



**UNIDROIT Foundation  
BPER 7<sup>th</sup> Workshop  
Project Group Meeting  
13-14 February 2024**

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BPER Report  
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## **Summary Report for the Seventh Meeting of the Best Practices in the Field of Electronic Registry Design and Operation Project**

1. The seventh meeting for the Project on Best Practices in the Field of Electronic Registry Design and Operation (BPER) was held on 13-14 February 2024 at UNIDROIT, and via Zoom. The BPER Project is run under the auspices of the Cape Town Convention Academic Project (CTCAP), which is a partnership between UNIDROIT and the University of Cambridge, with the Aviation Working Group as its founding sponsor. The BPER Project is supported by the UNIDROIT Foundation and Aviareto.

2. The meeting was chaired by the Directors of the CTCAP, *Mr Ignacio Tirado* (UNIDROIT Secretary-General), *Ms Louise Gullifer* (University of Cambridge) and *Mr Jeffrey Wool* (President of the UNIDROIT Foundation and Secretary-General of the Aviation Working Group). The meeting was opened with a welcome address by *Ms Gullifer*. The agenda for the meeting is provided under [Annexe 1](#) of this Report.

3. The seventh meeting sought to reassess the scope, content, and structure of the future Guide on Best Practices for Electronic Business Registries. Furthermore, it aimed to review the existing Critical Performance Factors (CPFs), with the purpose of identifying the adaptations needed in the context of business registries, and to discuss the proposed additional CPFs. A preliminary, detailed outline of the future Guide was prepared by the external consultant, and circulated to all registered participants prior to the meeting for review. A total of 48 participants including registry experts, lawyers, and academics, from government agencies, leading international organisations, universities, and practitioners involved with electronic companies, attended the workshop. A full list of participants is available under [Annexe 2](#) of this Report.

### *Purpose, scope, and background of the Project*

4. Following the welcome address, *Mr Wool* highlighted three points that would have to be considered in the ensuing discussion. First, the project's previous work, having stemmed out of the liability standard set out by Article 28 of the Cape Town Convention, had been modelled on collateral registries. The Guide on Best Practices for Electronic Collateral Registries had thus presupposed the legal standards applicable to collateral registries, and a notice-based structure. The purpose of the project's shift to business registries was to test the applicability of Critical Performance Factors (CPFs) to other types of electronic registries. Second, during the previous workshops it had been agreed to limit the scope of the future Guide on Best Practices for Electronic Business Registries to the traditional administrative function of business registries as depositaries of information. However, the detailed outline that had been circulated included encouraging efficient economic behaviour and preventing bad action among business registry functions, which consequently needed to be reconsidered. Third, the different role of data accuracy (which was crucial in business

registries, while being irrelevant in notice-based systems) had been identified as the main difference between business and collateral registries, besides their breadth.

5. *Ms Benedetta Mauro* (UNIDROIT Secretariat) briefly explained the background of the BPER Project and illustrated the work that had been done since the previous workshop. She explained that, having originated from the Cape Town Convention, the project had initially focused on electronic collateral registries. The Cape Town Convention referred to the need to follow 'best practices' in the field of registry design and operation. However, such 'best practices' had not been defined by the Convention, nor had international parameters been developed more generally in relation to general electronic registries. Through an interdisciplinary approach, the BPER Project purported to develop a technical standard for this subject matter. In 2021, the first Guide was developed through the BPER Project: the Guide on Best Practices for Electronic Collateral Registries, which identified 17 CPFs against which best practices in this area could be assessed.

6. In 2021, it was decided that the BPER Project should continue its work by testing the applicability of the best practices developed in the context of electronic collateral registries to other types of electronic registries. Accordingly, the focus of the BPER Project switched to developing best practices for electronic business registries. To this end, two workshops were held. The fifth workshop included a presentation on the evolving role of business registries, and a discussion on the scope of a best practices guide. It also reflected on the international instruments that already existed in this area, with a particular focus on the UNCITRAL Legislative Guide on Key Principles of a Business Registry ('UNCITRAL Legislative Guide'). The sixth Workshop included a presentation on business registry issues and challenges, as well as a discussion on the CPFs applicable in the context of business registries. Following the sixth Workshop, the Project engaged an external consultant, *Ms Ieva Tarailiene*, to continue work on the Guide on Best Practices for Electronic Business Registries.

*Presentation of the content of the detailed outline of the Guide on Best Practices for Electronic Business Registries*  
*By Ieva Tarailiene*

7. *Ms Tarailiene* summarised the key takeaway points from the previous two meetings, which were: (i) the Guide on Best Practices for Electronic Collateral Registries should serve as the foundation for the outline of the future Guide; (ii) all existing CPFs should be maintained in the future Guide; (iii) the future Guide should detail the specifics of business registries; (iv) the exclusive focus should be on electronic registries, to the exclusion of paper-based ones; (v) the primary emphasis should be on the analysis of CPFs; (vi) components from the previous Guide, common to all registry types, should be reused.

8. She then illustrated the content of the detailed outline of the prospective Guide. She remarked that the prospective Guide should provide clarity as to the difference between business *registries* and business *registers*, and highlight the evolving functions of the former. She suggested maintaining the categorisation of CPFs into the three 'pillars' of input, output, and quality that had been proposed at the previous workshop. The detailed outline further contained an analysis of the application of the existing CPFs in the context of business registries, and a preliminary definition of the seven new CPFs that had been agreed upon at the previous workshops, as well as a chapter on risk evaluation.

9. *Mr Wool* drew the participants' attention to three points included in Ms Tarailiene's presentation. First, the meeting would have to address the question of whether the new CPFs also applied to collateral registries and, if so, whether the Guide on Electronic Collateral Registries should be revised. Second, some of the new CPFs, such as Risk Management and Standardisation, involved very broad subject matters, which should only be dealt with to the extent to which they are relevant to the project, due to time constraints. Third, the future Guide should properly cite relevant ISO standards, where available.

*Discussion on the scope of the future Guide*

10. *Mr John Murray* suggested that a best practice statement in this area should recognise that all registries, irrespective of their type, share a common set of functionalities. The benefit of creating such a statement would be to provide custodians of registries with a blueprint for the design and operation of a registry, irrespective of its type. The business registry community recognised that there was a dearth of information and academic research in this regard. The applicability of the CPFs could be tested against any type of registry. *Mr Wool* agreed and added that CPFs should be weighed according to their relative importance to different registries. For instance, the new CPF on Risk Management had a different relevance in the context of medical registries and in the context of commercial registries.

11. *Mr Rob Cowan* noted that most, if not all, the new CPFs may apply equally to collateral registries. This raised the question of whether the future Guide should be a best practice statement specific to business registries, or an update of the previous Guide, applicable to all types of registries. *Ms Louise Gullifer* highlighted that the project had been set up to look at best practices for electronic registries. The Guide on Electronic Collateral Registries only dealt with a specific type of collateral registries, i.e., notice filing systems, as one of the different applications against which the project intended to test the framework of CPFs. She acknowledged that, if it was established that there was a need for a specific document on business registries, it should nonetheless be an application of the general principles.

12. *Mr Murray* remarked that, due to the great variance of legislation setting up registries across the world, it would be impossible to create a best practice document aiming for the highest common factor among different types of registries. He suggested that, rather than aiming to create a best practice statement for every type of registry, a more reasonable objective was to identify the lowest common denominator among different types of registries, by asking registrars to observe any commonalities and differences between their domain and the Guide on Electronic Collateral Registries. The benefit of this work would be to develop a domain-agnostic best practice statement, that could be used by custodians in charge of multiple registers. He suggested that UNIDROIT could coordinate with the European Business Registry Association (EBRA) and the Corporate Registers Forum (CRF) to create such a generalised best practice statement. He further suggested that the project could pursue an ISO standard in relation to its work.

13. *Ms Kathy Hillman-Weir* suggested that a set of general overriding factors that applied to all registries could be developed, with addendums addressing the special characteristics of different types of registries in the commercial context. She noted that the application of best practices to specific types of registries should be guided by the purpose of each of those registries. By purpose, she meant the benefit that the registry was intended to provide to society, and to those who interacted and transacted with it, as well as the harm that it sought to prevent. The characteristics and the operations of a registry should be evaluated based on how it served this purpose.

14. *Mr Wool* noted that the purposes of business registries were much more complex and dynamic than those of collateral registries, thus raising the question of whether the future Guide should engage in a granular analysis of the standards applicable to each of these functions. *Mr Murray* remarked that CPFs should be set out at a high level to avoid having to deal with the idiosyncrasies of different legislations.

15. *It was agreed that a separate best practice statement for business registries should be developed, alongside the one on collateral registries. As a second step, a general document should be elaborated to take stock of lessons learnt from these two applications.*

#### Discussion on the purpose and functions of business registries

16. *Ms Gullifer* noted that setting out that registries must be fit for purpose, whatever such purpose was, had been discussed during the previous meeting as a possible way to

address functionality. However, it seemed difficult to identify the functionality that made a registry fit for purpose, without having any notion of such purpose. In this regard, she drew the participants' attention to the definition of core business registry functions provided by the UNCITRAL Legislative Guide. She suggested that while these functions should be taken as a given, the project might consider adding any functions that may have emerged since the UNCITRAL Legislative Guide had been drafted.

17. *Mr Wool* asked whether a document on business registries needed to analyse the issue of beneficial ownership to be credible. *Mr Julian Lamb* opined that, while reference should be made to any relevant international standards regarding issues such as anti-money laundering (AML), combating the financing of terrorism (CFT), proliferation financing, and sanctions, these issues should not be analysed in depth. *Mr Murray* suggested that a possible CPF in this regard could require registries that dealt with natural persons to apply know-your-customer (KYC) principles to identify those individuals uniquely.

