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# Data as an Asset in an Insolvency Procedure

## BACHELOR THESIS

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DECLARATION OF HONOUR:

**I declare that this thesis is my own work, and that all references to, or quotations from, the work of others are fully and correctly cited.**

(Signed) .....

RIGA, 2021

## **ABSTRACT**

When a business becomes insolvent, assets that has selling value prevails within the insolvency process. Understanding if personal data can be classified as an asset and whether it can be sold when facing insolvency proceedings is determined in this Thesis. General Data Protection Regulation safeguards personal data of the EU data subjects including processing of such data. This regulation protects the EU data subjects also outside of the EU or EEA. Processing that includes sale of personal data is made possible if full compliance with the Regulation is applied. Legal basis for such processing that is required for the processing to be legal includes legal obligation arising from insolvency. Data assets closely corresponds Intellectual Property assets as determined by the International Financial Reporting Standards. Related to personal data, insolvency and social media page of a business interaction has been determined by the U.S. court, giving rights over such asset to the insolvent company.

Keywords: Personal Data, Structured Data, GDPR, Insolvency, Assets, Data Processing, Legal Obligation.

## SUMMARY

Personal data has been a crucial component for business functioning and development. Another component that is sometimes, despite the efforts, inevitable is insolvency. When a business faces insolvency, their assets then become crucial for settling their financial commitments. Personal data has shown to be valuable and also well protected due to recent implementation of the updated data protection regulation also known as GDPR. Necessity to protect personal data rises from its close reference to the fundamental rights, that emphasizes the value of privacy that we have rights to. This Thesis focuses on determining whether an insolvent business has any rights regarding personal data acquired throughout their operation and how this data can be sold for the purpose of solving insolvency.

The first chapter focuses on understanding what data is protected under the GDPR and what are the requirements for lawful control and processing of such data. Further, interrelation between GDPR and fundamental rights are described in order to determine how the value of privacy and rights to property correlates to personal data and how case law of European Court of Human Rights has looked at these aspects. Moreover, understanding whether GDPR grants any property rights to the business that has acquired it (controller) is determined. Included is also the personal data aspect within social media platforms as most businesses and persons are their users. Most relevant findings in this chapter are that processing of data includes selling it, therefore, complying with GDPR is crucial for such processing to be lawful.

The second chapter analyzes where data assets lie within business assets. It is found that according to IFRS personal data is classified as an intangible asset. Intangible assets that correspond to personal data the closest is IP, therefore, IP valuation methods are analyzed and determined which one of those would be most suitable for valuing personal data assets. It is found that personal data assets also fulfill prerequisites set for IP asset valuation, thus, these methods are applicable.

Third chapter elaborates on personal data asset sale within insolvency proceeding. It includes theoretical explanation on insolvency as a concept within European and U.S. legislations. Further explanation on how personal data could be sold under insolvency procedure is provided in consideration with GDPR. It is determined that personal data can be sold by a business that has been legally ordered based on insolvency law to distribute their assets relying on legal obligation legal basis to comply with Article 6 GDPR.

Conclusions summarizes the outcomes on each of the aspects covered. It is concluded that data can be sold if full compliance with data protection laws is exercised. GDPR requires legal basis for processing data, and it was determined that within insolvency procedure legal basis is a legal obligation that the insolvent business is required to fulfill in order to satisfy creditor's claims. The author indicates that further research analyzing specific jurisdictions and personal data sales shall be done.

## **LIST OF ABBREVIATIONS**

**ECHR** – European Court of Human Rights

**EEA** – European Economic Area

**EU** – European Union

**GDPR** – General Data Protection Regulation

**IASB** – International Accounting Standards Board

**IFRS** – International Financial Reporting Standards

**IP** – Intellectual Property

**PII** – Personally Identifiable Information

**TFEU** – Treaty of Functioning of the European Union

**The Charter** – Charter of Fundamental Rights of the European Union

**The Code** – U.S. Bankruptcy Code

**U.S.** – United States

**WIPO** – World Intellectual Property Organization

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## INTRODUCTION

In the shadow of the pandemic, there are many businesses that are struggling financially due to closures and restrictions in place, therefore, they could potentially face being insolvent. The burden this pandemic has put on companies shoulders in many cases could be too heavy to recover from or placing them in a significant amount of debt. The one asset any business has that is unique to them is their customer's data. It is valuable information that might potentially help them to reorganize their strategies in order to rise from this pandemic stronger than going into it. In some cases that might not be enough to recover, thus placing them in financial distress, that can be overcome with a concept found in any legislation such as insolvency procedure. Whether a company is insolvent with potential to reorganize by partially distributing their assets to pay back the creditors or liquidated to be fully divested, it is rather important to understand where data assets lie in this process.<sup>1</sup> Understanding that company's data might be of financial asset characteristic, may help companies to see the relief and realize that it might be worth more than anticipated.

Technology plays a remarkable role in the business world, allowing us to reach a capacity that is not obtainable otherwise. Utilization of data in favor of business development in this data-driven economy has been an ultimate task for companies worldwide. Ability to store and process through large amounts of data is one of the bigger achievements of technology nowadays, that allows a business to operate more efficiently, meanwhile facilitating day to day operations. Data can be anything from financial records, informative spreadsheets, customer databases, emails to social media pages and tweets. Most of this data compromises personal data of people containing private information that possesses a great value for a business and its marketing strategies. It is estimated that globally by 2025 at a current rate 463 exabytes of data will be produced every day.<sup>2</sup> That is a staggering amount of data. To put it in a perspective that equivalents to 212,765,957 DVD's per day.<sup>3</sup> Based on these numbers that are hard to comprehend, it is clear that development of technology and its abilities are growing every day. This kind of rate demands comprehensive data managing and storing systems. This is also an indicator that it is very worthy. It is hard to put a price tag on data, but understanding that it is an asset to any business is clear.

Considering the rapidly growing rate of data utilization for business purposes, understanding how privacy laws concerning personal data and its further distribution restricts this process and how personal data may be regarded as an asset subject to insolvency and further allocation of it thereof. Looking from a legal perspective, European Union (hereinafter, EU) has taken a crucial step in order to protect our personal data by implementing the Regulation of the EU Parliament on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (hereinafter, the GDPR), that has pushed many companies to reorganize their data

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<sup>1</sup> Regulation (EU) 2015/848 on insolvency proceedings. *OJ L* 141, 5.6.2015. Article 1(1)(a). Available on: <http://data.europa.eu/eli/reg/2015/848/oj> Accessed April 14, 2021.

<sup>2</sup> Jeff Desjardins, "How much data is generated each day?" (April 17, 2019). Available on: <https://www.weforum.org/agenda/2019/04/how-much-data-is-generated-each-day> Accessed, April 14,2021.

<sup>3</sup> *Ibid.*

storage and usage. It is regarded as toughest privacy and security law in the world and many other non-EU countries are expected to follow a suit.<sup>4</sup> The aim of this regulation is to safeguard personal data against non-authorized administration and exploitation, moreover, it has come as a reminder that it is valuable and persons have rights regarding their data. Assumption that personal data in possession of a business is an asset that can be easily sold is overlooked, due to rather complex laws safeguarding it and thus relying on it as an asset may be more complicated than anticipated.

In order to research this legal problem doctrinal legal research methods will be used to analyze existing personal data privacy laws such as GDPR. Analysis of the GDPR will determine the effectiveness of it and how it is applicable in case of insolvency. Thesis will consist of qualitative research containing theories and argumentation based on the information available on the subject. Further, primary sources will serve as the basis of the research and secondary sources for legal and economic aspect explanation. Determination of which asset valuation methods may be applied to personal data and its classification as an asset entails deductive research based on the assumption that the data is an asset and how personal data complies within asset classification. To determine how this aspect of personal data as an asset applies in practice, case-law will be analyzed that has indeed determined this aspect in different courts. The research entails interdisciplinary approach by blending two academic aspects – legal and business studies. The work will mainly contain legal research, analysis of legislation, case law and legal argumentation. Insolvency and bankruptcy is related to business, finance and economics directly affecting these aspects when a company or individual is facing such undertakings. Data and insolvency procedures contain both business and legal disciplines as it is closely related to one and other in theory and practice.

Current developments definitely puts an important label onto personal data, hence what kind of contribution it has to a business portfolio, moreover, whether it has any benefit to a business when facing insolvency or possible restructuring of assets. Therefore, following research questions arise: 1) Do companies that are subject to insolvency have any rights regarding the personal data acquired throughout their operations? And further a question regarding personal data qualification amongst other company assets follows: 2) Can personal data then be sold similarly to other company assets? Company in case of being insolvent relies on their assets such as cash and cash equivalents, tangible property, intangible assets, intellectual property (hereinafter, IP), to satisfy the creditors and discharge their debt.<sup>5</sup> These types of assets have pre-determined evaluation mechanisms in place, to facilitate their further distribution or conducting a sale. Determining the value of data assets is a much more complex task than that. There are different types of data, the way it is processed and utilized, moreover the legislation that regulates and protects it shall be applied and implemented.

