

A Study of the Cryptocurrency Terminology in English and Croatian

Ciganović, Boris

Master's thesis / Diplomski rad

2019

Degree Grantor / Ustanova koja je dodijelila akademski / stručni stupanj: **Josip Juraj Strossmayer University of Osijek, Faculty of Humanities and Social Sciences / Sveučilište Josipa Jurja Strossmayera u Osijeku, Filozofski fakultet**

Permanent link / Trajna poveznica: <https://urn.nsk.hr/urn:nbn:hr:142:473745>

Rights / Prava: [In copyright](#)/[Zaštićeno autorskim pravom.](#)

Download date / Datum preuzimanja: **2024-07-12**



Repository / Repozitorij:

[FFOS-repository - Repository of the Faculty of Humanities and Social Sciences Osijek](#)



J.J. Strossmayer University of Osijek

Faculty of Humanities and Social Sciences

Study Programme: Double Major MA Study Programme in English Language
and Literature – Translation Studies and Hungarian Language and Literature –
Communication Studies

Boris Ciganović

**A Study of the Cryptocurrency Terminology in English and
Croatian**

Master's Thesis

Supervisor: doc.dr.sc. Dubravka Vidaković Erdeljić

Osijek, 2019

Sveučilište J.J. Strossmayera u Osijeku

Filozofski fakultet Osijek

Studij: Dvopredmetni sveučilišni diplomski studij engleskog jezika i
književnosti – prevoditeljski smjer i Mađarskog jezika i književnosti –
komunikološki smjer

Boris Ciganović

Analiza engleskog i hrvatskog nazivlja u području kriptovaluta

Diplomski rad

Mentor: doc.dr.sc. Dubravka Vidaković Erdeljić

Osijek, 2019.

J.J. Strossmayer University of Osijek

Faculty of Humanities and Social Sciences

Study Programme: Double Major MA Study Programme in English Language
and Literature – Translation Studies and Hungarian Language and Literature –
Communication Studies

Boris Ciganović

**A Study of the Cryptocurrency Terminology in English and
Croatian**

Master's Thesis

Scientific area: humanities

Scientific field: philology

Scientific branch: English studies

Supervisor: doc.dr.sc. Dubravka Vidaković Erdeljić

Osijek, 2019

Sveučilište J.J. Strossmayera u Osijeku

Filozofski fakultet Osijek

Studij: Dvopredmetni sveučilišni diplomski studij engleskog jezika i književnosti – prevoditeljski smjer i Mađarskog jezika i književnosti – komunikološki smjer

Boris Ciganović

Analiza engleskog i hrvatskog nazivlja u području kriptovaluta

Diplomski rad

Znanstveno područje: humanističke znanosti

Znanstveno polje: filologija

Znanstvena grana: anglistika

Mentor: doc. dr. sc. Dubravka Vidaković Erdeljić

Osijek, 2019.

IZJAVA

Izjavljujem s punom materijalnom i moralnom odgovornošću da sam ovaj rad samostalno napravio te da u njemu nema kopiranih ili prepisanih dijelova teksta tuđih radova, a da nisu označeni kao citati s napisanim izvorom odakle su preneseni. Svojim vlastoručnim potpisom potvrđujem da sam suglasan da Filozofski fakultet Osijek trajno pohrani i javno objavi ovaj moj rad u internetskoj bazi završnih i diplomskih radova knjižnice Filozofskog fakulteta Osijek, knjižnice Sveučilišta Josipa Jurja Strossmayera u Osijeku i Nacionalne i sveučilišne knjižnice u Zagrebu.

U Osijeku, datum 14. 10. 2019.

Boris Liganović, 0111116586

ime i prezime studenta, JMBAG

Contents

Contents

| | |
|---|----|
| 1. Introduction | 1 |
| 2. Theoretical preliminaries..... | 2 |
| 2.1. Terminology and its functions..... | 2 |
| 2.1.1. Terminology and translation..... | 3 |
| 2.1.2. Terminology and translators..... | 4 |
| 2.2. Translation methods and procedures according to Jean-Paul Vinay and Jean Darbelnet | 5 |
| 3. Research | 7 |
| 3.1. Motivation for the research | 8 |
| 3.2. Methodology | 9 |
| 3.3. Results | 10 |
| 3.4. English terms closely associated with cryptocurrency and blockchain technology | 10 |
| 3.4.1. Cryptocurrency terminology used in the official documents | 10 |
| 3.4.2. English terms without official Croatian translation..... | 15 |
| 3.5. Economic and legal terms related to cryptocurrency market | 22 |
| 4. Discussion | 26 |
| 5. Conclusion..... | 28 |
| Bibliography..... | 29 |

Abstract

This research presents a glossary of cryptocurrency terms extracted from two documents regarding regulation of cryptocurrencies and technology behind it. After giving the theoretical background on terminology and its uses, the paper provides suggested Croatian equivalents for the English terms without the official ones as well as the context for every term extracted. It also analyses the chosen translation procedures and states the difficulties encountered during translation. The results of the research show which translation procedure was most commonly used as well as the strategies used when creating neologisms in both special languages.

Keywords: glossary, cryptocurrency, terminology, translation procedures, neologisms

Sažetak

Ovo istraživanje prikazuje glosar termina iz područja kriptovaluta. Termini su prikupljeni iz dva dokumenta koja se bave regulacijom kriptovaluta i s njima povezane tehnologije. Nakon teorijskog dijela o terminologiji i njezinoj koristi, ponuđeni su hrvatski ekvivalenti za engleske termine koji nemaju službene ekvivalente u hrvatskom jeziku te je naveden i kontekst za svaki odabrani termin. Također su proučeni i prevoditeljski postupci te su navedene uočene poteškoće prilikom prevođenja. Rezultati istraživanja prikazuju učestalost korištenih prevoditeljskih postupaka kao i strategija prilikom tvorbe neologizama u oba nazivlja.

Ključne riječi: glosar, kriptovaluta, terminologija, prevoditeljski postupci, neologizmi

1. Introduction

With all of the technological advancements happening in the last decade, it is only natural to expect the global financial system to evolve and adapt to the modern times. Taught by the fall of the market in the late 2008, people started to look for alternatives to the traditional banking systems. At that time, the white paper called *Bitcoin: A Peer-to-Peer Electronic Cash System* was published by Satoshi Nakamoto, a pseudonymous author. The white paper explained the functionality of the Bitcoin blockchain network, how new Bitcoin could be created and processes like proof-of-work and proof-of-stake. Bitcoin was the first cryptocurrency created.

A cryptocurrency is a decentralised digital currency which uses encryption to prevent fraudulent activities, secure financial transactions, and create more of the currency. As they are decentralised, cryptocurrencies are not regulated by the government or central banks, meaning that the power over the earned money is entirely in the hands of the person who earned it. That also means they are not backed by the institutions. Being digital means that cryptocurrencies do not have physical form, only virtual and currently their primarily usage is as a medium of exchange.

In its early days cryptocurrencies, being decentralised, fast, low fee and digital, were primarily used as a tool for illicit activities. However, it did not take long for people to recognize their potential outside of the illegal trades. Compared to the current slow and centralised banking system with high fees, cryptocurrencies offered anonymity, fast peer-to-peer payments with low fees and at the same time were cryptographically secured.

Cryptocurrency market soon began to grow while new products revolving around blockchain technology and smart contracts started to appear. The public took an interest in the late 2016 following by mass mainstream media hype. Crypto market entered its bull state which peaked at the beginning of 2018. All that awareness and public exposure of cryptocurrencies forced banks, various financial institutions, and tech giants to look into blockchain technology and try to benefit from it, most notable being IBM, Microsoft, Amazon, Santander, Facebook and others.

As the cryptocurrency market grew, the need for regulations and customer protection became more prominent. Most of the developed countries gave their perspective on the cryptocurrencies and new technology. Governments issued laws regarding crypto space and

tried to handle new market the best way they knew. Some of them (Algeria, Pakistan, Vietnam etc.) decided to ban crypto in its entirety while others (China, Lithuania, Thailand etc.) put restrictions on trading or investing in cryptocurrencies. On the other hand, countries like Luxembourg or Spain see the opportunity in blockchain technology and are trying to create crypto-friendly regulatory space in order to attract new investments.

While issuing notices, warnings and laws, governments had to tackle the issue of new terminology revolving around the fast-growing market and products emerging from it. According to the Law Library of Congress (2018), while the various forms of cryptocurrencies are similar in their nature, decentralisation and technology behind them, the terminology describing them differs between jurisdictions:

Some of the terms used by countries to reference cryptocurrency include: digital currency (Argentina, Thailand, and Australia), virtual commodity (Canada, China, Taiwan), crypto-token (Germany), payment token (Switzerland), cyber currency (Italy and Lebanon), electronic currency (Colombia and Lebanon), and virtual asset (Honduras and Mexico)(The Law Library of Congress, 2018:1).

According to Cabré "...countries that produce science and technology in their own language only compile and standardize their own terminology" (Cabré, 1998:18), but countries whose technological development depends on others (e.g. Croatia) have to create neologisms (mainly through transcription and transliteration, loan translation or calquing). With that in mind, one can conclude that translators are constantly faced with the lack of terminological resources for a particular subject so they have to compile their own glossaries from sources of questionable quality and origin (Rajh & Runjaić, 2018). The aim of this study is to contribute to the translator community as well as the terminology community by creating glossary in the field of cryptocurrencies and providing Croatian equivalents for the terms not yet translated.