18. *Mr Cowan* suggested that beneficial ownership, as part of the requirements imposed by legislation, should not be specifically addressed in the future Guide. On the other hand, if beneficial ownership was regarded as a type of registry, perhaps affiliated to the business registry but not necessarily a part of it, it should be analysed separately. *Ms Gullifer* agreed that, unless a separate beneficial ownership registry was set up, compliance with AML would be covered by the standard mandating compliance with the law.

19. *Mr Aris Molfetas-Lygiaris* noted that beneficial ownership registries, together with the more central role that business registries were asked to undertake in relation to the implementation of AML and CFT frameworks, were pieces of a complex puzzle. The data filed in the beneficial ownership registry needed to be cross-checked with other official and non-official databases. Therefore, the World Bank had proposed a data-driven approach that entailed converting business registry data into structured data that could be processed, analysed, and combined with other data sources (such as the central bank, tax authorities, and real estate registries).

20. *Mr Goran Vranic* noted that the definition of data-driven company registries provided by the World Bank included the prevention of fraudulent behaviour as a new function of business registries, alongside providing a legal identity and trustworthy data (which had already been included in earlier publications and knowledge). The application of this new function was the additional layer of data intelligence, requiring data integration not only from company registries but also from other sources, support for real-time company registration, advanced data analytics for fraud prevention, and predictive modelling for forecasting. He noted that beneficial ownership was captured under this new function of preventing fraudulent behaviour.

21. *Mr Paul Farrell* agreed that the discourse about data management and public services was crossing Europe and the globe, and business registries were required to place their data into a wider environment where data was shared across public services. This changed the nature of the data, which had to be empirically accurate as opposed to authenticated, altering some of the criteria for success. Although this development did not dramatically alter the nature of the project's task in the context of business registries, it was necessary to develop data management criteria.

22. *Mr Lamb* also agreed that business registries operated in the space of AML, CFT, and the like. For instance, some of the data held by business registries qualified as 'basic information' under the Financial Action Task Force (FATF) standards, which mandated 'basic information' to be freely available as public information. Hence, requesting a fee on a piece of data that qualified as 'basic information' could lead the registry to be marked down when assessed by FATF. As a further example, business registries qualified as 'competent authorities', and as such had to share information with other competent authorities. The ensuing question was whether, and where, the future Guide should deal with some of the more common terms in these areas of regulation (e.g., what is 'basic information', what is

'beneficial owner information', etc). *Ms Gullifer* noted that the interplay between such transparency requirements and CPF No. 5 on Confidentiality should have been addressed.

23. *Ms Hillman-Weir* suggested conceiving this analysis as a continuum from the purpose of the registry to its functionalities. She noted that many of the CPFs were functionality-focused, as opposed to purpose-driven. The evolution of business and technology would continue to expand the original purpose of business registries. Business ownership, AML, and similar emerging issues could be considered as use cases, against which the CPFs dealing with the functionality and design of the registry could be tested.

#### Discussion on the applicable technical standards

24. *Mr Cowan* noted that, while it would be impossible to develop a full standard for registries, the work that others had done on specific elements (such as the ISO 27,001) should be retrieved and cited as cross-references. In doing so, as a general principle, international ISO standards should be preferred over local ones, whenever available, and requirement standards (e.g., compliance with EU AML Directives) should be differentiated from the standards that dealt with registry operation. *Mr Wool* highlighted that part of the meeting should have been devoted to identifying the relevant standards used across the globe.

25. *Mr Lamb* noted that the reference to standards developed by other organisations, although necessary, raised the question of how to maintain the document current in the face of possible updates to those standards. *Mr Cowan* noted that the denomination of ISO standards remained the same despite any updates, so a reference to an ISO standard by its name would remain accurate through time.

26. *Mr Wool* asked whether failing to specifically address artificial intelligence (AI) risked making the future Guide irrelevant, and whether it would be advisable to review the existing CPFs through the lens of AI, or machine learning processes, to assess whether any changes were necessary. *Mr Cowan* opined that the Guide should remain at the level of principles, without focusing on AI or any other technology. While AI was a useful tool (e.g., to automate identification, and to read and cross-reference documents), how it was used depended on the standards that each registry followed. However, some comments about how AI could be used to implement some CPFs, such as Authentication, could be added. *Ms Gullifer* noted that the detailed outline already included references to AI, for instance under CPF No. 3 on Authentication.

27. *Mr Vranic* noted that the World Bank's data-driven company registry approach also focused on principles at the organisational level. For instance, the new dimension of data analysis allowed for a risk-based authentication, by which the requirements for digital filing and authentication were lowered and moved ex post. Risks could be managed by collecting data about transactions, accountants, authorised representatives, etc., and building trees of interactions that could be compared with the trees that had had a positive authentication of fraud. Lower authentication requirements on the entry side were compensated with improved data analysis and data intelligence ex post. This example showed how the data-driven approach allowed for new principles to be applied. AI was one of many different tools, but the focus was on data.

28. *It was agreed that the future Guide should refer to existing international standards, without creating new standards, and without making reference to specific technologies.*

#### Discussion on the applicable legal framework

29. *Mr Farrell* noted that it seemed difficult to address business registry issues without discussing the legal context in which they operated. He observed that, when there was a problem in the registry, the solution was often a change in the law, and that business registries were commonly involved in their jurisdictions' legislative processes.

30. *Mr Wool* agreed that there was an intimate link between the applicable legal rules, and the design and operation of business registries. He proposed to include an annexe in the future Guide, setting out the legal principles that adherence with the best practices presupposed. In light of the non-legislative nature of the project, this should be clearly distinguished from a recommendation to adopt certain legal rules. *Ms Gullifer* agreed that investigating business registries may require to take account of their interaction with the law, possibly including such an annexe, but bearing in mind the great variance of laws across different jurisdictions.

31. *It was agreed that the future Guide should include an annexe, setting out the legal principles that adherence with the best practices presupposed.*

#### Discussion on the risk-based approach

32. *Mr Farrell* stressed the importance of the risk element, which had been raised in the previous meeting. FATF had recently amended its criteria of analysis of business registries in favour of a risk-based approach. He explained that risk in this context was not to be understood in its commercial meaning (i.e., referring to the risks to which business registries were exposed), but rather as the risks in the community that business registries tried to address. These risks had evolved from the risk of companies acting ultra vires, to money laundering and other criminally relevant activities.

33. *Mr Cowan* noted that, in this sense, a risk-based approach required a business registry to be able to identify what risks it was designed to manage and reduce. However, the commercial understanding of risk management should not be excluded, considering that the interests of the business and customer were often aligned. Finally, the positive side of risks, these being the creation of information and opportunities, should be considered as well.

34. *Mr Wool* pointed out that, if it was agreed that the functions of business registries included promoting efficiency and preventing bad action, risk management could be limited to verifying that the system was properly designed to achieve such purposes. In this sense, risk management involved making sure that all risks associated with interruption of the system were prevented. This could be a safer way to approach risk management, rather than imposing upon the registrar the additional function of promoting positive and negative objectives, which entailed some margin of discretion. Further, this approach seemed consistent with the limited custodian and fiduciary responsibilities, and administrative function, of business registries.

#### Presentation on the World Bank Data-Driven Company Registry Guidance Note By Goran Vranic and Aris Molfetas-Lygkiaris

35. *Mr Vranic* and *Mr Molfetas-Lygkiaris* gave a presentation on the Guidance Note on Data-Driven Company Registry that had recently been published by the World Bank. *Mr Vranic* explained that the shift towards a data-driven approach was required to respond to the new challenges facing business registries. First, the rapid evolution of the broader digital economy required business registries to adapt to the dynamics of the digital ecosystem interactions by embracing data and artificial intelligence, while continuing to provide trustworthiness and legal identity. Second, the pressing need for seamless cross-border transactions had caused a call for policies on digital identity and data sharing across borders. Third, the role of business registries in preventing fraudulent activities, and promoting legal and regulatory compliance (including AML and CTF standards), had grown significantly. In response to these challenges, the World Bank introduced the concept of 'data-driven company registry', which entailed fostering a data-driven culture through the implementation of regulations, procedures, and digital solutions aimed to enhance the efficiency of processes, ensure the reliability of business data, and prevent fraudulent behaviour.

36. The World Bank document approached the overall reform of investment and business regulatory environments through a three-pillared framework. The first pillar (business data management) required business registries not only to contribute to overall business data management, but also to collect and manage data from various sources, in order to perform their new regulatory functions and to efficiently address the new dynamics of broader digital economy ecosystems. The second pillar (agile policymaking) required the implementation of machine-readable regulations and the digitisation of procedures through digital platforms made easy for navigation by businesses and investors, as well as the design of forward-looking, risk-based policies, which allowed for innovation. The third pillar (intelligent Government-to-Business service delivery) required an integrated approach, encompassing not only company registration, but also other functions of the regulatory bodies.

37. Some of the case studies that were conducted showed that fully automated and real-time company registration applying AI had already been implemented. In these cases, the role of the registrars had changed from individually processing every application, to supervising the algorithm, which in turn made real-time decisions based on the rules integrated into the system, and only required human intervention when necessary. The company registrar's role was to ensure that the implementation of AI involved human legal expertise.

38. *Mr Vranic* highlighted how the World Bank's focus was on supporting both developed and less developed jurisdictions, so it was essential to provide a model that encompassed an evolutionary and phased approach towards achieving the data-driven company registry model. For this purpose, the Guidance Note proposed a 'capability maturity model' (CMM) structured into five capability and maturity levels (initial, repeatable, defined, managed, and optimising) for each of the following functions: data collection, data transmission, and data analysis. Following a standard approach, the Guidance Note described some characteristics of these maturity levels. With specific reference to 'data analysis', *Mr Vranic* noted that the highest levels involved some form of forecasting, from statistical analysis of company information and basic forecasting at the 'managed' level, to advanced data analytics for real-time company registration and fraud prevention at the 'optimising' level.

