

Role of White Paper in smart contract formation within ICO (IEO, IDO)

by **Sergey Kasatkin***

Abstract: One of the primary issues for blockchain's widespread adoption in society is the issue of applying traditional contract law to smart contracts. This is because certain elements of contract law are not fully adapted to the formation of agreements with the blockchain. White Paper, which is widely used in other procedures for the placement of digital assets (ICO, IEO, IDO) can serve as an appropriate instrument to explain blockchain code in valid legal manner.

This article investigates the interaction between law and software by means of White Paper. According to the author, approaching a White Paper and program code as a unified concept could solve many practical problems, including the creation of a clear model of ICO smart contract formation, determination of the time of ICO smart contract conclusion and ensuring consistency between the White Paper and contract law requirements for the proper structure of contracts.

Keywords: ICO, white paper, smart contract, blockchain

© 2023 Sergey Kasatkin

Everybody may disseminate this article by electronic means and make it available for download under the terms and conditions of the Digital Peer Publishing Licence (DPPL). A copy of the license text may be obtained at <http://nbn-resolving.de/urn:nbn:de:0009-dppl-v3-en8>.

Recommended citation: Sergey Kasatkin, Role of White Paper in smart contract formation within ICO (IEO, IDO), 14 (2023) JIPITEC 484 para 1.

A. Introduction

- 1 A White Paper is an informative document that helps professionals figure out a technical issue, solve a difficult problem, or make an important management decision. A White Paper is a widely used tool of content marketing, which is based on the assumption that clients need not just a supplier of products and services, but a trusted advisor.
- 2 Graham defines this document as a “persuasive essay that uses facts and logic to promote a certain product, service, or viewpoint.”¹ There are three

main types of White Papers in marketing: 1. A descriptive document that explains the technical features and benefits of a product or service; 2. A numbered list provides a light and lively set of points or concerns about some topic; 3. A problem/solution with recommendations for a new, improved solution for an important business or technical problem.²

- 3 The main goals of a White Paper are to increase sales, enhance trust and loyalty for the company, promote a new product or service or increase brand awareness etc. A White Paper solves these problems through

* Chief Compliance Officer at 'NORCHEM LIMITED' (Malta). Address: Valletta Waterfront No. 6, 45-46 Forni Complex, Pinto Wharf, Floriana, Malta FRN1913. E-mail: s.kasatkin@norchem.mt.

1 Graham Gordon, 'White Paper FAQ (Frequently Asked Questions)' (28 September 2022) <https://thatwhitepapguy.com/white-paper-faq/#what_is> accessed 10 December 2022.

2 Graham Gordon 'White Papers For Dummies' (April 8, 2013).

the use of expertise, that is, by demonstrating a way to solve a practical problem or with a deep analysis of a particular technical or business issue. Thanks to the expert and professional approach, the reader becomes interested in the proposed product or service.

- 4 Initially, White Papers were widely used mainly in the field of IT. However, at the moment, this document is read by many B2B executives who are interested in purchasing an expensive product for business purposes. The White Paper is addressed to IT managers and staff, financiers, corporate executives (decision-makers) and other managers. Thus, the format, content and structure of the White Paper is generally aimed at the professional and qualified reader from the field of B2B.
- 5 Since 2017, the White Paper has become widely used in blockchain projects. Early versions explained the procedures for placing digital assets, called an “Initial Coin Offering” (ICO): “Initial coin offerings are a mechanism to raise external funding through the emission of cryptocurrency tokens, which conceptually are entries on a blockchain.”³ “ICOs take place as a form of investment, or fundraising events, for a project that may involve a product or a service. The entity creating an ICO offers participants unique ‘coins’ or ‘tokens’ in exchange for consideration.”⁴ “ICO can be generally defined as a kickstarter-style crowdfunding campaign that allows the public to participate in an early-stage project and a project team to raise financial capital to support the development of its project across the globe.”⁵ “Thus, ICOs have become a venture capital-raising tool for start-ups developing projects and applications on the blockchain and trying to escape the constraints of regulation.”⁶
- 6 However, due to the large number of fraudulent ICO projects, new forms of digital assets placement have been developed. They leverage crypto exchanges

as intermediaries. Thus, “Initial Exchange Offering” (IEO) and “Initial Dex Offering” (IDO), have appeared and are now widespread.

- 7 An IEO is a more reliable type of token sale, as each project is verified by a centralized crypto exchange which in turn provides user identification, controls transactions, and ensures security. IDO is very similar to IEO, but instead of a centralized exchange, the organizer of IDO is a DEX platform (i.e. a decentralized exchange). The decentralized exchange does not store or control the digital assets of anonymous users. At the same time, a decentralized exchange serves merely as a trading platform that allows sellers and buyers to find each other in order to exchange digital assets. All operations on DEX-platforms occur through smart contracts, without the participation of a centralized management body.
- 8 White Papers are widely used to explain procedures for the placement of digital assets (ICO, IEO, IDO) The conclusions of this study could be applied equally to ICO, IEO and IDO. Therefore, for convenience, all mentioned procedures will be referred in this article by one term: “ICO”.
- 9 The ICO White Paper, as well as the White Papers of non-blockchain projects, is in most cases a fairly complex document designed for a professional reader. The ICO White Paper describes the technical features of the project, and contains many special terms and concepts. However, during the ICO process, such a document is also offered to consumers who, in most cases, do not have professional knowledge and skills in the field of blockchain and digital assets. Thus, from the perspective of an ICO, an apparent contradiction arises regarding the initial designation of the White Paper. Therefore, the format, content, and functions of the ICO White Paper should be thoroughly analyzed and aligned through legal regulation..
- 10 Undoubtedly, the structure and content of an ICO White Paper has many unique features compared to a more traditional marketing document. An ICO White Paper is always a descriptive document that explains the features and benefits of the ICO project. The main purpose of an ICO White Paper is to attract the investors and make them want to invest . For that, it is necessary to present all information about the project in an appealing manner, emphasize its strengths, describe prospects and benefits of investing.

3 Florysiak David, Schandlbauer Alexander, ‘The Information Content of ICO White Papers’ (December 23, 2019) <<https://ssrn.com/abstract=3265007>> accessed 10 December 2022.

4 Stylianou Theodoros, ‘An Investigation into the Utility and Potential Regulation of Initial Coin Offerings and Smart Contracts in Selected Industries and Jurisdictions’ (November 1, 2018) <<https://ssrn.com/abstract=3276822>> accessed 10 December 2022.

5 Burilov Vladislav, ‘Regulation of Crypto Tokens and Initial Coin Offerings in the EU’ (May 30, 2019) <<https://ssrn.com/abstract=3400705>> accessed 10 December 2022.

