

TALLINN UNIVERSITY OF TECHNOLOGY

School of Business and Governance

Department of Law

Oona Keskinen

**PROTECTION OF TRADE SECRETS**

Bachelor's thesis

Programme Bachelor of Social Sciences, specialisation European Union and International Law

Supervisor: Pawan Kumar Dutt, MA

Tallinn 2019

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Oona Keskinen .....

(signature, date)

Student code: HAJB166361

Student e-mail address: oona.s.keskinen@outlook.com

Supervisor: Pawan Kumar Dutt:

The thesis conforms to requirements in force:

.....

(signature, date)

Chairman of the the Defence Committee:

Permitted for defence

.....

(signature, date)

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## **ABSTRACT**

Trade secrets are intellectual property rights which most companies have regardless of their size. The legislation measures for trade secrets have not been adequate or even existing in some jurisdictions, which has caused issues for companies who have a need for the protection of their trade secrets against misappropriation. The United States and the European Union have drafted a new legislation for trade secrets which came into force in 2016, and while this is the first time the EU has legislated in the field of trade secrets, the new Defend Trade Secrets Act is the third country-wide legislation for trade secrets in the US. This thesis will focus on the Trade Secret Directive and three US legislations, the Uniform Trade Secrets Act, the Economic Espionage Act and the Defend Trade Secrets Act, and the protective measures provided for trade secret owners by the legislations in the case of misappropriation.

Keywords: Trade Secrets, Intellectual Property, European Union Legislation, United States Legislation.

## **ABBREVIATIONS**

DTSA	Defend Trade Secrets Act
EEA	Economic Espionage Act
EIPO	European Intellectual Property Office
EU	European Union
IP	Intellectual Property
IPR	Intellectual Property Right
NDA	Non-Disclosure Agreement
TRIPS	The Agreement on Trade Related Aspects of Intellectual Property Rights
UK	United Kingdom
US	United States of America
UTSA	Uniform Trade Secrets Act

## INTRODUCTION

Trade secrets are considered to be separate from traditional IPRs, which include industrial property and copyright. Industrial property is divided into three parts; trademarks, patents, and designs.<sup>1</sup> Especially in Europe, trade secrets have not been included in IP law along with copyright and industrial property, while the US does include trade secrets in the category of IP. In European countries, trade secrets were found in unfair business practices or competition law, if they were found in any legislation, while not included in any type of property law.<sup>2</sup> The US has always been more protective of IPRs than the EU, and, in regard to trade secrets, it is no different. IPRs are, for some companies, worth more than movable or immovable properties combined. Consider some medical companies, which have hundreds of factories, machines, laboratories etc., but the patent for the medicine is the actual goldmine of the company. Same goes for trade secrets, Coca-Cola would not be the same without having kept the recipe secret for over a hundred years.<sup>3</sup>

Trade secrets have multiple different names which have been used inconsistently, such as undisclosed business information, business secret, undisclosed information etc., and in this thesis, trade secret is used for all of these. The Uniform Trade Secret Act, which was the first legislation in the US aimed directly and only at trade secrets, made trade secret the official name in the US. In the EU, harmonisation of terminology and the definition of trade secret was part of the main objectives for the legislation. The importance of trade secrets should not be underestimated, which European countries have done in the past, and it is clear why both the EU and the US have chosen to draft protective measures for trade secrets. Innovation is the key for all trade secret protection, and it must be protected

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<sup>1</sup> Torremans, P. (2013) Intellectual Property Law. 7th ed. Oxford University Press, p 11

<sup>2</sup> Czapracka, K.A. (2012) Antitrust and Trade Secrets: The U.S. and the EU Approach Antitrust and Trade Secrets. – *Santa Clara High Tech Law Journal*, Vol. 24, p 213

<sup>3</sup>Coca-Cola. *Is the Coca-Cola Recipe kept secret because the company has something to hide?* Accessible: <https://www.coca-cola.co.uk/faq/is-the-coca-cola-formula-kept-secret-because-the-company-has-something-to-hide> , 5.3.2019

by allowing a creator to protect their ideas. While trade secrets differ from traditional IPRs, their importance for companies is significant. Unlike patents, the actual amount of trade secrets cannot be calculated, as the essence of trade secrets is their secrecy.

The Agreement on Trade-Related Aspects of Intellectual Property Rights is a very wide-reaching agreement for IPRs, and it contains the international legal definition for trade secrets. The US trade secret legislation of 2016, Defend Trade Secret Act, and the EU Directive on the protection of undisclosed know-how and business information (trade secret) against their unlawful acquisition, use and disclosure<sup>4</sup> (Directive) were both influenced by the TRIPS, though the Directive to a larger degree as the US had a trade secret basis in their national legislation before. While the European and the US legislations diverge in certain aspects, the definition of trade secret in the Directive and DTSA contain three main aspects; 1) secrecy of the information, 2) that economic or commercial value is acquired from the secrecy, and 3) the trade secret owner or holder has taken reasonable steps to protect the secrecy,<sup>5</sup> which is also the definition found in the TRIPS. While these three elements can be worded differently in separate legislations, the elements are the essence of a trade secret. Know-how is often separated from the definition of trade secret, and is defined as “a body of information, the components of which may be individually known, but the compilation of which has competitive value.”<sup>6</sup> Because know-how and trade secret have a similar basis of consisting of unknown or undisclosed information, there is some confusion as to when the words are used.

The preference for trade secrets over other types of IPRs comes from the fact that trade secrets have a larger field of application, both technical or non-technical, e.g. software can be a patent or a trade secret while a customer list is not patentable.<sup>7</sup> Patents are often compared to trade secrets, because while not all trade secrets are patentable in the first place, there exists trade secrets which could be patented. Trade secrets are inexpensive compared to patents, which is considered to be the most expensive IP right. The advantage of trade secrets are low expenses, other than the methods taken to

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<sup>4</sup> Directive (EU) 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure OJ L 157, 15.6.2016

<sup>5</sup> World Trade Organisation (1995) *Agreement on trade-related aspects of intellectual property rights*. Accessible: [https://www.wto.org/english/docs\\_e/legal\\_e/27-trips.pdf](https://www.wto.org/english/docs_e/legal_e/27-trips.pdf)

<sup>6</sup> Poltorak, A. Lerner, P. (2011) *Essentials of Intellectual Property Law*. John Wiley & Sons, Inc., p 35

<sup>7</sup> *Securing Intellectual Property: Protecting Trade Secrets and Other Information Assets* (2009) Butterworth-Heinemann, p 10

protect the secret and no formalities which need to be fulfilled regarding trade secret. Another advantage is that trade secrets do not expire, in other words they are immortal until the information are revealed to the public.<sup>8</sup> In comparison to a patent which is only provides protection for 20 years from the date of application,<sup>9</sup> the advantage is high for trade secrets, if the owner the trade secret manages to keep the secrecy. There are naturally disadvantages to trade secrets as well. When the secret is revealed to the public or a competitor manages to lawfully acquire the information, the information cannot be made secret again. This is the major downside to trade secret. While other IP rights have a set amount of time they will be protected from misuse, trade secrets do not have the same protection. As an extreme example, if a competitor reverse-engineers a product, they are able to patent the product and the original trade secret owner cannot produce their own product any more.