39. *Mr Molfetas-Lygkiaris* turned to the key policies recommended in the Guidance Note to achieve the data-driven approach. He highlighted the importance of high data quality for countries to be able to leverage big data and transition to the highest maturity model. For this purpose, the first key policy was to implement an interoperability framework with semantic models, data vocabularies, and any other standard needed to support it, in order for the business registry to leverage information from various databases (such as tax authorities or central banks).

40. Second, the World Bank recommended consolidating as many registries of legal entities as possible (e.g., companies, partnerships, trusts, associations, sole proprietors) under the jurisdiction of a single authority. This policy would lead to data consolidation, application of common standards, and the roll out of developments to all legal entity types. Third, it was advised to unify payments into a centralised payment hub, with various options available for implementation. Fourth, minimum data requirements for the register should be defined. This involved defining both minimum required and optional input data, and performing a data classification to identify what could be shared with the stakeholders.

41. The fifth key policy was to promote transparency through free public access to company registry data. However, some of the surveyed registries had created a valuable stream of revenue by making bulk data available for a fee to banks, insurance companies, and other entities that conducted risk analysis for their own purposes. Sixth, the requirements for the articles of association should be simplified. For instance, a core element of the recent reform in Greece had been to only allow the input of structured data for most legal entity types, with the information filed by the applicant automatically going into a database, and no unstructured documents (such as PDFs) being processed.

42. Seventh, an easy but secure digital ID should be established. For instance, the use of a single sign-on, although less secure than a digital certificate (such as advanced or qualified digital signatures), could help improve online registrations, and therefore structured data. Eighth, a unique business identifier (which was crucial to achieve interoperability) should be established. Ninth, clear rules for company names should be developed. Tenth, following the implementation of the data-driven approach, public-private dialogue should be enabled through structured processes, to collect continuing feedback.

Discussion on CPF No. 1 (Access Control)

43. The ensuing discussion focused on the description of the existing CPFs and their application to the context of business registries. *Ms Tarailiene* explained that, in the detailed outline, she had reviewed the description of the first five CPFs, whereas for CPFs No. 6 to No. 17 she had merely outlined the adaptations that she considered to be necessary. She noted that, in the technical sections, the same information included in the Guide for Electronic Collateral Registries had been used.

44. She noted that the new description of the CPF on Access Control, including the description of the relevant technical standards, had mostly been taken from the previous Guide. The only amendments proposed concerned the legal section, which included a reference to relevant provisions in the UNCITRAL Legislative Guide, as well as to best practices implemented in specific countries.

45. *Ms Gullifer* noted that the CPF on Access Control dealt with restricting access, whereas enabling access seemed to be covered by CPF No. 2 (Accessibility). *Mr Finnegan* agreed and noted that the CPF on Access Control was aligned with the modern prevailing concept that registries should continuously check whether users who are interacting with their system are authorised to do so.

46. *Mr Cowan* suggested that the term 'Access Control' might be inaccurate. In the technological world, there were three fundamental elements of IT security that were commonly known as 'triple A' (Authentication, Access Control, and Authorisation). He explained that, although being interrelated, these concepts are different one from the other. Authentication aimed at proving that someone was the person he or she claimed to be. Access control meant giving that person a token that she could use to log into the system. Authorisation referred to what that person could see, once she was in the system. He proposed to review this and draft some text that would align the future Guide to usages in the IT field. For instance, it was pointed out that the first paragraph in the legal section might be more relevant to a new CPF on Authorisation.

47. *Mr Cowan and Mr Denis Finnegan* further suggested reviewing the Guide on Electronic Collateral Registries through the lens of the triple A, and assessing whether business registries presented any differences that justified amending the text.

Discussion on the Business Register Matrix

48. *Mr Wool* referred the participants to the 'Business Register Matrix' at page 47 of the detailed outline, which categorised CPFs into the input, quality, and output pillars. *Ms Tarailiene* explained that Access Control had been categorised into 'quality' because, by limiting access to the system, it guaranteed the quality of the data that was filed into the registry and prevented fraud.

49. *Mr Farrell* noted that the value of the matrix lay in being a reminder of what the three essential elements of operating a business registry were: first, that people filed data, second, that the data was accurate, and third, that it could be accessed by the public. However, some CPFs might be relevant to more than one aspect, and this categorisation should not limit their use.



50. *Mr Cowan* opined that the three-pillar model risked adding confusion, since some CPFs (including Access Control) were relevant to all three pillars, and did not fit naturally into any one of them. *Mr Justin Hygate* agreed that Access Control concerned both the issue of whether people filing information into the register had the permissions, authority, and legal background to do so (on the input side), and that of whether people searching the registry were authorised to do so (on the output side). Therefore, it did not fit neatly in any one pillar.

51. *Ms Laurel Garven* suggested that an alternative categorisation could have been established between CPFs intrinsically connected to the core purpose of the registry, on one hand, and functionality-driven CPFs, on the other.

52. *It was agreed that the categorisation of CPFs into input, quality and output should be removed from the future Guide.*

#### Discussion on free access to information

53. *Mr Wool* queried whether the practice of granting minimum privileges, such as the right to search basic information, without authentication or the need to create an account, was a universal principle. *Ms Garven* doubted that it could be considered so in the context of business registries, where it was common practice to trace who searched what data and for what purposes.

54. *Ms Tarailiene* clarified that an EU Directive provided that very basic information, such as the company's name or seat, should be accessible without any prior authorisation or authentication. *Mr Lamb* further noted that most registries qualified as 'competent authorities' under the FATF Recommendations, thus having to comply with such Recommendations and the immediate outcomes ('IOs') through which compliance was assessed. These standards provided that so-called 'basic information', as defined therein, were expected to be free (as it was the case in most jurisdictions).

55. *Ms Alexis Lupo* noted that, in most US States, registries were free to search. This, however, had raised the problem of data scraping by bots, which targeted the registries and tried to bring down their systems. *Mr Cowan* noted that the international registry had suffered a similar denial-of-service attack, whereby someone had logged into the system and tried to bring it down. To tackle this risk, they had decided that setting up a free guest account would be required to access to the system.

56. *Mr Cowan* further noted that it seemed difficult to say what the best practice in this regard was, because it was arguably a policy decision. For instance, for the international registry, it was essential that the system was searchable by the public, while there was no reason to trace who searched it, other than to reduce the risk of a denial-of-service attack and to know to whom the registry might be liable.

#### Discussion on CPF No. 2 (Accessibility)

57. *Ms Tarailiene* explained that the new description of this CPF was based on the UNCITRAL Legislative Guide, which expressly provided that business registries should be designed and operated so as to cater for a broad spectrum of users that may want to register a business, without any form of discrimination. From the output perspective, those who had a right to log into the system and obtain information from it should be able to exercise this right. Finally, the content of technical section was the same as in the Guide on Electronic Collateral Registries, while the legal section included a reference to the UNCITRAL Legislative Guide.

58. *Mr Wool* queried whether recommendations concerning user-friendly interfaces, and the provision of offline versions for batch uploads at the end of the day, went beyond the scope of this CPF. *Mr Finnegan* agreed that recommending uploads at the end of the day might not be significant enough to be mentioned as best practice, considering the quick

advancements being made in terms of access to mobile technology. On the other hand, *Mr Cowan* noted that user-friendly interface seemed relevant to this CPF, to cater for cases of people with intellectual disabilities, whereas the mention of kiosks seemed too specific and should probably be removed from a best practice statement.

59. *Mr Wool* further suggested verifying whether there were any differences between electronic collateral and business registries as to the core issue of this CPF, namely, that to the extent possible there should not be any discrimination nor any practical impediment in accessing the registry.

*Discussion on fees for business registries' services*

60. *Ms Tarailiene* highlighted that fees for business registration services were also relevant to this CPF. She explained that, by reference to the International Business Registers Report, the detailed outline of the future Guide identified the services that could be charged from those that should be free of charge. She further noted that, while a fee is usually charged for registering a business (unlike in notice-based registrations), the UNCITRAL Legislative Guide recommended that such fee should only aim to cover administrative charges, without constituting an additional revenue stream.

61. *Ms Garven* suggested that, to cater for those registries that had a commercial element, the best practice in this regard might be to align the fee structure with the commercial and legal framework of each jurisdiction, rather than not to charge any fee. *Mr Hygate* agreed that different jurisdictions followed different models, with some jurisdictions that differentiated among services, e.g., making search free and charging a fee for registration. *Ms Gullifer* noted that model laws developed by UNIDROIT generally included various options for the legislator in this regard (no fees, fee cap, etc.), since fees were seen as a policy choice.

62. *Ms Hillman-Weir* noted that sustainability of the registry was an additional factor to be considered, in the sense that the registry may not be able to continue to provide its services without some sort of fee injection and contribution. *Ms Lupo* further pointed out that free filing fees can create a problem with fraud.

63. *Mr Farrell* agreed that it might be difficult to recommend that there should not be a fee for accessing the data. Data had a value that could be used by commercial organisations that were in the business of exchanging data on companies. However, fees should be kept at a reasonable level to avoid creating a deterrent to accessing the data. He suggested that it would be legitimate to recommend charging a fee for accessing the data, while reducing the cost of filing documents, with a view to covering administrative expenses. Data should be easily accessible and reasonably priced.

64. *Mr Wool* pointed out that there was a tension between the ever-increasing functions of business registries, with the consequent need for a more sophisticated system with better software and enhanced cybersecurity, and the principle that business registry services should be free. He proposed resolving this issue by reference to the UNCITRAL Legislative Guide Recommendations 41 and 42. *Ms Gullifer* noted that FATF Recommendations should also be referenced.

65. *Mr Wool* summarised three issues raised by fees for business registry services. First, the fee structure depended on the business model of each jurisdiction. Second, there were some laws, recommendations, and other sources that required, or encouraged, free access to information for policy reasons. Third, the idea of non-discrimination was involved. He suggested that this CPF might be covering too many issues and could probably be divided.