6 Barsan Iris M., ‘Legal Challenges of Initial Coin Offerings (ICO)’ (November 2, 2017) <<https://ssrn.com/abstract=3064397>> accessed 10 December 2022.

B. White Paper as a link between contract law and ICO smart contract

- 11 When thinking about how to qualify blockchain in legal terms, one of the most important problems is the issue of the applicability of traditional contract law to ICO smart contracts. On the one hand, modern civil law is based on legal concepts that have proven their effectiveness over many centuries. But on the other hand, traditional regulatory approaches can hold back the introduction of innovative blockchain technology into social and legal practice.
- 12 This problem is clearly reflected in relation to ICO smart contracts. All ICOs are based on smart contracts, defined as a computerized transaction protocol that fulfills the provisions of a contract, or in other words, a program that enforces the contract.⁷ Smart contracts guarantee automatic placement of tokens to investors after the transfer of cryptocurrency to the designated wallets of the ICO issuer. Smart contracts thus enable the exchange of cryptocurrencies for the newly issued tokens.⁸ The program determines everything: from how parties will transact with the cryptocurrency, how the transactions will be recorded, and how the new coins may be created and released.⁹
- 13 The use of the blockchain makes it possible to seamlessly structure a multi-level chain of rules, conditions and consequences all implemented in a smart contract. All transactions happening on the blockchain may be programmed in and executed by smart contracts. In this regard it is very important that there is a fundamental similarity between the linguistic structure of code, and content of the contract: computer code is based on statements like “if x then y”. In some sense such an approach correlates with contractual terms and conditions.¹⁰

7 Thibault Schrepel, ‘Collusion by Blockchain and Smart Contracts’ (14 January 2019) <<https://ssrn.com/abstract=3315182>> accessed 10 January 2023.

8 Philipp Maume, Mathias Fromberger, ‘Regulation of Initial Coin Offerings: Reconciling US and EU Securities Laws’ (15 June 2018) <<https://ssrn.com/abstract=3200037>> accessed 10 January 2023.

9 Sam Waxenbaum, ‘The SEC and ICOs: Connections Between Digital Assets and Citrus Groves’ (8 May 2019) <<https://ssrn.com/abstract=3385064>> accessed 10 December 2022.

10 Alexander Savelyev, ‘Contract Law 2.0: ‘Smart’ Contracts As the Beginning of the End of Classic Contract Law’ (14 December 2016) <<https://ssrn.com/abstract=2885241>> accessed 10 January 2023.

- 14 Meanwhile, it is unclear how contract law would deal with an ICO smart contract. Traditional contract law is not fully adapted to the formation of agreements that exist only in a programming language. In such cases, the White Paper accompanying an ICO has special importance and performs three important functions: 1) providing an appropriate insight of ICO smart contracts in terms of contract law; 2) ensuring the applicability of existing legislative provisions to ICO smart contracts; 3) providing the interpretation of ICO smart contracts.

I. White Paper as a way of providing an appropriate insight of ICO smart contracts in terms of contract law

- 15 There are several approaches to the legal qualification of smart contracts. Some researchers define a smart contract as a classic legal contract. De Caria states that smart contracts can be considered as actual contracts in their legal meaning, or at the least some form of self-help technology which ensures compliance with contractual obligations.¹¹ Independently from being digitally expressed, every contract is ruled and guaranteed by the law and the parties have the right to file a court-case for compensation in case of agreement violation.¹²
- 16 In my opinion, this approach implies the recognition at the legislative level of agreements formed only in the language of the program code. However, at the present time, contract law of most countries does not provide for such recognition. In addition, the place of smart contracts in the system of concepts of traditional contract law are still not defined. Therefore, it could be argued that the recognition of a smart contract as a classic legal contract is premature.

- 17 Other researchers point out that a smart contract is a programming concept. A smart contract is an executable program, running automatically (i.e. without human intervention) on a blockchain, embodying and enforcing a pre-existing agreement between the contracting parties.¹³ Smart contracts

11 Riccardo De Caria, ‘The Legal Meaning of Smart Contracts’ (2018) <<https://kluwerlawonline.com/journalarticle/European+Review+of+Private+Law/26.6/ERPL2018052>> accessed 10 January 2023.

12 Perugini Maria Letizia, Dal Checco Paolo, ‘Smart Contracts: A Preliminary Evaluation’ (8 December 2015). <<https://ssrn.com/abstract=2729548>> accessed 10 December 2022.

13 Yongfeng Huang, Yiyang Bian, Renpu Li, J. Leon Zhao and

are “self-executing electronic instructions drafted in computer code.”¹⁴

- 18 I believe that the main disadvantage of this approach is that a smart contract is considered as a code isolated from human relations and actions. In practice, the conclusion of any ICO smart contract includes the provision by the developers of information about the project on the website or in a special document, user interaction with the software and website (including clicking an OK button), subsequent feedback to the user, etc. The importance of these actions cannot be ignored in the process of smart contract legal conceptualizing. In other words, the context in which an ICO smart contract is used is crucial to its legal qualification. Moreover, it also means that it is not possible to consider the legal qualification of the smart contract in isolation, but only as a part of the “real” contract, which includes smart contract and appropriate context.
- 19 The most reasonable approach seems to be the point of view of researchers, who argue that smart contract has a dual nature, combining legal and non-legal features. Schuster states that smart contracts fuse contracts and computer programs together by envisioning computer programs written in a way that reflects what two or more parties agree to in a contract.¹⁵ In this case, smart contracts could be defined as “programs that perform part of the contractual obligations, and may contain and execute contractual conditions, as well as invoke physical remedies.”¹⁶
- 20 Indeed, from a legal point of view, the promises by the developers and the justified expectations of investors are just as important as the actual results of the execution of the smart contract. Expectation and reality are two integral parts of contract realm in social and legal practice, both for traditional and smart contracts. In traditional civil law relations, the actual will of one of the parties may not coincide with the expression of will and with the actual legal results in terms of rights and obligations. Likewise,

a smart contract can lead to unexpected results for various reasons (due to the intent of the developers or a technical problem). Thus, in my view, a smart contract should be considered in connection with a set of related documents and actions by the parties that together constitute the agreement between the parties. The code is very important, but it is not the only component of ICO agreement of the parties. Without informational and organizational measures, no one would even know about the existence of the code.