Trade secrets are a topical issue, as EU Member States have recently implemented their national trade secret acts based on the Directive, and the EU and the US decided to implement a legislation at the same time only a few years ago. The importance of trade secrets is growing and that makes the harmonisation, or if not harmonisation, the understanding of differences between countries, important. The spreading of a trade secret can occur in minutes when the information is published online. Trade secret issues can be extra-territorial and cross-border issues are arising more often as trade secrets are kept on computers which can be illegally accessed anywhere in the world.

This thesis aims to give an overview of both US and EU legislation regarding trade secrets and how the protection for the owners is provided. Therefore, two questions will be posed. Are the EU and the US legislative measures adequate to protect the confidential information of trade secret owners? Which of the jurisdictions provides a higher level of protection? The DTSA and the Directive and the level of protection provided in the US and the EU is analysed and the previous lack of harmonisation in the EU is compared to the US which has had previous trade secret legislations. The analysis of this thesis will be done mostly through method of description. Many scientific articles regarding the subject have been analysed as well as the legislations in question to provide the most accurate portrayal of the current legislative measures.

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<sup>8</sup> O'Donnell, R.W.; O'Malley, J.J.; Huis, R.J.; Halt Jr., G.B. (2008) Intellectual Property in the Food Technology Industry. Springer Science + Business Media LLC, p 23

<sup>9</sup> Torremans (2013), *supra nota* 1, p 17

This thesis will start by an overview of US legislation. Both the historical aspects and the current legislation will be explained as well as how courts have considered trade secrets by going over previous case law. Additionally, the differences between the three legislations in force, the Uniform Trade Secrets Act (UTSA), the Economic Espionage Act and the DTSA will be compared. The next section covers EU legislation, which will include some historical aspects of trade secrets on the EU level and a comparison of EU Member States on how they have treated trade secrets before the implementation of the Directive. The most important aspects of the Directive will be explained and how Member States have chosen to interpret the Directive will be examined and whether there have been additions to the Directive. Thirdly, there will be a comparative analysis of the DTSA, with some aspects from the EEA and the UTSA, and the Directive. The comparison of the two will focus on the definition, what is considered unlawful and what measures are available to the trade secret owners. Additionally, the criminal liability as the fundamental difference between the jurisdictions is analysed. Finally, the conclusion will include the summary of the differences found and problems raised in the previous sections. Future problems which may arise will be analysed, as well as whether there is a chance of more harmonisation in the field of trade secret law or will there be more disparities globally.

# 1. TRADE SECRETS IN THE US

While patents, trademarks and copyrights were protected through legislative measures first in the US, trade secret protection developed through court decisions,<sup>10</sup> where the need for confidentiality and non-disclosure were emphasized when it was agreed upon by contractual means.

## 1.1. Early Development

An especially important case for trade secrets is *Kewanee Oil Company v. Bicron Corporation* from 1974, five years before the first trade secret legislation was implemented. A division of Kewanee developed processes relating to the manufacturing of synthesized crystals, and the processes were considered to be trade secrets.<sup>11</sup> Employees of this company signed NDAs, but later previous Kewanee employees started working for a competitor, Bicron. After the employees transferred to Bicron, the company developed a synthesized crystal, which included many similarities to those of Kewanee, and therefore, the Supreme Court stated that Bicron must to stop the production of these crystals, as an injunctive measure.<sup>12</sup> This case is considered to be significant for multiple reasons. The court considered firstly whether the existence of trade secrets disturbs patents and concluded they do not, especially because some trade secrets are not patentable in the first place, and even if a trade secret is patentable, the fact that trade secrets offer much weaker protection, especially before any legislative measures, is not a deterrent for patent applications.<sup>13</sup> It would also be a hindrance for companies if the court would deem trade secrets unprotectable. Soon after this case the first trade secret statute was

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<sup>10</sup> Czapracka (2012), *supra nota* 2, p 213

<sup>11</sup> United States Supreme Court 416 U.S. 470 (1974) *Kewanee Oil Company, petitioner, v. Bicron Corporation et al.*

<sup>12</sup> *Ibid.*

<sup>13</sup> *Ibid.*

introduced, the UTSA. Trade secrets were mentioned in a statute the first time in Restatement of (First) Torts previous to the UTSA, but then removed from the second edition.<sup>14</sup>

## **1.2. Uniform Trade Secrets Act**

Before the DTSA, there were two significant legislations in relation to trade secrets. The UTSA came into force in 1979, and even though it was not mandatory to implement, it is applicable in most states. The UTSA contained developments made by the courts regarding trade secrets. As most states decided to use the UTSA to settle their trade secret cases, the law started the harmonisation of the trade secret legislation. The UTSA is not applicable on federal level and it only applies to the civil aspects in case of trade secret misappropriation. The main problem with the application of the UTSA was that states decided to make a variation of the law rather than making it directly applicable, which naturally decreased the harmonisation of the legislation throughout the United States.<sup>15</sup> Additionally, some states decided not to implement the UTSA at all such as New York.<sup>16</sup> The UTSA was the first legislation to provide the definition which is still in use, containing the three elements of trade secret, and did not containing any other criteria which would have restricted the definition, such as novelty, and no legislation has majorly improved the definition since then.<sup>17</sup>

## **1.3. The Economic Espionage Act**

In 1996, another legislation applicable for trade secrets came into force. The EEA “established a comprehensive and systematic scheme using criminal sanctions to protect trade secrets at the federal level.”<sup>18</sup> The EEA differs from the UTSA and the DTSA significantly, as its’ “two primary goals [are the] ... prevention of trade secret theft specifically by a foreign government agent or instrumentality or person acting on behalf of a foreign government, and ... [the] general protection from theft of trade

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<sup>14</sup> Pooley, J. (2016). The Myth of the Trade Secret Troll: Why Defend Trade Secrets Act Improves the Protection of Commercial Information. - *George Mason Law Review*, Vol. 23, p 1048

<sup>15</sup> *Ibid.*, p 1050

<sup>16</sup> Neufeld, R.T. (1997). Mission Impossible: New York Cannot Face the Future Without a Trade Secret Act. – *Fordham Intellectual Property Review*, Vol. 7, p 888-889

<sup>17</sup> Dole, R.F. Jr. (2016). The Contours of American Trade Secret Law: What Is and What Isn't Protectable as a Trade Secret. – *SMU Science & Technology Law Review*, Vol 19, p 123

<sup>18</sup> Czapracka (2012), *supra nota* 2, p 223

secrets by anyone.”<sup>19</sup> This means that the EEA specifically focuses on federal criminal legislation,<sup>20</sup> while the UTSA is on state level and focuses on the civil aspects of trade secret misappropriation. Another difference with the UTSA is that the EEA has an extra-territorial reach, which is important especially because of the threat of economic espionage through the internet is a worldwide threat. The first part of EEA directed at foreign entities and the second part deals with industrial espionage.<sup>21</sup> Regardless of the differences between the EEA and the UTSA, they contain the same definition, have a similar purpose, and increased the harmonisation of trade secrets across the US.<sup>22</sup>

Introducing a criminal liability for trade secret misappropriation, the EEA requires slightly stricter measures for the protection of the secret from the owner, and because criminal remedies are harsher than civil measures, the burden of proof is greater.<sup>23</sup> The EEA has a strong focus on theft from foreign entities and governments and the legislation includes more severe punishments for those who knew or should have known that the misappropriation would benefit a foreign entity rather than cases which include only domestic trade secret misappropriation.<sup>24</sup> The EEA punitive measures include both fines and imprisonment, and can be only given for trade secrets of products which are at the time being produced or sold.<sup>25</sup> This limits the reach of the criminal liability compared to the civil aspects. The EEA as a whole does provide protection for trade secret owners against theft and espionage and is a deterrent for wilful misappropriation.