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<sup>4</sup> Ben Wolford, “What is GDPR, the EU’s new data protection law?” Available on: <https://gdpr.eu/what-is-gdpr/> Accessed on: April 15, 2021.

<sup>5</sup> Kinga Bauer “Fixed assets valuation in the condition of bankruptcy risk: The role of estimates.” (June, 2014). p. 653. Available on: [https://www.researchgate.net/publication/317174737\\_Fixed\\_assets\\_valuation\\_in\\_the\\_condition\\_of\\_bankruptcy\\_risk](https://www.researchgate.net/publication/317174737_Fixed_assets_valuation_in_the_condition_of_bankruptcy_risk) Accessed: April 5, 2021.

The aim of this thesis is to determine whether insolvent companies have any rights of the personal data in their possession in an insolvency case. The objectives of the Thesis are to determine whether or not company has a right to utilize and sell this data in the case of being insolvent according to EU Insolvency Regulation 2015/848, United States (hereinafter, U.S.) Bankruptcy Code (hereinafter, the Code), in compliance with GDPR, and how European Convention of Human Rights (hereinafter, ECHR) and EU Charter of Fundamental Rights (hereinafter, the Charter) has outlined this aspect. Further, the comprehensive analysis of other company asset evaluation methods is conducted in order to determine whether any of those mechanisms applies to data assets. Importance of social media accounts in regards to the rights the company possesses will be analyzed based on case law available, that has in fact determined that aspect in some courts. This research looks at insolvency from a general standpoint without an in depth study. It also does not provide advice on matters differentiating insolvency and bankruptcy, as it is rather looked from a general concept standpoint rather than a legal standpoint that is a very complex area of law involving many aspects that is not the authors expertise and is restricted by the word count to be conducting such analysis. This Thesis also does not determine the value or cost of personal data.

Thesis consists of three chapters. The first chapter is devoted to personal data, including theory on structured data and analysis of GDPR to determine the purpose of personal data control and transfers. Further considering that personal data is a subject to privacy and person's rights, compilation of such aspects found under ECHR and the Charter is discussed offering case-law where it has been applied. Further looking at what type of data is compromised in social media platforms, and how these accounts play a role within business assets as determined by the case-law. Second chapter explains what assets are and how they are evaluated for the purposes of insolvency. Comparison of other asset valuation methods and whether these apply to personal data are presented. Further determination of within which data asset classification personal data lie. Third chapter is devoted to insolvency as a concept and a short breakdown of this concept within the EU and the U.S. is provided. Further determination on how data as an asset can be sold by complying with privacy laws and how a company buying such assets could potentially benefit from such a transaction and whether it puts any limits on such assets further exploitation. Lastly, case-law regarding personal data assets and insolvency is analyzed to see how this process is applicable in practice and if and what kind of solutions or novelties for facilitating this process should be implemented in the future.



## 1. STRUCTURED DATA

Over the years data collecting has moved from analog to digital information storing. Data used to be in forms of print or recording (analog), however, with the help of development of modern technology, digital form as we know it today (computers) has enabled more distinct and diverse data collection, however, requiring a certain set of knowledge in order to access and understand such data. This transformation has presented a need for qualified and technologically advanced minds to step in and learn the technology that is ever so evolving and changing. It is safe to say that data has created many new jobs and opportunities.

Until the era of digitalization, data we have known and used is structured data. “Structured data is any data and information that is located in a fixed field within a defined record or file, usually in databases and spreadsheets.”<sup>6</sup> Filing system is defined in GDPR as any structured set of personal data that is accessible by using specific criteria.<sup>7</sup> Structured data can be transactions, sales, logistics, machinery data points, customers data, financial records.<sup>8</sup> It is data that is structured into columns and tabs such as excel file, to grant easy access and storage. Structured data is also lenient for analysis providing comprehensive structure and convenience. Collection of this type of data is a well-established concept.

For the purposes of GDPR application, it sets out different types of structured data, that is covered by this regulation. GDPR clearly points out that this regulation falls within the scope of structured data that involves automated and manual processing and shall not be restricted to the techniques used.<sup>9</sup> Further, outlined are categories of personal data that are concerned by GDPR such as personal identifiers revealing person’s identity (name, ID number, address) as well as genetic data (genetic characteristics, particularly from biologic sample), biometric data (facial images or dactyloscopic data), data concerning health (physical and mental health status), and racial or ethnic origin, political opinions, religious and philosophical beliefs.<sup>10</sup> These types of structured data are a subject of this regulation and shall be protected according to the regulation within the Member States and also in respect to third countries. This regulation is concerning any identifiable personal data that is found using a certain criterion. This type of information is not limited to specific format and includes data found in video, audio, numerical, graphical, and photographic files.<sup>11</sup>

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<sup>6</sup> Bernard Marr, “Data Strategy : How to Profit From a World of Big Data, Analytics and the Internet of Things.” (Kogan Page Publishers, 2017), p. 88.

<sup>7</sup> Article 4(6) of the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), *OJ L* 119, 4.5.2016. Available on: <http://data.europa.eu/eli/reg/2016/679/oj> Accessed: May 10, 2021.

<sup>8</sup> Marr, *supra* note 6.

<sup>9</sup> GDPR, *Supra* note 7, Article 4(15).

<sup>10</sup> *Ibid.* Article 4(1)(13)(14)(15), Article 9.

<sup>11</sup> Richie Koch, “What is considered personal data under the EU GDPR?” Available on: <https://gdpr.eu/eu-gdpr-personal-data/> Accessed: April 15, 2021.

## 1.2. General Data Protection Regulation

Taking into consideration the fact that cross-border flows of personal data has been a daily occurrence and the extent of the information exchange throughout the EU, sought after protection of such data was necessary. Personal data is more substantial to each individual than many might believe. Containing crucial personal information and allowing to extract understanding of each individual, personal data is desired by businesses to be used as a tool to target their strategies and gain over the customer base. Considering that lately news about data leaks from Facebook and other platforms has been occurring more often is yet another indication that our personal data is important and valuable.

An indicator that data possess a great value for both consumer and business has been noted prior to General Data Protection Regulation. GDPR replaced EU Data Protection Directive adding more extensive definition on what personal data is taking technological advancement into consideration and reflecting more on privacy issues relating to personal data and its processing while complying with data subject's consent.<sup>12</sup> GDPR was implemented in order to safeguard people's data about themselves and giving them rights for such data. EU characterizes the right of data subject regarding their personal data as a fundamental right, corresponding to Article 8 (1) of the Charter of Fundamental Rights of the European Union (hereinafter, the Charter) and Article 16 (1) of the Treaty on the Functioning of the European Union (TFEU).<sup>13</sup> This fundamental right is based on values of privacy and respect, that has been a cornerstone of EU policy. Fundamental rights in their meaning are rights that are basic rights and freedoms that belong to everyone in the EU regardless of the nationality, beliefs or values.<sup>14</sup> Based on these factors, implementation of GDPR forced many businesses to revise their data protection protocols and in most cases, implement new ones. According to Regulation (EU) 2016/679 personal data is defined as follows:

Any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person.

According to this definition, therefore, personal data is any information used to distinguish people from data sets.<sup>15</sup> In order for this definition to be applicable, there are four key elements that are foundation of personal data: 1) any information, 2) relating to, 3) an identified or identifiable, 4)

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<sup>12</sup> Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, *OJ L* 281, 23.11.1995. Article 2. Available on: <http://data.europa.eu/eli/dir/1995/46/oj> Accessed: April 16, 2021.

<sup>13</sup> GDPR *Supra* note 7. Art. 8(1).

<sup>14</sup> European Agency for Fundamental Rights. Available on: <https://fra.europa.eu/en/about-fundamental-rights> Accessed: April 16, 2021.

<sup>15</sup> Alessandro Mantelero, "Guidelines on the Protection of Individuals with Regard to the Processing or Personal Data in a World of Big Data", Strasbourg, 23 January 2017. Available on: <https://rm.coe.int/16806ebe7a> Accessed: April 16 2021.

natural person.<sup>16</sup> Based on GDPR, which is the most substantive data protection regulation, personal data is information that is identifiable and unique to natural persons, consisting of different types of data. Types of data that are subject to GDPR are outlined in chapter 1. Personal data is what social media accounts gather about their users, what information we give to doctors, what information we use when signing up for a membership or rewards program at our favorite store. It is a large variety of information that is then stored and utilized for different purposes, depending on the data holder. GDPR sets out various rules regarding safeguarding and use of personal data while respecting individuals rights.