- 21 Within the ICO, the will, statements and promises of the smart contract developers (token issuers) are expressed in the White Paper. This document allows investors to align their expectations with the goals and objectives of the project. The White Paper defines the relationship and interaction between a regulated social reality and a program code, which is by its nature in itself not susceptible to legal regulation. The White Paper and website information, taken together with the program code, make up the agreement between the parties. Traditional contract law (including special rules for e-commerce transactions) would apply to this agreement (consisting of White Paper and program code). The combination of smart contract code and context (White Paper) will be referred to hereinafter as the “ICO-contract”.
- 22 This approach reflects the concept that is embodied in contract law called “*consensus ad idem*” which translates as “a meeting of minds”. *Consensus ad idem* in contract law means that there is an agreement of all parties involved and everyone has accepted the offered contractual terms and conditions of each party. This is the main principle that underlies enforceable contracts because for contracts to be enforceable, agreement of all parties is necessary.
- 23 Besides, the concept of *consensus ad idem* states that parties should have an identical or similar mindset regarding the details of the contract they conclude. In other words they could not have entered into a contract where they had no knowledge (nor could they have had knowledge) of its conditions. Nowadays the test for *consensus ad idem* has evolved into an objective standard of a reasonable observer and a requirement of reasonable availability and notice of contractual terms has been formulated in this context.¹⁷
- 24 An ICO White Paper provides an appropriate insight of ICO smart contracts in terms of contract law. This document ensures reasonable availability and notice of contractual terms. The consequence of this is a

Peizhong Shi ‘Smart Contract Security: A Software Lifecycle Perspective’ (October 2019) <<https://www.researchgate.net/publication>> accessed 10 January 2023.

14 O’Shields Reggie, ‘Smart Contracts: Legal Agreements for the Blockchain’ (2017) <<https://ssrn.com/abstract=2985764>> accessed 10 January 2023.

15 Schuster Edmund-Philipp, ‘Cloud Crypto Land’ (November 21, 2018) <<https://ssrn.com/abstract=3476678>> accessed 10 December 2022.

16 E. Tjong Tjin Tai, ‘Force Majeure and Excuses in Smart Contracts’ (4 May 2018) <<https://ssrn.com/abstract=3183637>> accessed 10 January 2023.

17 Wijayasriwardena Dasuni, ‘Consent in Online Contracts - Mindless or Mindful?’ (May 24, 2016) <<https://ssrn.com/abstract=2783793>> accessed 10 December 2022.

consensus ad idem between token issuers and ICO participants. This meeting of minds is determined by both the smart contract program code and ICO White Paper.

II. Applicability of contract law to ICO smart contracts by means of White Paper

25 In most jurisdictions there is no special legal regulation dedicated to ICO smart contracts and White Papers. Therefore the general provisions of contract law apply to smart contracts. The will of the parties to be bound by the terms of the contract is the essential requirement for a valid contract – this does not change simply because the execution of the contract is automated, as is the case in smart contracts.

26 Even if the legislation of any state does not explicitly recognize digital assets as potential objects of civil rights, the law cannot ignore the relationships that are formed on a distributed ledger. The main reason is that digital assets are important from an economic point of view, since they give rise to investment activity in the state and can become an enabler of economic growth. Moreover, in all states, regardless of existing legislation, consumers can purchase digital assets by paying for them with real (fiat) currency. Therefore the legislator is obliged to intervene in such transactions and protect consumers by developing new, special legislation or by applying the provisions of the traditional civil law (in particular consumer protection law) to smart contracts.

27 Meanwhile, by their legal nature, ICO-contracts are quite similar to other agreements concluded by electronic means, and, most importantly, they ensure the achievement of the same goals – the legal formation of agreements between the parties in electronic form (hereafter called e-contracts). E-contracts as well as smart contracts presume that the parties can agree to reach their agreements and to document their transactions only through the exchange of computer-generated messages.¹⁸ E-contracts and smart contracts are agreements formed, specified, fulfilled and deployed by a software system.¹⁹

18 Martin Charles H., ‘The Electronic Contracts Convention, the CISG, and New Sources of E-Commerce Law’ (2008) <<https://ssrn.com/abstract=1120333>> accessed 10 January 2023.

19 Jain Sankalp, ‘Electronic Contracts: Nature, Types and

28 The legislation of most countries recognizes that contracts can be concluded by electronic means. Moreover, in most cases, the only requirement for a contract in electronic form is the above-mentioned *consensus ad idem*. Smedinghoff reckons that almost all transactions can be done by electronic means. The challenge is to define the electronic-specific requirements that should be met to comply with electronic transaction laws.²⁰

29 Meanwhile, the legislation of many countries contains special provisions for contracts formed by electronic means. Traditionally, there are specific kinds of contracts that the law requires to be concluded in writing. The most obvious example is the sale of real estate. In these cases, there are special provisions for how this requirement of a contract being in written form can be met when the contract is concluded electronically.

30 For instance, according to article 1174 of the French Civil Code, “When a writing is required for the validity of a contract, it can be drawn up and kept in electronic form under the conditions provided for in Articles 1366 and 1367...”

31 In accordance with article 1366 of the French Civil Code, “An electronic document has the same probative force as a written document on paper, provided that the person from whom it emanates can be duly identified and that it is drawn up and kept in conditions such as to guarantee its integrity.” Article 1367 of the French Civil Code states that “the signature necessary for the perfection of a legal act identifies its author. It expresses the consent on the obligations resulting from this act. When it is electronic, it consists of the use of a reliable identification process guaranteeing its link with the act to which it is attached.”

32 According to article 6:227a of Dutch Civil Code, “If a statutory provision implies that an agreement can only be formed validly and inviolably (unchallengeable) in writing, then this formal requirement will be met as well if the agreement is entered into by electronic means and: (a) the agreement is and remains accessible for the parties; (b) the authenticity of the agreement is sufficiently guaranteed; (c) the moment on which the agreement was formed, can be determined with sufficient certainty, and (d) the identity of the parties can be assessed with sufficient certainty.”

Legal Challenges’ (May 26, 2016) <<https://ssrn.com/abstract=2786438>> accessed 10 January 2023.

20 Smedinghoff Thomas J., ‘The Legal Challenges of Implementing Electronic Transactions’ (September 28, 2008) <<https://ssrn.com/abstract=1275108>> accessed 10 December 2022.