In *United States v. Agrawal*, Samarth Agrawal was accused of multiple crimes, including the theft of trade secrets, because he had delivered his employer’s trade secret to a rival company.<sup>26</sup> He was sentenced to 3 years imprisonment. In a much larger scale case, *United States v. Kolon Industries, Inc. et al*, which included both civil and criminal aspects, Kolon, a South Korean company, and five executives of the company were charged for industrial espionage and stealing trade secrets from a company in the US, DuPont.<sup>27</sup> From 2006 to 2009, Kolon received the confidential information

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<sup>19</sup> Simon, S. (1998). The Economic Espionage Act of 1996. – *Berkeley Technology Law Journal*, Vol. 13, p 305

<sup>20</sup> Pooley (2016), *supra nota* 14, p 1051

<sup>21</sup> Dole (2016), *supra nota* 17, p 104

<sup>22</sup> *Ibid.*, p 119

<sup>23</sup> Simon (1998), *supra nota* 19, p 317

<sup>24</sup> *Ibid.* p 312

<sup>25</sup> *Ibid.*

<sup>26</sup> United States Court of Appels, 2<sup>nd</sup> Circuit, 11-1074 *United States v. Agrawal*, 30.12.2012

<sup>27</sup> United States District Court for the Eastern District of Virginia, 3:12-CR-137, *United States v. Kolon Industries, Inc. et al*, 21.08.2012

regarding Kevlar technology from two DuPont employees, who were charged in a separate case for the theft of trade secrets and faced imprisonment charges. Because Kevlar is a well-known and trademarked product, the information stolen can be considered particularly valuable. After an investigation, Kolon was charged in 2012 for industrial espionage, and sentenced to pay both criminal fines of 85 million dollars in addition to restitution of 275 million for DuPont, though the amount was originally much higher.<sup>28</sup> The significance of the case rises from the fact that Kolon does not have any subsidiaries or business directly in the US.<sup>29</sup>

#### **1.4. Defend Trade Secrets Act**

While the UTSA and the EEA were a decent start in the development of statutes for the protection of trade secrets, there was still a need for a federal level legislation which would address the civil aspects of trade secret misappropriation. Federal courts did not have jurisdiction to resolve civil issues of trade secrets, which is problematic in cross-state cases and when cases have both civil and criminal aspects. With the development of the DTSA, the courts would be able to solve both civil and criminal cases in regard to trade secrets. The DTSA amends the EEA by adding a civil procedure aspect.<sup>30</sup>

The development of the DTSA started in 2011 into what it is at its' current state. Aside from the fact that the DTSA has federal jurisdiction, there was only one major addition to the DTSA not present in the UTSA, ex parte seizures. This measure was heavily criticized by lawyers and law professors alike for the likely anti-competitive measures that could occur on the basis of the seizures.<sup>31</sup> An ex parte seizure means that an applicant could, without the presence of the defendant, get a court to "issue an order providing for the seizure of property necessary to prevent the propagation or dissemination of the trade secret that is the subject of the action."<sup>32</sup> The criticism by law professionals focussed mostly on the fact that, while there were very specific criteria when the seizures could be applied, that companies would use the method to get the trade secrets of another company, when they seized the

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<sup>28</sup> *Ibid.*

<sup>29</sup> *Ibid.*

<sup>30</sup> Seaman, C.B. (2015). Introduction: The Defend Trade Secrets Act of 2015. – *Washington & Lee Law Review*, Vol. 72, p 279

<sup>31</sup> Goldman, E. (2015). Ex Parte Seizures and the Defend Trade Secrets Act. – *Washington & Lee Law Review*, Vol. 72, p 286

<sup>32</sup> Defend Trade Secrets Act 2016, § 2(b)(2)(A)(i)

device etc. which contained the trade secret information and they could hinder the business of competitors, or even stop the functioning for a period of time if the seizure would include important technologies.<sup>33</sup>

Interestingly, this has not so far been the case. Out of the 300 cases from the first year of the legislation, only 4 has been granted a seizure.<sup>34</sup> One reason for this is because other injunctive methods have been found to be applicable in the cases. While injunctive measures are not directly mentioned in the DTSA, there is an implication for them, because the seizures can only be used in cases where other less intrusive methods are not considered to be adequate or applicable and there is the harm to the applicant which is greater than to the defendant and much greater harm or damage than to third parties.<sup>35</sup>

Case law regarding trade secrets has been much more abundant in the US than the EU and many issues which are not directly found in the legislations may be solved through courts. Usually a company chooses whether to patent a product or process, or whether to keep it as a secret, but in *Tewari De-Ox Systems, Inc.* a company chose to patent different aspects of their product and keep the compilation a secret.<sup>36</sup> When under an NDA, another company started using their method, the court stated that while some parts were public information through a patent, the compilation was considered to be trade secret and the defendant had misappropriated Tewari's trade secret.<sup>37</sup> In another case, *DuPont v. Christopher* where a company took photographs of a factory being built had misappropriated trade secrets of the factory owner, because they had not lawfully acquired the information.<sup>38</sup> The court considered whether the company had taken enough measures to protect the secret but came to the conclusion that construction site which is fenced is enough, and as the photos were taken from the air it is not reasonable to expect a company to cover a building site.<sup>39</sup>

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<sup>33</sup> Goldman (2015), *supra nota* 31, p 287

<sup>34</sup> Pooley, J. (2017). The Defend Trade Secrets Act: A Year Later. – *Managing Intellectual Property*, Vol. 268, p 40

<sup>35</sup> Defend Trade Secrets Act 2016, § 2(b)(2)(A)(ii)(II)

<sup>36</sup> McJohn, S. (2012). Top Tens in 2011: Copyright and Trade Secret Cases. – *Northwestern Journal of Technology & Intellectual Property*, Vol. 10, p 343

<sup>37</sup> *Ibid.*

<sup>38</sup> United States Court of Appeals, 5<sup>th</sup> Circuit, 431 F.2d 1012, *E. I. Du Pont Denemours Co v. Christopher*, 20.07.1970

<sup>39</sup> *Ibid.*

## 2. TRADE SECRETS IN THE EU

### 2.1. Development

When comparing trade secrets and other IPRs, the protection of trade secrets has been weak. There have been directives in the field of patent law for more than 20 years, such as the Directive on the Legal Protection of Biotechnological Inventions,<sup>40</sup> though the harmonisation of patent legislation in the EU has not been achieved either.<sup>41</sup> The reason for the lack of protection on the EU level is that some European countries did not believe that trade secrets needed protective measures, or that measures in the other fields of law would be adequate. While there are legislations in the EU that are directed at IPRs as a whole, they do not include trade secrets.