Further outlined in GDPR when and under what circumstances data breach occurs. Article 4 (12) defines data breach as inability to secure data, leading to accidental or unlawful destruction, including unauthorized transmission of personal data, storage and processing.<sup>17</sup> GDPR is intended to protect our personal data against unlawful usage and processing, but what are person's rights regarding their data? Chapter 3 articles 12-23 outlines rights of the data subject and those are as follows:

1. The right to be informed,
2. The right of access,
3. The right to rectification,
4. The right to erasure,
5. The right to restrict processing,
6. The right to data portability,
7. The right to object,
8. Rights in relation to automated decision making and profiling.<sup>18</sup>

Regarding the right to restrict processing, consent of the data subject is necessary as outlined in Article 18 (1). Consent is an indication and clear affirmative action by the data subject to process data relating to them.<sup>19</sup> Exception is in regards to data storage.<sup>20</sup> From this arises that person has an ability to restrict processing of their data, unless he consent and acknowledgement has been given. Article 18 paragraph 2 states that where restriction has been restricted under paragraph 1, then data shall be processed only for exercise or defense of legal claims. Arising from this, further understanding whether exercise or defense of legal claims applies to insolvency is necessary. GDPR sets out clear right to the data subject regarding their personal data, further, looking into that from the data holder's perspective for the purposes of this thesis is necessary.

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<sup>16</sup> European Commission, Opinion 4/2007 on the concept of personal data, p. 4. Available on: [https://ec.europa.eu/justice/article-29/documentation/opinion-recommendation/files/2007/wp136\\_en.pdf](https://ec.europa.eu/justice/article-29/documentation/opinion-recommendation/files/2007/wp136_en.pdf) Accessed: April 16, 2021.

<sup>17</sup> GDPR, *Supra* note 7. Art. 4(12).

<sup>18</sup> *Supra* note 4.

<sup>19</sup> GDPR, *Supra* note 7. Art. 18.

<sup>20</sup> *Ibid.*

### 1.2.1. Data Controller and Data Processor

According to GDPR data controller is the recipient of that data that is defined as follows: “a natural or legal person, public authority, agency or another body, to which the personal data are disclosed, whether a third party or not.”<sup>21</sup> Thus, when determination of purposes and processing of personal data takes place, the recipient becomes a controller of that data.<sup>22</sup> Most businesses that use data for their benefit is a data controller. Article 26 outlines a situation where two or more controllers jointly determine processing of the data, then they become joint controllers.<sup>23</sup> Joint controllers are also subject to full compliance of the regulation. Further controllers in most cases not only determine purposes and processing of personal data but apply it to their advantage. Data processor is someone that processes personal data on behalf of the controller.<sup>24</sup> Processor does not benefit from the data they are processing on behalf of the controller. Often the data controller and processor are the same entity as Facebook, for example. Facebook mainly operates as a data controller, however, there are instances such as when working with other businesses and third parties, when Facebook becomes a data processor. Such instances include activities related to advertising campaigns, measurement and analytics.<sup>25</sup> Controller and processor responsibilities and guidelines include appropriate technical and organizational measures to enable performance that is according to the regulation.<sup>26</sup> Technical and organizational measures include pseudonymization. Pseudonymization is processing of data in a manner that does not allow this data to be attributed to a specific data subject without using additional information and is not attributed to a specific identifiable person.<sup>27</sup> It is a type of encryption of data, to enable safety and protection of data subject. It uses encrypted identifiers such as codes to replace personal sensitive data.

Data controllers shall according to Article 13 provide the data subject with the following information at the time of data collection such as but not limited to the “purposes of the processing for which the personal data are intended as well as the legal basis for the processing.” Additionally the controller shall provide the data subject with the information necessary for transparent processing including 1) right to rectification, erasure or restriction of processing, 2) right to withdraw consent if such processing is based on Article 6(1) point (a).<sup>28</sup> Article 13(3) further provides that if the purpose of further processing differs from that it was initially obtained for, therefore, the data subject shall be provided with information on that other purpose prior to that processing.<sup>29</sup>

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<sup>21</sup> GDPR, *Supra* note 7. Art. 4(9).

<sup>22</sup> *Ibid.* Art 4(7).

<sup>23</sup> GDPR, *Supra* note 7. Art 26.

<sup>24</sup> *Ibid.* Art. 4(8)

<sup>25</sup> “What is the General Data Protection Regulation (GDPR)?” Available on: <https://www.facebook.com/business/gdpr> Accessed: April 20, 2021.

<sup>26</sup> GDPR, *Supra* note 7. Art. 24.

<sup>27</sup> *Ibid.* Art. 4(5).

<sup>28</sup> *Ibid.* Art. 13.

<sup>29</sup> *Ibid.* Art 13(3).

GDPR is equally important for both - individuals regarding their own personal data and businesses regarding data that they control and process. Understanding rights of data subjects is equally as important for the purposes of this thesis as understanding rights and requirements for data controlling and processing. In fact, that there is a close interrelation between these two subjects, more importantly due to the fact that one would not exist without another, and based on the fact that according to GDPR the rights are in the data subject's hands. As stated in Article 18, data subject has a right to restriction of processing, therefore, exercising this right would significantly impact a data controller's value regarding their data assets.

### 1.2.2 Lawfulness of Processing

There are multiple requirements for the processing to be lawful and compliant with the GDPR. This is an area of concern and one of the main purposes of the Regulation in order to safeguard personal data. What are these requirements and how they are applicable is necessary to be determined. Processing includes collection, organization, recording, structuring, storage, adaptation or alteration, retrieval, use, disclosure by transmission, dissemination, alignment or combination, restriction, erasure, destruction.<sup>30</sup> Situations that includes processing are access to personal data, sending personal emails, shredding documents for destruction, posting photos on internet, recording by security cameras.<sup>31</sup>

The controller or joint controller is in charge for determining means and purposes of the processing. If the controller is not in charge of actual data processing then the third party becomes a data processor on behalf of the controller.<sup>32</sup> Article 28 (3) states there is no need for legal basis for transferring data to the processor as long as there is a contract or other legal act for provision of services that includes specific stipulation laid out in paragraph 3. In case of the sale of personal data, depending on the circumstances the purchaser becomes a separate controller or a joint controller. In order for the processing to be lawful one of the requirements must be met. GDPR Article 6 sets of requirements for such processing being lawful such as: 1) explicit consent by data subject, 2) performance of contract, 3) legal obligation, 4) protection of vital interests of data subject, 5) public interest or official authority, 6) legitimate interests. Processing on the basis of point three and five, shall be determined by Union Law or Member State Law to with the controller is subject.<sup>33</sup> Legal basis contains specific provisions for the application of the rules of the Regulation but are not limited to the following: 1) controllers liability for the processing being lawful, 2) types of data that are subject to processing, 3) the data subjects concerned, 4) entities to and the purposes of data disclosure, 5) purpose, 6) storage periods, 7) operations and procedures of processing.<sup>34</sup>

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<sup>30</sup> European Commission, "What constitutes data processing?" Available on: [https://ec.europa.eu/info/law/law-topic/data-protection/reform/what-constitutes-data-processing\\_en](https://ec.europa.eu/info/law/law-topic/data-protection/reform/what-constitutes-data-processing_en) Accessed: April 20, 2021.

<sup>31</sup> *Ibid.*

<sup>32</sup> GDPR, *Supra* note 7. Art. 28.

<sup>33</sup> *Ibid.* Art. 6(3).

<sup>34</sup> *Ibid.*

GDPR Article 6(4) outlines situation where the processing is not based on the intent it was initially collected for and is not based on the data subject's consent, therefore, to assure whether the processing is compatible with such purpose taking into account any link between the purposes of the initial intent of the processing to that of the further use. From this arises that if the personal data has been collected for the marketing purposes, for example, and received proper consent by the data subject to do so, therefore, in the case of sale of data to another controller who intends to use such data for the same purposes it is allowed if the requirements in Article 13 are satisfied. It should be borne in mind that according to the rights of the data subject the right to restrict processing is to be taken into the account, therefore, sale of data shall be based 1) on legal basis 2) allowing data subject to restrict such processing. If these fundamental requirements are met, sale of data is possible and lawful. If the intent of the processing has been changed, the privacy statement has to be changed and the data subjects shall be informed.<sup>35</sup>

In case of an insolvency procedure, when insolvency practitioner who is appointed in the name of the state to verify claims, administer and liquidate assets, according to GDPR would become a controller of insolvent company's personal data.<sup>36</sup> Article 6 further outlines that the basis for processing shall be laid down by the Union Law or Member State law to which the controller is subject to in case the processing is necessary for compliance with legal obligations.<sup>37</sup> Insolvency proceedings provides that the insolvency practitioner duties shall comply with the law of the Member State of the opening of proceedings particularly regarding procedures for the realization of assets.<sup>38</sup> From this arises, that insolvency practitioner turned data controller may in fact have legal obligation regarding liquidation of assets, therefore, such processing of data may be regarded as a legal obligation. Realization of the personal data assets for the purposes of solving insolvency shifts the initial purpose for which the data was collected, therefore in order to comply with the requirements set out by the GDPR having legal basis for such processing and complying with the data subjects rights is crucial for such processing to take place. The author looks at insolvency from a more detailed standpoint in chapter 3.