2. Theoretical preliminaries

2.1. Terminology and its functions

As the technology and communications developed, the need for specialized communication among communities became evident. Terminology, the discipline concerned with the study and compilation of specialized terms slowly gained on importance (Cabré,

1998:1). According to Cabré (1998), throughout the time, terminology was affected by various social changes. Rapid development of science and technology meant new concepts which required new names. The need for the transfer of information and communication in general created new ways of communication leading to constant updates of the existing vocabularies. Governments had to create official organizations in order to manage the standardization processes. As scientific and technology creation happens in the dominant economic powers, other countries have to borrow technical and scientific vocabulary from them. All of that led to the terminology being one of the most important components of the language standardization (Cabré, 1998:4-5).

The difference between terminology and lexicology, according to Cabré (1998) is "...in the way they conceive and deal with their approach to the object of study, in the object of study itself, in their methodology, in the way terms are presented and in the conditions that must be taken into account when proposing new terms" (Cabré, 1998:8).

When it comes to the methods used in terminology, one can distinguish them from those used in lexicography as the focus moves from concepts to terms. Terminographers try to assign names to concepts while lexicographers "...start with the word and try to characterize it functionally and semantically" (Cabré, 1998:8).

Terminology also helps with optimization of communication between specialists and professionals. It assists them directly or through translators or various bodies interested in the standardization of a language (Cabré, 1998:10). Further to that, one can identify two user groups of terminology: those who use terminology for direct or intermediary communication, and terminologists. With that in mind, terminology can have a communicative dimension and a linguistic dimension. Translators, technical writers, and interpreters are all terminology intermediaries who need terminology to carry out their profession (Cabré, 1998:11-12).

2.1.1. Terminology and translation

As stated by Auger (1988) (qtd. in Cabré, 1998:12), one can differentiate three major orientations in terminology processing when it comes to their main objectives: the linguistic approach (terminology adapted to the linguistic system), the translation approach (terminology for translation), and the aménagiste approach (terminology for planning). For the purpose of this thesis I will focus on the translation approach.

Translation-oriented terminology is greatly developed in countries (or provinces) with two or more official languages, e.g. Canada (Quebec) or Belgium (Walloon), and is also the basis for the terminological projects of multilingual international bodies (e.g. UN, EU etc.). According to Cabré (1998): "This orientation establishes terminological equivalents in the various languages which are used as points of reference by translators and which contribute to the quality of a translated text" (Cabré, 1998:14), meaning that translators can compare previously translated documents and use needed equivalent in their own translations. Terminological reference works mostly present entries in a systematic order, contrary to the general language dictionaries which present entries in an alphabetic order. As Cabré (1998) stated, systematic or concept ordering is an attempt to reproduce the conceptual system of a special subject and that type of ordering allows a better layout for multilingual dictionaries, since in theory the concept is the same for all languages (Cabré, 1998:34). Furthermore, according to H. Hutcheson (1995), majority of the terminology standards published by the International Organization for Standardization (ISO) show their entries in a systematic order because their terminology work is based on the structuring of concepts, meaning that they show relationships among concepts (Hutcheson, 1995:111). With that in mind, the possibility that the translator is going to "...lose his bearings in the immediate conceptual environment of the concept to be translated..."(Picht & Draskau, 1985:132) is much lower.

As stated by Cabré (1998), translation aims to ease the communication between speakers of different languages. It implies translator's understanding of the source text, and that requires knowledge of the specific terms of both, the source and target languages. In what concerns transferring of the information, a good translation should deliver the same message conveyed in the source text, and it should do it in the forms that the native speaker of the target language would use. In order to do that, technical translator must have minimal competence in a specific field to be certain to respect content of both source and target texts.

2.1.2. Terminology and translators

As I have stated in the chapter 2.1., translators and interpreters are terminology intermediaries and as such they depend on bilingual or multilingual vocabularies to carry out their work. Under certain circumstances, they have to prepare terminology themselves if some of the terms are not listed in the vocabularies or databanks. Furthermore, the time constraints mostly do not allow them to wait for the terminologist to find the needed equivalent.

The context in which the term is used is a great help to the translator as it usually contains the information on how to use the term and may provide information about the concept so the translator knows the precise form to refer to a specific content (Cabré, 1998:48).

Cabré (1998) also stated that the key to multilingual terminology is terminological equivalence. "The authors of bilingual or multilingual technical dictionaries often start from the principle that terminologies reflect objective structures of the real world" (Cabré, 1998:48), because the structure of a special language in the fields such as arts and social sciences, which are not highly structured, may not be the same in other languages.

2.2. Translation methods and procedures according to Jean-Paul Vinay and Jean Darbelnet

Roman Jakobson (qtd. in Venuti, 2000:69) depicts translation (on the level of interlingual translation) as a process of recoding where the translator recodes the message received from another source and then transmits it. Therefore, translation "...involves two equivalent messages in two different codes." L. Venuti (2000:69), on the other hand, does not agree and points out the Jakobson's understatement of the interpretive nature of translation as he finds recoding to be an active rewording not simply transmitting the foreign message, but transforming it.

According to Jean-Paul Vinay and Jean Darbelnet (qtd. in Venuti, 2000:84), we can summarise countless of different translation methods or procedures into just seven which can, in practice, be used on their own or in combination with each other. It is also stated that translators can choose from two different methods of translating, one being direct (literal) translation, and the other one being oblique translation.

Direct translation is used in those translation tasks where it is possible to transpose the source language (SL) message element by element into the target language (TL). However, there are also certain stylistic effects which cannot be transposed into the TL without changing the lexis or the syntactic order. In those cases, one has to use more complex translation procedures which are called oblique translation methods as J.P. Vinay and J. Darbelnet claim (qtd. in Venuti, 2000:84).

According to Vinay and Darbelnet (2000:85-93), the first three procedures are direct and the other four are oblique.

Procedure 1: Borrowing - used to overcome lacuna, it is one of the simplest of all translation methods (e.g. using foreign terms as "roubles" or "tequila" in order to introduce the flavour of the SL).

Procedure 2: Calque - a special kind of borrowing where a language borrows an expression form of another, but translates literally each of its elements (e.g. English word "honeymoon" into Croatian "medeni mjesec"¹).

Procedure 3: Literal translation - a word for word translation, it is the direct transfer of a SL text into a grammatically and idiomatically appropriate TL text (e.g. English word "beer" into Croatian "pivo"¹).

"If, after trying the first three procedures, translators regard a literal translation unacceptable, they must turn to the methods of oblique translation." (qtd. in Vinay, 2000:87).

Procedure 4: Transposition - it involves replacing one word class with another without changing the meaning of the message (e.g. English word "From" meaning "sender" translated into Croatian as "Pošiljatelj"¹).

Procedure 5: Modulation - a variation of the form of the message, obtained by a change in the point of view (e.g. translation of French "Peu profond"² into English as "shallow").

Procedure 6: Equivalence - the same situation is described by two texts using completely different stylistic and structural methods (e.g. English cry transcribed as "Ouch!" in Croatian would be interpreted as "Joj!" or "Au!"¹).

Procedure 7: Adaptation - the type of situation being referred to by the SL message is unknown in the TL culture so the translator has to create a new situation that can be considered as being equivalent (e.g. in a context of a popular sport which is specific for a certain countries, "baseball" (US) would be adapted into Croatian as "rukomet"¹).

However, there is a noticeable difference when it comes to the translation of general texts and specialized texts. According to Cabré (1998), the use of standardized terminology makes communication between specialists more efficient, but the criteria used to evaluate specialized texts differs from that to evaluate general texts. "In general texts, expression,

¹ Example is provided by the author.

² In French „peu“ means „little“ or „not very much“, while „profond“ means „depp“.

variety and originality prevail over other features; in specialized texts, concision, precision and suitability are the relevant criteria" (Cabré, 1998:47). Cabré (1998) further claims that the concision reduces the chance of misinformation, precision is important because of the functional relations among specialists, and it has to be suitable to the communicative situation in which it is produced. All of that, according to Thelen (2015), means "...that the professional specialist (non-literary) translator has less translation freedom when encountering a term than when dealing with a general language word" (Thelen, 2015:352).

Cabré (1998) also stated that the main purpose of special languages is to allow objective, precise, and unambiguous exchange of information particularly between subject field experts and professionals (Cabré, 1998:77), which would also mean that translators are trying to achieve monosemy (one-meaning) within a given field. An example of special language term translation are terms "virtual wallet" (virtualni novčanik) and "smart contracts" (pametni ugovori). Both of those terms have only one meaning and it is related to the cryptocurrency field. Their Croatian translations share that characteristic as we cannot misinterpret them when out of context, so one can say they are precise and unambiguous.

3. Research

Before conducting the research, I expected to collect around 50 terms relevant to crypto space, from which I assumed half would be economic and legal terms. Considering that the Croatian language belongs to the group of non-dominant languages which, according to Cabré, create terms based on neology (Cabré, 1998:18), it is normal to expect that translators sometimes (49.5%) or even often (18.2%)³ have to create neologisms (Rajh & Runjaić, 2018:235). I have also assumed that around one third of the extracted terms in English would not have equivalents in Croatian due to the novelty of cryptocurrency space and appearing products. Regarding the procedures used when translating those terms, I expected the most common one to be calquing, followed by borrowing. Reasoning behind that was the previous experience dealing with new terminology of special languages and the way new words come into a non-dominant language, especially terminology used in the IT field.

³ The survey was conducted among 99 translators and has collected answers to 37 questions. The respondents were mainly freelancers (59.6%), followed by those employed in companies (27.3%), and the rest were part-time translators (Rajh & Runjaić, 2018:235).

3.1. Motivation for the research

In a paper *Crowdsourcing terminology: harnessing the potential of translator's glossaries*, I. Rajh and S. Runjaić explained the need for collaboration between members of the Translators and Interpreters Interest Group (TIIG) and terminologists from the Department of General Linguistics at the Institute of Croatian Language and Linguistics. Mainly, they wanted to show "...the current situation and methods of gathering material for the terminological database of translators' glossaries and, finally, how that database is linked in a specific format to the metasearch engine within the Croatian Terminology Portal" (Rajh & Runjaić, 2018:234).