66. *It was agreed that the scope of the CPF on Accessibility should be reduced. Fees are a separate issue, which should not be dealt with in the future Guide since they are already dealt with by the UNCITRAL Legislative Guide.*

Discussion on CPF No. 3 (Authentication)

67. *Ms Tarailiene* explained that this CPF dealt with making sure that those who interacted with business registries were who they declared to be, noting that it seemed to be a feature shared by all types of registries. The detailed outline spelled out the different methods of Authentication currently in use in electronic business registries, with username and password being the most common, according to the 2022 International Registers Survey Report jointly conducted by the European Business Register Association (EBRA), the Corporate Registers Forum (CRF), the International Association of Commercial Administrators (IACA), and the Association of Registers of Latin America and the Caribbean (ASORLAC). She clarified that some methods were the same as in the previous Guide, such as creating a username and password set, verifying the ID number against the national database of population registrar, or using a facial recognition software. She highlighted that, as stressed by the World Bank's presentation, the use of digital identity in the authentication of customers and clients of business registries was essential.

68. The detailed outline further mentioned the EU Regulation on electronic identification and trust services for electronic transactions in the internal market ('eIDAS Regulation'). She pointed out that, due to the cross-border nature of the digital environment, a shared method for reliable identification was needed, not only on a national level, but also on an international level. Finally, she noted that the technical section used the same information as in the Guide on Electronic Collateral Registries, whereas the legal section was based on Recommendation 13 from the UNCITRAL Legislative Guide.

69. *Mr Cowan* suggested that the future Guide should not lay down the technological features of two-factor authentication, multi-factor authentication, and other ways of authenticating users, which would change over time quite quickly. He further noted that the meaning of 'Authentication' did not seem very clear. The original definition dealt with users trying to log into the system for the first time, and required the registry to verify their identity and give them credentials to allow them to log back in freely. By contrast, some of the new text entailed that the registry should verify the users' identities even for following accesses.

70. *Ms Garven* argued that the description of this CPF in the Guide on Electronic Collateral Registries was clear, and should not be amended unless there was a difference between electronic collateral registries and electronic business registries. There seemed to be strong congruence among different types of registries in this area. *Ms Gullifer* pointed out that a difference between the two Guides could be justified by the idea in comparative company law that, when a company was registered, business registries should check that the people who were setting it up had the capacity to do so, unlike in collateral registries.

71. *Ms Gullifer* further queried whether Authentication was limited to verifying someone's identity, or whether any additional information was checked in electronic business registries. *Ms Tarailiene* explained that, when someone sought to incorporate a company, the business registry only checked whether they were who they claimed to be. However, when someone acted on behalf of the legal entity, the business registry further identified their role within the company, and verified whether they were authorised to access company details and file information on behalf of the company. *Ms Garven* noted that this was the difference between Authentication (whether someone was who they claimed to be) and Authorisation (whether they had the capacity and authority to act), which did not seem to be well captured under a single CPF on Authentication.

72. *Ms Gullifer* noted that Authentication and Authorisation should be two separate CPFs, and that this might be the case for electronic collateral registries, as well. *Mr Wool* summarised that there should be four 'As': Authentication (verifying that users were who they claimed to be), Access Control (verifying that users were entitled to access the system), Authorisation (verifying the rights assigned to a certain user), and Accessibility (the quality of being accessible to, e.g., people with a disability). *Mr Cowan* suggested that some

fundamental definitions in the detailed outline should be reviewed to improve clarity, especially in the distinction between Authentication and Access Control.

73. *It was agreed that the definition of this CPF should be reviewed to clearly distinguish it from Access Control, and that Authorisation should be added as a standalone CPF.*

Discussion on CPF No. 4 (Availability)

74. *Ms Tarailiene* explained that this CPF did not need any changes, because it related to the technical aspect of being available at any hour, every day of the year. In the legal section, reference had been made to the UNCITRAL Legislative Guide, paragraph 183, which stressed the significance of the public having continuous access to information, rather than to documents or data filing services.

75. *Ms Gullifer and Ms Hillman-Weir* noted that the personnel needed to ensure continuous access did not include 24-hour availability of the helpdesk and customer service. *Mr Wool* further noted that the use of the word 'human' should be reconsidered in light of emerging technologies.

76. *It was agreed that the connection of helpdesk and customer support issues with the CPF on Availability, as well as the use of the word 'human', should be reconsidered.*

Discussion on CPF No. 5 (Confidentiality)

77. *Ms Tarailiene* explained that this CPF raised a tension in the context of business registries. On one hand, data in business registries was expected to be largely available to third parties, as also stipulated by the UNCITRAL Legislative Guide. On the other hand, especially in the EU, there were ongoing discussions on the relation between transparency and privacy. Reference was made to the judgment in *WM and Sovim SA v Luxembourg Business Registers* (joined cases C-37/20 and C-601/20) of 22 November 2022, where the European Court of Justice had ruled that, pursuant to the EU Regulation on General Data Protection (GDPR), some information in beneficial ownership registries should not be accessible to any third parties, but only to people with a legitimate interest. From the technical point of view, the same description and ISO standards as for electronic collateral registries had been used, while the legal part included a reference to Article 5 of the GDPR.

78. *Mr Lamb* commented that the abovementioned ruling had affected many registries in Europe, since most of them had been designed to be fully public. European countries had responded in different ways, with some countries ignoring the ruling on the assumption that a challenge would not be brought against them. He clarified that the ruling had set out that not all data could be public, but different sets of data could be made available to the different groups of people who had a legitimate interest in accessing them. Therefore, finding a single definition of legitimate interest across Europe had become tantamount. He further pointed out that this case was an illustration of how best practices in this field were underpinned by different layers of other rules and laws (FATF, AML, data protection).

79. *Mr Wool* highlighted the tension between EU privacy law and broader use of business registries, for instance for the purposes of compliance with AML or sanctions regimes. *Mr Farrell* noted that this judgment only concerned beneficial ownership information, whereas ordinary information (such as owners, shareholders, and directors) remained publicly accessible.

80. *Ms Gullifer* noted that, in the Guide for Electronic Collateral Registries, a distinction had been drawn between confidentiality and privacy, with confidentiality concerning commercially sensitive information, and privacy covering individuals' personal information (such as addresses and telephone numbers). She queried whether that distinction equally applied in the context of business registries, also considering that confidentiality and privacy were dealt with by different laws.

Discussion on CPF No. 6 (Continuity)

81. *Ms Tarailiene* explained that, besides the legal section, the only other part of this CPF that might need to be reviewed was the indication that a number of governments had outsourced the hosting of their collateral registries to the companies that had developed the registry, which did not seem to hold true in the context of business registries.

82. It was noted that the relevant passage in the Guide for Electronic Collateral Registries should be understood as a mere indication of existing practice, and not necessarily as a best practice recommendation. In this sense, there were no differences in business registries that justified adopting a different approach in the future Guide.

83. *It was agreed that the future Guide would not recommend outsourcing the hosting of business registries, but it would include it among different possible ways to achieve Continuity.*

Discussion on CPF No. 7 (Disposition)

84. *Ms Tarailiene* explained that the description of this CPF in the Guide for Electronic Collateral Registries was largely consistent with the context of business registries, with only marginal revisions needed (besides the addition of a reference to the UNCITRAL Legislative Guide in the legal section).

85. *Mr Cowan* pointed out that Disposition was much more relevant in business registries than in notice-based collateral registries due to the different nature of the registered data, which in notice-based registries consisted of structured data, while in business registries it often consisted of documents (that were easier to single out). Despite this difference, the technical processes for Disposition were the same, so he suggested that the issue might have already been covered adequately in the Guide for Electronic Collateral Registries.

86. *Mr Hygate* raised the question of whether the future Guide should draw a distinction between administrative data held by the business registry, such as receipts for financial transactions, and the registered data, which was kept in the register even after a company had been removed. He noted that this distinction was related to Confidentiality, with administrative data being confidential (as it might concern investigations or regulatory activities), as opposed to registered data, which was public.

87. *Mr Lamb* noted that, as a result of AML, CFT, and other similar laws and regulations, registries were increasingly assuming a decision-making role that required them to store confidential information, including in some cases about tax. As a best practice, this translated into establishing proper archiving and other mechanisms to manage this information in compliance with data protection law.

88. *Mr Farrell* pointed out that the Guide for Electronic Collateral Registries had only gone as far as recommending that the disposal of documents should be managed in accordance with the law. In other words, the registry should set up proper processes enabling it to comply with the law. He noted that there did not seem to be any reasons to distinguish business registries in this regard. *Ms Gullifer* supported this approach, also in light of the large variety in the type of information collected by business registries across jurisdictions. *Mr Cowan* added that the technical standards mentioned in the previous Guide applied to business registries, as well.

89. *It was agreed that, besides minor adaptations and changes to the legal section, the description of this CPF should not be changed.*

Discussion on CPF No. 8 (Integrity)

90. *Ms Tarailiene* explained that most information from the previous Guide could be reused for this CPF in the future Guide. The legal section should include a reference to

Recommendation 10 from the UNCITRAL Legislative Guide, which listed 'Protecting the integrity of the information in the registry record' among the core functions of business registries.

91. *Mr Cowan* argued against the detailed outline's proposal to emphasise technological solutions to ensure integrity, since they were likely to change quickly. Instead, he suggested that the future Guide should be technology-neutral, and focus on registry operation principles. Only the existing description of key technology should be maintained.

92. *Ms Veneziano* noted that this CPF also seemed to refer to the integrity of the processes through which business registries accessed data from other registries. *Mr Wool* stressed that Article 28(2) of the Cape Town Convention limited the liability of the register for factual inaccuracy of information from the moment of transmission until its receipt. *Mr Cowan* added that responsibility for alterations on the route currently depended on the technology used, and that it could be useful to include a clear statement on this specific issue in the future Guide.