Case law has also been lacking in the field of trade secrets and has not always been considered to be useful or accurate. A case from 2012, *Microsoft Corporation v. the Commission*, has been seen in a fairly negative light, as the Court of Justice of the European Union (CJEU) stated that certain technologies by Microsoft could not be considered as trade secrets because they were not “innovative”.<sup>42</sup> As being novel or innovative is one of the elements needed for patentability, it is interesting that the court considered this to be an element of trade secrets. However, in the current legislation, novelty is not considered to be part of the definition of trade secrets, and two or more companies may have identical or similar trade secrets. There have been national cases relating to trade secret, as around 20 % of companies have experienced misappropriation or attempted

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<sup>40</sup> Directive 98/44/EC of the European parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions OJ L 213/13, 30.7.1998

<sup>41</sup> Granieri, M.; Renda, A. (2012) Innovation Law and Policy in the European Union: Towards Horizon 2020. Springer-Verlag, p 122

<sup>42</sup> Court Decision, 27.6.2012, *Microsoft Corp v. Commission*, T-167/08, EU:T:2012:323, point 35

misappropriation in the past 10 years.<sup>43</sup> The companies would not have received relief on the EU level, resulting from the lack of legislation.

Trade secrets, along with other IPRs, have been protected in a much smaller scale in the EU Member States than in the US. Additionally, the EU Member States are significantly less harmonised with the legislations in comparison to the states in the US, which is no surprise considering that there have been no protective measures for trade secrets from the EU before the Directive of 2016. The Member States did not have a harmonised definition of trade secret, not to mention all the measures and remedies. On a national level, most European countries did not have a separate legislation for trade secrets, and some did not recognise trade secrets as IP in the first place.<sup>44</sup> It was considered enough that trade secrets were protected through other methods, such as unfair competition, and not necessary for trade secrets to have their own legislation or protective measures.

But as the significance of trade secrets has been rising in the past decades, the EU was not in a position to protect the trade secrets and know-how of companies. As European companies were not satisfied with the previous level of protection, especially in cross-border situations, the Commission decided to start developing a directive for trade secrets. The problem of lack of protection and enforcement needed to be resolved, as even when companies thought that national methods of trade secret protection were adequate, EU level and international level protection was in some cases non-existent.<sup>45</sup>

## **2.2. Trade Secret Directive**

The European Commission decided to consult the public on their opinion of the state of protective measures for trade secrets in the EU. This report stated that 91% of responding companies consider trade secrets to be valuable for the company, and while 45% think that the protection is weak on a

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<sup>43</sup> Bevitt, A., Timmer, H., Westman, D. (2014). Protecting Trade Secrets Globally: Comparing the U.S. and the EU. – *Employment Law Review*, Vol. 26, p 2

<sup>44</sup> Bronckers, M., McNelis, N.M. (2012). Is the EU obliged to improve the protection of trade secrets? An inquiry into TRIPS, the European Convention of Human Rights and the EU Charter of Fundamental Rights. - *European Intellectual Property Review*, Vol. 34, p 674

<sup>45</sup> European Commission Public consultation on the protection against misappropriation of trade secrets and confidential business information summary of responses 8.1.2016. p 4

national level, 57% think that the protection at the EU level is weak especially in cases of cross-border protection.<sup>46</sup> Based on this report, which clearly states that companies feel that their trade secrets are not protected adequately in case of misappropriation, the Commission decided to develop an EU level Directive for trade secret protection. While a directive leaves certain aspects for the Member States to decide for themselves, the directive is a significant step toward harmonisation, which was almost non-existent on the EU level before 2016. The drafting of the directive started after the report was compiled, and in 2016 the Directive on the protection of undisclosed know-how and business information (trade secret) against their unlawful acquisition came into force. The Member States have been drafting their own national legislations since then, and in 2018, the results of the Directive in national law have been implemented.

There were three distinct aims for the Directive, which the Commission wanted the Directive to harmonise and implement in the EU. Firstly, the definition of trade secret, secondly, the remedies, and thirdly, protecting the secret itself.<sup>47</sup> There are naturally more aspects that supplemented these goals, which are likely to be worked on based on the report of EIPO on how well the implementation and enforcement of the laws have worked. After the report, there may be some needed additions or alterations to the Directive.

The Directive defines trade secret with three elements that are needed for information to be considered a trade secret; secrecy, economic value, and reasonable protection of secrecy. What then is considered to be reasonable steps, is a different question. Things such as NDAs for employees with access to the secret information are generally considered to be common for reasonable steps, as well as keeping the information password protected or not accessible to most employees.<sup>48</sup> Problems arise in more complicated situations, e.g. does storing confidential information in a cloud system automatically negate secrecy. The answer usually lies in how well the system is secured and, in case of cloud storing systems, the security depends on the service provider that has the information rather than the owner of the trade secret.<sup>49</sup> Secrecy itself should also be defined more carefully, as it is not enough that the general public is unaware of the information regarded as trade secret. The trade secret must be

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<sup>46</sup> *Ibid.*, p 3-4

<sup>47</sup> Patel, A.B., Pade, P., Cundiff, V., Newman, B. (2016). The global harmonisation of trade secret law: the convergence of protection for trade secret information in the US and the EU. – *European Intellectual Property Review*, Vol. 38, p 739

<sup>48</sup> Sosnova, N. (2016). EU Directive Proposal: Trade Secret. – *Marquette Intellectual Property Review*, Vol. 20, p 53

<sup>49</sup> González, L. H. (2013). Trade Secret Protection ... in the cloud. – *Entertainment Law Review*, Vol. 24, p 247-248

unknown to people who work in that field. Defining trade secret is an important step in the EU as most EU Member States had vastly different definitions, if they had one in the first place. As trade secrets can be virtually anything, as long as it remains a secret, trade secrets do not have the same type of limitation as other IPRs, and the definition being harmonised in the Member States will make sure that all technical and non-technical information can be protected the same way.