### **1.2.3. Transfers of Personal Data**

Transferring of personal data is one of the key areas that GDPR is safeguarding in respect to the data subjects. Transferring data to another country might be related to cross-border economic activities such as expansion of services. Transfers of data are also related to sale of such data and is a subject to such action for the purposes of solving insolvency. Transferring or selling data from one controller to another will amount to processing of such data in compliance with data protection laws. In fact that data transfers in today's world are not limited to cross-continental sales, therefore, looking into transferring such data to third countries is necessary. GDPR has set out concrete rules that shall be complied with regarding data transfers. This aspect is also related to the fact that

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<sup>35</sup> I Chu Chao. "How to sell customer data under the GDPR?" July 11, 2018. Available on: <https://www.linkedin.com/pulse/how-sell-customer-data-under-gdpr-i-chu-chao> Accessed: April 20, 2021.

<sup>36</sup> *Supra* note 1. Art. 2(5).

<sup>37</sup> GDPR, *Supra* note 7. Art. 6.

<sup>38</sup> *Supra* note 1. Art. 3.

potential buyers of data assets in case of insolvency might include third country purchasers. In order to comply with GDPR it outlines certain safeguards regarding those transfers.

Within the EU Member States, protection offered by GDPR travels with the data.<sup>39</sup> The same concept applies regarding non-EU Member States. The most important requirement for the data transfers is the adequacy principle. Adequacy decision is based on the level of adequate data protection in the respective country outside the EU.<sup>40</sup> European Commission has adopted adequacy decision, meaning that to those pre-determined countries, data can be transferred without further safeguards necessary.<sup>41</sup> Countries that has been recognized by European Commission as adequate are: Andorra, Argentina, Canada (commercial organizations), Faroe Islands, Guernsey, Israel, Isle of Man, Japan, Jersey, New Zealand, Switzerland and Uruguay, South Korea (pending).<sup>42</sup> In the scale of the world, this low number of adequate countries is worrisome. It means that countries not on this list do not have adequate safeguards, as outlined in GDPR, regarding data protection and security.

In case of absence of adequacy decision, these transfers can be conducted on the basis of derogations set out in Article 49. Article 49 of GDPR outlines derogations when data transfer to third countries or international organizations shall take place: 1) explicit consent by data subject, 2) on the basis of performance of a contract, 3) important reasons of public interest, 4) legal claims or defenses.<sup>43</sup> Relying on derogation on the basis of explicit consent shall not be regarded as reliable due to the data subjects ability to withdraw from the consent at any given time.<sup>44</sup> Similarly to previously stated, determining whether insolvency shall be regarded as legal claim consisting of legal obligations is further necessary in order to apply derogations set out in Article 49. In case of applicable derogation regarding data transfer, full compliance with the regulation is required.

The very recent developments that has impacted the international transfers of data outside of the EU is the decision by the Court of Justice of the European Union in the case Data Protection Commissioner v Facebook Ireland Limited and Maximillian Schrems whereas the Court invalidated the EU-US Privacy Shield upholding the validity of standard data protection clauses approved by the Commission's decision in 2010.<sup>45</sup> Standard data protection clauses includes already previously mentioned adequacy of protection and with respect to privacy and fundamental rights and freedoms. This decision has complicated international transfers of data to the U.S.

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<sup>39</sup> European Commission, "What rules apply if my organization transfers data outside the EU?" Available on: [https://ec.europa.eu/info/law/law-topic/data-protection/reform/rules-business-and-organisations/obligations/what-rules-apply-if-my-organisation-transfers-data-outside-eu\\_en](https://ec.europa.eu/info/law/law-topic/data-protection/reform/rules-business-and-organisations/obligations/what-rules-apply-if-my-organisation-transfers-data-outside-eu_en) Accessed: April 20, 2021.

<sup>40</sup> European Commission, "Adequacy decisions. How the EU determines if a non-EU country has an adequate level of data protection." Available on: [https://ec.europa.eu/info/law/law-topic/data-protection/international-dimension-data-protection/adequacy-decisions\\_en](https://ec.europa.eu/info/law/law-topic/data-protection/international-dimension-data-protection/adequacy-decisions_en) Accessed: April 20, 2021.

<sup>41</sup> *Ibid.*

<sup>42</sup> *Ibid.*

<sup>43</sup> GDPR, *Supra* note 7. Art. 49.

<sup>44</sup> Your Europe, "Data Protection Under GDPR" Available on: <https://europa.eu/youreurope/business/dealing-with-customers/data-protection/data-protection-gdpr/> Accessed: April 21, 2021.

<sup>45</sup> Court of Justice: Judgment in Data Protection Commissioner v Facebook Ireland Limited and Maximillian Schrems (Grand Chamber) of 16 July 2020. ECLI identifier: ECLI:EU:C:2020:559.

specifically, therefore, also may complicate situations regarding data transfers for the purpose of the insolvency procedures.

### 1.3. European Convention of Human Rights

European Convention of Human Rights has outlined rights regarding personal data. ECHR is an instrument of the Council of Europe that is an international organization with 47 members, thus is in wider recognition than the EU Charter of Fundamental Rights. Article 8 of ECHR states that persons have rights regarding their personal and family life and no interference by a public authority shall be exercised with an exception in accordance with law, national security, public safety, economic well-being, as well as prevention of disorder and crime, protection of health and morals, and freedom and rights of others.<sup>46</sup> Case-law based on the convention leads to the fact that Article 8 is interpreted as referring to the right to data protection, thus, gives persons rights regarding personal data, therefore, safeguarding their utilization without proper consent. Relating to storage and usage of personal data judgement in *S. and Marper v. the United Kingdom* states

[...] The domestic law should notably ensure that such data are relevant and not excessive in relation to the purposes for which they are stored; and preserved in a form which permits identification of the data subjects for no longer than is required for the purpose for which those data are stored [...]<sup>47</sup>

This case was in relation with biometric data samples, however, the court ruled that there has been a violation of Article 8. Personal data operations that violates Article 8 have been determined in different contexts such as evidence for use in court cases (*Ivashchenko v. Russia, 2018*), compulsory personal data communication (*Aycaguer v. France, 2017*), disclosing personal data (*Mockutė v. Lithuania, 2018*).

Another aspect that ECHR outlines is in Protocol No. 1 regarding protection of property and possessions.<sup>48</sup> A person has a right to own and possess property that belongs to them, therefore, granting rights for that property. Protocol No. 1 has been interpreted in case-law as property in possession such as hard drive, server, computer containing personal data, for the purposes of criminal investigation resulting in seizures of such property has been regarded in breach of Protocol No. 1, based on the fact that such property has not been an object of criminal offence as in *Kruglov and Others v. Russia* and in the context of prolonged retention of such property in *Pendov v. Bulgaria*.<sup>49</sup> In both of these cases, the Court held that there had been a violation of Protocol No. 1.

The EU Charter of Fundamental Rights has outlined personal data protection in much extensive detail compared to ECHR. The Charter, binding within the Union, outlines Protection of personal data in Article 8. Similar to that of what GDPR provides, right to protection of personal

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<sup>46</sup> European Convention on Human Rights, Article 8. Available on: [https://www.echr.coe.int/documents/convention\\_eng.pdf](https://www.echr.coe.int/documents/convention_eng.pdf) Accessed: April 21, 2021.

<sup>47</sup> *S. and Marper v. the United Kingdom* [2008] ECHR 1581.

<sup>48</sup> *Supra* note 46. Protocol No. 1.

<sup>49</sup> Guide on case-law of the Convention – Data Protection. Page 72. Available on: [https://www.echr.coe.int/Documents/Guide\\_Data\\_protection\\_ENG.pdf](https://www.echr.coe.int/Documents/Guide_Data_protection_ENG.pdf) Accessed: April 21, 2021.



data belonging to a person and right to have that data rectified.<sup>50</sup> The Charter also points out the basis of consent regarding use of a person's data. In the EU based on GDPR, ECHR, the Charter people have extensive rights regarding their personal data and restricting the use of that data for unsolicited purposes, the question remains – what happens to our data when a company becomes insolvent? The Charter Article 17 sets out rights to property similar to ECHR Protocol No.1. It states that everyone has a right to own, use, dispose of and bequeath their lawfully acquired possessions.<sup>51</sup> It also states that Intellectual property shall be protected.<sup>52</sup> Exceptions include conditions under which deprovision is provided for by law.