In order to assess the situation, working group has conducted a survey among the members of TIIG at the beginning of 2016. The results were rather interesting as they showed that "...as many as 72% of translators find inconsistent, inappropriate or outdated solutions in terminological resources they use" (Rajh & Runjaić, 2018:235). Furthermore, the results showed that a large number of respondents were not familiar with the most significant online terminological resources when it came to Croatian, the Croatian Terminology Portal and IATE: "...as many as 42% of translators are not aware of their existence, and roughly 70% of those who are informed consider that those resources do not satisfy the needs of translators." (Rajh & Runjaić, 2018:235). Those who do use the Croatian Terminology Portal stated that it was reliable, but was lacking when it came to the number of terms and colloquialisms. Also, the context, which is especially useful to the translators, is not provided. IATE is great when dealing with EU terminology, but it has a limited number of Croatian terms, which also tend to be wrong (Rajh & Runjaić, 2018:235).

Around that time, a survey regarding needs and habits of the users of Struna and the Croatian Terminology Portal was carried out. The results showed that among the 85 respondents, 63.4% used electronic dictionaries and terminological databases daily, while 20.2% use printed terminological resources (Rajh & Runjaić, 2018:236). Regarding frequency of visits, Struna was searched several times a month (71.8%) and 7.1% daily, as opposed to the Croatian Terminology Portal which only 46.3% of respondents were searching several times a month (Rajh & Runjaić, 2018:236).

The overall conclusion was that Croatian translators were not satisfied with the then current terminological resources for the Croatian language and that many of the translators were not aware of the existence of different terminological resources. The suggestion was to

create a database of translator's glossaries which would greatly help them in translation while at the same time improving the number of visits to the Portal. Following its creation, it provided an additional benefit for a wider translator community as the Croatian Terminology Portal included translators' glossaries and the database was fully operational and open to public (Rajh & Runjaić, 2018:238).

After reading the results of a survey (Rajh & Runjaić, 2018) and learning of the current situation regarding the needs of the translator's and terminology's communities, I have concluded that the glossary of the cryptocurrency terms would be helpful to both of the communities. As the crypto market is still new and not well regulated at the moment, the need for cryptocurrency glossary can only be greater once Croatia or the EU decide to seriously regulate the market.

Further to the above mentioned, the aim of this research is to collect and sort the cryptocurrency terminology related to the existing regulations, government issued laws and policies as well as to provide Croatian equivalents for those terms without the official one.

3.2. Methodology

The corpus for the research is extracted from 2 documents regarding cryptocurrency regulation and blockchain technology. The first one is *Regulation of Cryptocurrency Around the World* (The Law Library of Congress, 2018) which is a report surveying 130 countries around the world, their standpoints towards cryptocurrency and issued laws or policies on the matter. The second document is *Bitcoin: A Peer-to-Peer Electronic Cash System* (Nakamoto, 2008) which explains the blockchain technology behind the Bitcoin cryptocurrency and its use case. The reason for choosing those two documents is their relevance in crypto space as well as their comprehensive nature on the matter. Furthermore, I chose only Bitcoin's white paper as it is the first and the most known cryptocurrency today.

After collecting the corpus I decided to sort it into 2 major groups. One with terms closely associated with cryptocurrency and the blockchain technology, and the other one containing economic and legal terminology commonly used in crypto space. The former group is further divided into two tables. The first one consists of terms in English with their Croatian equivalents confirmed by EU's official documents and also providing context in both languages. I used EUR-lex as the main source of EU's documents as it provides official translations into Croatian. To keep the tables clear and simple, CELEX number of the referenced document is provided instead of the full URL, which is given in the Bibliography

part of this thesis. EU's documents released post-2012 were primarily used. From that year onwards began the regulation of the crypto space and Bitcoin had its first noticeable rise. In the second table I initially expected to group up English terms whose Croatian counterparts were incorrect or incomplete. Later I found out that there were no such terms among the extracted cryptocurrency terminology, as they were either translated and used in the official documents or there is no translation into the Croatian language at all. For that reason I omitted the above mentioned group and proceeded with the last table which consists of English terms without the official Croatian translation. Every term is defined and the context is provided in order to further clarify the meaning. For that group of terms I gave possible Croatian equivalents in accordance with seven methods provided by J.P Vinay and Jean Darbelnet (qtd. in Venuti 2004:84-93). Furthermore, I have opted for alphabetical ordering, despite the fact that the terms presented in terminological works are usually given in systematic order, as the alphabetical order is the common practice in creating translator's glossaries. Lastly, I presented the reasoning behind chosen translation methods and provided translations.

3.3. Results

Upon completion, the glossary had 61 English terms with their Croatian equivalents provided. In the first, out of two major groups, were 38 terms; those were closely associated with cryptocurrency and blockchain technology. Out of those, 18 had official translation and were already used in the EU's official documents, and 20 did not have the official Croatian equivalents. The remaining 23 terms were economic and legal terms related to the cryptocurrency market and they compose the second major group. Each of those terms were previously used in the EU's official documents and their Croatian equivalents were provided. I will further elaborate on *Table 2* and discuss *Table 1* and *Table 3* in chapter 4 of this thesis.

3.4. English terms closely associated with cryptocurrency and blockchain technology

3.4.1. Cryptocurrency terminology used in the official documents

| English term | Context in English | Context in Croatian | Croatian equivalent |
|-----------------------|--|---|--|
| blockchain technology | “In particular, Artificial Intelligence (AI) and blockchain technology could have a positive | “Posebno bi umjetna inteligencija i tehnologija lanca blokova mogle imati pozitivan | tehnologija lanca blokova CELEX:52019XG0313(01) |

| | | | |
|----------------------------|---|--|---|
| | impact on e-Justice, for example by increasing efficiency and trust.” | učinak na e-pravosuđe, na primjer povećavajući učinkovitost i povjerenje.” | |
| crypto-assets | “In the area of crypto-assets, it has been noted that technology-based innovations can avoid coming within the scope of regulation, even though they are in fact operating in a highly regulated market.” | “U području kriptovalutne zapaženo je da se, iako se poslovanje kriptovalutama odvija na tržištu koje je u velikoj mjeri regulirano, tehnološke inovacije ipak mogu neopaženo provući kroz rupe koje u tim propisima postoje.” | kriptoimovina CELEX:52018AE1056 |
| cryptocurrency | “In addition, particular attention needs to be given to following the development of cryptocurrency markets (bitcoin and others).” | “Usto, posebna se pozornost treba pridati praćenju razvoja tržišta kriptovaluta (bitcoin i ostale).” | kriptovaluta CELEX:52016IE5526 |
| custodial wallet | “Certain businesses, such as virtual currency exchange platforms and custodial wallet providers will be brought under the Directive, which generates a certain cost, as it will put them under a supervisory regime.” | “Određena poduzeća, poput platformi za zamjenu virtualne valute i pružatelja usluga skrbničkog novčanika uključit će se u područje primjene Direktive, što će uzrokovati određeni trošak jer će ih to staviti pod sustav nadzora.” | skrbnički novčanik CELEX:52016SC0224 |
| custodial wallet providers | “...and wallet providers offering custodial services of credentials necessary to access virtual currencies (hereinafter ‘custodial wallet | “...i pružatelje usluga novčanika koji nude skrbničke usluge podataka potrebnih za pristup virtualnim valutama (dalje u tekstu „pružatelji usluga | pružatelji usluga skrbničkog novčanika CELEX:52016AB0049 |

| | | | |
|-------------------------------|--|---|--|
| | providers’) (4).” | skrbničkog novčanika”) (4).” | |
| cyber-currency | “See, for example, Articles 2 to 5 of the Japanese Payment Services Act, which define cyber-currency to exclude the yen and foreign currencies...” | “Vidjeti primjerice, članke od 2. do 5. japanskog Zakona o platnim uslugama koji definira internetske valute tako da isključuje jen i strane valute...” | internetska valuta CELEX:52016AB0049 |
| digital currency | “As noted by the Bank for International Settlements (BIS), the distributed ledger technology underlying many digital currency schemes could have a much broader application beyond payments (13).” | “Kao što je primijetila Banka za međunarodne namire (BIS), distribuirana tehnologija glavne knjige koja je osnova mnogim sustavima digitalnih valuta mogla bi imati mnogo širu primjenu povrh plaćanja (13).” | digitalna valuta CELEX:52016AB0049 |
| digital medium of exchange | “ ‘digital medium of exchange’ means any electronic money as defined in point (2) of Article 2 of Directive 2009/110/EC of the European Parliament and of the Council ¹² , and virtual currencies;” | “ „digitalno sredstvo razmjene” znači bilo kakav elektronički novac, kako je definiran u članku 2. točki 2. Direktive 2009/110/EZ Europskog parlamenta i Vijeća ¹² , i virtualne valute;” | digitalno sredstvo razmjene Council of the European Union, <i>Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on combating fraud and counterfeiting of non-cash means of payment and replacing Council Framework Decision 2001/413/JHA - General approach</i> , 2018 |
| distributed ledger technology | “The Commission will consult publicly on further digitisation of regulated information about companies listed on EU regulated markets, including the possible implementation of a European | “Komisija će provesti javno savjetovanje o daljnjoj digitalizaciji propisanih informacija o poduzećima uvrštenima na burzu na reguliranim tržištima u EU-u, uključujući moguće | tehnologija decentraliziranog vođenja evidencije transakcija CELEX:52018AE1056 |