Acquisition should also be defined, as it can be both unlawful and lawful. Lawful acquisition contains independent discovery, i.e. if another person invents an identical or similar product, because trade secrets are not protected the same way as patents. Additionally, reverse-engineering is a lawful method of acquisition, when the product can be found and bought on the market in a legal manner. This is why it is considered a better option to patent inventions which can be reverse-engineered. Unlawful acquisition consists of theft, bribery and other methods when the consent of the holder of the trade secret is missing, however some unlawful methods may be considered to be exceptions based on national laws of the Member States or other EU law or fall under the freedom of expression.<sup>50</sup>

The Directive, as it only relates to civil procedures, provides such measures as injunctions and seizures, but no criminal punishments. Article 12 of the Directive includes injunctions and corrective measures. As to the injunctive measures, there are four of them. The first one states that the infringer cannot use or must stop using the trade secret and the disclosure of the trade secret is forbidden.<sup>51</sup> Secondly, the production, use and sale of the infringing goods must be stopped.<sup>52</sup> Thirdly, corrective measures may be applied, and lastly, the court may order the destruction or delivery of all or any materials containing the trade secret.<sup>53</sup> The corrective measures relate directly to the infringing goods. These measures may include destruction, removing the infringing element from the goods, or stopping the sale of the goods.<sup>54</sup> Alternatively, an infringer may not have known they were using the trade secret or did not know it was unlawfully acquired, in which case they may be set to pay pecuniary

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<sup>50</sup> Directive OJ L 157 (15.6.2016), *supra nota* 4, Art 4 and 5

<sup>51</sup> Directive OJ L 157 (15.6.2016), *supra nota* 4, Art 12

<sup>52</sup> *Ibid.*

<sup>53</sup> *Ibid.*

<sup>54</sup> Sandeen, S.K. (2017). Implementing the EU Trade Secret Directive: a View from the United States. – *European Intellectual Property Review*, Vol. 39, p 10

damages, which amounts to the amount of royalties they would have had to pay if the information was lawfully acquired.<sup>55</sup>

The rights of employees are important in the field of trade secrets because the most common way for trade secrets are misappropriated are through leaks of employees.<sup>56</sup> This may sometimes be through no fault of their own, ‘non-wilful misappropriation’, as they may not have been aware that they revealed any information in the first place, or it may be because of illegal conduct by a rival company. Contracts of employment and NDAs are designed to include what the employee may do with a trade secret, and ban some behaviour, such as working for a direct competitor or doing business with a customer of the employer after leaving the company.<sup>57</sup> While the Directive states “Nothing in this Directive shall be understood to offer any ground for restricting the mobility of employees,”<sup>58</sup> the rest of the Directive does not include much in the way of employees. This may become a problem in the future as to how employees will be treated and any injunctive and criminal measures against them.

As for case law regarding the Directive, there have not been any decisions made based on the Directive. Because the national laws based on the directive only came to force in 2018, it may be some time before the CJEU will decide on a case based on trade secrets. These cases will show what the problem areas for trade secrets are. EIPO and the Commission shall make report on the application of the Directive in question by 2022. These will clarify any issues and problem areas of trade secrets.

### **2.3. Member State Trade Secret Legislation**

While the Directive does bring harmonisation in regard to trade secrets in the EU, the legislation in question is a directive and not a regulation, and therefore, it is not fully harmonising. Full harmonisation may be needed in the future, as the Directive leaves many aspects to the Member States to decide for themselves. It will be beneficial to consider some EU Member State legislations before and after the implementation of the Directive. Because trade secret legislations of the Member States came into force only last year, the case law based on the Directive is mostly non-existent. When

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<sup>55</sup> Directive OJ L 157 (15.6.2016), *supra nota* 4, Art 13

<sup>56</sup> Sosnova (2016), *supra nota* 48, p 76

<sup>57</sup> Press, T. (2015) Intellectual property Law Concentrate. 2nd ed. Oxford University Press, p 87-88

<sup>58</sup> Directive OJ L 157 (15.6.2016), *supra nota* 4, Art 1

comparing the previous legislations, it is important to note that, while the definition in the Member States differ for trade secrets, so does the terminology. Common terms which have been in use are business secret, trade secret, confidential business information, know-how, etc.

In Finland an entirely new law was implemented based on the Directive, known as the Trade Secret Act, in August of 2018. While Finland did not consider trade secrets to be traditional IPRs, they were considered to fall under the larger definition of IP.<sup>59</sup> Finland did not have a law specifically for trade secrets before 2018, however, there were both civil and criminal measures in other legislations. These measures could be found in the Criminal Code<sup>60</sup>, the Employment Contract Act<sup>61</sup>, as well as Unfair Business Practices Act<sup>62</sup>. Section 4 of the Unfair Business Practices Act mentions directly ‘business secret’, however, the whole section was repealed and is not in force anymore (since the Trade Secret Act). Additionally, only one of the three laws contained a definition of trade secret, the Criminal Code, while the others only state that obtaining or using the secret unjustifiably is forbidden. The Criminal Code, under section 11, defines the word ‘business secret’ which, while phrased quite differently, already contained the three elements of a trade secret.<sup>63</sup> The Trade Secret Act (the Act) amended and supplemented all three of the acts mentioned. Most importantly, the Act collected all the civil elements of the trade secrets to one legislation, though the Criminal Code still contains criminal measures. Additionally, Finland decided to set the statutory limitation, which was left for the Member States to decide, to five years, while also adding a maximum limitation of 10 years from when a complaint could be made. There are some concerns as to when Member States have different limitations in cross-border situations, however, that is a jurisdictional issue.

In Italy, trade secrets were found to fall within IP law, as the Industrial Property Code (IP Code), known as “confidential business information”<sup>64</sup>. The definition found within the IP Code contains all the elements of the trade secret.<sup>65</sup> The sections relating to secret information were amended by the

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<sup>59</sup> Hogan Lovells International LLP. Report on Trade Secrets for the European Commission: Study on Trade Secrets and Parasitic Copying (Look-alikes) MARKT/2010/20/D 23.9.2011. p 17

<sup>60</sup> Rikoslaki 18.12.1889/39

<sup>61</sup> Työsopimuslaki 26.1.2001/55

<sup>62</sup> Laki sopimattomasta menettelystä elinkeinotoiminnassa 22.12.1978/1061

<sup>63</sup> The Criminal Code of Finland 18.12.1889/39, Accessible:

<https://www.finlex.fi/en/laki/kaannokset/1889/en18890039.pdf> , 12.3.2019

<sup>64</sup> World Intellectual Property Organisation (2013) *Italian Code of Intellectual Property N°30 of 10 February 2005*, Accessible: <https://www.wipo.int/edocs/lexdocs/laws/en/it/it204en.pdf> , 21.02.2019

<sup>65</sup> Hogan Lovells International LLP (2011), *supra nota* 59, p 21-22

Directive. Historically, know-how and secret information were used in Italy as though they had the same definition.<sup>66</sup> As trade secrets were even before the Directive considered to be part of IP, they had a better protection than in most other EU Member States which only protected trade secrets through other legislations.<sup>67</sup> The statutory limitation set in Italy is 5 years, which is a fairly common decision.

As UK is based on a different legal system as other European countries, it also has a different method of dealing with trade secrets. It is not based on unfair business practices or competition law, which was common in the Europe before the Directive, rather, it is mostly based on case law and breach of contract, which has its' own issues.<sup>68</sup> In a case from the supreme court of the UK, *R (on the application of C) v. Secretary of State for Justice* from 2016, an employee unlawfully accessed and copied the files of his employer containing confidential information, and it has been considered that it is not possible to steal trade secrets, rather, it is a theft of the object which contains the trade secret and fraud by abuse of position.<sup>69</sup> The problem is that if trade secrets are not considered property, and there is no legislation which defines trade secrets in the first place, it is difficult to protect them, especially in cases where an employee is the infringer.