Like many other legal aspects, congruence to fundamental rights is crucial. Above all, such rights protect our privacy, dignity and offer equality amongst people. It is rather expected that personal data privacy issues are looked at within the concept of privacy. Considering that personal data consists of fundamental information about an individual, relieving sensitive information that shall be protected, persons inevitably have rights to data concerning them. Privacy is a value that we have right to, therefore, it shall be respected and expected.

#### **1.4. Data and Property Rights**

Discussion on data and property rights shall be continued in order to understand this concept under GDPR. The concept of data being treated and characterized as property arises from scientific research regarding information as physical reality conducted by Rolf Landauer in 1991.<sup>53</sup> Trading of personal data has gained its popularity, thus assigning characteristics of ownership rights to its acquirer. Data controllers are aspiring to claim some sort of property rights regarding personal data that has been processed and generated using technology that creates pseudonymized personal data, due to the resources required for such processing to be put in place.<sup>54</sup> Further characterization of data as a property arises from the modern digital trade where transferring, licensing and selling personal data has occurred.<sup>55</sup> Data as a property concept is rather complicated. Based on GDPR, data controllers can use the data of the data subject according to strict arrangements between them, thus, not allowing data controllers to have exclusive possession of such data.<sup>56</sup> Exclusivity is overturned by the fact that data subject can provide the same information to another data controller. Data controller has a legitimate interest in the personal data, moreover in cases that involves allocation of resources in order to properly disguise personal information as required by GDPR to protect themselves from this information being taken by other data controller, therefore, legitimate

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<sup>50</sup> Charter of Fundamental Rights of the European Union. Article 8. *OJ C* 326, 26.10.2012. Available on: [http://data.europa.eu/eli/treaty/char\\_2012/oj](http://data.europa.eu/eli/treaty/char_2012/oj) Accessed: April 21, 2021.

<sup>51</sup> *Supra* note 50. Art. 17.

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

<sup>53</sup> Rolf Landauer, "Information is Physical," *44 Physics Today* (1991): pp. 23–29. Accessed: April 25, 2021. doi: 10.1063/1.881299

<sup>54</sup> Huang, Jie (Jeanne). "Applicable Law to Transnational Personal Data: Trends and Dynamics." *German Law Journal* 21, no. 6 (2020): 1283–1308. Available on: doi:10.1017/glj.2020.73. Accessed: April 25, 2021.

<sup>55</sup> *Ibid.*

<sup>56</sup> *Ibid.*

interest is justifiable and understandable.<sup>57</sup> However, legitimate interest is not the only one of the legal bases for data processing under GDPR, Article 6, and recital 41 outlines that legal basis or legislative measure shall be foreseeable to persons that are subject to it and based on the case law of the Court of Justice of the European Union and the European Court of Human Rights.

GDPR outlines that rights regarding personal data are to data subjects. This regulation does not specify property rights of the data controller. As previously found, GDPR outlines aspects regarding processing of personal data in possession in case requirements for such processing are in place.

## **1.5. Social Media and Big Data**

One of the most common uses of communication through internet goes to social media platforms. They have facilitated communication of people around the world and offering services to help businesses develop and market their products. Social media platforms shall comply with data protection laws, due to the fact that in order to sign up to use such platform, wide range of personal data is being collected. In fact that social media is used across the world, involving many data subjects from different countries and, thus, legislations, looking at social media as a large component of personal data processing is necessary. To understand what data is collected and how it is further processed is outlined in this section.

Social media platforms have been a subject to a lot of controversy regarding personal data collecting and processing. For the purposes of this research it is rather important to look at social media platforms such as Facebook, regarding their compliance with GDPR for protection of the EU users and their data processing and those in the U.S., particularly the state of California, where the majority of social media platforms such as Facebook and Twitter have their headquarters. It is known that the U.S. does not have extensive data protection laws in place, therefore, rising concern regarding our data safety. Facebook has over 2.7 billion active monthly users globally as of second quarter of 2020.<sup>58</sup> Considering that most businesses have created a Facebook or Twitter page to market and interact with their customers, it becomes a subject of the company's assets and tools for the operations. It has also considerably become a desirable asset for the competitors, therefore, in case of insolvency a subject of potential sale. These pages contain a lot of customer information, allowing to determine their preferences and interests, thus, allowing businesses to understand and target their marketing campaigns.

As mentioned previously, social media pages such as Facebook are a subject to GDPR as well. Rightfully so, due to the extensive personal information they collect upon people signing onto their platform. Without our knowledge, social media pages may be revealing about us more than we would assume. Amount of usage correlates with the scale of information available. If we use

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<sup>57</sup> *Ibid.*

<sup>58</sup> H. Tankovska, "Facebook: number of monthly active users worldwide 2008-2020" Feb 2, 2021. Available on: <https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/> Accessed: April 25, 2021.

Facebook, for example, our friends, likes, location and interests tell us more than we would like to believe. Since day one of us signing up to use such platform data analyzing systems has been collecting and analyzing information about us in order to provide us with even more information we would like to see.

Further, the fact that social media simply collects our personal information is not a sufficient conclusion. Such personal data is further used in order to fuel businesses marketing strategies, using analytical tools and software that facilitates such operations. Social media is powered by the big data.<sup>59</sup> Big data is relatively recent term for data of information technologies in large quantities derived from databases, personal and transactional information.<sup>60</sup> Big data is what we understand with data that is no longer in a size of a spreadsheet, but large quantities of data that require more sophisticated storing and processing technologies. Main characteristics of big data are high volume, high velocity and high variety.<sup>61</sup> Big data is not a type of data in itself but it rather corresponds to its complexity. Big data is what has taken the world by a storm, creating enormous amounts of it every second, every minute, every day. Sources of big data involve mobile devices, social media, artificial intelligence and internet of things.<sup>62</sup> Big data is being collected at such volume and speed, that instantly generates high value of information.

It is very easy to see why big data is so beneficial to a business or enterprise. It allows us to enter probably the most valuable and vulnerable side of people – the way we think. Usage of data points such as name, contact information, date of birth, gender, location, interests, likes, reactions, friends, device information, messages, employment, education, religious and political preferences etc. creates enough understanding of the user, therefore, allowing to apply targeted advertising and personalized information offering.<sup>63</sup> Facebook is also open about sharing their information with third party partners in order to improve their business by allowing them to use Facebook Business Tools. Their data policy states that they do not nor ever will sell users data, however, according to the policy in order to ensure their networks and companies to be free of charge, exchange of the data amongst its partners is present.<sup>64</sup> In theory Facebook does not receive money for exchanging data about their users to their partners, however, it might just bring them more value than a single transaction would. People might not be paying to use their service, although, it might be the case that people are paying in the form of data, that further allows Facebook to generate such outstanding profits. Free service, however, 85.96 billion trailing twelve months revenue that is mostly earned from digital advertising.<sup>65</sup> Considering that generation and collection of data is one of the main concepts Facebook uses, it comes at a great value. The same

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<sup>59</sup> Barr, *supra* note 6. p. 3.

<sup>60</sup> Martin Hand, Sam Hillyard, “Big Data? : Qualitative Approaches to Digital Research”, *Vol. First edition Studies in Qualitative Methodology*. Bingley, UK 2014: Emerald Group Publishing Limited. Page 54. Academic Search Complete (EBSCOhost).

<sup>61</sup> IBM “What is big data analytics?” Available on: <https://www.ibm.com/analytics/hadoop/big-data-analytics> Accessed: April 25, 2021.

<sup>62</sup> Barr, *Supra* note 6. p. 87.

<sup>63</sup> Facebook Data Policy. Available on: <https://www.facebook.com/policy.php> Accessed: April 25, 2021.

<sup>64</sup> *Ibid*.

<sup>65</sup> Facebook Stock. Available on: <https://finance.yahoo.com/quote/FB/key-statistics/> Accessed: April 25, 2021.

situation applies to public Wi-Fi access, where customers can use the service for free in exchange for acceptance of cookies, trackers and disclosing an email address to access the service.<sup>66</sup> This is the way we are paying with our data in order to use these services and platforms. Similar approach is taken by Instagram. Instagram uses End-User License Agreement where the user provides Instagram with non-exclusive license paid for with the content of the user.<sup>67</sup> The obtained personal data allows direct targeting of advertising and, thus, income from advertising companies in order to reach specific audience that might be interested in their products or services. Many people have raised questions whether their phone is listening to them due to the fact that they have had a conversation regarding a specific product or types of products and in short time there is an advertisement showing up on their social media feed of that specific product.<sup>68</sup> This is an example of complex algorithms and AI that considers the next targeted advertising based on the previous searches or clicks. This is the main reason data is so valuable in marketing and why many businesses are keen to obtain it.

As mentioned above, social media platforms such as Facebook and Twitter are subject to GDPR. Compliance regarding the EU data subjects shall be in place, therefore, safeguarding EU data subjects. For the purposes of this research, looking into social media and application of GDPR regarding data under their control was necessary due to the fact that case law on insolvency and data assets involves social media platforms as further discussed in chapter 3 subchapter 3.4.