- 33 Undoubtedly, due to the literal interpretation of the legal provisions, the mentioned additional requirements do not directly apply to ICO-contracts, since no mandatory written form exists. However, I would argue that these requirements should be considered as a standard and necessary for any contracts in electronic form, because they provide the clarity that is required for the meeting of the minds of the parties.
- 34 Meanwhile, in the absence of a White Paper, an ICO smart contract really does not comply with the above-mentioned legislative requirements for specific kinds of E-contracts: it is not accessible for the parties in clear form; the authenticity of the agreement is not guaranteed; the moment of ICO smart contract completion is unclear; the identity of ICO participants can also be hidden.
- 35 However, the use of ICO smart contracts is quite similar to the application of the so-called “automated message systems for contract formation”. According to the article 12 of the United Nations Convention on the Use of Electronic Communications in International Contracts “a contract formed by the interaction of an automated message system and a natural person, or by the interaction of automated message systems, shall not be denied validity or enforceability on the sole ground that no natural person reviewed or intervened in each of the individual actions carried out by the automated message systems or the resulting contract.”²¹ In fact, transactions made on the blockchain (such as when accepting the offer by sending an amount of money to an ICO smart contract) are also the result of the exchange of automated messages, and such operations may be performed without the intervention of natural persons.
- 36 Moreover, the principle of technological neutrality mentioned in the preamble to the United Nations Convention on the Use of Electronic Communications in International Contracts cannot be ignored, namely “uniform rules should respect the freedom of parties to choose appropriate media and technologies, taking account of the principles of technological neutrality.”²² This principle means that “legislation should define the objectives to be achieved and should neither impose, nor discriminate in favor of, the use of a particular type of technology to achieve those objectives.”²³ “The same regulatory principles should apply regardless of the technology used. Regulations should not be drafted in technological silos.”²⁴
- 37 In accordance with the principle of technology neutrality, maximum efforts should be made to attain full legal recognition of agreements concluded on the blockchain. At the same time, one should agree with the scholars, who note that smart contracts do not need any special new laws or regulations. Instead, existing legal principles of contract law should be adapted or modified, either statutorily or judicially, to deal with smart contracts.²⁵ Indeed, to include ICO smart contracts in the scope of E-contracting, it is only necessary to bring them in line with the concepts and principles of existing legislation, the most important of which is the concept of consensus ad idem.
- 38 In particular, the content of the ICO-contract must be clear and accessible to both parties who know each other’s identity. In addition, a clear procedures for concluding an ICO-contract should be established, in accordance with modern E-contracting rules.
- 39 I believe that the White Paper is able to subordinate ICO smart contracts to the norms of national legislation (including E-commerce rules) by complementing the code with what is necessary to truly reach consensus ad idem. The next sections will show how the White Paper helps to eliminate possible inconsistencies and contradictions between the existing legislation and ICO smart contracts. In particular, the White Paper allows us to build a clear model for concluding an ICO smart contract from the point of view of modern civil law; determine the moment of conclusion of an ICO contract and establish essential and other terms of an ICO contract. Clarity and harmonization on these issues will enable ICO contracts to be included in the scope of E-contracting in accordance with the current legislation.

21 United Nations Commission On International Trade Law ‘United Nations Convention on the Use of Electronic Communications in International Contracts’ (November 23, 2005) <https://uncitral.un.org/en/texts/ecommerce/conventions/electronic_communications> accessed 10 January 2023.

22 Ibid

23 Commission of the European communities ‘Towards a new Framework for Electronic Communications Infrastructure and Associated Services: the 1999 Communications Review COM’ (November 10, 1999) <<https://aei.pitt.edu/5978>> accessed 10 December 2022.

24 Maxwell Winston, Bourreau Marc, ‘Technology Neutrality in Internet, Telecoms and Data Protection Regulation’ (November 23, 2014) <<https://ssrn.com/abstract=2529680>> accessed 10 December 2022.

25 O’Shields Reggie (n 14).

III. Providing interpretation of ICO smart contracts through White Paper

- 40 Since smart contracts embody and enforce the nature of a parties' agreements in the language of the program code, contradictions between the legal obligations of the parties and transactions that occur according to the rules of a computer program may arise. Schuster describes this situation quite accurately as a "synchronisation conflict": when compliance with the law would yield a state of affairs that is different from the state of affairs that is created by and reflected in the distributed ledger.²⁶
- 41 The reason for such contradictions lies not only in the distinction between the rules of legal and technical (software) regulation, but also in the obvious differences between natural language and software code. "Ambiguity is celebrated in human language. It is a central feature of literature, poetry, and humor. However, ambiguity is anathema to computer language. An ambiguous computer language is a nonsensical concept because the predictability of computers is what gives part of their value."²⁷ In other words, smart contracts replace vague natural language with precise computer code.²⁸
- 42 In the process of an ICO, a White Paper allows the expression of the will of the developers, which is decisive from a contract law perspective. Thus, the White Paper legally obliges the developers to follow the announced plan of project implementation.
- 43 Undoubtedly, the contents of a White Paper may not correspond to the program code due to a mistake or the intention of the developers or discrepancy between meanings of words and program code lines. In this regard, it is necessary to determine the priority between the natural language contained in the White Paper and the program code of the smart contract. Obviously, the decision on the priority of the code over the language is unacceptable, since this will make the content of the agreements of the parties inaccessible to the absolute majority of persons who do not have special skills and special education in the field of programming.
- 44 Thus, White Paper, rather than the program code, should be decisive in determining the will of the parties. In other words the program code should

be interpreted in the light of the White Paper, where, in case of any differences, the White Paper is prioritized. White Paper creates the certainty and clarity which are necessary for interpretation and regulation of ICO-contracts.

C. ICO White Paper as an invitation to conclude an ICO-contract

- 45 Creation of a clear model for concluding an ICO-contract is the most important prerequisite for including such contracts in the scope of civil law regulation. The parties must accurately understand the legal meaning and consequences of all actions that they take before the ICO-contract comes into force. This is very important in terms of protecting the rights of investors, as well as to ensure the stability of the implementation of ICO procedures. At the same time, it seems necessary to correctly understand the meaning of White Paper in the ICO-contract concluding process. There are many practical problems associated with this issue, including the possibility to change or revoke a White Paper after it has been published.
- 46 In most cases, ICO-contract formation includes the following actions: After the publication of information about the project in a White Paper and on the project website, all interested investors get the opportunity to participate in the ICO. To do this, investors must register on the ICO website and identify themselves. This requirement is primarily related to compliance with KYC (Know Your Customer) rules. In most cases, in order to fulfill the registration, the investor needs to indicate name, country of residence and the planned amount of investment. After that, the investor will be included in the so-called "White list" - a list of approved participants of ICO procedure. To complete the purchase of digital assets, the investor sends the appropriate amount of cryptocurrency to the address of the ICO smart contract, which is listed on the official website of the project. In exchange for the received cryptocurrency, the smart contract automatically sends the appropriate amount of digital assets to the investor in accordance with the program code.
- 47 The correct legal qualification of these actions in terms of civil law theory is the first step towards the elimination of contradictions between the existing legal systems and ICO smart contracts. In addition, such a qualification will make it possible to determine the role of White Paper in ICO smart contract formation.
- 48 Traditionally, in civil law systems there are two stages in a contract formation: first an offer, that is, a proposal to enter into a contractual relationship,

26 Schuster Edmund-Philipp (n 15).

27 Raskin Max, 'The Law and Legality of Smart Contracts' (September 22, 2016) <<https://ssrn.com/abstract=2959166>> accessed 10 December 2022.