93. *It was agreed that, besides minor adaptations and changes to the legal section, the description of this CPF should not be changed.*

#### Discussion on CPF No. 9 (Interoperability)

94. *Ms Tarailiene* highlighted that this was a fundamental CPF in the context of business registries. In previous workshops, the group of experts had discussed the importance of exchanging information across different systems, and providing direct access to verified data, to avoid data duplication. Data normalisation, which had been mentioned as an important element of Interoperability, could be dealt with within this CPF. Further, the 'single source of truth' principle closely interacted with this CPF and should be highlighted in its description. Lastly, Interoperability should not be limited to the national level, due to the growing importance of cross-border information exchanges.

95. *Ms Gullifer* queried the difference between data normalisation, which seemed to imply that data should be captured in the same way as in other systems in order to enable Interoperability, and the new CPF on Standardisation. *Ms Tarailiene* explained that data normalisation required each piece of data to be stored in such a way that other systems could reuse it, generally through Application Programming Interfaces (APIs). In any case, it had a close connection also with Standardisation.

96. *Mr Farrell* added that data normalisation, in the sense that had just been described, was fundamentally different from standardisation, which in turn required concepts to be consistent across sections of the same system. He further noted that normalisation was consistent with the World Bank's approach to business registries as part of the data environment, which entailed ensuring empirical accuracy and giving access to the business registry database to all public services.

97. *Ms Gullifer* pointed out that, in the previous Guide, Interoperability had been understood as a tool for collateral registries to check their data against other databases, whereas in the context of business registries it seemed like a tool for other registries to check their data against the content of the business registry.

98. *Mr Lamb* clarified that consumption of data in the registries by other competent authorities was becoming increasingly important due to compliance with the FATF Recommendations, which provided that competent authorities (including registries) should exchange information with each other. For instance, many registries made Beneficial Owners information available to people obliged to carry out KYC or Customer Due Diligence (CDD), using APIs or other technologies that allowed them to be interoperable with different systems anywhere. He added that Interoperability required enabling access to the data even by users that were not familiar with the system. In practical terms, if the registry provided API channels, users should be able to pick them up with very limited (if any) guidance.

*The international dimension of interoperability*

99. *Mr Farrell* noted that the international dimension of interoperability should be emphasised more in the future Guide because of its cross-cutting nature. For instance, laws allowing for cross-border transfer of seat required interoperability on an international level.

100. *Ms Gullifer* pointed out that the best practice elaborated in the previous Guide required the registry to be as interoperable as the relevant legal framework mandated it to be. The previous Guide had envisaged a set of national connections, established by the law. Enabling these connections to take place at the users' will, for commercial or other reasons, beyond what was mandated by law, entailed a further degree of technical interoperability. This raised the question of where the line should be drawn, considering that it would not be realistic to recommend having a system interoperable with virtually any other system in the world.

101. *Mr Cowan* opined that the future Guide should provide guidance on how to meet the applicable legal requirements, without setting a standard for such requirements, which involved political considerations. Whether Interoperability should be implemented was a policy issue, and a best practices statement should focus on the practical aspects of how to achieve it. However, he agreed that the international element was important and raised additional issues, such as compliance with GDPR and the necessity to allow the cessation of Interoperability with a certain country in case of a policy change (e.g., due to wars or sanctions).

102. *Mr Hygate* pointed out the distinction between Interoperability with other business registries on the international level on one hand, and exchange of information across different sources of truth within the same jurisdiction on the other. He opined that having interoperability in the latter case should be included as best practice, and that the future Guide should clearly state that modern electronic business registries should consume information held in other registers, rather than duplicating it. This required both a legislative basis and the technological solutions to support it.

103. *It was agreed that the CPF on Interoperability should set out best practices on how to achieve interoperability when it was required by the law.*

*Discussion on CPF No. 10 (Legal Authority and Compliance)*

104. *Ms Tarailiene* stressed that this CPF applied to any type of registry activity, hence the basic information contained in the Guide on Electronic Collateral Registries could be reused in the future Guide. However, she invited comments on the possibility to include some text under this CPF to cover the element of factual truth of registered data, which had been suggested during the previous workshop as an alternative to adding a separate CPF on Accuracy.

105. *Mr Murray* noted that business registries could be categorised into four different types. Under the German model, business registries operated in the context of a judicial process led by a commercial court, and users could rely on extracts of registered data to reflect the reality. In the UK and other common law systems, users could only rely on the information having been filed in good faith, because the directors had signed it, but the registrar merely filed it in the register. Under the Spanish model, also followed by most Southern American countries (and similar to the Italian notarial system), an agent conducted the due diligence process, thus ensuring a higher level of truthfulness. This showed that the value of the registered data lied on a spectrum. Finally, Middle Eastern countries relied on business registries (which were called economic departments and licensing authorities) for revenue collection and licensing purposes, in the absence of any tax authorities. Given this variety, he suggested that the best practice in this area should be for the register to act in compliance with the applicable legal requirements.

106. *Mr Wool* pointed out that the description of this CPF in the Guide on Electronic Collateral Registries had been modelled after the Cape Town Convention on one hand, and national laws on secured transactions on the other. In business registries, there was only an equivalent of the latter. He queried whether the truth criterion, which was specific to business registries, required any additional items related to compliance and authority. *Ms Gullifer* further noted that, while what had been included in the description of this CPF in the Guide on Electronic Collateral Registries may have held equally true for business registries, the legal requirements set out for the latter were much wider than in collateral registries.

107. *Mr Lamb* noted that all registries, irrespective of their jurisdiction, had to comply with FATF Recommendations. These standards required registered data to be adequate, i.e., fit for the purpose of being used by regulatory authorities and other competent authorities, for which purpose it had to be accurate. In other words, the information in the business registry must be adequate, accurate, and timely (i.e., up to date). Although FATF Recommendations were not legally binding, most jurisdictions had enacted some mechanism through legislation to make sure that business registry data fulfilled these requirements. *Ms Gullifer* suggested that FATF Recommendations might be relevant for other CPFs, but this CPF dealt with compliance with the law as a minimum standard.

108. *Ms Gullifer* further noted that the description of this CPF should be amended to replace the reference to a 'sound' legal framework with a reference to the 'applicable' legal framework, whatever it might be, to avoid setting a normative standard. In the same vein, the second paragraph of the CPF should be considered carefully to avoid normative statements. *Mr Murray* argued that if the law did not keep pace with the reality of commercial transactions, it would fail to engender trust in business registry users, and it should be changed. *Ms Veneziano* noted that it was the purpose of the other CPFs to ensure that the registry followed best practices, even despite an outdated law. This CPF merely stated that legal or regulatory requirements should be factored in in the operation of the registry, without preventing the registry from doing more than it was required by such requirements. *Mr Wool* agreed that national law should be the minimum standard, not the upper limit, for best practices.

109. *Mr Cowan* suggested that it could be useful to add a best practice statement that registrars should identify the key pieces of legislation under which they operated, for the benefit of those who dealt with the registrar. While business registries had to comply with all laws, such a list would be limited to the laws under which the registrar had been established, whether specific to it or not.

110. *It was agreed that this CPF was even more important in the context of business registries, due to the requirement of data being accurate. It should be amended to refer to compliance with the applicable legal framework, rather than a sound legal framework, as a minimum standard. The fact that business registries could go beyond legal requirements, and implement best practices in line with their purposes and functionalities, should be highlighted.*

#### Discussion on CPF No. 11 (Legal Authority of the Registrar)

111. *Ms Tarailiene* explained that business registries' responsibilities were usually broader than those of collateral registries (for instance, in addition to registering data, they issued certificates, made certain decisions, and imposed fines for late filing or failure to file required documents). She noted that it could be important to highlight that business registries often implemented the four-eyes principle in the registration process, with a processing officer revising the application and the document, before taking a final decision. She further suggested discussing how the data verification process could be automated, in line with the World Bank's data-driven model.

112. *Mr Wool* noted that this CPF had a very particular application in the collateral registry context, where it had been included to deal with an issue connected to Article 28 of the CTC.



This CPF had been included to ensure that the registrars had the authority to correct errors resulting from system malfunctions, as an exception to the default rule that the burden to correct errors lied on the users. He queried whether this specific concern also arose in the context of business registries, hence justifying keeping this as a separate CPF, also considering that the same issue was covered in a more general way by CPF No. 10.

113. *Mr Murray* agreed that there was some overlap between this CPF and CPF No 10, to the extent that the powers of the registrar were encompassed in the applicable legislation. For instance, the UK had recently changed its legislation to enhance the registrar's powers to ensure that registered data was correct. He suggested that, to differentiate it from CPF No. 10, this CPF could be titled 'trusting the custodianship of the registrar', and set out that the registrar should have the requisite powers to ensure the accuracy of its data. To engender trust in the registry, the registrar must do everything possible to ensure that the data on the registry was correct, whether they had the power to correct it or not. *Mr Wool* pointed out that the responsibility of business registries should not be extended to making sure that registered information remained up to date. *Mr Farrell* opined that, in case the registrar learnt that a piece of information is no longer accurate, it should be able to correct it.

114. *Mr Cowan* noted that it was not clear whether this CPF suggested that the law should allow registrars to eliminate detected failures, or whether this was an assumption based on registry regulations that did not require a legal change. *Mr Wool* clarified that, if an annexe about legal principles that were presupposed by, or were facilitative of, the text was to be included, this CPF would assume that the registrar had the legal authority to correct errors resulting from a system malfunction.

115. *Ms Gullifer* raised the question of how this CPF would interact with the proposed new CPF on Correctability or Rectifiability. *Mr Wool* summarised that there were a range of errors and inaccuracies, which were dealt with in three different parts of the detailed outline. First, CPF No. 9 on Interoperability aimed to ensure that a factual change in another jurisdiction, possibly making a piece of information inaccurate, would be automatically reflected on the registry. Second, in the case arisen under the Cape Town Convention and dealt with by CPF No. 11 on Legal Authority of the Registrar, if all (or parts of all) registrations were inaccurate because of a system malfunction, it would be impossible or very difficult to ask all users to correct them. Lastly, the new CPF on Correctability or Rectifiability would deal with minor errors, such as graphical mistakes, that could be corrected in a non-controversial way. He noted that all three cases required identifying best practices to deal with various sources of inaccurate information on the system. He queried whether a best practice statement should be limited to recommend compliance with the law, as opposed to including a more substantial recommendation.