While harmonisation was non-existent in the EU before 2016, when the national laws came into force, there were some protective measures in the Member States. Many countries had a definition of a trade secret, though the wording was different, and the terminology was not harmonised. Some do have criminal legislation regarding trade secrets, which are still not harmonised in the EU, while others only have civil measures. While full harmonisation has not occurred, however, the EU is in a much better position than before.

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<sup>66</sup> Jandoli, V., Dani, M. (2019). Trade Secrets I Italy: the reform. – *European Intellectual Property Review*, Vol. 41, p 47

<sup>67</sup> *Ibid.*, p 49

<sup>68</sup> González (2013), *supra nota* 49, p 246

<sup>69</sup> Hull, J. (2018). An employee's theft of his employer's trade secrets: fraud by abuse of position. – *European Intellectual Property Review*, Vol. 40, p 478

### **3. COMPARATIVE ANALYSIS OF EU AND US TRADE SECRET LEGISLATIONS**

While it may be coincidental, it is noteworthy that the EU and the US decided to adopt their trade secret legislations during the same year. This could be the result of many factors, but the main one must be the growing importance of trade secrets and the threat of misappropriation through electronic means has been on the rise and concluded that there is a need for better protection for trade secrets and confidential information of companies. IPRs are based on the idea that innovation should be supported and encouraged, because if people do not benefit from their work by having a monopoly for a period of time, innovation and progress would decrease. It should be taken into consideration that an EU directive and a US law have a significant difference in their creation and application. Directives are made by the European Parliament and Commission for the Member States,<sup>70</sup> while the US legislation is directed at one country.

The DTSA and the Directive have many features in common, while also having comparable differences. The definition of trade secret is broad, much broader than that of a patent, as it can contain technical or non-technical information. Some terminology makes a difference to how wide-reaching the legislation is. While the Directive considers that the holder of the trade secret is capable of bringing a complaint to the court, the DTSA only allows for the owner of the trade secret to start the complaint. As companies are sometimes owned by individuals or shareholders, but the CEOs actively run the company, making them the holder of the trade secret, this can sometimes hinder the procedure in the US. The definition of trade secret itself, while not having the exact phrasing, does contain the same elements. Secrecy, commercial value, and reasonable steps to protect the secrecy are all contained in

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<sup>70</sup> Craig, P.; De Burca, G. (2015) EU Law: Text, Cases and Materials. 6th ed. Oxford University Press, p 125

both the DTSA and the Directive. Neither legislation contain any other restricting elements, such as novelty or the content of the trade secret.

### 3.1. Criminal Liability

A difference not based directly on the DTSA and the Directive but is considered to be the most fundamental difference between the EU and the US regarding trade secrets is criminal liability. The EU does not currently have criminal measures for IPRs, though there was a proposal for a directive by the European Commission aimed at combatting counterfeiting and piracy of IPRs,<sup>71</sup> and the enforcement of intellectual property rights.<sup>72</sup> However, the directive would not have included trade secrets, as there was no EU legislation on trade secrets before 2016. While the EU itself does not have any criminal measures, they are available to Member States. Any Member State may go further than the directive for the protection of trade secrets, and some already have provisions for criminal liability for the misappropriation of trade secrets or business espionage.<sup>73</sup> In the US, criminal liability for the misappropriation was established in the EEA based on unlawful use, disclosure, or acquisition.<sup>74</sup> The difference between criminal liability and the civil liability is that criminal liability is punitive in nature, and criminal liability may decrease economic espionage in a more significant manner.

As was seen in the previous section, some EU Member States have opted to have a criminal liability regarding trade secret misappropriation. In Finland, the Criminal Code contained punitive measures for the theft and other unlawful acquisition of a trade secret, and therefore, the level of protection in Finland for trade secret owners is higher than that of the Directive. It is common for Member States to have higher measures, as the EU provides the minimum requirements. If criminal liability for trade secret misappropriation was to be included in a Directive or other EU level legislation, the harmonisation and level of protection would increase EU-wide as well as globally.

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<sup>71</sup> European Commission (2006) *Counterfeiting and Piracy: Commission proposes criminal law provisions to combat intellectual property offences*. Accessible: [http://europa.eu/rapid/press-release\\_IP-06-532\\_en.htm?locale=en](http://europa.eu/rapid/press-release_IP-06-532_en.htm?locale=en), 21.2.2019

<sup>72</sup> European Commission (2010) *Withdrawal of obsolete commission proposals*. Accessible: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:252:0007:0011:EN:PDF>, 22.2.2019

<sup>73</sup> Rikoslaki 18.12.1889/39, Chapter 30 §4, §5 and §6

<sup>74</sup> Desai, S. (2018). Shhh – It's a Trade Secret: A Comparison of the United States Defend Trade Secrets Act and the European Union Trade Secrets Directive. – *Georgia Journal of International & Comparative Law*, Vol. 46, p 486

### 3.2. Use, Acquisition and Disclosure

Firstly, the concept of misappropriation as well as lawful and unlawful acquisition, use, and disclosure (it should be noted that the DTSA uses the term wrongful while the Directive uses the term unlawful and in this thesis the term unlawful is used for both) should be compared. Both the DTSA and the Directive separate disclosure with and without intention. The Directive states that it is for “protection against unlawful acquisition, use, and disclosure of trade secrets.”<sup>75</sup> The DTSA also mentions acquisition and disclosure in the definition of misappropriation.<sup>76</sup> While unlawful methods are mostly comparable in the DTSA and the Directive, such as breach of duty, breach of confidentiality, and theft, which always happen without the consent of the owner of the trade secret, the lawful methods have some disparities between the legislations. The first lawful method is reverse-engineering, which is mentioned expressly in the DTSA. While the word is not mentioned in the Directive, Article 3 states that “observation, study, disassembly or testing of a product or object that has been made available to the public is allowed,”<sup>77</sup> with a criterium that the object must be publicly available and received lawfully.<sup>78</sup> Additionally, both legislations allow independent discovery, and theoretically, two companies may result in a very similar trade secret. How it can be proved that the company independently discovered is a separate issue. In the Directive, there are some lawful disclosure methods not mentioned in the US legislations; when the information falls under the freedom of expression, and in cases where the disclosure is permitted by EU or Member State law.<sup>79</sup>

### 3.3. Statutory Limitation

Statutory limitation in the DTSA is three years from the date the misappropriation was discovered or should have been discovered.<sup>80</sup> The EU has left this part for the Member States to decide for themselves, though the limitation should not exceed 6 years. Multiple countries, such as France, have

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<sup>75</sup> Directive OJ L 157 (15.6.2016), *supra nota* 4, Art 1

<sup>76</sup> Defend Trade Secrets Act 2016, § 2(b)(5)

<sup>77</sup> Directive OJ L 157 (15.6.2016), *supra nota* 4, Art 3

<sup>78</sup> Directive OJ L 157 (15.6.2016), *supra nota* 4, Art 3 p 1a

<sup>79</sup> Sosnova (2016), *supra nota* 48, p 64

<sup>80</sup> Defend Trade Secrets Act 2016, § 2(d)

chosen this limitation to be five years.<sup>81</sup> This may cause some issues in cross-border situations. The additional problem with the Directive is that it does not specify when the limitation time period starts, and Member States will have to decide that for themselves as well. Finland made the statutory limitation five years,<sup>82</sup> which will start from the time the holder of the trade secret found out about the misappropriation.<sup>83</sup> Additionally, the Trade Secret Act states that the time period for the right to start a complaint expires if the misappropriation has occurred over 10 years ago. This kind of limitation is not mandatory according to the Directive, nor is this kind of limitation present in the DTSA. As not all Member States will adopt this kind of measure either, the harmonisation on the EU level as well as on the international level is lacking on the area of statutory limitations.