| | | | |
|------------------------|---|---|---|
| | Financial Transparency Gateway based on distributed ledger technology — RegTech.” | pokretanje europskog portala za financijsku transparentnost koji će se temeljiti na tehnologiji decentraliziranog vođenja evidencije transakcija (RegTech).” | |
| e-wallet | “Extending the scope to cover transfers in other currencies as well as payments with credit, debit and pre-paid cards, e-wallet providers, money remittances or virtual currencies could further increase the added value in terms of law enforcement.” | “Proširenjem područja primjene kako bi se obuhvatili prijenosi u drugim valutama te plaćanja kreditnim i debitnim karticama, karticama s opcijom plaćanja unaprijed, pružatelji usluga elektroničkog novčanika, novčane doznake ili virtualne valute mogla bi se dodatno povećati dodana vrijednost u smislu kaznenog progona.” | elektronički novčanik CELEX:52016DC0831 |
| cryptographic hash | “73 Cryptographic hash of simulation tool result 3.1.4 “ | “73 Kriptografski kontrolni identifikacijski broj (hash) rezultata simulacijskog alata 3.1.4” | kriptografski kontrolni identifikacijski broj CELEX:32018R0956 |
| initial coin offerings | “...see IOSCO's webpage for an overview of regulator's warnings on virtual currencies and initial coin offerings.” | “... vidjeti još internetske stranice IOSCO-a za pregled upozorenja regulatora u pogledu virtualnih valuta i inicijalnih javnih ponuda kriptovaluta (ICO).” | inicijalna javna ponuda kriptovaluta CELEX:32018X0601(02) |
| private key | “(c) private key recovery to ensure the recovery of public key-based encrypted information in the | “(c) oporavak tajnih ključeva kako bi se osigurao oporavak informacija kriptiranih javnim | tajni ključ CELEX:32013D0001(01) |

| | | | |
|------------------|--|---|---|
| | case of certificate loss;” | ključem u slučaju gubitka certifikata;” | |
| proof-of-concept | “This could also include support at the phase 3 stage of the SME instrument subject to the level of demand, as well as to technology transfer (including the transfer of research results and inventions stemming from the sphere of public research to the productive sector, for example through proof-of-concept).” | “To bi također moglo uključivati potporu u 3. fazi instrumenta za MSP-ove ovisno o razini potražnje, kao i tehnološki prijenos (uključujući prijenos rezultata istraživanja i izuma koji dolaze iz javnih istraživanja u proizvodni sektor, npr. putem dokaza koncepta).” | dokaz koncepta CELEX:52013AP0504 |
| public key | “(e) ‘Non-repudiation of origin’ means the measures providing the proof of the integrity and proof of origin of the data through methods such as digital certification, public key infrastructure and digital signatures;” | “(e) „neporecivost podrijetla” znači mjere kojima se dokazuje cjelovitost i podrijetlo podataka metodama poput digitalne certifikacije, infrastrukture javnih ključeva i digitalnih potpisa;” | javni ključ CELEX:32019R0917 |
| security token | “use of a security token as identification procedure for online services (such as online banking, public services, ordering or buying goods or services online) for private purposes in the last 12 months;” | “digitalnim certifikatom ili karticom i čitačem kartice u postupku identifikacije za internetske usluge (kao što su internetsko bankarstvo, javne usluge, naručivanje ili kupnja robe ili usluga na internetu) za osobne potrebe u posljednjih dvanaest mjeseci” | digitalni certifikat CELEX:32017R1515 čitač kartice CELEX:32017R1515 |
| smart contracts | “The legal and | “Zbog nedovoljne | pametni ugovori |

| | | | |
|----------------|--|--|--|
| | operational risks of blockchain, cryptocurrencies and smart contracts are on the increase owing to the lack of regulation and transparency.” | regulacije i netransparentnosti, pravni i operativni rizici povezani s „lancem blokova”, kriptovalutama i pametnim ugovorima sve su veći.” | CELEX:52018AE1695 |
| virtual wallet | “The system may also provide alternative online payment methods, such as bank transfers or virtual wallets (deposit).” | “Sustavom se mogu omogućiti i zamjenske metode internetskog plaćanja, kao što su bankovni prijenosi ili virtualni novčanici (polog).” | virtualni novčanik CELEX:32015R0884 |

Table 1 Cryptocurrency terminology used in the official documents

Table 1 above lists the extracted cryptocurrency terms which were used in the official EU’s documents. In columns two and three I have provided English context for each of the terms and Croatian translation of that context. As I have mentioned in chapter 3.2., the CELEX number is provided instead of a full URL in order to keep the table clear.

3.4.2. English terms without official Croatian translation

| English term | Definition | Context in English | Suggested Croatian equivalent |
|---|---|---|-------------------------------|
| (crypto-currency) exchange ⁴ | “A cryptocurrency exchange is any system that operates on the basis of trading cryptocurrencies with other assets.” www.techopedia.com | “You may also buy and sell digital currency on open exchanges, called digital currency or cryptocurrency exchanges.” www.bankofcanada.ca | mjenjačnica (kriptovaluta) |
| (crypto-currency) miners ⁴ | Computers which solve computational math problems making payment network trustworthy and secure by recording transactions and checking their accuracy.* | “The miners typically operate in large decentralised networks, can be energy-intensive 134 and associated with slower transaction speeds.” CELEX:52019SC0106 | rudari (kriptovaluta) |
| (crypto-currency) mining ⁴ | A process of solving complex computational math problems and verifying transactions on a | “In particular, problems could be expected with energy consumption and | rudarenje (kriptovaluta) |

⁴ In a crypto space, the terms are most of the time used as „exchanges”, „miners“ and „mining“. The reader is expected to know that it denotes cryptocurrency exchanges, miners and mining.

| | | | |
|--|---|---|---|
| | blockchain network, in order to gain cryptocurrency token of that network.* | transaction times for blockchains secured by a 'proof-of-work' algorithm, which is the principle behind the energy-intensive 'mining' of cryptocurrencies...” CELEX:52019SC0106 | |
| blockchain node | Blockchain nodes store, exchange and preserve blocks of data. They are mostly computers or bigger servers which are interconnected and are forming the infrastructure of a blockchain.* | “Therefore, blockchain nodes are responsible for acting as a communication point that may perform different functions.” www.binance.vision.com | čvorište lanca blokova |
| convertible virtual currency | It is an unregulated digital currency which can be exchanged for legal tender.* | “Convertible virtual currency, which includes crypto-currency, can be converted into a fiat currency, either directly, or through an exchange.” www.iomfsa.im | konvertibilna virtualna valuta |
| crypto token | “Crypto tokens represent a particular fungible and tradable asset or a utility that is often found on a blockchain.” www.investopedia.com | “There can be another crypto token that gives entitlement to the token holder to view 10 hours of streaming content on a video-sharing blockchain.” www.investopedia.com | kriptotoken |
| digital collector coin | A coin which will have digital (token) as well as physical version. “Collectors will be able to purchase tokens, exchange them and, having collected the needed set, redeem the physical coin. “ www.lb.lt | “The issuance of the digital collector coin will be yet another step towards implementing one of the Bank of Lithuania’s strategic directions in the field of innovation and fintech.” www.lb.lt | digitalna numizmatička kovanica |
| Foreign Virtual Currency Exchange Service Provider | A person carrying out a Virtual Currency Exchange Service in a foreign state.* | “The term "Foreign Virtual Currency Exchange Service Provider" as used in this Act means a person who carries out a Virtual Currency Exchange Service in the course of trade in a foreign state under the same kind of registration as the one referred to in Article 63- | Strani pružatelj usluge zamjene virtualnih valuta |

* Definitions of English terms provided by the author

| | | | |
|-------------------------|---|--|--------------------------------------|
| | | 2...” www.japaneselawtranslation.go.jp | |
| inherent encryption | A feature of certain devices or products which have built-in encryption and do not need to be protected via external software applications.* | “While the various forms of what are broadly known as “cryptocurrencies” are similar in that they are primarily based on the same type of decentralized technology known as blockchain with inherent encryption, the terminology used to describe them varies greatly from one jurisdiction to another.” www.loc.gov | ugrađena kriptografska zaštita |
| initial token offerings | A process of digitizing or tokenizing of an asset and making it publicly available through the internet.* | “The Canadian Securities Administrators (CSA) today published CSA Staff Notice 46-307 Cryptocurrency Offerings, which outlines how securities law requirements may apply to initial coin offerings (ICOs), initial token offerings (ITOs), cryptocurrency investment funds and the cryptocurrency exchanges trading these products.” www.securities-administrators.ca | inicijalna javna ponuda kriptotokena |
| multi-signature wallets | The funds stored on multi-signature wallets can only be moved from the wallet if multiple signatures are provided (through the usage of different private keys).* | “There are 2 types of wallets providers: ·software wallets providers and ·custodial wallets providers (including multi-signature wallets).” CELEX:52017SC0241 | višestruko zaključani novčanici |
| payment token | “Payment tokens represent the purest form of cryptocurrencies, serving as mediums of inherent value similar to established fiat currencies. They aren’t considered securities but they are means of payment.” www.medium.com | “Usually, payment tokens — otherwise referred to as simply “cryptocurrencies” — have no further function or link to other development projects.” www.medium.com | platni token |
| proof-of-stake | “Proof of Stake (PoS) concept states that a person can mine | “The main advantages of the Proof of Stake algorithm are | sustav dokaza udjelom |