116. *Ms Gullifer* further pointed out that this was the only CPF that mentioned a registrar. She queried whether business registries needed a registrar to operate them. If that was the case, she noted that it might be necessary to state that, as a best practice, the registry should have a registrar with certain powers. *Mr Lamb* agreed that the current text should be replaced to provide some general guidance on the position of the registrar, also considering that in the past years most jurisdictions had provided the registrar with the ability to correct errors on the registry, and this CPF seemed to be a repetition of No. 10 on Legal Authority and Compliance. In particular, guidance could be provided as to how registrars were expected to use their powers to make sure that the registry is adequate, accurate, and timely.

117. *Mr Cowan* noted that electronic registries should let people know how they dealt with each of the following types of possible errors: user mala fides, errors by the user, errors due to data not directly controlled by the registry (e.g., concerning a company in another jurisdiction), electronic system errors, and registrar errors. Because different registries had to comply with different legislation, it would be helpful if they made it public how they dealt with these individual issues, to clarify to users what level of accuracy they could expect when

logging into their system. Further, registries should publish their notification policy, namely, whether they notified those who ever searched a piece of information of any correction being made.

118. *It was agreed that this CPF was connected to CPF No. 10 on Legal Authority and Compliance, and that it should be coordinated with the new CPFs on Accuracy, and Correctability or Rectifiability. One possible approach was to recommend disclosing how business registries dealt with different types of errors.*

Discussion on CPF No. 12 (Reliability)

119. *Ms Tarailiene pointed out that the Guide on Electronic Collateral Registries considered different types of reliability: of the software and hardware, of the data, and of the personnel involved in the operation of the registry, with the main focus being on software and hardware. She noted that this was a more technical CPF that, with small adaptations, seemed to apply to business registries, as well.*

120. *It was agreed that, except for minor adaptations, the same text as in the Guide for Electronic Collateral Registries could be reused.*

Discussion on CPF No. 13 (Retention)

121. *Ms Tarailiene explained that this was also a technical CPF. Data retention policies were usually defined by national laws and regulations, which specified what data should be stored, where, and for how long. She suggested that the text from the Guide on Electronic Collateral Registries could be largely reused.*

122. *Mr Murray noted that modern electronic registries generally retained data indefinitely and marked it as unavailable, rather than removing it from the registry, so that in case of recourse to a court, they were able to produce the register entry as at the relevant point in time. He suggested that this CPF should include making sure that the registry can validate data long-term into the future (e.g., that a signature had been valid, or a filing had been made correctly, at the relevant point in time). Mr Farrell noted that, in any event, business registry data remained in the public domain even after it was removed from the registry, since users could download it and make copies of it when it was on the registry.*

123. *Mr Tirado objected that companies could have an interest in having certain types of information (for instance, financial accounts, financial results of a business, or people to whom the company has given a power of attorney) deleted, after the time period during which it had to be stored pursuant to the law elapsed. The analysis as to whether it was best practice for the registry to preserve information indefinitely should be more granular, and might require some coordination between the activity of the registry and the applicable legal framework. Mr Hygate noted that, in common law jurisdictions, there was a distinction between the data that pertained to the existence of companies, for which a record was generally kept indefinitely, and administrative information, such as receipts and other transactional data, that could be disposed of.*

124. *Mr Wool commented that this seemed like an example of the principle by which the registrar had to comply with the legal requirements in their country as a minimum, and possibly go beyond it, where a best practice had been identified. He queried whether the shift to electronic registries, making it easy to store data for longer periods of time or even indefinitely, had enabled a best practice that went beyond the retention period set by the applicable law, and whether it was the default position among business registries that information should be retained indefinitely.*

125. *Mr Lamb noted that, in addition to complying with data retention policies set by national legislation, business registrars had to consider any AML or other relevant legislation, as well as other international assessors and standards requiring data to be adequate, accurate, and timely, and data protection legislation. He suggested that the best practice in*

this area might be to make sure that the registry considered and complied with all relevant sources.

126. *Mr Tirado* agreed that this CPF should include a requirement for the registry to comply with all relevant laws, and to be designed so as to allow information to be removed expediently and efficiently in cases where it was provided by the law. He added that in doing this, the future Guide should refrain from identifying best practices for what the law should provide in the context of data retention policies.

127. *Mr Wool* queried whether, in case of a gap in the law, the default rule for electronic registries should be to keep data (at least that which qualified as basic information) indefinitely. *Mr Tirado* pointed out that, in the absence of any laws or regulations providing for the removal of data, the question would be whether the party whose information was stored in a third-party's storage facility had the right to ask for its information to be deleted, pursuant to the applicable data protection rules. *Mr Murray* noted that, since business registries were public, parties who had provided certain information for a valid reason, at a certain point in time, did not have a right to have it removed.

128. *Mr Cowan* noted that registries could have a choice in this regard, if there was a gap in the law. Business registries tended to have a maximalist view, whereby they kept data as long as possible. The alternative, minimalist view was to keep the minimum data required by the law to carry out the registry's functions.

129. *Ms Gullifer* referenced paragraph 227 and Recommendation No. 52 from the UNCITRAL Legislative Guide, which dealt with preservation of evidence. *Mr Wool* suggested that, considering that data in non-electronic registries should be preserved indefinitely pursuant to the UNCITRAL Legislative Guide, this seemed to be even more the case in electronic registries. However, he noted that this could impinge on accuracy, since it would entail retaining information that would no longer be accurate (e.g., a secured transaction, which either existed or had been discharged). On the opposite, records concerning a sale transaction, or any other instantaneous transaction, were facts for which there was not a right to be forgotten.

130. *Ms Caroline O' Brien* explained that ISO standards, whether on information security, quality, or business continuity, all required compliance with the applicable laws and regulations. Additionally, ISO standards recommended listing all the pieces of legislation that affected one's organisation. In the context of data retention, registries had to differentiate between the types of data that they had from a security perspective, and identify the risks associated with each one, to implement a specific retention policy for each type of data, as provided by the GDPR. While registries would not remove the record of a sale from their system, they would have to treat personally identifiable information (PII) differently pursuant to the GDPR. In any event, there was no ISO standard that required maintaining data.

131. *Mr Hygate* suggested that, in the context of electronic registries, the format in which information was stored was also relevant. If the registry kept data for long periods of time, or even indefinitely, its format had to be continuously updated, so that it could be read with current technologies. *Mr Cowan* agreed that conversion was a very important point that should be covered somewhere. As registries shifted from one format of database to another, they had to convert documents into the new format to guarantee that they could be read in the future. Registries should periodically convert everything into a modern standard. This raised the issue of how the registry could confirm that the converted document was still the original record. *Ms Gullifer* stressed that this was an example of a property that only applied to electronic registries and not to paper based registries.

132. *It was agreed that this CPF should recommend compliance with the retention policies identified by the applicable laws and regulations. In case of gaps, reference should be made to the UNCITRAL Legislative Guide, with the necessary adjustments to electronic (as opposed*

to paper-based) registries. The possibility to differentiate between core information on one hand, and ancillary information on the other, should also be considered.

Discussion on CPF No. 14 (Timeliness)

133. Ms Tarailiene highlighted that the main difference between collateral registries and business registries was that the former were notice-based and had automated data registration, whereas in the latter data became available and searchable by third parties only after a verification process. However, the World Bank data-driven model encompassed automated registration processes for business registries, as well.

134. Mr Wool noted that, in the context of collateral registries, it was essential that registration was instantaneous, because it only became effective when it was searchable. In the business registry context, timeliness was not as imperative, although being good practice. He added that this was an example of how the shift to electronic registries could push business registries to adopt a higher standard.

135. It was agreed that this CPF applied equally to business registries.

Discussion on CPFs No. 15 (Trustworthiness) and 16 (User-centred design)

136. It was agreed that these CPFs applied equally to business registries.

Discussion on CPF No. 17 (Validation)

137. Ms Tarailiene stressed that Validation should generally be performed in the same way in business registries as in collateral registries. However, in the context of business registries, it should be distinguished from the new CPF on Verification. She further noted that Validation could be semantical or syntactic, and that, in electronic registries, many cross-checks could be performed by the system (e.g., if any mandatory fields were submitted blank, or the user tried to fill in with letters a field that should have been filled in with numbers).

138. Mr Murray suggested that the key word in this regard should be 'triangulation'. With a view to automating as many processes as possible, registries should use all available data sources within their jurisdiction to avoid duplications, and to validate the information that they were presented with before filing it. In this sense, this CPF was linked with Interoperability.

139. Mr Cowan noted that the Guide on Electronic Collateral Registries described Validation as the property of improving the integrity and reliability of the data in the registry, which did not entail accuracy of the data. Accuracy was not part of the functions of a notice-based system, which was the main difference from business registries. Because collateral registries were not concerned with Accuracy, the main text on Validation was technical, dealing with how to make sure that users did not type in information that does not make any sense.

140. It was agreed that Validation was a more technical point that should be reconsidered in the context of business registries, in light of the ensuing discussion on Accuracy.

Discussion on new CPF on Verification

141. Ms Tarailiene explained that, although being closely linked to the following CPF on Accuracy, the CPF on Verification was different because it focused on the process of confirming that data was accurate and valid, rather than on the property of registered data being accurate and error-free. The UNCITRAL Legislative Guide outlined two main types of business registries. In so-called approval systems, judges and notaries were involved in the verification of data prior to its registration, whereas in so-called declaratory systems, the registry recorded data as it was submitted, with only limited verification possibly being

conducted against external databases through Interoperability. *Mr Wool* referenced paragraph 117 of the UNCITRAL Legislative Guide for this distinction.

142. *Mr Cowan* stressed that definitions would be crucial in finalising the document. He suggested that, in the definition of Verification, whether accuracy, validity and truthfulness were cumulative or alternative requirements should be clarified. Further, a definition of validity should be provided.

