certain business users from unfair terms in certain data contracts that may entail application of other mandatory rules.

E. Article 4. Interpretation

43. Support was expressed for retaining article 4 as drafted. It was suggested that additional guidance was needed as to the "general principles" referred to in article 4. Reference was made to the factors listed in principle 6 of the Principles for a Data Economy, jointly developed by the American Law Institute and European Law Institute (hereafter the "ALI/ELI Principles"), which included "the nature of data as a resource of which there may be multiple copies and which can be used in parallel by various parties for a multitude of different purposes". Reference was also made to similar observations in paragraph 24 of A/CN.9/WG.IV/WP.180.

F. Article 5. Mode of provision

44. It was recalled that article 5 was a crucial provision as the mode of provision determined which default rules applied, and for that reason it should be as comprehensive as possible. For greater clarity, it was suggested that the titles of articles 5 and 6 should include a reference to "data".

45. It was observed that paragraph 1 described the concept of "providing" data in terms of giving "access" thereto. Recalling earlier suggestions (see para. 33 above), support was expressed for defining those concepts. A question was raised as to whether giving "access" to data included giving the data recipient means to access the data. An example was given of encrypted data requiring an encryption key. While support was expressed for maintaining a distinction between mode of provision and use of data, a question was raised as to whether "access" to data entailed data usability rather than simply readability, such that, in the example given, the data provider would not be regarded as having "provided" the data until the encryption key was delivered.

46. It was observed that paragraph 2 did not fully address all concerns that had previously been expressed. First, it seemed to exacerbate, not eliminate, the choice afforded to the data provider between different modes of provision (see A/CN.9/1162, para. 72). Second, it was not clear whether it accommodated all types of data provision contracts covered by the ALI/ELI Principles (A/CN.9/1162, para. 63), in particular "contracts for authorization to access". It was added that it was not correct to say that that contract type imposed no obligation on the data provider, who was obliged to give authorization to access the data.

47. The Working Group was informed that there were in fact three main modes of provision of data (compare A/CN.9/1162, para. 73), namely: (i) the data provider transferring the data, or allowing the data recipient to transfer the data, to an information system controlled by the data recipient; (ii) the data provider giving the data recipient access to the data on an information system controlled by the data provider; and (iii) the data provider authorizing the data recipient to otherwise access the data. It was observed that, while paragraph 2 of article 5 captured the first two modes, it did not capture the third mode, i.e. the "passive" provision of data (see para. 33 above), which took place without the active involvement of the data provider (as in the case of data generated by a connected device). It was noted that the term "delivery" was not appropriate to an online environment. It was also noted that the "designation" of information systems was less meaningful than "control" thereof, although it was observed that designation might better accommodate third parties.

48. Broad support was expressed for accommodating contracts for the "passive" provision of data and, to that end, for inserting a new subparagraph (c) along the following lines: "Giving the data recipient authorization to access the data through its own means". It was indicated that the interaction of the new subparagraph with subparagraph (b) would need to be reviewed, noting that connected devices were a component of an information system. To avoid overlap, and to emphasize the "passive" role of the party, support was expressed for the term "data access enabler" instead of "data provider". It was also suggested that another subparagraph could be inserted to capture any other possible agreed mode of provision, thus making the list open-ended. Another suggestion, which met with support, was to insert at the end of the chapeau of paragraph 2 the words "in the mode agreed upon by the parties, including by". It was observed that this wording would more effectively eliminate the choice between modes (see para. 46 above).

G. Article 6. Timing of provision

49. It was recalled that article 6 dealt with timing of provision, which encompassed notions of periodicity and timeliness, while article 8 dealt with the period of use of the data once provided. It was added that certain matters, such as timeliness of real-time data, could also be relevant to article 7 (conformity of data). It was suggested that, in its present form, which was based on article 33 of the United Nations Convention on Contracts for the International Sale of Goods ("CISG"), article 6 was not adapted to data transactions, as the different modes of provision had to be taken into account. The view was reiterated that data could be provided either as a single occurrence, at recurring intervals (including by way of updates), or continuously (A/CN.9/1132, para. 29).