To summarize findings in this chapter 1) GDPR is the most extensive data protection law in the world safeguarding controlling and processing of data subjects personal information. Personal data under GDPR is structured data that includes identifiers such as mentioned in section 1. 2) Personal data can be sold if compliance with GDPR is extensive and proper, requiring one of the legal bases outlined in Article 6 such as proper consent of the data subject or compliance with a legal obligation meanwhile offering data subject an option to restrict and object to such processing of personal data. Personal data processing shall comply with the findings in section 1.2.2 and Article 6 of GDPR. 3) Transfers of data from one controller to another requires consent and legal basis for such transfer such as complying with a legal obligation. Transfers of data from data controller to processor does not require legal basis for such transfer. 4) GDPR does not specify property rights of the data controller. 5) Under GDPR personal data protection is regarded as a fundamental right, therefore, in compliance with the Charter and TFEU. Privacy as a value we have rights to is outlined under ECHR, thus, European Court of Human Rights has determined this aspect under Article 8 of the ECHR. Protocol 1 has set out protection of property and possessions, therefore, this aspect relating to personal data has also been determined by the Court. 6) Social media platforms in essence have been set up in a way that we pay with our data in order to be using this platform, that further generates large profits to the companies. In the case of Instagram, which

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<sup>66</sup> Gianclaudio Malgieri and Bart Custers, “Pricing Privacy – The Right to Know the Value of Your Personal Data” Computer Law & Security Review (2017). Available on: <https://ssrn.com/abstract=3047257> Accessed: April 25, 2021.

<sup>67</sup> Instagram Terms of Use. Available on: <https://help.instagram.com/478745558852511> Accessed: April 25, 2021.

<sup>68</sup> Nathan Pettijohn, “Of Course Your Phone Is Listening To You” 2019. Available on: <https://www.forbes.com/sites/nathanpettijohn/2019/09/03/of-course-your-phone-is-listening-to-you/> Accessed: April 25, 2021.

is owned by Facebook, users are paying with their content for a non-exclusive license. These platforms are also subject to GDPR.

## 2. ASSETS

Over time any operating business obtains many assets over the course of its operations. Word assets derives from Latin word *ad satis* (to sufficient), and in the legal context means to be able to satisfy debts.<sup>69</sup> International Accounting Standards Board (hereinafter, IASB) defines assets as follows: A present economic resource controlled by the entity as a result of past events.<sup>70</sup> The main resource where to find information about the company's assets is their financial statements. The financial statement where assets are recorded is the balance sheet. Balance sheet is a statement of financial position at a point in time.<sup>71</sup> Balance sheet gives a great understanding of how the company is doing, however, it does not fully determine the value of the business. Some assets might be valued at a certain price, however, bringing much more value to the company.

Assets are key for a business operations, its profitability, financial position and investment potential. Each asset has its value that can be determined using well-established models and approaches, therefore, allowing business to sell them, in order to overcome financial difficulties and avoid becoming insolvent. There are two groups of assets - tangible and intangible. Tangible assets such as cash, equipment, machinery, vehicles, office and management buildings possess high value to the company and determination of their value is relatively easy and based on methods that are reliable and consistent.<sup>72</sup> Intangible assets are non-physical assets such as intellectual property.<sup>73</sup> Looking more extensively into intellectual property evaluation is required due to its corresponding nature to data assets. Characteristics of data are similar to intangible assets, therefore, determining whether the same valuation methods as applied to IP asset valuation are applicable to data assets.

In this chapter, the author closely analyses what are the standards of value in an insolvency procedure, what type of assets are most likely to be allocated for the purposes of solving company's insolvency, whether data assets falls within intangible asset category similar to IP assets and is IP asset evaluation methods sufficient for data asset evaluation for the purposes of asset further distribution. Analysis of International Financial Accounting Standards is conducted in order to see where data assets lie within financial reporting practices.

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<sup>69</sup> David Alexander and Christopher Nobes, "Financial accounting: An international introduction." Essex: Prentice Hall 2<sup>nd</sup> Edition, 2004.

<sup>70</sup> International Financial Reporting Standards. Available on: <https://www.iasplus.com/en/standards> Accessed: April 26, 2021.

<sup>71</sup> Bauer, *supra* note 5.

<sup>72</sup> *Ibid.* p. 653.

<sup>73</sup> Thomas Ewing "A Practical Guide for Valuing Intangible Assets in Research and Development Institutions" Geneva, April 11 to 15, 2016, page 7. Available on: [https://www.wipo.int/edocs/mdocs/mdocs/en/cdip\\_17/cdip\\_17\\_inf\\_2.pdf](https://www.wipo.int/edocs/mdocs/mdocs/en/cdip_17/cdip_17_inf_2.pdf) Accessed: April 26, 2021.

## 2.1. Standards of Value

In order to apportion certain value to an asset, it is important to understand standards that apply when determining value of certain assets. Valuing assets for the purposes of insolvency has been an established practice that allows better allocation of these assets.

Market value is price determination based on the price at which an asset passes from a seller to a buyer.<sup>74</sup> This type of value is commonly used in real estate price determination, allowing the market and demand to set the price based on the exchange between the two parties. Market value is based on reasonable knowledge about the asset, therefore, setting the most appropriate price for it.

Fair value is price allocation post transaction, in other words a price that is determined after the transaction based on the assumptions that market participants would use in order to price the asset.<sup>75</sup> Fair value is based on the usage of the asset, considering the possible return or contribution of having obtained this asset. This standard involves revaluation of assets from a balance sheet date and revaluation of those assets to its fair value.<sup>76</sup>

When a company is facing bankruptcy and liquidation of their assets is necessary, then a key role is attributed to the assets that has selling value.<sup>77</sup> Assets that have value that are able to pay back its creditors are the main contributors in the insolvency proceedings. Assets that are the easiest to determine its value and also bringing the most significant contribution to the insolvent business are tangible assets.

In insolvency proceedings balance sheet it usually the only financial statement that is enclosed in the court documents.<sup>78</sup> Kinga Bauer in her research on fixed asset valuation when facing bankruptcy outlines the problematic issue regarding balance sheet and its adequacy for evaluating enterprise's economic position.<sup>79</sup> As per most insolvency legislations, debtor must submit the information regarding their assets and their valuation, thus enabling further assessment of the enterprise's economic situation and distribution of their assets. The practice provides that assets with a commercial value that can be sold further are to carry significant importance in an insolvency proceedings. Asset value presented by the debtor will most likely reflect on the estimated value, insolvency practitioners might focus on selling value that relates to the fair value of the asset, however, relying on market value should be practiced in order to benefit the debtor. In

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<sup>74</sup> World Intellectual Property Organization. Module 11: IP Valuation. Available on: [https://www.wipo.int/export/sites/www/sme/en/documents/pdf/ip\\_panorama\\_11\\_learning\\_points.pdf](https://www.wipo.int/export/sites/www/sme/en/documents/pdf/ip_panorama_11_learning_points.pdf) Accessed: April 27, 2021.

<sup>75</sup> *Ibid.*

<sup>76</sup> Krzysztof Gawron, Alina Yakymchuk and Olena Tyvonchuk, "The bankrupt entity's assets valuation methods: Polish approach. Investment Management and Financial Innovations," 2019. 16(3), 319-331. Accessed: April 26, 2021. doi:10.21511/imfi.16(3).2019.28.

<sup>77</sup> Bauer, *supra* note 5. p. 653

<sup>78</sup> *Ibid.*

<sup>79</sup> *Ibid.*

research done by David Laro and Shannon P. Pratt they found that in case of the enterprise needing to sell their assets in order to pay their debts, indication of pending bankruptcy proceedings lowers the selling price significantly than in the case where buyer is not aware of such circumstances.<sup>80</sup> Such situations often arise when selling real estate assets, given that the debtor is in urgent need of the money, hence, buyer getting a good deal. This situation constrains the debtor to be able to recoup the most adequate amount of money for its assets, therefore, resulting in losses for both debtor and also creditor.

## **2.2. Intangible Assets**

Type of asset that a company can have ownership rights of is intangible assets. Intellectual property that includes patents, copyrights, trademarks and trade secrets is a set of intangible things that protects companies non-physical assets. “(...) patents concern functional things, copyrights concern artistic expression, and trademarks protect the word or symbol that identifies a given product in the mind of the consumer.”<sup>81</sup> Intellectual property is crucial for safeguarding assets that are exclusive to the respective company, giving protection over essential components that makes the company differ from others providing unique properties.