| | | | |
|---------------------------------------|---|---|-------------------------------------|
| | or validate block transactions according to how many coins he or she holds.” www.investopedia.com | energy efficiency and security.” www.binance.vision | |
| proof-of-work | “...a system that requires a not-insignificant but feasible amount of effort in order to deter frivolous or malicious uses of computing power...” www.investopedia.com | “Proof of work makes it extremely difficult to alter any aspect of the blockchain, since such an alteration would require re-mining all subsequent blocks.” www.investopedia.com | sustav dokaza radom |
| simplified payment verification (SPV) | “A method for verifying if particular transactions are included in a block without downloading the entire block.” www.bitcoin.org | “SPV is a good way to validate Bitcoin transactions even on devices like phones where you usually don’t want to store the complete Blockchain copy of currently 173 Gigabytes.” www.medium.com | pojednostavlje na provjera plaćanja |
| token crowdsale | “A type of crowdfunding that issues tokens (electronic records) that are stored on the user's device.” www.encyclopedia2.thefreedictionary.com | “Crowdsales are a great tool for investors and traders to speculate on promising projects while providing them with the necessary funds.” www.cointelegraph.com | prodaja tokena množtvu |
| token pre-sale | A token sale event preceding official crowdsale or initial coin offering (ICO) run by various blockchain enterprises.* | “Securities Commission Malaysia (SC) would like to caution investors as we note the emergence of digital token based fundraising activities / investment schemes in Malaysia and elsewhere, which may be referred to as “initial coin offerings”, “initial token offerings”, “token pre-sale”...” www.perma.cc | preprodaja tokena |
| utility token | “a digital token of cryptocurrency that is issued in order to fund development of the cryptocurrency and that can be later used to purchase a good or service offered by the issuer of the cryptocurrency” www.merriam-webster.com | “However, if the token doesn’t qualify according to the Howey test, then it classifies as utility tokens.” www.blockgeeks.com | token za kupovinu |
| virtual asset | “A virtual asset is a digital representation of value that | “This way, the proposal can move forward without using | virtualna imovina |

| | | | |
|-------------------|--|--|--------------------------------------|
| | can be digitally traded, or transferred, and can be used for payment or investment purposes.” www.fatf-gafi.org | the terms “virtual currency” or “cryptocurrency,” and the term “virtual assets” becomes fully interpretive.” www.medium.com | digitalna imovina |
| virtual commodity | A virtual product which can be bought, sold or traded. * | “...bitcoin is a type of virtual commodity that is neither legal tender nor a financial instrument subject to the supervision of the AMCM....” www.gcs.gov.mo | virtualna roba virtualni proizvod |

Table 2 English terms without official Croatian translation

In this chapter I will present the terms for which there are no official Croatian equivalents and provide reasoning for the suggested translations. Starting alphabetically, terms "(cryptocurrency) exchange", "(cryptocurrency) miners", and "(cryptocurrency) mining" were rather simple to define and translate. In these cases I decided to use calquing. As the terms "exchange", "miners" and "mining" already exist and they keep their meaning (although broader) in the context of cryptocurrencies, just adding the word "cryptocurrency" in order to closely define them was enough. The suggested Croatian equivalents are "mjenjačnica (kriptovaluta)", "rudari (kriptovaluta)" and "rudarenje (kriptovaluta)" (in that order). Another option was to translate them as "kripto mjenjačnica", "kripto rudari", and "kripto rudarenje". In my opinion, that would create discrepancy with the terms such as "crypto-asset" and "cryptocurrency" which are officially translated as "kriptoimovina" and "kriptovaluta", meaning that in the case of the suggested equivalents the emphasis is on what is being exchanged or mined, while with the second option one could mistaken the word "kripto" as something describing the process behind the words following it.

The following terms were "blockchain node" and "convertible virtual currency" with calquing as the method of choice. We already have official translations of terms "blockchain" (lanac blokova) and "virtual currency" (virtualna valuta) so I had no doubt how to translate the new terms. The suggested Croatian translations are "čvorište lanca blokova" and "konvertibilna virtualna valuta". The word "node" translates into Croatian as "čvor" or "čvorište" and it perfectly depicts the purpose of the blockchain nodes, being interconnected communication points. The word "convertible" in source language further defines some of the virtual currencies (and points out that characteristic of them), as does the word "konvertibilna" in target language.

Calquing was used as the method of translation of term "crypto token" as well. Led by the previously mentioned examples "crypto-asset" and "cryptocurrency", the suggested translation is "kriptotoken".

The terms "digital collector coin" and "Foreign Virtual Currency Exchange Service Provider" were a bit challenging to translate just for the fact that the relations between the words composing the terms were a little confusing when translated into Croatian. The suggested Croatian equivalents are "digitalna numizmatička kovanica" for "digital collector coin" and "Strani pružatelj usluge zamjene virtualnih valuta" for the term "Foreign Virtual Currency Exchange Service Provider". As the word "collector coin" translates into Croatian as "numizmatička kovanica", the word digital (digitalna) denotes the characteristic of a collector coin in both SL and TL. The translation method used was calquing. For the term "Foreign Virtual Currency Exchange Service Provider" I had to change the word order when translating into Croatian. With that in mind, the chosen procedure is modulation, as one can notice a variation of the form of the message.

For the term "inherent encryption" I used calquing. The suggested Croatian equivalent is "ugrađena kriptografska zaštita" which is pretty self-explanatory. The word "inherent" denotes something existing as a basic part of something else. In the context of crypto technology I find the Croatian word "ugrađen" the most suitable one.

Another example of calquing is the translation of the term "initial token offerings" as "inicijalna javna ponuda kriptotokena". As we already have official translation of the term "initial coin offerings" (inicijalna javna ponuda kriptovaluta), I decided to use that form for the consistency in translation. In this context the word "token" is translated as "kriptotoken" for the reason of being less ambiguous than just "token".

The term "multi-signature wallets" was challenging to translate as I did not want to use variations of the Croatian word "potpis". The reasoning behind that was that I did not find the terms "višestruko potpisani novčanici" or "novčanici s više potpisa" explanatory enough. The reader would have to know what "signature" (potpis) denotes in the context of a crypto space. As the term "multi-signature" specifies that one has to use more than two private keys in order to move the funds stored on the wallet, we can state that that kind of wallet just have more "locks". From that point of view it became a bit easier to translate it. Further to the above, I chose modulation as a method, changed the point of view and suggested "višestruko zaključani novčanici" for the Croatian equivalent.

Translation of the term "payment token" was rather simple as I used calquing and suggested "platni token" for the Croatian equivalent. The meaning of the term "platni token" is clear, denoting it being used as a means of payment. For the terms "proof-of-work" and "proof-of-stake" the chosen method of translation was modulation. With the suggested Croatian equivalents "sustav dokaza radom" and "sustav dokaza udjelom", one can notice variation in the form of a message. I also added word "sustav" as it better describes the concept of each term. Furthermore, other possibilities were "dokaz rada" and "dokaz udjela" according to the translation of the term "proof-of-concept" (dokaz koncepta), which I personally find not specific enough.

"Simplified payment verification" is a method of verifying a certain transaction without downloading the entire block. For translation of that term I used calquing and suggested "pojednostavljena provjera plaćanja". In the SL, word "simplified" further defines the process of payment verification, as does the word "pojednostavljen" in the TL. Payment verification is a well known process in today's society so I found the translation "provjera plaćanja" a suitable one.

The term "token crowdsale" was a challenge to translate only because of the relations in the concept, as who sells what and to whom. One can say that crowdselling is a type of crowdfunding, but when translating crowdfunding (skupno financiranje) it is a self-explanatory term. If we translate crowdselling literally as "skupna prodaja" or "grupna prodaja" the process that that term denotes is simply wrong. In crowdsales, one entity sells the product to the "crowd"; while in Croatian "skupna/grupna prodaja" could imply that more entities are together selling product(s) to everybody else. For that reason I suggested the term "prodaja tokena mnoštvu" as the Croatian equivalent and the method of choice was modulation. That way it is clear whom the tokens are issued to.

The term "token pre-sale" was translated using calquing procedure while I used modulation to translate the term "utility token". The suggested Croatian equivalents are "pretprodaja tokena" and "token za kupovinu". The word "pre-sale" is usually translated into Croatian as "pretprodaja", and in the context of cryptocurrencies it keeps its meaning. When translating the term "utility token" the form of the message had to be slightly changed, but it kept its meaning that it can be used to purchase a product or service.

The last two terms are "virtual asset" and "virtual commodity". The method of choice was again calquing. In both cases I suggested two Croatian equivalents which I find equally

acceptable and which I would use depending on the context. For "virtual asset" I suggested "virtualna imovina" and "digitalna imovina" while for the term "virtual commodity" the suggested Croatian translation was "virtualna roba" and "virtualni proizvod". In the context of cryptocurrencies, the difference between "virtualan" and "digitalni" is negligible. According to the site *Hrvatski jezični portal*, "virtualan" denotes something created using a computer, apparent, artificial, and used on the internet. The word "digitalni" denotes something which is recorded in a binary form (0 or 1). Regarding cryptocurrencies one can state that both are true. The case of translating "commodity" as "roba" or "proizvod" is similar to the previously mentioned example. Both "roba" and "proizvod" are defined as a result of human labour intended for sale on the market. With that in mind, I would state that the usage of both "roba" and "proizvod" depend on the translator and his/her preferences.

Further to the above, I suggested 20 Croatian equivalents for the terms missing them, along with the definitions of those terms without a suitable one. Regarding the translation procedures used when translating the terms, I used calquing 14 times and modulation 6 times. In this research other translation techniques were not used. With that in mind, one can conclude I was prone to using calquing most of the time, which I expected before conducting a research.