### **3.4. Rights of Employees**

Employees have a lot of responsibility regarding trade secrets. With NDAs and other steps to protect secrecy of companies, employees have to be careful when transferring to a new company in the same field, so that they will not reveal any information considered to be the trade secret to their new employer. According to the DTSA, injunctive measures are not allowed to be asserted against employees when it could limit their possibility to change employers, as these measures can only be taken in extraordinary circumstances when the employee has made a threat of misappropriation or a previous misappropriation.<sup>84</sup> The fact that the employee has knowledge of a trade secret does not give the employer the right to limit the possibility of the employee to change their place of employment.<sup>85</sup> The rights of employees have to be protected while also protecting the rights of the trade secret owner, and there is likely issues within this field in the future. Employment must be considered through the lens of employment law. The US and the EU differ on multiple levels, such as notice periods, the employee issue must always be seen through the country in question. Therefore, as employment contracts can end in the US fast and without reason, it is seen very strictly when an employee would

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<sup>81</sup> Allen & Overy (2018) *Trade Secret's Protection in France*. Accessible: <http://www.allenoverly.com/publications/fr-fr/Pages/Trade-secret%E2%80%99s-protection-in-France.aspx> , 12.3.2019

<sup>82</sup> Liikesalaisuuslaki 595/2018

<sup>83</sup> *Ibid.*

<sup>84</sup> Wennakoski, A.A. (2016). Trade secrets under review: a comparative analysis of the protection of trade secrets in the EU and in the US. – *European Intellectual Property Review*, Vol 38, p 169

<sup>85</sup> Desai (2018), *supra nota* 74, p 495

not be able to seek work from a competitor.<sup>86</sup> Before the DTSA, employers could also limit the mobility of employees based on their field and trade secret access of the employees. In the EU, there are longer notice periods, especially for firing an employee, and therefore the same injunctions and other measures against employees should be seen in a different light. The Directive states that it cannot be used to hinder employees from switching jobs, especially when the knowledge and skills they have cannot be considered to be a trade secret.<sup>87</sup>

### **3.5. Whistle-blowers**

Whistle-blower immunity is also found in both the US and the EU legislations, though they do have differing aspects. In the DTSA, the informant must deliver the information “in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and solely for the purpose of reporting or investigating a suspected violation of law.”<sup>88</sup> The Directive has a different approach to whistle-blowers. The information does not have to be given to a government official. If the trade secret which was disclosed contained illegal conduct etc., and the information was revealed to protect the public, it will not be considered to be misappropriation. The protection of whistle-blowers is more extensive in the EU, and whistle-blowing is considered to be an exception to unlawful disclosure.<sup>89</sup> In the DTSA, an anti-retaliation paragraph can be found, which is directed at employees who reported their employer for violation of law.<sup>90</sup>

### **3.6. Confidentiality of legal proceedings**

Confidentiality during the legal proceedings is found in the DTSA and the Directive. If a trade secret cannot be kept confidential during a litigation process, it would negate the purpose of trade secret protection, and trade secret owners would not seek relief from courts. Therefore, it is vital to protect the confidentiality of a trade secret during legal proceedings. Article 9 of the Directive covers

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<sup>86</sup> Wennakoski (2016), *supra nota* 84, p 166

<sup>87</sup> Desai (2018), *supra nota* 74, p 496

<sup>88</sup> Defend Trade Secrets Act 2016, § 1833(b)(1)(A)(i).

<sup>89</sup> Directive OJ L 157 (15.6.2016), *supra nota* 4, Art 5

<sup>90</sup> Desai (2018), *supra nota* 74, p 496

protection during court proceedings fairly extensively. If a judge has declared that information is to be considered as a trade secret, then no participant, such as lawyers, witnesses, or experts can disclose the information to anyone during or after the legal proceedings. There are only two exceptions to this rule; 1) the court declares that the information is not in fact a trade secret or 2) the information became public after the proceedings.<sup>91</sup> The DTSA also addresses these confidentiality measures, though is less extensively. While the Directive has a separate article concerning the judicial decisions being published, and which parts need to be kept private or confidential, the DTSA does not address the issue of judicial publications.

### **3.7. Measures, Remedies and Damages**

As to the measures and remedies which a trade secret holder can expect from the courts based on the DTSA and the Directive, there are a few main measures available. Ex Parte seizure is the main measure provided by the DTSA. Seizures are allowed by the Directive as a precautionary method, and they are significantly less extensive than in the DTSA. The Directive does not mention whether the seizure must be done ex parte, however, Member States have the ability to add such a measure to the seizure. While the DTSA allows for a more extensive seizure, as it allows for the seizure of any “property necessary to prevent the propagation or dissemination of the trade secret that is the subject of the action,”<sup>92</sup> it also has to fulfil certain aspects before such a seizure can be permitted by the court. One of these aspects is when restraining orders are ineffective in the particular case.<sup>93</sup> The Directive does not have any conditions to be fulfilled before the court may order a seizure, however, the limits of what can be seized are much smaller in scale. Only products which have an infringing element may be seized, not i.e. electronics which may include the information of the trade secret.<sup>94</sup> Other measures include injunctions, which are more commonly used than seizures. While in the Directive injunctions are expressly mentioned and explained what is included as an injunctive method, in the DTSA, there

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<sup>91</sup> Directive OJ L 157 (15.6.2016), *supra nota* 4, Art 9

<sup>92</sup> Defend Trade Secrets Act 2016, § 2(b)(2)(A)(i)

<sup>93</sup> Goldman (2015), *supra nota* 31, p 295-296

<sup>94</sup> Directive OJ L 157 (15.6.2016), *supra nota* 4, Art 10

is only an implication of injunctions. As seizure can be ordered only if other preliminary measure is inadequate, this implies that those measures are applicable to trade secret cases.<sup>95</sup>

Damages which will be applicable in cases where the court finds that there has been a misappropriation, the Directive states that the defendant must pay the adequate amount suffered by the trade secret owner.<sup>96</sup> The damages can be calculated in one of three methods; the misappropriation may have caused lost profits, the infringer may have gained unfair advantage from the misappropriation of the trade secret or the method which is normally used in the case of unwilling or unknown misappropriation, the infringer must pay the amount which they would have paid as royalties.<sup>97</sup> Punitive measures, as mentioned previously, are not included in the Directive, however, the DTSA allows these punitive measures to be monetary.<sup>98</sup>

### **3.8. Jurisdiction**

The final aspects of comparison will be extra-territorial jurisdiction. The DTSA has a reach outside of the US. Extra-territorial jurisdiction is not expressly mentioned in the Directive but is an important aspect when the infringer is located abroad, and Member States can include this aspect in their legislation. A foreign company may buy the trade secret, and without the extra-territorial force, it is impossible for the infringer to face consequences, however, there are certain limits to this reach in the DTSA. The EEA includes extra-territorial jurisdiction in cases where the defendant is a resident of the US, or a company which is mainly owned by a US citizen.<sup>99</sup> It is concerning that there is no mention of extra-territorial jurisdiction in the EU, as there are occasions where a trade secret owner may be misappropriated by a person in a different country as the owner. This problem should be solved by national legislation by Member States.