## **2.3. IP Asset Evaluation**

Intellectual property as an asset evaluation is determined by various factors that are applicable in order to assign a monetary value. Price and value are different measures that can be assigned. Price is the monetary value the asset can generate when traded in the market or how much money the buyer and seller are willing to exchange in the transaction.<sup>82</sup> Value on the other hand is the potential future economic benefit that the asset is expected to generate in case of the transaction for the benefit of the acquirer. World Intellectual Property Organization (hereinafter – WIPO) has outlined the process in order to determine the monetary value of IP assets. Evaluation of IP assets is necessary in order to sell, license or enter commercial agreements as well as provide economic life. One of the triggers for IP asset valuation is insolvency.<sup>83</sup> IP assets can be legally defined as having qualitative characteristics and standards and also economically defined in terms of economic benefit.<sup>84</sup> In both perspectives IP is classified as an asset, except from the legal perspective of an asset that has no economic value nor contribution to production or income. For the purposes of this thesis, the emphasis on economic value should be looked at, therefore, determination of value as future economic benefit. Perquisites for IP asset valuation is following:

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<sup>80</sup> David Laro, Shannon P. Pratt, “Business Valuation and Federal Taxes : Procedure, Law and Perspective.” (2011) Vol. 2<sup>nd</sup> ed. Hoboken, NJ: Willey. Academic Search Complete (EBSCOhost).

<sup>81</sup> Timothy Lee Wherry, “Intellectual Property : Everything the Digital-Age Librarian Needs to Know” Chicago ALA Editions of the American Library Association. 2008. Academic Search Complete (EBSCOhost).

<sup>82</sup> WIPO, *Supra* note 74.

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

<sup>84</sup> *Ibid.*

1. It must be separately identifiable (subject to specific identification and with a recognizable description)
2. There should be tangible evidence of the existence of the asset (e.g. a contract, a license, a registration document, record in financial statements, etc.)
3. It should have been created at an identifiable point in time.
4. It should be capable of being legally enforced and transferred.
5. Its income stream should be separately identifiable and isolated from those of other business assets.
6. It should be able to be sold independently of other business assets.
7. It should be subject to destruction or termination at an identifiable point in time.<sup>85</sup>

IP also corresponds by structure to the data assets, as non-physical assets, therefore, intangible asset valuation methods may be applicable to determine data asset value. Based on above mentioned prerequisites of IP asset valuation, determining whether data assets qualify is necessary.

1) Data assets are separately identifiable, as mentioned in the chapter 1, as “information located in a fixed field within a defined record or file” and “is accessible by using specific criteria.”<sup>86</sup> 2) Personal data that has been collected online is stored on a hard drive or server that has a physical form. Personal data can also be collected physically, meaning directly from a person, filling their personal information within a questionnaire, for example. In order to comply with GDPR, Article 30 provides that the data controller and processor shall keep a record of processing activities. Article 30 (3) states “The records referred to in paragraphs 1 and 2 shall be in writing, including in electronic form.” These records can provide evidence of the existence of the asset. 3) Personal data creation time is easily identifiable, based on time it was collected. 4) Personal data is legally enforced under GDPR and transferrable referring to Article 6, 10 and 12. 5) In order to determine income stream for data assets return on asset (ROA) can be applied to derive return on data assets specifically. 6) Data assets can be sold independently of other assets. 7) Data assets can be destroyed or deleted at a given point in time. Based on these findings, data assets do qualify for IP asset valuation methods.

### **2.3.1. Income Method**

In IP asset valuation three main methods are used: income method, market method and cost method. Income method is based on valuation of an asset and its ability to directly or indirectly generate positive cash flow.<sup>87</sup> Consisting of three main components, such as projected cash flow, the economic life of the IP, and the discount rate,<sup>88</sup> income method allows to determine the worth of the asset based on the expected economic income it is expected to produce. In order to determine the value of the IP asset using income method the following measures are to be taken into account:

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<sup>85</sup> WIPO, *Supra* note 74.

<sup>86</sup> GDPR, *Supra* note 7. Art. 4,6.

<sup>87</sup> Paul Fignor, David Orozco, “Intangible Asset & Intellectual Property Valuation: Intangible Asset & Intellectual Property Valuation: A Multidisciplinary Perspective A Multidisciplinary Perspect.” p. 11. June, 2016. Available on: [https://www.wipo.int/export/sites/www/sme/en/documents/pdf/ip\\_valuation.pdf](https://www.wipo.int/export/sites/www/sme/en/documents/pdf/ip_valuation.pdf) Accessed: April 27, 2021.

<sup>88</sup> *Ibid.*



1. Gross or net revenues;
2. Gross profit;
3. Net operating income;
4. Pretax income;
5. Net income (after tax);
6. Operating cash flow;
7. Net cash flow;
8. Incremental income;
9. Cost savings.<sup>89</sup>

These measures allows us to determine the future cash flows associated with the asset.<sup>90</sup> There are analytical methods for income methods – Direct capitalization and discounted cash flow. Direct capitalization measures economic income for a period of time dividing that by capitalization rate.<sup>91</sup> Capitalization rate is an appropriate investment rate of return.<sup>92</sup> Discounted cash flow is an appropriation of economic measure by present value discount rate for a projected period of economic income.<sup>93</sup> Timing and discount rates for this method are crucial to include in order to determine the most appropriate value. These measures can properly show the attachable value to the IP asset based on the cash flow, their distribution and added value it has provided for the company. In relation to data assets, this method can be applied using with and without method, meaning, determining impact on cash flows in a scenario “with” and “without” data asset, therefore, extracting data asset value.<sup>94</sup> According to study done by Infocomm Media Development Authority of Singapore, income method for data valuation results in highest potential value assessment.<sup>95</sup>

### 2.3.2. Market Method

Market method is based on the price actually paid for a similar asset applying comparable circumstances.<sup>96</sup> This method aligns IP assets to its comparable based on the perception of the market value.<sup>97</sup> It reflects how much money the asset is worth based on the demand for such asset

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<sup>89</sup> WIPO, *Supra* note 74.

<sup>90</sup> David Goldheim, Gene Slowinski, Joseph Daniele, Edward Hummel, and John Tao. “Extracting Value from Intellectual Assets.” *Research Technology Management* 48 (2) 2005. pp. 41–48.  
doi:10.1080/08956308.2005.11657304.

<sup>91</sup> WIPO, *Supra* note 74.

<sup>92</sup> Radhika Pandey, “Intellectual Property Valuation: A Critical Aspect of IP Securitization,” (May 26, 2006). p. 6. Accessed on April 27, 2021. <http://dx.doi.org/10.2139/ssrn.904604>

<sup>93</sup> WIPO, *Supra* note 74.

<sup>94</sup> Deloitte. “Data Valuation: Understanding value of your data assets” Available on: <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Finance/Valuation-Data-Digital.pdf>

<sup>95</sup> Infocomm Media Development Authority. “Guide to Data Valuation for Data Sharing” Available on : <https://www.imda.gov.sg/-/media/Imda/Files/Programme/Data-Collaborative-Programme/Guide-to-Data-Valuation-for-Data-Sharing.pdf?la=en>

<sup>96</sup> Ewing, *supra* note 73. p. 50.

<sup>97</sup> *Supra* note 94.

and their value currently on the market.<sup>98</sup> This value tends to fluctuate and vary due to constantly changing market and demand. Comparability is determined based on various factors such as nature of the asset, legal protection, exclusivity, industry, geographical coverage, cross licensing, risks etc.<sup>99</sup> In order to compare the IP's in the most accurate way, as many as possible factors should be looked at to narrow down the comparability. More accurate the comparison, more accurate the valuation. This method is also closely related to the source of the comparable assets and "industry standard", such as statutory/official filings, published cases, agreements, databases and publications.<sup>100</sup> Market method is relatively simple and based on the current market position, however, given the unique nature of the IP's, it is hard to find comparable or similar IP assets due to the specific nature that is an essence of the IP.<sup>101</sup> Legal agreements of previous transactions for asset valuation stand a good ground for comparability, however, such agreements usually are confidential or not disclosed. Taking all the factors into consideration, this is a rather imprecise way to determine the IP asset value.

### 2.3.3. Cost Method

Cost method is based on the costs associated if a similar or exact IP asset is to be developed.<sup>102</sup> This method is used when the IP asset is not generating any income. When reassessing the value of an asset obtained a few years ago, inflation will be added to the asset's developing costs, thus determining current value.<sup>103</sup> Furthermore, obsolescence will be adjusted to determine the final value of the IP asset. Obsolescence includes various types of deterioration of which functional (related to the excess operational costs), technological (technological advancement that devalues the excising IP) and economic (IP's contribution to return on investment) deterioration should be taken into account.<sup>104</sup> Each of these aspects has to be considered due to their impact on the assets value and to come to the most optimal evaluation.