3.5. Economic and legal terms related to cryptocurrency market

| English term | Context in English | Context in Croatian | Croatian equivalent |
|------------------------------|--|--|---|
| barter transaction | "SIC-31 Revenue — barter transactions involving advertising services" | "SIC 31 Prihod - nenovčane transakcije koje uključuju usluge oglašavanja" | nenovčane transakcije CELEX:02008R1126-20190101 |
| capital gains tax | "In the owner-occupancy market, capital gains taxes reduce homeowner mobility." | "Na tržištu nekretnina u vlasništvu stanara porez na kapitalne dobitke smanjuje mobilnost vlasnika." | porez na kapitalne dobitke CELEX:52019DC0527 |
| contractual means of payment | "As regards, in the first place, the exemptions laid down in Article 135(1)(d) of that directive, the 'bitcoin' virtual currency, being a contractual means of payment, cannot be regarded as a current account or a deposit account, a payment or | "Kada je prije svega riječ o izuzećima predviđenima u članku 135. stavku 1. točki (d) te direktive, treba reći da, s obzirom na to da je virtualna valuta „bitcoin“ ugovorno sredstvo plaćanja, nju s jedne strane ne bi | ugovorno sredstvo plaćanja CELEX:62014CJ0264_S UM |

| | | | |
|-------------------|---|--|--|
| | a transfer.” | trebalo sagledavati ni kao tekući račun ni kao depozitni račun, plaćanje ili transfer.” | |
| debt securities | “The term ‘bonds’ should be replaced by the term ‘debt securities’ in order to ensure consistency of terminology within Regulation (EC) No 809/2004.” | “Termin „obveznice” potrebno je zamijeniti terminom „dužnički vrijednosni papiri” kako bi se osigurala dosljednost s terminologijom iz Uredbe (EZ) br. 809/2004.” | dužnički vrijednosni papiri CELEX:32013R0759 |
| derivatives | “Such pricing sources should include those relating to indices that are used as references to derivatives or other financial instruments.” | “Ti izvori za formiranje cijena trebaju uključiti one koji se odnose na indekse koji se koriste za upućivanja na izvedenice ili druge financijske instrumente.” | izvedenice CELEX:32012R0648 |
| electronic money | “The definitions should cover new types of non-cash payment instruments which allow for transfers of electronic money and virtual currencies.” | “Definicijama bi trebalo obuhvatiti nove vrste bezgotovinskih instrumenata plaćanja, kojima se omogućuju transferi elektroničkog novca i virtualnih valuta.” | elektronički novac CELEX:32019L0713 |
| equity securities | “For equity securities, the registration document shall contain the information referred to in Annex 1 to this Regulation, unless it is drawn up in accordance with Articles 9, 14 or 15 of Regulation (EU) 2017/1129.” | “Registracijski dokument za vlasničke vrijednosne papire sadržava informacije iz Priloga 1. ovoj Uredbi, osim ako je sastavljen u skladu s člankom 9., 14. ili 15. Uredbe (EU) 2017/1129.” | vlasnički vrijednosni papiri CELEX:32019R0980 |
| Exchequer | „Exchequer: (Brit.) the account at the Bank of England into which tax receipts and other public monies are paid. historical : the former government office in charge of national | “Upotreba elektroničkog izdavanja računa trebala bi omogućiti nadležnim poreznim tijelima provođenje njihovih aktivnosti nadzora.” | porezno tijelo www.iate.europa.eu |

| | | | |
|--------------------------|--|---|---|
| | revenue.” | | |
| investment asset | “Uniform rules on the portfolio of an ELTIF are also required to ensure that ELTIFs that aim to generate regular income maintain a diversified portfolio of investment assets suitable for maintaining a regular cash flow.” | “Jedinstvena pravila o portfelju ELTIF-a potrebna su i kako bi se zajamčilo da ELTIF-i kojima je cilj stvaranje redovnog prihoda održavaju raznolik portfelj ulagačke imovine koji je prikladan za održavanje redovitog novčanog toka.” | ulagačka imovina CELEX:32015R0760 |
| investment product | “This document provides you with key information about this investment product. ...” | „Ovaj dokument sadrži ključne informacije o ovom investicijskom proizvodu....” | investicijski proizvod CELEX:32014R1286 ulagački proizvod CELEX:32015R0760 |
| legal tender | “Euro coins intended for circulation have legal tender status throughout the euro area.” | “Kovanice eura namijenjene optjecaju zakonsko su sredstvo plaćanja u cijelom europodručju.” | zakonsko sredstvo plaćanja CELEX:C2019/192/11 |
| miscellaneous income | “3. The income of SATCEN shall consist of contributions from the Member States, except Denmark, according to the gross national income scale, payments made in remuneration for services rendered and miscellaneous income.” | “3. Prihod SATCEN-a sastoji se od doprinosa država članica, osim Danske, u skladu s ljestvicom bruto nacionalnog dohotka, plaćanja naknada za pružene usluge i ostalih prihoda.” | ostali prihodi CELEX:32014D0401 |
| money service businesses | “The deficiencies include the supervision and enforcement of AML/CFT controls by financial institutions, including money service businesses; ...” | “Nedostaci uključuju nadzor i izvršenje kontrola SPNFT-a koje provode financijske institucije, uključujući poduzeća za novčane usluge;...” | poduzeća za novčane usluge CELEX:32018R1467 |
| non-convertible currency | “Assets held in a non-convertible currency shall be deemed readily accessible only insofar as the credit institution uses those assets to meet liquidity outflows in that currency.” | “Imovina koja se drži u nekonvertibilnoj valuti smatra se izravno dostupnom samo ako se kreditna institucija koristi tom imovinom za pokrivanje | nekonvertibilna valuta CELEX:32015R0061 |

| | | | |
|---------------------------------|--|---|---|
| | | likvidnosnih odljeva u toj valuti.” | |
| property value | “This Regulation also requires that the property value should not depend on the credit quality of the borrower or the performance of the underlying project as regards CRE.” | “Ova Uredba također zahtijeva da vrijednost nekretnine ne smije biti ovisna o kreditnoj kvaliteti korisnika kredita ili provedbi osnovnog projekta u odnosu na poslovnu nekretninu.” | vrijednost nekretnine CELEX:32017Y0131(01) |
| statutory payment | “For that purpose, Member States should be allowed, under certain conditions, to extend the statutory payment period up to a maximum of 60 calendar days.” | “U tom smislu, državama članicama treba omogućiti da pod određenim uvjetima produlje zakonsko razdoblje plaćanja do najviše 60 kalendarskih dana.” | zakonsko plaćanje CELEX:32011L0007 |
| store of value | “The Croatian economy remains heavily euroised, due to historical mistrust in the domestic currency as a store of value after frequent episodes of hyperinflation in the 1980s and early 90s.” | “Hrvatsko gospodarstvo i dalje je obilježeno visokim stupnjem euroizacije zbog povijesno uvjetovanog nepovjerenja u domaću valutu kao sredstvo za pohranu vrijednosti nakon čestih epizoda hiperinflacije tijekom 1980-ih i ranih 1990-ih.” | sredstvo za pohranu vrijednosti CELEX:52017SC0076 |
| transferable securities | “It is desirable that UCITS be permitted, as part of their investment objective, to invest in financial instruments, other than transferable securities, which are sufficiently liquid.” | “Poželjno je dopustiti UCITS-u da, kao dio svog investicijskog cilja osim prenosivih vrijednosnih papira, ulaže u financijske instrumente koji su dovoljno likvidni.” | prenosivi vrijednosni papiri CELEX:32009L0065 |
| unit in a collective investment | “...the period generally accepted in the market for the settlement of that transferable security or a unit in a collective investment undertaking as the standard delivery period or 5 trading | “...rok koji je općeprihvaćen na tržištu za namirivanje tog prenosivog vrijednosnog papira ili udjela u subjektu za zajednička ulaganja kao uobičajeni rok isporuke ili 5 dana | subjekt za zajednička ulaganja CELEX:02017R0565-20171214 |

| | | | |
|------------------|--|--|---|
| | days, whichever is shorter.” | trgovanja, ovisno o tome što je kraće.” | |
| unit of account | “4. The Committee's budget shall comply with the principles of unity, budget accuracy, annuality, equilibrium, unit of account, universality, specification, sound financial management and transparency.” | “4. Proračun Odbora usklađen je s načelima jedinstva i točnosti proračuna te načelom jedne godine, uravnoteženosti, obračunske jedinice, univerzalnosti, specifikacije, dobrog financijskog upravljanja i transparentnosti.” | obračunska jedinica CELEX:32019Q0710(01) |
| value added tax | “1. This Directive establishes the common system of value added tax (VAT).” | “1. Ovom se Direktivom utvrđuje zajednički sustav poreza na dodanu vrijednost (PDV).” | porez na dodatnu vrijednost CELEX:32006L0112 |
| White Paper | “The EESC therefore calls for a new transport policy White Paper, to replace the current one.” | “Stoga poziva na izradu nove Bijele knjige o prometnoj politici koja bi zamijenila postojeću.” | Bijela knjiga CELEX:52018AE5700 |
| zero coupon bond | “The difference between the issue price and redemption price of a zero coupon bond shall be treated as interest, to be recorded as interest paid at the maturity of the bond.” | “Razlika između cijene izdanja i otkupne cijene obveznice bez kupona tretira se kao kamata te se bilježi kao kamata plaćena s dospijećem obveznice.” | obveznice bez kupona CELEX:31998D0501 |

Table 3 English terms without official Croatian translation

4. Discussion

In the chapter 3 of this thesis I stated, before conducting the research, that the expected number of the extracted terms would be around 50. Now, I can conclude that I was slightly off regarding the quantity of terms and the size of glossary, as there are 61 extracted terms. Also, legal and economic terms presented in *Table 3* constituted 37.7% of the glossary, contrary to my assumption that that number would be closer to the 50%. On the other hand, my expectation that one third of the extracted terms in English would not have Croatian equivalents was very precise, percentage being 32.7%. Regarding the procedures used, calquing was by far the most common one, as I expected, but the second most used procedure

was modulation, contrary to the assumed borrowing. The reason for that I find in the fact that if there was a chance to use one of the direct methods (literal translation) I would use calquing. If translation using calquing as a procedure was unacceptable, I would immediately turn to the methods of oblique translation, as I see them being more flexible than procedures of direct translation.