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<sup>95</sup> Desai (2018), *supra nota* 74, p 498

<sup>96</sup> Directive OJ L 157 (15.6.2016), *supra nota* 4, Art 14

<sup>97</sup> *Ibid.*

<sup>98</sup> Desai (2018), *supra nota* 74, p 500

<sup>99</sup> Simon (1998), *supra nota* 19, p 314

### **3.9. Conclusion**

To conclude the comparative section, the DTSA and the Directive consist of similar aspects. Not including the minor aspects, the difference that separates the US and the EU is not included in either of these legislations. Criminal liability is the aspect which makes the US legislation superior for the trade secret owners. When there is unlawful acquisition, use or disclosure of a trade secret, an infringer may be held criminally liable for the misappropriation. Without this criminal liability, the risk of misappropriation is larger as there is no punitive measure. To ensure the full protection of trade secrets, the EU should consider the criminal protection of trade secrets. The issue is that some EU Member States do not want to give away their autonomy regarding criminal law issues.

## CONCLUSION

US and Europe are getting more harmonised in regard to trade secrets. The DTSA and the Directive contain many elements in common. But is it enough that only civil aspects of trade secrets are harmonised? There are no signs that EU would implement criminal liability for any IPRs, even though there was an attempt to do so in mid-2000s. Many Member States are reluctant, or even against any criminal measures being implemented by the EU as it would lessen their autonomy. Therefore, EU Member States must for now decide for themselves whether to implement criminal measures for the misappropriation of trade secrets, which some have had even before the Directive. As the US has had criminal measures against misappropriation since 1996, the EU is lacking the harmonisation the US has, and unless national implementation of criminal liability occurs, global harmonisation of trade secrets cannot increase in the near future. People are less likely to infringe upon another's trade secret if there is a punitive measure, e.g. fine or imprisonment, than if there are only civil measures available, which focus more on bringing the owner and the infringer to the same position as they were before the misappropriation, i.e. the infringer cannot have gained anything from the infringement and the owner should not be in a worse position than before.

However, even without the EU having criminal liability for trade secret misappropriation, the harmonisation has increased with the implementation of the DTSA and the Directive. Because of the lack of any legislative measures before the Directive on the EU level, there was little harmonisation. Some EU Member State national legislations did use TRIPS as a model when implementing trade secret measures, however, others did not use TRIPS as a model, and some did not have any protective measures for trade secrets at all. Therefore, the fact that EU and US both implemented the new legislations did bring harmonisation globally to the field of trade secrets. Even with the similarities between the DTSA and the Directive, the practicalities will vary significantly between them. The legal systems, norms and backgrounds are dissimilar, and therefore how the legislations will be interpreted

will naturally vary. The implementation of the directive leaves a lot to the Member States to decide for themselves, while the DTSA is directly applicable in the US on a federal level.

There are some problems for the future in both the US and the EU. Because of the nature of trade secrets, it cannot be exactly estimated how many trade secrets there are in the world, nor how many trade secrets one company may have, unlike other types of IP rights. Additionally, because trade secrets are technically immortal, as the right does not transfer to the public domain unless it is revealed to the public, and because of the wide definition of trade secrets, there are more trade secrets than patents and the importance of trade secrets is growing every year.

One of the most important problems to be solved in the future is employees. As employees are the most common infringers of trade secrets, there should be better and more specific measures specifically for employees and how they should be treated. Employment law varies between countries. It is common that employees who have access to trade secrets of an employer, their contract of employment is different than those who do not have access to the information. The contract may include clauses which prevent an employee who has left the company from accepting work from a direct competitor. Trade secrets are also protected from employee's misappropriation with NDAs, however, even when the employees have signed an NDA, accidental reveals and mixing up information relating to the trade secret and general knowledge from their education and research will occur. Because of these reasons, the measures in both the DTSA and the Directive are lacking in regard to employees. Companies sometimes do not make it clear what information is considered to be trade secret, or the trade secret is for some reason accessible to people who have not signed NDAs, i.e. poorly protected. Before the DTSA, there were some measures which allowed injunctions against employees from working in the same field as their previous employer. With the DTSA, this was however removed and now only employees who have threatened misappropriation or have infringed and NDA previously can these injunctions be taken against. Therefore, the issues of employee misappropriation are a problem for the future in both the US and the EU.

The question as to whether the DTSA and the Directive can protect the interest of the trade secrets owners adequately is important, and at this point it is difficult to determine how the current legislative measures will be used in practise in the EU. They will differ from the way the US uses their legislations in practise. While the DTSA does not have much content that will alter the way trade secrets are

regarded, in the EU this is the first time some states have any kind of legislation for trade secrets. In the US, the trade secret legislations cover state level, federal level and both civil and criminal liability. This covers most problems trade secret owners may have and they have multiple methods in use for the protection of their information. EU has no intention to cover criminal liability in the near future, so the protective measures of EU Member States depend on themselves and they should consider carefully whether to implement measures in addition to the ones covered by the Directive which are not extensive enough for full coverage of protection. Another factor which the Member States must decide for themselves is extra-territorial jurisdiction, which the Directive does not mention at all. Because the DTSA allows for US courts to handle cases where the misappropriation happens outside the US, if there is a connection to the US on some level.

In the introduction, a question was posed as to whether the US or the EU provides better protection for trade secret owners, and when taking all of the above into consideration, the US does have much better level of protection for trade secrets, however this is not surprising considering the first legislation in the US was created during 1970s. The EU, on the other hand, is lacking on multiple fronts, because the Directive is only the first legislation for trade secrets. The Directive will bring much more harmonisation than existed before, and therefore, harmonisation may continue on an international level with the increasing level of misappropriation. The EU has some catching up to do to be able to provide the same level of protection as the US, but historically the US has always been ahead of the EU in regard to protection of IPRs in general. As to whether the EU and the US have adequate measures to protect the interests of trade secret owners, it remains to be seen how well the EU Member States legislations for trade secrets offer protection for confidential information. On the other hand, the US covers multiple levels, both state and federal, as well as both civil and criminal aspects, which seems to be wide enough range for trade secret owners to receive adequate protection.

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