28 Schuster Edmund-Philipp (n 15).

and second, an acceptance of this offer. The contract comes to existence by the offer and its acceptance, which together constitute the *consensus ad idem*.

- 49 In accordance with the requirements of common law systems, in addition to the offer and acceptance for contract formation, consideration is required. According to the classical doctrine of consideration it may consist either in some benefit to the promisor or in some detriment to the promisee.²⁹ Usually, the full or partial payment under the contract is considered as consideration. Offer, acceptance and consideration form *consensus ad idem* which is supposed to demonstrate the fact that the parties have a similar mindset and corresponding intentions regarding the details of the contract.³⁰
- 50 Meanwhile, the application of these classical models of contract formation to agreements in electronic form (including ICO-contracts) is a rather difficult task. There is even a point of view that the orthodox rule, which demands concurrence of offer and acceptance for contract formation becomes inapplicable in all cases of e-contracting.³¹
- 51 Indeed, an important peculiarity of the ICO-contracts and many other E-contracts, is that the meeting of the parties wills is ensured by the interaction of the user with the website, and not by the exchange of separate messages. At the same time, the difference between these methods of contract formation is quite significant. In case of contract conclusion through a website a variety of complex functions are fulfilled on the computer or on the site's server. The website can send and receive messages, display media, alter and rearrange information, and communicate with other sites and devices.³² Thus, in the case of E-contracting by means of website, it is important to determine exactly which actions should be considered as an offer and an acceptance.
- 52 For the above reasons, legal science has created new approaches to describing the procedure

29 Lorenzen Ernest, 'Causa and Consideration in the Law of Contracts' (May 1919) <https://openyls.law.yale.edu/bitstream/handle/20.500.13051/11443/55_28YaleLJ621_1918_1919_.pdf?sequence=2> accessed 10 January 2023.

30 Wijayasriwardena Dasuni (n 17).

31 Gebrehiwot Entehawu Desta, 'Enforceability of electronic contracts in light of the Ethiopian General Contract Law: appraising the issues' (December, 2018) <<https://www.researchgate.net/publication>> accessed 10 January 2021.

32 Sklaroff Jeremy, 'Smart Contracts and the Cost of Inflexibility' (September 18, 2017) <<https://ssrn.com/abstract=3008899>> accessed 10 January 2023.

for concluding contracts in electronic form. In particular, the concept of click-wrap agreements have become widespread. These agreements are concluded electronically on the website by clicking on the "I agree" button that accompanies the text of the agreement. Currently, click-wrap agreements are widely used in many areas of E-contracting, including the purchase of software and access to services on the Internet.

- 53 At the level of the European Union, click-wrap agreements were recognized primarily due to the Directive of the European Parliament and of the Council (EC) 2000/31/EC on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market. Following the provisions of article 9(1) of "Directive on electronic commerce", "Member States shall ensure that their legal system allows contracts to be concluded by electronic means. Member States shall in particular ensure that the legal requirements applicable to the contractual process neither create obstacles for the use of electronic contracts nor result in such contracts being deprived of legal effectiveness and validity on account of their having been made by electronic means."³³
- 54 Depending on the peculiarities of the legal system, the display by websites of their goods (or services) qualifies as an invitation to offer (invitation to treat). In some countries, so as to ensure consumer interests, the offer of goods on a website is considered as a public offer. The seller cannot refuse to sell the goods if the buyer accepts an offer containing all the essential terms of the contract. For example, in accordance with article 1114 of the French Civil Code, the offer, made to a determined or indeterminate person, includes the essential elements of the envisaged contract and expresses the will of its author to be bound in the event of acceptance. Otherwise, there is only an invitation to enter into negotiations. According to article 1127-1 of the French Civil Code, anyone who professionally offers, by electronic means, the supply of goods or the provision of services, makes available the applicable contractual provisions in a manner that allows their conservation and reproduction. The author of an offer remains committed by it until it is accessible electronically by him.

- 55 In other countries, on the contrary, the website reflects only an invitation to offer to conclude a contract. For example, under English law, the offer of a product or service on a website is an invitation

33 Directive of the European Parliament and of the Council (EC) 2000/31/EC on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market ('Directive on electronic commerce') [2000] OJ L178.

to treat, while the offer is made by the buyer at the time the product is placed in the shopping cart and the payment begins.³⁴ The offer is not made by website showing the goods for sale at a certain price. This represents an invitation to offer and could be revoked at any time before the acceptance. The offer is made by the customer who places the items in the virtual basket for payment.³⁵

- 56 However, the offer of goods using the website must be distinguished from the proposal expressed in ICO White Paper. Regardless of the legal system and the features of the ICO procedure, a White Paper is always an invitation to offer, since it does not contain the main essential condition of the ICO-contract - the current price of the digital asset, which is reflected only on the site and can be changed during the ICO. In addition, the user is not able to interact directly with the White Paper, and in any case is forced to use the developers' site to conclude an ICO-contract. At the same time, the final stage of ICO-contract formation (acceptance) is in any case performed automatically by a smart contract.
- 57 Recognition of a White Paper as an invitation to offer to conclude an ICO-contract is fully compliant with Article 11 of United Nations Convention on the Use of Electronic Communications in International Contracts. According to this article, "a proposal to conclude a contract made through one or more electronic communications which is not addressed to one or more specific parties, but is generally accessible to parties making use of information systems, including proposals that make use of interactive applications for the placement of orders through such information systems, is to be considered as an invitation to make offers, unless it clearly indicates the intention of the party making the proposal to be bound in case of acceptance."³⁶
- 58 An analysis of Article 10 of the Directive on E-Commerce also leads to the conclusion that the White Paper cannot be considered as a public offer. According to this article, some important information (including different technical steps to follow to conclude the contract) must be provided "prior to the order being placed by the recipient of the service."³⁷

34 Reed Chris, Angel John 'Computer Law: The Law and Regulation of Information Technology' (May 17, 2007) <<https://archive.org/details/computerlawlawre000ounse>> accessed 10 December 2022.