As stated in the introduction to this thesis, countries with non-dominant languages and technologically dependence on others usually create terms based on neology. So according to Cabré (1998:204), neology is necessary in special subject fields in which the emergence of new concepts requires constant neological activity. There are also two types of situation she finds to require specific intervention. First, when two or more designations converge in a concept with a negative impact on communication; and second, when a special language does not have the designation required for expressing a concept. The latter case was the usual one while compiling the glossary.

Furthermore, when dealing with the lack of designation for a certain concept in a special language, English neologists tend to create neologisms in a various ways. Taking a researched corpus as a reference (primarily terms presented in *Table 1*) I found combining the existing words to create a new term to be the most popular one, e.g. terms “utility token” and “electronic money”, as well as “blockchain” and “cryptocurrency” being created by compounding.

Another process I noticed was creating neologisms through semantic extension. That means that an existing word gets a new meaning or that its meaning has been altered, e.g. terms "mining" and "miners" already exist, but in a new context of crypto space they acquire new meaning and denote a new concept. Prefixation is also one of the ways to create a neologism, e.g. terms “token pre-sale” and “multi-signature wallets” where prefixes “pre-“ and “multi-“ were added to form a new word.

When it comes to the Croatian official documents, most of the new terms are made by calquing. For example, the terms “smart contracts” and “digital currency” are translated as “pametni ugovori” and “digitalna valuta”. Regarding special language, Croatian language, being non-dominant, tends to borrow words from another language and translate it word-for-word in order to expand its own lexis.

5. Conclusion

In this paper I have compiled, analysed and presented a glossary of the cryptocurrency terms in order to contribute to the translators' and terminologists' communities. The rationale for the research is the lack of solutions in terminological resources regarding cryptocurrency field, as it is still new and not well regulated. The thesis is presented from the translator's point of view as it puts emphasis on the importance of a translator's glossary to the terminology resources. Before conducting a research, I have stated the theoretical background on terminology and its uses in modern society, as well as its relation to the translation and translators' community. Regarding the main objectives of the three major orientations in terminology processing, the focus was again on the translation approach (terminology for translation). Furthermore, the paper lists the translation methods and procedures according to J.P. Vinay and J. Darbelnet which were later used in the research. Every method was briefly explained and an example for each was given.

Authors initial expectation was that the most common procedure would be calquing followed by borrowing, and that the whole glossary would consist of around 50 terms. Out of those terms we assumed that half would be legal and economic terms, as those fields are interconnected with crypto space.

The research corpus was extracted from two relevant documents named *Regulation of Cryptocurrency Around the World* (The Law Library of Congress, 2018) and *Bitcoin: A Peer-to-Peer Electronic Cash System* (Nakamoto, 2008). The compiled glossary contained 61 terms out of which 38 were closely associated with crypto space, while 23 terms were economic and legal terms related to the cryptocurrency market. The main source of the EU's documents was EUR-lex as it provided official translations into Croatian. The glossary contained 20 terms without the official translation or usage in the EU's documents. For those terms the Croatian equivalents have been suggested in accordance with seven translation procedures mentioned earlier in the study. Furthermore, the definitions of terms were provided along with the context and usage in a sentence.

Afterwards, I analysed every suggested Croatian equivalent and gave explanation on the procedure used. I have also stated challenges encountered while translating and solutions chosen in order to overcome those difficulties. The results of the research showed that the main procedure was calquing, as I expected, but also that the number of terms extracted was

bigger than assumed. Adding to that, the number of economic and legal terms was not as high as previously thought; it constituted 37.7% of the glossary.

In the end, I have addressed the strategies regarding the creation of neologisms in order to fill a lacuna in a special subject field, in this case that being cryptocurrency field. By analysing the extracted corpus, I noticed that the neologists in English usually create new terms by combining the existing words. Cases of creating neologisms through semantic extension and prefixation were also recorded. The Croatian language however, regarding the crypto space and the extracted terms for this glossary, introduces new terms mainly through calquing.

Although the number of the terms constituting the glossary is relatively small, it is rather detailed and offers a solid starting point for the future studies on the cryptocurrency terminology.

Bibliography

- Auger, P. (1988). "La terminologie au Québec et dans le monde, de la naissance à la maturité". *Actes du sixième colloque OLF-STQ de terminologie. L'ère nouvelle de la terminologie*, Québec: Gouvernement du Québec, 27–59.
- Cabré, M. T. (1998). *Terminology: Theory, methods and applications*, Philadelphia PA, John Benjamins, 248 p. [transl. of *La Terminologia. La teoria, els mètodes, les aplicacions*, Barcelona, Emúries, 1992].
- Hutcheson, H. (1995). *Preparation of Multilingual Vocabularies*, in *Standardizing and Harmonizing Terminology: Theory and Practice*, eds. S. Wright and R. Strehlow, West Conshohocken PA, ASTM International, 111.
- Picht, H. & Draskau, J. (1985). *Terminology: An Introduction*, Guildford: University of Surrey, Department of Linguistic and International Studies, 132.
- Rajh, I., & Runjaić, S. (2018). *Crowdsourcing terminology: harnessing the potential of translator's glossaries*, Conference on Language Technologies & Digital Humanities Ljubljana, 234-239.
- Thelen, M. (2015). The Interaction between Terminology and Translation Or Where Terminology and Translation Meet. *trans-kom - Zeitschrift für Translationswissenschaft und Fachkommunikation*, 8(2), 352. Retrieved from: <http://www.trans-kom.eu/>
- Venuti, L. (2004). *The translation studies reader*. New York: Routledge, 84-93.

Internet sources

„digitalni“ *Hrvatski jezični portal*:

http://hjp.znanje.hr/index.php?show=search_by_id&id=f1dmXxU%3D&keyword=digitalni. Accessed 21 October 2019

„Exchequer“ *Concise Oxford English Dictionary*, 2011:

www.iate.europa.eu/entry/result/826093/en. Accessed 6 September 2019

„peu“ *Cambridge Dictionary*, 2018: <https://dictionary.cambridge.org/dictionary/french-english/peu>. Accessed 21 October 2019

„profond“ *Cambridge Dictionary*, 2018: <https://dictionary.cambridge.org/dictionary/french-english/profond>. Accessed 21 October 2019

„virtualan“ *Hrvatski jezični portal*:

http://hjp.znanje.hr/index.php?show=search_by_id&id=f19uUBV9&keyword=virtualan. Accessed 21 October 2019

Commission Delegated Regulation (EU) 2017/565 of 25 April 2016 supplementing Directive 2014/65/EU of the European Parliament and of the Council as regards organisational requirements and operating conditions for investment firms and defined terms for the purposes of that Directive (Text with EEA relevance), 2017: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567545124313&uri=CELEX:02017R0565-20171214&from=EN>

Commission Regulation (EC) No 1126/2008 of 3 November 2008 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council (Text with EEA relevance)Text with EEA relevance, 2019: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544334127&uri=CELEX:02008R1126-20190101&from=EN>

Council of the European Union: *2019-2023 Strategy on e-Justice*, 2019: [https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567543593799&uri=CELEX:52019XG0313\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567543593799&uri=CELEX:52019XG0313(01)&from=EN)

Council of the European Union: *Council Decision 2014/401/CFSP of 26 June 2014 on the European Union Satellite Centre and repealing Joint Action 2001/555/CFSP on the establishment of a European Union Satellite Centre*, 2014: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544850824&uri=CELEX:32014D0401&from=EN>

Council of the European Union: *Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax*, 2006: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567545179394&uri=CELEX:32006L0112&from=EN>

Court of Justice: *Reference for a preliminary ruling — Common system of value added tax (VAT) — Directive 2006/112/EC — Articles 2(1)(c) and 135(1)(d) to (f) — Services*

for consideration — Transactions to exchange the ‘bitcoin’ virtual currency for traditional currencies — Exemption., 2015: https://eur-lex.europa.eu/legal-content/EN-HR/SUM/?qid=1567544405326&uri=CELEX:62014CJ0264_SUM&from=EN

European Central Bank: *2013/132/EU: Decision of the European Central Bank of 11 January 2013 laying down the framework for a public key infrastructure for the European System of Central Banks (ECB/2013/1)*, 2013: [https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544083659&uri=CELEX:32013D0001\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544083659&uri=CELEX:32013D0001(01)&from=EN)

European Central Bank: *Opinion of the European Central Bank of 12 October 2016 on a proposal for a directive of the European Parliament and of the Council amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and amending Directive 2009/101/EC (CON/2016/49)*, 2016: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567543755983&uri=CELEX:52016AB0049&from=EN>

European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union: *Commission Delegated Regulation (EU) 2019/980 of 14 March 2019 supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council as regards the format, content, scrutiny and approval of the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Commission Regulation (EC) No 809/2004 (Text with EEA relevance)*, 2019: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544527719&uri=CELEX:32019R0980&from=EN>

European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs: *COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT Accompanying the document Commission Regulation laying down ecodesign requirements for servers and data storage products pursuant to Directive 2009/125/EC of the European Parliament and of the Council and amending Commission Regulation (EU) N°617/2013*, 2019: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1567544274897&uri=CELEX:52019SC0106>

European Commission, Directorate-General for Justice and Consumers: *COMMISSION STAFF WORKING DOCUMENT Accompanying the document Report from the*