143. *Ms Gullifer* noted that the topic covered by this CPF had not been considered in the Guide for Electronic Collateral Registries, since its scope had been limited to notice-based systems, where the registrar did not have the function of ensuring accuracy of the data. She added that Verification seemed to be a subset of Accuracy, since it was limited to the moment that data was submitted, while leaving out the process of making sure that it was continuously accurate.

144. *Mr Murray* remarked that accuracy of the data was a result of several different processes. At the time of submission, registers verified who had sent the data, the identity of natural persons, and whether they had the powers to submit that data. This was the Verification process. The Validation process concerned making sure that data had been properly filled in. Following this, registers processed data using all the tools available (including Interoperability) to validate it.

145. *Mr Murray* noted that validation processes in business registries were far more advanced than in collateral registries. Modern business registries codified the legislation into a set of business rules that had to be adhered to, before the registration was made. Each rule should include a reference to the corresponding legal rule, to enhance transparency. *Mr Cowan* agreed that this was arguably best practice in registry operation. He clarified that any registry could analyse the legal framework and develop a set of corresponding business rules that automatically applied, to ensure that incoherent registrations would not be allowed into the registry. For instance, if a discharge was not allowed pursuant to the applicable law, it should not be allowed by the IT system. This may be tied with the definition of validity.

146. *It was agreed that this CPF should be reconsidered in the context of business registries, in light of the ensuing discussion on Accuracy.*

#### Discussion on new CPF on Accuracy

147. *Ms Tarailiene* explained that the main idea behind the CPF on Accuracy was that business registries qualified as competent authorities and obliged persons, hence they must ensure that users could rely on their data being accurate and up to date. The UNCITRAL Legislative Guide gave a definition of a 'good quality and reliable' business registry, as a registry that kept registered information as current and accurate as possible. Errors, frauds, and changes in circumstances could affect the quality and accuracy of the data, hence a separate CPF dealt with Correctability or Rectifiability. Regulatory frameworks must ensure that registries implemented data validation, verification, and correction mechanisms to maintain data quality and data accuracy. For instance, the EU Directive on Beneficial Ownership Registrations required member States to ensure that corporate entities maintained accurate, adequate, and current Beneficial Ownership information. Notably, if companies were required to have accurate, adequate, and current data, this would be reflected in the data submitted to the registry.

148. *Ms Gullifer* pointed out that Recommendation 30 from the UNCITRAL Legislative Guide concerned maintaining a current registry. Unlike the previous CPF, Accuracy was not limited to ensuring the accuracy of information at the time it was filed, but extended to ensuring that it remained accurate through time. The UNCITRAL Legislative Guide stated that the law should require registrars to ensure that the information was kept current, including through (a) sending automated requests to registered businesses to prompt them to report whether the information remained accurate, (b) displaying notices of required

updates in the office and reminders on the website and social media, (c) identifying sources of information that would assist (which was connected to Interoperability), and (d) updating the registry as soon as amendments were received. *Ms Canafoglia* further directed the experts to Recommendations 48 and 49 from the UNCITRAL Legislative Guide.

149. *Mr Wool* remarked that Recommendation 30, letter (d), was the only point that dealt with an actual change to the system, and it only required registrars to promptly process amendments received. It did not require them to proactively make changes. This raised the question of whether it was best practice for the registrar to change registered information that it knew to be inaccurate, even though nobody had authorised it to do so.

150. *Mr Hygate* noted that, in common law jurisdictions, registrars would never take the unilateral initiative to change registered information. They might instead add a notice warning that the registrar had reason to believe that certain information on the registry was inaccurate or out of date, and get in touch with the owner of the record to prompt him or her to update it. If nobody had the authority to update the information (e.g., assuming that the company had been liquidated, the directors had died, etc.), the registrar would seek an order from the court as the ultimate decider. *Mr Tirado* added that the registrar could not sua sponte change a registration in civil law jurisdictions either, and even less so in those civil law jurisdictions where the registry had a semi-public condition. There, the registrar would get in touch with the person who owned the registration and, if that person disagreed with the amendment, it would seek a court order.

151. *Mr Murray* agreed that the best practice in terms of accuracy was limited to employing all known techniques (including AI and other data analytical techniques) to find anomalies within the registry before they were exposed to the public. He noted that the accuracy of the registry was also a function of its transparency. The larger the number of searches and requests by the public, the easier it was for anomalies to come to the fore, and for the registry to investigate and direct the person that had registered the information to correct it. Timeliness was further critical in ensuring accuracy, also considering that a lot of the information in business registries was registered post facto (e.g., directors were registered after the board meeting where they had been appointed).

152. *Mr Wool* summarised that there seemed to be a best efforts obligation to assess the accuracy of data, rather than ensuring accuracy. All the steps listed by the UNCITRAL Legislative Guide aimed to assess the accuracy of registered information, but if the registrar assessed that a piece of information was not accurate, it would direct a legally authorised person to make the change, and if this was not possible, it would seize a court.

153. *Mr Finnegan* suggested that the project should address the issue of how registrars could ensure that a piece of information was accurate. He referenced again the so-called 'triple A', one additional A standing for Auditing. Registrars should keep an audit trail to ensure transparency of the process, through enabling users to trace back the chain of custody and understand whether the information is accurate. *Mr Murray* added that Accuracy could not be absolutist. Large registries, such as in the UK where 600,000 new companies were created every year, could not possibly ensure that every one of those filings was accurate. Instead, he suggested that the best practice should be to institute sampling auditing programmes that would sample the data and guarantee that there was a level of accuracy within the register.

154. *It was agreed that, in the business registry context, there was a strong desire for registrars to take all reasonable diligent steps to assess the accuracy of registered information (see Recommendation No. 30 in the UNCITRAL Legislative Guide), and to seek the correction of inaccuracies, including through contacting the parties and, if the parties did not take action, seeking a court order.*

155. *Furthermore, if under the applicable law the registrar had the authority to directly make changes, the registrar could or should do so, depending on how the law was phrased (see Recommendations No. 48 and 49 in the UNCITRAL Legislative Guide).*

Discussion on new CPF on Correctability or Rectifiability

156. *Mr Wool* highlighted that the detailed outline of the future Guide defined errors as a deviation from accurate information. He noted that there were a variety of possible deviations from accurate information, such as typographical errors, computer-generated errors, manuscript errors, and change of facts. Deviation from accurate information was the umbrella term. He suggested that the shift to electronic registries, and the possibility of system errors, raised the question of whether the registrar should have an independent obligation to correct any inaccuracy caused by its system, rather than relying on the parties to do it. In any case, the different reasons why a piece of information may not be accurate should be identified, together with actions that could or could not be taken in respect to each of them.

157. He further outlined the distinction between the various CPFs that touched upon Accuracy. CPF No. 17 on Validation and the new CPF on Verification dealt with processes aimed to maximise the probability that the data being registered was accurate. The new CPF on Accuracy encompassed a standing obligation, stemming from the registrar's trustworthiness and fiduciary duty, to take all steps to assess and enhance the accuracy of information already in the system, including through the steps listed by Recommendation 30 from the UNCITRAL Legislative Guide (which included directing the party entitled to make the change to do it) and through Interoperability. The new CPF on Correctability or Rectifiability spelled out the conditions for the registrar to directly rectify, correct, or change data in relation to each of the different categories of deviations from accuracy (typographical, computer-based, changes of fact, etc.). In addition to doing what it could or should do pursuant to the applicable law, the registrar should be able to correct computer-based errors autonomously, and seek a court order where necessary. Possibly, the registrar could put parties on notice if it had reason to believe that a piece of information was inaccurate. Whereas the registrar's action under the CPF on Accuracy was vis-à-vis the parties, its action under the CPF on Correctability or Rectifiability was vis-à-vis the data.

158. *Mr Cowan* suggested that, rather than advising on how registrars should correct errors, the best practice in this regard was limited to letting users know what the registry's policies were, how it assessed accuracy, and how it dealt with different types of errors in terms of corrections and notifications. This would cater for the different legal rules applicable to registries across jurisdictions, without suggesting what the law should have provided. In relation to computer-generated errors, unless they were regulated by the applicable law, the registrar should develop proper process regulations that stated how it would have dealt with them.

159. *Mr Wool* pointed out that this was connected to CPF No. 11 on Legal Authority of the Registrar. He queried whether, in case of the law being silent on computer-based errors, it would be best practice for the registry to develop a regulation, or whether there should be a principle of law (possibly to be included in the annexe to the future Guide) that registrars had the right to correct computer-generated errors.

160. *Mr Lamb* pointed out that FATF Recommendation 24 and IO 5 were also relevant in this regard. He noted that the reason why these issues were more prevalent than they had been five years before was that AML, CTF, and other similar legislation and regulations had become a driving force. FATF Recommendation 24 mentioned the following aspects: (i) adequacy, stating that the way to determine whether something was adequate was through feedback from the other competent authorities; (ii) accuracy, which pursuant to IO 5 (which mainly dealt with Business Ownership information, but affected basic information as well) in electronic registries must be proved using other registries or other governmental sources of information (this was done by human employees, but in the near future it would likely be done by AI). Any best practice in this regard should be closely linked to FATF Recommendation 24 and IO 5. He further suggested that the future Guide should mention

the EU AML 6 Directive, which was consistent with (and even more advanced than) FATF Recommendations.

#### Discussion on new CPF on Standardisation

161. *Mr Finnegan* noted that there seemed to be an overlap between Standardisation and Interoperability, as the latter (concerning exchanges of information and data) was enabled by the former. He suggested that they were so closely related that they should be covered by the same CPF, either through strengthening the CPF on Interoperability with language to also cover Standardisation, or vice versa.