35 Jain Sankalp (n 19).

36 United Nations Commission On International Trade Law (n 21).

37 Directive on electronic commerce (n 33).

59 Thus, it is assumed that within the process of E-contract concluding, the next step after the disclosure of information about a product or service is the placement of an order by the buyer on the website, but not the final acceptance of the offer. In respect to the procedure for concluding an ICO-contract, this means that an offer to acquire a digital asset is not the placement of information about the project in the White Paper, but the investor's actions necessary to acquire tokens (including registration on the project's ICO website, cryptocurrency payment).

60 The recognition of a White Paper as an invitation to offer to conclude an ICO-contract has some undeniable advantages: It ensures that both parties of the ICO-contract are protected from errors related to the use of the Internet and the blockchain in the contract formation process. In particular, investors have the opportunity to withdraw their offer, before an acceptance. In addition, it should be taken into account that during the ICO process, technical problems arise, which should be eliminated by developers before the ICO-contract comes into force. Since the White Paper is not a public offer, developers have the opportunity to change the White Paper and bring it into line with the changed conditions of the ICO procedure.

61 Thus, modern rules of contract law are suitable for describing the procedure of ICO-contract formation if it is interpreted in this way. The White Paper and information on the project website should be considered as an invitation to conclude an ICO-contract. The offer is the registration of a participant on the ICO project website, as well as sending cryptocurrency to the appropriate ICO electronic wallet. At the same time, from the point of view of Common law systems, such a cryptocurrency payment may be considered as a legal consideration. The acceptance is performed through a smart contract automatically, by exchanging the cryptocurrency for the required digital asset.

D. Determination of a moment of ICO smart contract conclusion through a White Paper

62 Determination of the precise moment of civil law agreement conclusion is one of the key issues in contract law. This legal relationship is expressed in terms of mutual obligations. Therefore, the establishment of clear rules for determining moment of the contract formation contributes to the clarity in legal relations, and also ensures the necessary stability and sustainability of civil transfers. In the literature it is rightly pointed out that the contract

- should clearly determine the exact time and way of acceptance of the agreement.³⁸
- 63 In traditional contract law, the moment of contract formation is determined according to long-established and proven rules. For example, in accordance with article 1121 of the French Civil Code, the contract is concluded as soon as the acceptance reaches the offeror.
- 64 Meanwhile, in the field of E-commerce, the traditional rules of contract conclusion sometimes turn out to be inapplicable. Therefore, there exists a point of view that time of contract formation is another area where technological developments have had an impact on the law due to changes resulted from electronic communication technologies.³⁹
- 65 Indeed, due to the importance of precise determination of the E-contract formation, special rules and requirements have appeared in civil law. In particular, according to article 6:227c of the Dutch Civil Code, if the party has made an announcement by electronic means that may be interpreted by the service provider either as the acceptance of an offer which the service provider has made by electronic means or as an offer in response of an invitation to start negotiations made by the service provider by electronic means, then the service provider will confirm that he has received this announcement as soon as possible by electronic means. The opposite party may rescind the agreement as long as the service provider has not confirmed that he has received an acceptance.
- 66 Another special e-commerce rule concerning the moment of contract conclusion is set out in Article 10(1)(a) of the Directive on electronic commerce. According to this article, Member States shall ensure that information about different technical steps follow to conclude the contract will be given by the service provider clearly, comprehensibly and unambiguously and prior to the order being placed by the recipient of the service.⁴⁰ This information requirement needs to avoid that people are contractually bound without knowing it. A simple click on an OK button may be enough to conclude the contract, but only if the recipient has been given information about this “technical step” before he clicked. Otherwise, the contract is not binding.⁴¹
- 67 Meanwhile, during the ICO, above mentioned E-commerce rules are often not being implemented due to peculiarities of the blockchain functioning. Often, investors are not aware of the meaning of their actions in the ICO-contract formation process. The moment when the ICO-contract comes into force is also sometimes vague.
- 68 The fact is that the legal provisions that determine the moment of ICO-contract formation may differ significantly from the rules encoded in a smart contract. According to the requirements of the legislation, the receipt by the offeror of an electronic notification from the smart contract or website about the acceptance of an offer may be sufficient for an ICO-contract formation. However, from the point of view of programming, an ICO contract cannot be considered as concluded until the execution of the operation of exchanging cryptocurrency for a digital asset by a smart contract becomes irreversible. Up to this point, investors do not have reliable guarantees for the execution of the ICO-contract by means of program code, since the execution of a smart contract can be stopped or changed by developers.
- 69 Quite often, investors receive a digital asset in their wallet immediately after cryptocurrency payment. In such cases, there are no problems or difficulties, since the moments of ICO-contract formation from a legal and technical point of view coincide. Moreover, in this case, the instance of concluding an ICO-contract coincides with its full or partial execution (depending on the type and functionality of the digital asset).
- 70 However, according to the rules of many ICO procedures, a significant period of time passes from the moment an investor’s cryptocurrency payment to when he receives a digital asset. In this case, determination of ICO-contract formation moment becomes crucial, since it is important for an investor to understand when he receives reliable guarantees of obtaining the necessary digital asset, in terms of law and program code. In particular, an investor may receive a digital asset later than the cryptocurrency payment occurred under the following models of ICO fundraising: Dutch auction model and Soft cap model.
- 71 Dutch auction model means an auction in which the auctioneer begins with a high asking price in the case of selling, and lowers it until some participant accepts the price, or it reaches a predetermined reserve price. In the case of such an ICO model, the investor receives a digital asset at the end of the auction results.
- 72 In addition, the terms of ICO quite often provide for the so-called “soft cap”, which means the minimum funding aim of the ICO. In this case, the investor receives a digital asset no earlier than when the

38 Jain Sankalp (n 19).

39 Gebrehiwot Entehawu Desta (n 31).

40 Directive on electronic commerce (n 33).

41 Lodder Arno R., ‘European Union E-Commerce Directive - Article by Article Comments’ (2017) <<https://ssrn.com/abstract=1009945>> accessed 10 January 2023.

project reaches its soft cap, the specific value of which is programmed in the smart contract and is announced in advance by the developers.