Commission to the European Parliament and the Council on the assessment of the risks of money laundering and terrorist financing affecting the internal market and relating to cross-border activities, 2017: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1567544312813&uri=CELEX:52017SC0241>

European Commission, Directorate-General for Justice and Consumers: *COMMISSION STAFF WORKING DOCUMENT EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT Accompanying the document Proposal for a directive of the European Parliament and of the Council amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and amending Directive 2009/101/EC*, 2016: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567543719280&uri=CELEX:52016SC0224&from=EN>

European Commission, Directorate-General for Justice and Consumers: *Commission Implementing Regulation (EU) 2019/917 of 4 June 2019 establishing technical specifications, measures and other requirements required for the system of interconnection of insolvency registers in accordance with Article 25 of Regulation (EU) 2015/848 of the European Parliament and of the Council*, 2019: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544157396&uri=CELEX:32019R0917&from=EN>

European Commission, Directorate-General for Justice and Consumers: *Commission Delegated Regulation (EU) 2018/1467 of 27 July 2018 amending Delegated Regulation (EU) 2016/1675 supplementing Directive (EU) 2015/849 of the European Parliament and of the Council, as regards adding Pakistan to the table in point I of the Annex (Text with EEA relevance.)*, 2018: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544882377&uri=CELEX:32018R1467&from=EN>

European Commission, Directorate-General for Migration and Home Affairs: *COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL AND THE COUNCIL Third progress report towards an effective and genuine Security Union*, 2016: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567543986864&uri=CELEX:52016DC0831&from=EN>

European Commission, Directorate-General for Migration and Home Affairs: *Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on*

combating fraud and counterfeiting of non-cash means of payment and replacing Council Framework Decision 2001/413/JHA, 2017: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?uri=CELEX:52017PC0489&from=EN>

European Commission, Eurostat: *Commission Regulation (EU) 2017/1515 of 31 August 2017 implementing Regulation (EC) No 808/2004 of the European Parliament and of the Council concerning Community statistics on the information society for the reference year 2018 (Text with EEA relevance.)*, 2017: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544180877&uri=CELEX:32017R1515&from=EN>

European Commission, Secretariat-General: *COMMISSION STAFF WORKING DOCUMENT Country Report Croatia 2017 Including an In-Depth Review on the prevention and correction of macroeconomic imbalances Accompanying the document COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN CENTRAL BANK AND THE EUROGROUP 2017 European Semester: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth reviews under Regulation (EU) No 1176/2011 {COM(2017) 90 final} {SWD(2017) 67 final to SWD(2017) 93 final}*, 2017: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567545071273&uri=CELEX:52017SC0076&from=EN>

European Commission, Secretariat-General: *Recommendation for a COUNCIL RECOMMENDATION on the 2019 National Reform Programme of Sweden and delivering a Council opinion on the 2019 Convergence Programme of Sweden*, 2019: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544378954&uri=CELEX:52019DC0527&from=EN>

European Commission: *98/501/EC, Euratom: Commission Decision of 24 July 1998 concerning certain specific transactions identified within the work on the protocol of the Excessive Deficit Procedure, for the application of Article 1 of Council Directive 89/130/EEC, Euratom on the harmonisation of the compilation of gross national product at market prices (notified under document number C(1998) 2204) (Text with EEA relevance)*, 1998: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567545855387&uri=CELEX:31998D0501&from=EN>

European Commission: *Commission Delegated Regulation (EU) 2015/61 of 10 October 2014 to supplement Regulation (EU) No 575/2013 of the European Parliament and the*

Council with regard to liquidity coverage requirement for Credit Institutions Text with EEA relevance, 2014: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544957840&uri=CELEX:32015R0061&from=EN>

European Commission: *Commission Delegated Regulation (EU) No 759/2013 of 30 April 2013 amending Regulation (EC) No 809/2004 as regards the disclosure requirements for convertible and exchangeable debt securities Text with EEA relevance*, 2013: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544433105&uri=CELEX:32013R0759&from=EN>

European Commission: *Commission Implementing Regulation (EU) 2015/884 of 8 June 2015 establishing technical specifications and procedures required for the system of interconnection of registers established by Directive 2009/101/EC of the European Parliament and of the Council (Text with EEA relevance)*, 2015: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544241669&uri=CELEX:32015R0884&from=EN>

European Commission: *New national side of euro coins intended for circulation*, 2019: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544816133&uri=CELEX:C2019/192/11&from=EN>

European Economic and Social Committee: *Opinion of the European Economic and Social Committee on the 'Digitalisation and innovative business models in the European financial sector, impact on employment and customers' (own-initiative opinion)*, 2017: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567543689349&uri=CELEX:52016IE5526&from=EN>

European Economic and Social Committee: *Opinion of the European Economic and Social Committee on the Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions — FinTech action plan: for a more competitive and innovative European financial sector [COM(2018) 109 final]*, 2018: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567543643318&uri=CELEX:52018AE1056&from=EN>

European Economic and Social Committee: *Opinion of the European Economic and Social Committee on the Communication from the Commission to the European Parliament,*

the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions — FinTech action plan: for a more competitive and innovative European financial sector [COM(2018) 109 final], 2018: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567543915981&uri=CELEX:52018AE1056&from=EN>

European Economic and Social Committee: *Opinion of the European Economic and Social Committee on ‘Communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions — Action Plan: Financing Sustainable Growth’ (COM(2018) 97 final)*, 2018: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544214476&uri=CELEX:52018AE1695&from=EN>

European Economic and Social Committee: *Opinion of the European Economic and Social Committee on ‘Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank Clean Planet for all A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy’ (COM(2018) 773 final)*, 2019: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567545823121&uri=CELEX:52018AE5700&from=EN>

European Economic and Social Committee: *Rules of Procedure of the European Economic and Social Committee — March 2019*, 2019: [https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567545151797&uri=CELEX:32019Q0710\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567545151797&uri=CELEX:32019Q0710(01)&from=EN)

European Parliament, Committee on Agriculture and Rural Development, Committee on Budgets, Committee on Culture and Education, Committee on Employment and Social Affairs, Committee on Foreign Affairs, Committee on Industry, Research and Energy, Committee on Legal Affairs, Committee on Transport and Tourism, Committee on the Environment, Public Health and Food Safety: *P7_TA(2013)0504 Specific programme implementing Horizon 2020 * European Parliament legislative resolution of 21 November 2013 on the proposal for a Council decision establishing the Specific Programme Implementing Horizon 2020 — The Framework Programme for Research and Innovation (2014 — 2020) (COM(2011)0811 — C7-0509/2011 —*

2011/0402(CNS)) P7_TC1-CNS(2011)0402 *Position of the European Parliament adopted on 21 November 2013 with a view to the adoption of Council Decision establishing the Specific Programme Implementing Horizon 2020 — The Framework Programme for research and Innovation (2014-2020) (Text with EEA relevance)*, 2013: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544113302&uri=CELEX:52013AP0504&from=EN>

European Parliament, Council of the European Union: *Directive (EU) 2019/713 of the European Parliament and of the Council of 17 April 2019 on combating fraud and counterfeiting of non-cash means of payment and replacing Council Framework Decision 2001/413/JHA*, 2019: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544499776&uri=CELEX:32019L0713&from=EN>

European Parliament, Council of the European Union: *Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) (Text with EEA relevance)*, 2009: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567545098633&uri=CELEX:32009L0065&from=EN>

European Parliament, Council of the European Union: *Directive 2011/7/EU of the European Parliament and of the Council of 16 February 2011 on combating late payment in commercial transactions Text with EEA relevance*, 2011: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567545045243&uri=CELEX:32011L0007&from=EN>

European Parliament, Council of the European Union: *Regulation (EU) 2018/956 of the European Parliament and of the Council of 28 June 2018 on the monitoring and reporting of CO₂ emissions from and fuel consumption of new heavy-duty vehicles (Text with EEA relevance)*, 2018: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544021041&uri=CELEX:32018R0956&from=EN>

European Parliament, Council of the European Union: *Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories Text with EEA relevance*, 2012: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544461499&uri=CELEX:32012R0648&from=EN>

European Parliament, Council of the European Union: *Regulation (EU) 2015/760 of the European Parliament and of the Council of 29 April 2015 on European long-term investment funds (Text with EEA relevance)*, 2015: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544651891&uri=CELEX:32015R0760&from=EN>

European Parliament, Council of the European Union: *Regulation (EU) No 1286/2014 of the European Parliament and of the Council of 26 November 2014 on key information documents for packaged retail and insurance-based investment products (PRIIPs) (Text with EEA relevance)*, 2014: <https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544673584&uri=CELEX:32014R1286&from=EN>

European Securities and Markets Authority: *European Securities and Markets Authority Decision (EU) 2018/796 of 22 May 2018 to temporarily restrict contracts for differences in the Union in accordance with Article 40 of Regulation (EU) No 600/2014 of the European Parliament and of the Council*, 2018: [https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544053472&uri=CELEX:32018X0601\(02\)&from=EN](https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544053472&uri=CELEX:32018X0601(02)&from=EN)

European Systemic Risk Board: *Recommendation of the European Systemic Risk Board of 31 October 2016 on closing real estate data gaps (ESRB/2016/14)*, 2016: [https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544991348&uri=CELEX:32017Y0131\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN-HR/TXT/?qid=1567544991348&uri=CELEX:32017Y0131(01)&from=EN)

Nakamoto, Satoshi: *Bitcoin: A Peer-to-Peer Electronic Cash System*, 2008:
<https://bitcoin.org/bitcoin.pdf>

The Law Library of Congress, Global Legal Research Center, *Regulation of Cryptocurrency Around the World*, 2018:
<https://www.loc.gov/law/help/cryptocurrency/cryptocurrency-world-survey.pdf>