162. *Mr Cowan* opined that the level of overlap with Interoperability depended on the definition of Standardisation that the project would adopt. If the purpose of Standardisation was understood to be enabling Interoperability with other systems (as was most often the case), it should not be included as a separate CPF. Interoperability was generally the main reason for implementing Standardisation in electronic registries, while other reasons, such as efficiency, were shared by any type of organisation.

163. *Mr Wool* mentioned paragraph 46 in the UNCITRAL Legislative Guide, which dealt with the use of standard registration forms. *Ms Monica Canafoglia* suggested coupling the CPF on Standardisation with the section on one-stop-shop (paragraphs 86 ff) of the UNCITRAL Legislative Guide. *Ms Gullifer* noted that the UNCITRAL Legislative Guide's focus was on micro, small and medium-sized enterprises ('MSMEs'), hence simplicity was crucial in that context to allow even micro businesses to be on the registry. She further pointed out that Standardisation was sometimes regulated by the legislation.

164. *It was agreed that there should be a standalone CPF on Standardisation. However, it should be coordinated with CPFs No. 9 on Interoperability and No. 16 on User-Centred Design, keeping in mind that standardisation in electronic systems is conducive to harmonisation, and subject to any existing legal requirements.*

#### Discussion on new CPF on Risk Management

165. *It was agreed that there should be a standalone CPF on Risk Management, which should include, but not be limited to, cybersecurity.*

#### Discussion on new CPF on Continuous Innovation

166. *Mr Cowan* noted that it was not entirely straightforward whether Continuous Innovation should be a CPF. Firstly, in highly regulated industries, there were specific standards that needed to be met, and continuous innovation (which was different from keeping up to date with technology) was not encouraged. Secondly, it was not an aspect specific to electronic registries. *Ms Gullifer* added that it was not an aspect specific to business registries, and if it was added, it should be applied to collateral registries, as well.

167. *Ms O'Brien* agreed with the previous remarks on continuous innovation. However, she noted that continuous improvement was at the heart of ISO standards, and was closely linked to risk management. Managing risks involved identifying and rectifying issues, as part of a continuous improvement of processes. *Mr Finnegan* agreed that there was a distinction between innovation and improvement. On the one hand, innovation suggested adopting cutting-edge solutions, whereas certain organisations may prefer being conservative and avoiding solutions that were not trusted. On the other hand, it was important to continuously optimise and improve processes. *Mr Murray* agreed that continuous improvement should be included in a best practice statement for registries, especially in light of their risk averse nature, to ensure that their functionality and technical systems did not obsolesce over time.

168. *It was agreed that, subject to a reconsideration of the general discussion, there should be a separate CPF on Continuous Improvement, rather than Continuous Innovation.*



Discussion on new CPF on Justiciability

169. *Mr Wool* noted that Justiciability was the combined result of CPF No. 17 on Validation, the new CPF on Verification, the new CPF on Accuracy, and the new CPF on Correctability or Rectifiability on one hand, and of the use of forms and technologies enabling the presentation of data as a trustworthy representation of the original filing on the other. He queried whether it was necessary to include a separate CPF dealing with the property of keeping information in such a format so that it could be easily and effectively used in court, or whether it was already covered in other parts of the document.

170. *Mr Hygate* noted that the test for legal validity of data held by the registry was whether the court could make a decision based on such data. This required maintaining an audit trail that could give the court all the necessary information for it to make a definitive decision. *Mr Murray* opposed that this would amount to describing the characteristics of a registry, as opposed to stating a best practice for the operation of such registry. *Ms Gullifer* further noted that this seemed to be just one of the many different purposes for which users relied upon information on the registry.

171. *Mr Cowan* added that it might be hard to identify the necessary templates or formats, since it was not possible to anticipate the type of evidence sought by the court. However, audit trails maintained in accordance with the Accuracy and other CPFs would be sufficient to present whatever evidence is needed in court. On the other hand, it could be useful to include a CPF stating that business registries should consider the form in which the courts in a certain jurisdiction accepted or expected evidence (for instance, whether they required paper-based documents, or electronic documents with a digital signature that could be electronically verified). This was particularly relevant for international registries, which had to provide evidence in different jurisdictions, each with specific evidence requirements.

172. *It was agreed that there should be a separate CPF on Evidentiary Value, rather than Justiciability, which should be reconsidered in light of the general discussion.*

General remarks

173. It was agreed that the text of the Guide on Electronic Collateral Registries should only be changed in two cases: (i) if there was a difference between collateral registries and business registries that justified such change, or (ii) because practice had changed (in this case, explanations should be provided as to developments or corrections made). A mark-up version of the draft Guide on Electronic Business Registries against the Guide on Electronic Collateral Registries should be prepared.

174. It was agreed that all references to non-UNIDROIT instruments, including the UNCITRAL Legislative Guide, should be included as footnotes.

175. It was agreed that, to such an extent possible, references to specific countries as examples should be avoided to limit the risk of the Guide going out of date. In any case, all examples specific to collateral registries should be excluded, and any additional example should relate to business registries.

176. It was agreed that the language throughout the future Guide should reflect the fact that not all business registries were maintained at a national or federal level (for instance, in Canada and the United States, they were maintained at the State level).

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177. *The CTCAP Directors thanked all the participants for their valuable input and closed the meeting.*

**ANNEXE 1****Agenda**

An initiative under the auspices of the Town Convention Academic Project

Project Leads:



Founding Sponsor:



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**7th Workshop on Best Practices in the  
Field of Electronic Registry Design and Operation**

**Agenda**

**13 and 14 February 2024**

*UNIDROIT, Via Panisperna 28, Rome, 00184, Italy  
and via Zoom*

*Workshop Chairs: Professor Louise Gullifer, Professor Jeffrey Wool, Professor Ignacio Tirado*

*(all times are in Central European Time (CET), UTC +1)*

Tuesday, 13 February

09:30 – 10:00	Delegate registration and tea/coffee Opportunity for virtual participants to check connection
10:00 – 10:15	Opening Remarks <i>CTCAP Directors</i>
10:15 – 10:30	Project Background Overview. Summary of Intersessional Work <i>UNIDROIT Secretariat</i>
10:30 – 10:45	Presentation on the Draft Guide on Best Practices for Electronic Business Registries <i>Ieva Tarailiene</i>
10:45 – 11:15	Panel of Experts: Discussion on Document Content
11:15 – 11:30	Coffee Break
11:30 – 11:45	Presentation of Electronic Business Registry Features and Categorisation into Input, Quality, and Output <i>Ieva Tarailiene</i>
11:45 – 13:00	Panel of Experts: Discussion on Features to Be Included in the Guide on Best Practices for Electronic Business Registries
13:00 – 14:00	Lunch





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14:00 – 15:30	Panel of Experts: Discussion on 17 CPFs Defined in the Guide on Best Practices for Electronic Collateral Registries and Their Application in the Electronic Business Registry Context
15:30 – 15:45	Coffee Break
15:45 – 17:15	Panel of Experts: Continued Discussions
17:15 – 17:30	Summary and Overview of Day 1

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Wednesday, 14 February

9:00 – 9:30	Tea/coffee Opportunity for virtual participants to check connection
9:30 – 9:45	Opening of Day 2 – Introductory Remarks <i>CTCAP Directors</i>
9:45 – 11:15	Panel of Experts: Discussion on New CPFs and Their Significance and Application in Electronic Business Registries
11:15 – 11:30	Coffee Break
11:30 – 12:15	Panel of Experts: Continued Discussions
12:15 – 12:45	Discussion on Survey for Business Registries
12:45 – 13:00	Closing Remarks

Page 2 of 2



**ANNEXE 2****List of registered participants**

1. Alexis Lupo (IACA)
2. Andrea August (World Bank)
3. Anna Veneziano (UNIDROIT)
4. Aris Molfetas (World Bank)
5. Benedetta Mauro (UNIDROIT)
6. Carl Dietz (IACA)
7. Carla Bonaventure (IACA)
8. Caroline O'Brien (Aviareto)
9. Declan Geaney (Seapoint)
10. Denis Finnegan (Aviareto)
11. Goran Vranic (World Bank)
12. Hamza Hameed (Access Partnership)
13. Ieva Tarailiene (NRD Companies)
14. Ifeanyichukwu Egbuniwe (Export-Import Bank of the United States)
15. Ignacio Tirado (UNIDROIT)
16. Ingmar Vali (Centre of Registers and Information Systems, Estonia)
17. Jaime Weddle Jones (IACA)
18. Jeffrey Wool (AWG; UNIDROIT Foundation)
19. Jilian Wang (China Academy of Space Technology)
20. Jingxia Shi (Renmin University of China)
21. John Kimbler (Paradigm Applications)
22. John Murray (Foster Moore)
23. Julian Lamb (Jersey Financial Services Commission)
24. Justin Hygate (Foster Moore)
25. Kathy Hillman-Weir (Information Services Corporation)
26. Laurel Garven (Information Services Corporation)
27. Louise Gullifer (University of Cambridge)
28. Marco Vianello (Infocamere; EBRA)
29. Marla Weinstein (ICAO)
30. Michael Choi (Aviareto)
31. Monica Canafoglia (UNCITRAL)
32. Myrte Thijssen (UNIDROIT)
33. Nina Barker (Federal Aviation Administration)
34. Paul Farrell (PJMF Services)
35. Rebecca Longfellow (IACA)
36. Richard Farrell (Companies Registration Office, Ireland)
37. Rob Cowan (Aviareto)
38. Siew Huay Tan (Civil Aviation Authority of Singapore)
39. Silverio Espinola (ICAO)
40. Simona Boscolo Bragadin (Bureau Van Dijk)
41. Souichirou Kozuka (Gakushuin University)
42. Tambet Artma (Centre of Registers and Information Systems, Estonia)
43. Tanya Gibson (IACA)
44. Teresa Rodríguez de Las Heras Ballell (Universidad Carlos III de Madrid)
45. Theodora Kostoula (UNIDROIT)
46. Thomas Connolly (IACA)
47. William "Bill" Toole (IACA)
48. William Brydie-Watson (UNIDROIT)