- 73 Thus, it becomes obvious that in order to determine the moment of ICO-contract formation in the mentioned ICO fundraising models, it is necessary to understand the technical features of blockchain transactions. Researchers reckon that it is important for any electronic transaction to begin with a clear and comprehensive understanding of the process involved and how it will actually work from a technical perspective. In fact, understanding “how it works” from a technical perspective is critical to “making it work” from a legal perspective.⁴²
- 74 I believe that the process of concluding an ICO-contract, as well as a classic civil law agreement, can be represented in the form of message exchange. The offer is accepted in an electronic form, by sending an electronic message signed with a private digital key to the smart contract that accepts the offer. At the same time, it should be noted that the traditional E-commerce rules for receiving and sending messages do not fully correspond to the features of the blockchain. According to the article 15(1) of UNCITRAL Model Law on Electronic Commerce, unless otherwise agreed between the originator and the addressee, the dispatch of a data message occurs when it enters an information system outside the control of the originator or of the person who sent the data message on behalf of the originator.⁴³
- 75 In the scope of blockchain, the interaction between the originator and the addressee is always carried out within the framework of one information system - a distributed ledger. This means that the relations of the parties at the stage of ICO-contract formation are regulated by a program that has unconditional priority over other sources of regulation.
- 76 For the above reasons, it could be concluded that regardless of the legislative regulation or the content of the White Paper, the ICO contract will be formed at the moment when, according to the code of the smart contract, the operation of exchanging cryptocurrency for a digital asset becomes irreversible. At the same time, from a technical point of view, it can be considered that the transaction became irreversible at one of the following moments:

- When an entry is made in the distributed

⁴² Smedinghoff Thomas J. (n 20).

⁴³ United Nations Commission On International Trade Law 'Model Law on Electronic Commerce' (June 12, 1996) <https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_commerce> accessed 10 December 2022.

registry about the transfer of the token to the ICO participant;

- When a valid transaction amounting to an acceptance of the offer by the smart contract is sent to it;
 - When the transaction is included in a valid block that is added to the blockchain, thereby transferring the token to the ICO participant.
- 77 Thus, from the point of view of programming, the moment of transaction irreversibility within a smart contract is ambiguous and requires clarification for each distributed ledger and each certain ICO project. In this regard, the investor should be provided with additional information in advance about the moment of ICO smart contract conclusion. This is critical point in terms of compliance with civil law and E-commerce rules. At the same time, the best way to disclose such information is in the White Paper, which allows the investor to comprehensively and systematically evaluate the risks associated with the moment of ICO-contract formation, taking into account all significant factors and circumstances.
- 78 It should also be taken into account that due to the intent or mistake of the developers, false information about encoded moment of ICO smart contract formation may be included in the White Paper. In this case, the developers should be held fully liable for any losses caused to the investor in connection with such unfair reporting.
- 79 Thus, in the purpose of determining the moment of ICO-contract formation, the White Paper should contain the following information:
- Technical steps required to conclude an ICO-contract;
 - Precise moment when the transaction of exchanging cryptocurrency for a digital asset through smart contract becomes irreversible (and thus the contract is considered to have come into being);
 - Provisions on the responsibility of developers for providing false information about the moment of ICO contract formation.

E. Determination of contractual terms through White Paper

- 80 Accessibility and clarity of contractual terms are the most important prerequisites for legal protection of

participants in civil legal relations. The opportunity to find out the terms of the contract in advance and have constant access to them during the contract's execution is an obvious and natural need of each party of the contract.

- 81** However, in the field of e-commerce (including ICO contracting), the issue of access to the provisions of the contract is extremely relevant. The fact is that when the order of goods or services is carried out using the interface of the website, the buyer (customer) does not always have real technical access to the terms of the formed agreement. In the literature it is rightly pointed out that if the e-contracts are concluded on web-click-on agreements, only the site owner has an access to the conditions of the contract.⁴⁴ Nowadays, a lot of websites do not propose the possibility of contract filing, a stored agreement can be used as an evidence. A filed and accessible contract may give the recipient more confidence in the provider and influence his purchase.⁴⁵
- 82** For the above reasons, article 10(1)(b) of Directive on electronic commerce provides that Member States shall ensure that information about availability of the concluded contract provisions will be given by the service provider clearly, comprehensibly and unambiguously and prior to the order being placed by the recipient of the service.⁴⁶
- 83** In the field of ICO, the problem of contractual terms availability is especially relevant. Many terms of the agreement are set out in the language of the program code, so it is rather difficult for the parties to gain access to the programmed terms of the contract.
- 84** Since the White Paper is the main way to provide information about the ICO project, this document should be used to reflect the contractual terms of the ICO-contract. In other words, the White Paper translates the agreements of the parties from the programming language into one of the human languages, and therefore this document can be considered as an ICO-contract in writing.
- 85** Undoubtedly, the recognition of the White Paper as a constitutive element of contractual relations is fraught with certain risks. Participants in the digital asset market are accustomed to considering White Paper as a purely informational document. The legal force of the White Paper can confuse even professional crypto investors. Indeed, the ICO White Paper is sometimes called an “anarchist” document,

⁴⁴ Gebrehiwot Entehawu Desta (n 31).

⁴⁵ Lodder Arno R. (n 41).

⁴⁶ Directive on electronic commerce (n 33).

which usually “expressly states that transactions on the system are not intended to create legal relations”.⁴⁷

- 86** However, in accordance with one of the principles developed by the European Law Institute, “smart contracts used for consumers always have to be made available as a translation (and explanation) into natural language so the consumer can read and understand what their rights and duties are.”⁴⁸ Since consumers often participate in ICOs, the mentioned rule must certainly be followed in every case of placing digital assets.
- 87** Consumers should be informed about the terms and conditions of their contracts in the most generally common, accessible and convenient way. Obviously, in the case of an ICO, these requirements are fulfilled thanks to the White Paper. This document has been accompanying ICO procedures for many years and is usually considered as the main source of information about the project. In addition, the White Paper is proof of the conclusion of the ICO-contract under certain conditions, since this electronic document can be downloaded and saved by the ICO participant. For the reasons stated, I believe that the terms of the ICO-contract should be determined through the White Paper, despite some of the risks.
- 88** As a form of expression of an ICO-contract, the White Paper must comply with several contract law requirements for the proper content of contracts. These legal requirements include, firstly, the rules of traditional contract law on the essential terms of contracts, and secondly, the Rules on contractual standard terms and conditions.

I. Contract law requirements on the essential terms of contracts

- 89** The civil legislation of many countries links the creation of the legal consequences of the contract with the parties agreement on some of the most important terms of the contract. Such a minimum required set of contractual terms consists of so-called essential terms of the contract.
- 90** Parties will have stipulated the performances to which they have committed themselves. This can be

⁴⁷ UK Law commission ‘Smart legal contracts. Advice to Government’ (November 2021) <www.gov.uk/official-documents> accessed 15 April 2023.