50. It was suggested that data provision should take place either (i) without undue delay, in case of existing data, or (ii) promptly (i.e. as soon as it is available), in case of future data. The importance of real-time access to data was stressed. Nevertheless, it was indicated that article 6 should not seek to make provision for every possible mode, which could make it excessively complex. A suggestion was to insert the words "according to the mode of provision", or similar, at the end of article 6.

51. It was added that data delivery and data access could intentionally take place at different times, as demonstrated by the example of encrypted data. Consistent with the concept of "provision" outlined above (para. 45), it was suggested that the obligation to provide the data would not be fulfilled until the key was delivered, i.e. until the means to access the data were provided. Another suggestion was to insert in article 6 different but similarly drafted paragraphs depending on the mode of provision.

H. Article 7. Conformity of data

52. There was general support within the Working Group for the default rules contained in article 7. The Working Group heard several suggestions to recalibrate or clarify the content of those rules.

53. The challenge of the data provider determining the purposes for which data could be used by the data recipient was reiterated (see A/CN.9/1132, para. 36) and it was observed that the usefulness of data could vary depending on the industry and role played by the data recipient. The desirability of retaining a standard of fitness for ordinary purposes in paragraph 2(a) was therefore questioned. It was observed that the remaining standards in paragraph 2 would not apply in all cases, and therefore should only serve as a default rule "where applicable".

54. It was suggested that neither of the standards of fitness for purpose in paragraphs 2(a) or 2(b) should be applied to the "passive" provision of data. Instead, it was suggested that an adapted standard could be applied, requiring (i) the data source to comply with applicable specifications, and (ii) the data provider to refrain from limiting access to the data source. Alternatively, none of the conformity criteria should be applied to the "passive" provision of data.

55. Recalling earlier deliberations (see para. 32 above), it was suggested to add a requirement of machine-readability for all data provision contracts. In response, it was queried whether such a requirement might already be comprised in the concept of usability.

56. Recalling its previous deliberations on the issue (see A/CN.9/1162, para. 82), the Working Group heard an exchange of views on the nature and scope of a requirement for data to be provided "lawfully". It was observed that requirement was essentially concerned with compliance with regulatory laws, whose application was preserved by article 2(4), and therefore redundant. In response, it was noted that the inclusion of a requirement to provide the data in compliance with such laws was still useful as it would make remedies available to the data recipient in the event of non-compliance (e.g. contractual remedies in the case of model contract clauses).

57. The view was reiterated that the requirement should be cast as a stand-alone provision. The prevailing view, however, was that the requirement should be retained as a matter of data conformity and thus reintegrated into the list of standards in paragraph 2. It was suggested that the standard should not be applied to the "passive" provision of data, noting that the data provider had no control over what data was generated by a connected device and the circumstances in which that data was accessed by the data recipient.

58. The distinction was reaffirmed between the provision of data in compliance with regulatory laws and the lawful use of data (i) as between the data recipient and the data provider (which was addressed in article 8(1)), and (ii) as between the data recipient and third parties (which was addressed in article 11).

59. In response to a query, it was explained that "applicable industry standards" referred to in paragraph 3(b) could include the product of data interoperability initiatives. The relevance of industry standards was emphasized, noting that the concept evoked the reference to trade terminology and usages referenced in article 4.3 of the 2016 UNIDROIT Principles of International Commercial Contracts. It was suggested that the use of the term should be reviewed for consistency across the language versions.

60. A question was raised about the interaction between paragraphs 1 and 2. It was suggested that paragraph 2 supplemented paragraph 1, but that this could be clarified.

I. Article 8. Use of provided data

61. It was noted that article 8 presented a new approach for the consideration of the Working Group by which different default rules on the use of data applied depending on the mode of provision of the data. Support was expressed for that approach in principle, noting that it could be applied to other rules, which in turn could also be disapplied or adapted for contracts for the "passive" provision of data ("access enabling" contracts). It was observed that the value of default rules lay in their simplicity, and that accommodating different modes of provision should not result in excessively complex rules.