⁴⁸ European Law Institute ‘ELI Principles on Blockchain Technology, Smart Contracts and Consumer Protection’ (September 8, 2022) <<https://www.europeanlawinstitute.eu>> accessed 15 April 2023.

done extensively or briefly, but at least the essential points of the agreement must be set with mutual consent. These essential points indicate what kind of agreement has been concluded, for instance a sale contract or an employment agreement.⁴⁹

- 91 According to article 966 of Malta Civil Code, the following are the conditions essential to the validity of a contract: (a) capacity of the parties to contract; (b) the consent of the party who binds himself; (c) a certain thing which constitutes the subject-matter of the contract; (d) a lawful consideration. In accordance with the article 982 of Malta Civil Code, every contract has for its subject-matter a thing which one of the contracting parties binds himself to give, or to do, or not to do.
- 92 According to Article 6:227 of Dutch Civil Code, the obligations to which parties subject themselves under the agreement, must be determinable.
- 93 In accordance with the article 1163 of France Civil Code, the object of the obligation is a present or future performance. This must be possible and determined or determinable.
- 94 Thus, according to the legislation of the most countries, the essential condition of any contract is the subject-matter (object). If the parties do not agree on the subject-matter of the contract, then legal consequences will not arise or the agreement will be considered invalid.
- 95 The above fully applies to ICO-contracts. Researchers believe that the initial stage of a contractual agreement is not markedly different between smart and traditional contracts. This is due to the fact that before any contract software can operate, two parties must agree to some set of terms that initiates the program.⁵⁰
- 96 It is obvious that the subject-matter, and, therefore, the essential condition of any ICO-contract is a digital asset, which is fundamentally different from traditional intangible objects of civil rights. Typical intangible assets include, for example, patents, trade secrets, copyrights and trademarks. Obviously, despite their immaterial nature, these assets are able to independently satisfy certain needs of individuals and companies. This feature provides their value. For example, an exclusive right given by a patent entails the capacity to exclude others from commercial exploitation of the object of the exclusive right.
- 97 Meanwhile, a crypto token per se is merely an entry

49 Dutch Civil Law <<http://www.dutchcivillaw.com/civilcodegeneral.html>> accessed 10 January 2023.

50 Raskin Max (n 27).

in a blockchain (transaction ledger).⁵¹ Therefore, the value of crypto tokens is determined by the features of the blockchain itself. Firstly, the value of digital assets depends on what the asset stands for within blockchain. It is about benefits and opportunities that are technically provided by a digital asset to their owner. Secondly, in the system of blockchain, the problem of “double spending” information units has been solved. Unlike crypto tokens any other information objects that exist outside the blockchain technology can be copied and transferred from one owner to another for an unlimited number of times, while remaining both with the transmitting and the receiving party. In other words, the value of digital assets is determined by the consensus reached within the blockchain. “Consensus in a blockchain network refers to the process where the distributed nodes agree on the history and the final state of the data on the ledger, usually referred to as distributed consensus. Since all participants in the network hold the data, they can also be a part of the decision-making”.⁵² Blockchain essentially consists only of transaction history which includes not only the signature and the amount transferred, but also links to all previous transactions in which the payer received the assets concerned.

- 98 Thus, since the usefulness and value of a digital asset is not obvious and is determined partly by the rules underlying the blockchain system in question, the White Paper should contain not only the designation and definition of the acquired digital asset, but also detailed description of the rights provided by such asset. These rights are essentially ways of program influencing or controlling the information system by the owner of a digital asset. However, regardless of their content, the rights must be presented in the form of legal claims vis-a-vis the token issuer or project developers. Only such a description of the subject-matter of the ICO-contract should be considered appropriate and satisfying the requirements of civil law on the essential terms of contracts.

II. Applying the rules on contractual standard (general) terms and conditions to ICO-contracts

- 99 The legislation of most countries contains special rules applicable in cases where one of the parties to the agreement (typically a consumer) can only

51 Vladislav Burilov (n 5).

52 Lawrence J. Trautman, Mason Molesky, ‘A Primer for Blockchain’ (28 January 2019) <<https://ssrn.com/abstract=3324660>> accessed 10 December 2022.

accede to the entire agreement without having the ability to negotiate its terms. For example, according to the article 1119 of France Civil Code, the general conditions invoked by one party only have effect with regard to the other if they have been brought to the attention of the latter and if she has accepted them. In case of discrepancy between general conditions and special conditions, the latter take precedence over the former.

- 100** According to Article 6: 231 of the Dutch Civil Code, “standard terms and conditions” mean one or more contractual provisions or stipulations, drafted to be included in a number of contracts, with the exception of provisions and stipulations that indicate the essence of the performance under the obligation, as far as these last meant provisions and stipulations have been formulated clearly and unambiguously.
- 101** Following to the article 6:233 of the Dutch Civil Code, a stipulation from the applicable standard terms and conditions is voidable: a. if it is unreasonably burdensome for the counterparty, having regard to the nature and content of the contract, the way in which these standard terms and conditions have been formed, the interests of each party, as evident to the other, and the other circumstances of the case; b. if the user has not given his counterparty a reasonable opportunity to take knowledge of the content of the applicable standard terms and conditions.
- 102** Besides, the Dutch Civil Code includes so called “Black list” of stipulations which are always unreasonably burdensome for consumers (Article 6:236) and “Grey list” of stipulations which are presumed to be unreasonably burdensome for consumers (Article 6:237).
- 103** To sum up, regardless of the type of legal system, a White Paper should contain an essential condition of any civil law contract: a subject-matter expressed in a detailed description of a digital asset and appropriate rights. Moreover, the White Paper should indicate that it contains standard terms and conditions, and that appropriate rules of the particular jurisdiction are complied with. These conditions will bring the White Paper into line with the requirements of civil law.
- 105** Indeed, even the existing legal provisions and structures created within contract law make it possible to solve many of the challenges of ICO legal regulation. Therefore, what is needed is a reliable connection and interaction between law and software code. I believe that such a connection can be provided through the White Paper.
- 106** In general, a White Paper allows the application of classical contract law to smart contracts by converting computer code into understandable legal terms that someone can agree to (or not). In other words, from a legal point of view, a smart contract cannot be considered in isolation from the White Paper. In this regard, it is correct to apply the special term “ICO-contract”, denoting the unity of the White Paper and the smart contract.
- 107** Considering a written document and program code as a unified concept could solve many practical problems, including creation of a clear model of ICO-contract formation, determination of precise moment of ICO-contract conclusion and ensuring consistency between the White Paper and contract law requirements for the proper content of contracts.

F. Summary

- 104** The challenge for modern legal systems is to draft new legislation that is tailored to the specific properties of ICO smart contracts that require regulation. Another way to deal with ICO is to create appropriate mechanisms to ensure that existing legislation can be applied to ICO smart contracts.