62. The Working Group heard several suggestions to recalibrate the default rules in paragraph 1. For paragraph 1(a), it was suggested that, as a default, the purposes and means of data use by the data recipient should be limited to those specified in the contract. Similarly, for paragraph 1(b), it was suggested that the data use by the data provider should be as specified in the contract. In response, it was noted that such a default setting would place a burden on the parties wishing to depart from the default rule. It also raised the question as to what rights regime would apply in the absence of contract specification. Support was expressed for retaining paragraph 1 as drafted. Support was also expressed for applying paragraph 1(b) only to data provided under article 5(2)(b) and to apply a more limited rule for other data, particularly in the case of data that was generated and collected according to the data recipient's specifications. Another suggestion was to insert an additional default rule in paragraph 1 that the data recipient was entitled to provide the data to third parties only as specified in the contract. It was observed that the rule effectively limited the default rule in paragraph 1(a), but would guard against circumventing any default rule that limited the period of time for which the data recipient was entitled to use the data. It was also noted that limiting the onward provision of data might help to forestall abusive market practices. A suggestion was made to include default rules that applied to third-party recipients of the data.

63. The Working Group heard several suggestions with regard to paragraph 2. A query was raised as to the meaning of the "means" provided to the data recipient to use the data under paragraph 2(a). In response, it was observed that the term encompassed technical means such as software and applications to use the data. It was suggested that the standard of "appropriate" means was too broad and should be replaced by "necessary" means. Alternatively, it was suggested that it was more appropriate to require the data provider to confer "appropriate rights" on the data recipient. It was noted that, under the default rule in paragraph 2(b), the data recipient would be entitled to use the data in perpetuity in the absence of contract specification. It was observed that this outcome did not reflect the practical reality of data provision contracts covered by the rule, whereby the technical means to use the data ceased to be provided to the data recipient upon expiration of the contract. It was suggested that paragraph 2(b) should be amended to refer to contract expiration, or alternatively to defer to the rules of the information system. It was also suggested that a new default rule could be included for ported data, as well as data provided by other modes of provision, entitling use in perpetuity.

J. Article 9. Derived data

64. It was observed that derived data was generated not only from provided data, but by combining provided data with other data, and therefore that derived data was not generated by "using" provided data. While it was acknowledged that the concept of "using" was described broadly in article 1(b) to cover all operations on data, including combination or aggregation, it was suggested to refer to "processing" for additional clarity.

65. A concern was reiterated that defining derived data simply by reference to "processing" could undermine article 8 (A/CN.9/1162, para. 86). The Working Group heard a suggestion to require the creation of a new "quality" of the data, although it was added that such a requirement would be difficult to assess. It was suggested to clarify the concept of "derived data".

66. It was suggested to include a default rule for third-party recipients of derived data. On another view, the default rules should only deal with rights and obligations between the contracting parties.

67. It was observed that the relative simplicity of article 9 belied the complexities of derived data in practice, notably data pooling, and should be revised accordingly, while explanatory remarks should clearly identify those practices. In particular, it was suggested that, contrary to paragraph (b), the data provider should be entitled to use derived data, which was the reason for data pooling. Conversely, support was expressed to retain paragraph (b). In response, the Working Group was referred to earlier analysis (A/CN.9/WG.IV/WP.186, paras. 13–14) and heard a query as to whether rights to use derived data would be covered by applying article 8 to data provided by the data pool operator, thus making paragraph (b) redundant. It was noted that article 9 was premised on a particular scenario and was not suitable to be applied to a data pooling contract. It was therefore suggested that the scenario and conditions underlying article 9, as well as other articles, should be made explicit.

K. Article 10. Remedies

68. It was observed that some of the rules in article 10 were not remedies but obligations in the event of non-performance. It was added that default rules should not address remedies, but rather non-performance of obligations, and that this should be reflected in the title and placement of the article (i.e. after article 11). Given its general scope, it was suggested that the catch-all rule in paragraph 4 should be placed as the first paragraph. It was also suggested that that rule alone would suffice as the default rule.

69. Another view was that article 10 should contain a comprehensive list of remedies, which should be tailored to each mode of data provision, as well as to access enabling contracts (see para. 61 above). It was suggested that paragraph 1 should be expanded to cover obligations under article 7 and to include further remedies such as termination, price reduction and compensation. In response, it was said that article 10 did not purport to comprehensively set out all remedies available under applicable law, and that compensation would always be available, and that it would not be appropriate to insert a reference to article 7 in paragraph 1 as specific performance could be exceedingly costly and the appropriateness of specific performance depended on the circumstances. For that reason, it was suggested that paragraph 1 should be deleted. It was also noted that data erasure could be part of contract performance, and therefore it was suggested to be addressed in article 8. It was noted that there were inconsistencies in the applicability of remedies to different obligations.

70. It was indicated that the obligation to notify lack of conformity in paragraph 2 should be moved back to article 7, although it was also indicated that the obligation was unnecessary in the online environment. A query was raised about the

consequences of a failure to notify. One view was that such a failure could bar access to remedies, similar to article 39 CISG. In response, it was said that such a consequence would be excessive.

L. Article 11. Cooperation between the parties

71. Support was expressed for (i) refashioning article 11 as a set of default rules on mutual obligations of the parties in observance of good faith, (ii) aligning paragraph 1 more closely to article 5.1.3 of the 2016 UNIDROIT Principles of International Commercial Contracts and clarifying the consequences of non-compliance, and (iii) reframing each rule in paragraph 2 as a stand-alone rule or incorporating the rule into other existing articles, where appropriate. Support was also expressed for recalibrating paragraph 2(c) as the provision was too burdensome. Recalling how that rule had evolved, it was suggested to return to a formulation closer to articles 41 and 42 of the CISG, or alternatively to redraft the rule as a "best efforts" obligation.

M. Next steps

72. The Working Group requested the secretariat to prepare a revised set of default rules reflecting the deliberations during the session. It was acknowledged that the drafting of the rules depended on the final form of the eventual instrument. It was recommended that the revised set of rules should maintain a coherent approach to applying different default rules depending on the mode of provision, as well as to the differential treatment of "access enabling" contracts.

V. Other business

73. The Working Group heard a presentation by the delegation of the United Arab Emirates of a recently enacted Law on Trading with Modern Technological Means (A/CN.9/WG.IV/LXVII/INF/2). It also heard of regional efforts to establish an enabling regulatory framework in the area. It was noted that the law introduces the concept of "trading with modern technological means", which departs from the more traditional concept of "electronic commerce". The law was presented as a framework for future legislative work, which took into account new approaches and new issues, such as digital platforms and payments. The Working Group heard that a proposal for future work by UNCITRAL along those lines was expected to be submitted to the Commission at its forthcoming session.

74. Support was expressed within the Working Group for any future work to take a holistic view of digital trade. The desirability for addressing platforms and the need for global solutions were stressed. It was observed that recent legislative projects completed by the Working Group reflected a shift in focus from "electronic commerce" to a more expansive concept of "digital trade", which was understood to comprise not only new means for trading, but also new items being traded. It was added that any proposal involving the regulation of trading activities by particular technological means would need to be carefully examined, particularly with regard to the principle of technology neutrality and the enabling nature of UNCITRAL texts.

75. It was added that work could leverage the *Taxonomy of Legal Issues Related to the Digital Economy*[5] and complement other work being carried out by the secretariat in the area of digital trade. In that regard, the Working Group was informed of work being carried out to take stock of existing UNCITRAL texts that referred to electronic aspects and to map their uptake by States, as well as work to provide guidance on the implementation of UNCITRAL texts to achieve end-to-end trade digitalization.[6] It

[5] United Nations publication, Sales No. E.12.V.11.

[6] See *Official Records of the General Assembly, Seventy-ninth Session, Supplement No. 17* (A/79/17), para. 18(g).

was indicated that interim reports on these projects would be submitted to the Commission at its forthcoming session. Another workstream stemmed out of the work on the Taxonomy and the mandate to monitor relevant developments. Based on the previous report to the Commission (A/CN.9/1175), the secretariat intended to finalize the guidance document on legal issues relating to the use of distributed ledger technology in trade and to submit a note on the possible use of decentralized autonomous organizations in trade. The secretariat invited States to submit the names of experts interested in reviewing the papers.