The cost method further splits into two variants – reproduction cost method and replacement cost method. Reproduction cost method determines the costs that would be allocated in order to create an exact replica of that IP asset in order to understand the value.<sup>105</sup> Reproduction costs are associated with current prices that are required for reproduction of the replica IP. Replacement costs are associated with costs that are required in order to create a functionally equal asset to the subject IP but in a form that is quite different.<sup>106</sup> Benefit for this method may include that the replacement IP might actually have better functionality and utility than the subject IP. To

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<sup>98</sup> International Chamber of Commerce, "Handbook on valuation of intellectual property assets", page 17. Available on: <https://iccwbo.org/content/uploads/sites/3/2019/06/icc-handbook-valuation-ip-assets-we.pdf> Accessed: April 30, 2021.

<sup>99</sup> WIPO, *Supra* note 74.

<sup>100</sup> WIPO, *Supra* note 74.

<sup>101</sup> Pandey, *supra* note 92.

<sup>102</sup> *Ibid.*

<sup>103</sup> *Supra* note 98. p. 21.

<sup>104</sup> WIPO, *Supra* note 74.

<sup>105</sup> Harald Wirtz. "Valuation of Intellectual Property: A Review of Approaches and Methods" Vol. 7, No. 9; May 2012. p. 41. Accessed on April 27, 2021. doi:10.5539/ijbm.v7n9p40.

<sup>106</sup> *Ibid.*

then determine the value of the IP asset, blending of these methods and using the following formulas:

- a) Reproduction Cost - Curable Functional and Technological Obsolescence = Replacement Cost
- b) Replacement Cost - Economic Obsolescence - Incurable Functional and Technological Obsolescence = Value<sup>107</sup>

This method is rather an additional way to determine the value, due to the nature of each IP asset and their application and specification. Each IP serves its purpose for the company differently, therefore, taken upon this framework would rather give an estimate than precise evaluation. This method will rather value for direct associated costs of the IP rather than highest attainable price.<sup>108</sup>

Regarding IP assets and insolvency, first of all, determination of IP assets value is one of the main steps taken for this procedure. IP asset valuation falls into the same category as physical asset evaluation when a company is facing insolvency or bankruptcy. After extensive look into IP asset evaluation methods, it is clear that evaluating intangible assets is not as black and white as for other types of assets. The characteristic of an IP is so unique that is also the whole idea behind having an IP for your business in the first place. The main idea of an IP is to differentiate among other competitors. In most cases the IP brings more benefit considering its legal benefits rather than economic contribution. Based on above mentioned valuation methods, determining which one to apply shall be based on each individual circumstances regarding that IP and the information that is disclosed or available.

## **2.4. International Financial Reporting Standards**

International Financial Reporting Standards (hereinafter, IFRS) are set by IASB in order to facilitate and bring transparency to financial reporting across the world.<sup>109</sup> IFRS standards are currently adopted by 166 jurisdictions allowing consequent transparency, accountability and efficiency across the globe.<sup>110</sup> These standards are primarily used by publicly accountable companies and financial institutions such as banks.<sup>111</sup> These standards gives a great insight on different positions within balance sheet. These are accounting principles that are applied by many accountants across the globe. Looking at the standard concerning intangible assets is further discussed in order to determine whether personal data and data assets shall be considered as intangible assets and what valuation method may be applicable.

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<sup>107</sup> WIPO, *Supra* note 74.

<sup>108</sup> WIPO, *Supra* note 74.

<sup>109</sup> International Reporting Standards. Who we are. Available on: <https://www.ifrs.org/about-us/who-we-are/> Accessed: April 30, 2021.

<sup>110</sup> International Financial Reporting Standards. Use of IFRS standards. Available on: <https://www.ifrs.org/use-around-the-world/use-of-ifrs-standards-by-jurisdiction/> Accessed: April 30, 2021.

<sup>111</sup> *Ibid.*

According to ISA 38 attributes to intangible assets are identifiability, power to obtain benefits, future economic benefits (revenues or reduced future costs).<sup>112</sup> For the purposes of asset allocation in an insolvency proceeding understanding ISA defined intangible assets is important. ISA 38 further states that examples of intangible assets includes data bases and customer lists.<sup>113</sup> Based on this definition, it is clear that data assets fall under intangible assets, therefore, intangible asset valuation methods such as for IP assets are applicable in order to determine the value. The requirements according to ISA 38 are that such assets are separable, meaning that it can be sold, transferred, exchanged individually or together with a contract.<sup>114</sup> Based on GDPR Chapter 5 and as explained in paragraph 1.2.2. personal data does correspond to these characteristics and can be either sold or transferred separately.

Acquisition of intangible assets according to ISA 38 is by a separate purchase, as part of business combination, exchange of assets or self-creation (internal generation).<sup>115</sup> Initially created data or customer list by the entity according to GDPR Article 24 requires implementation of technical and organizational measures such as pseudonymization to ensure compliance with the regulation, therefore, such measures does involve internal generation of the data and its storage within the respective company. Thus, according to ISA 38 data assets does correspond to an intangible asset.

Another criterion by ISA 38 is recognition of the intangible asset.<sup>116</sup> Recognition criterion includes that the asset has probable future economic benefits for the entity and the cost of the asset can be measured reliably.<sup>117</sup> It is stated that the probability recognition criterion is considered satisfied when intangible asset is acquired separately or in a business combination.<sup>118</sup> Personal data does fulfill the probable recognition criterion based on the fact that it carries future economic benefit due to its application for marketing and other purposes and it is also satisfied based on the acquisition method, depending on the case, however, sometimes separately acquired by the entity.

Further, however, ISA 38 does not recognize internally generated customer lists as an asset, due to the difficulty of differentiating the costs from those of initial business development.<sup>119</sup> Customers list in this situation is the list of business customers containing personal information such as name, email address, for the purposes of future customer relationship maintenance. It means that this type of asset is not a subject for capitalisation or inclusion in the balance sheet as an asset and is to be displayed as expenses.<sup>120</sup> Internally generated assets are ones that are

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<sup>112</sup> ISA 38 retrieved from <https://www.iasplus.com/en/standards/ias/ias38> Accessed: April 30, 2021.

<sup>113</sup> *Ibid.*

<sup>114</sup> *Supra* note 112.

<sup>115</sup> *Ibid.*

<sup>116</sup> *Ibid.*

<sup>117</sup> *Ibid.*

<sup>118</sup> *Ibid.*

<sup>119</sup> Deloitte Learning Module IAS 38 Intangible Assets. Available on: [https://www.deloitteifrslearning.com/media/modules/1b01062f/sco/story\\_html5.html](https://www.deloitteifrslearning.com/media/modules/1b01062f/sco/story_html5.html) Accessed: April 30, 2021.

<sup>120</sup> Lloyd Austin "Accounting for intangible assets" page 67. Available on: <https://cdn.auckland.ac.nz/assets/uabsknowledge/English/uabr-archives/2007-volume-9-issue-1/v13i1-accounting-for-intangible-assets.pdf> Accessed: April 30, 2021.

developed within the firm.<sup>121</sup> Taking above stated into consideration, customer lists shall not be recognized as an asset on the balance sheet if internally generated, which is applicable in most cases, due to those being created within the entity, meaning, that they shall be recognized as expenses. However, customers lists are not the only one of the ways the personal data is structured, most likely including just basic personal information as mentioned above. Arising from this, personal data in company's possession might be much more complex than that reorganized in much more sophisticated ways. This includes building profiles on customers that expands well over just contact information, for example. Additionally in February 2002 decision by The International Financial Reporting Interpretations Committee was not to add the issue related to accounting of costs related to acquisition or generation of the information in an electronic database.<sup>122</sup> In its technical meaning customer lists and other assets similar in substance that are internally generated and not acquired through business combination, is not considered an asset on the balance sheet. This exemption of recognition does not apply to those customers lists acquired through business combination.

To conclude the above stated, assets that have selling value are subject to the insolvency proceedings. IP assets are similar in form and nature of personal data assets, therefore, whether or not inclusive on the balance sheet, the IP valuation method for data assets is applicable due to that being characterized as an intangible asset. Assets that are subject to insolvency are not always the only ones that are shown on the balance sheet. Income valuation method is the most suitable for data asset valuation, also resulting in the highest value assessment. IFRS classifies data assets under intangible assets, unless it is internally generated, which is a subject of discussion whether personal data is solely internally generated due to the different collecting methods it involves. Personal data in possession of a company might be much more complex than a simple list of customers and their email addresses, for example. Arising from findings in this chapter, data assets are indeed classified as an asset, therefore, possessing value for the respective company and serving benefit for an insolvency case.

### 3. INSOLVENCY

Success and failure are two concepts that are closely related to business. It is safe to say that most businesses may experience both at some point during their operations. Components that constitute a business are ever so often fluctuating, the economic and political climate constantly changing, thus many hurdles are expected to be overcome. One of the main components of any business is money. Money is an object that is portable, divisible, durable, and stable, and that serves the purpose of exchange, application of value, and a measure of worth.<sup>123</sup> This definition might be challenged due to rising popularity of crypto currency, that is no longer portable. However, money

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<sup>121</sup> *Ibid.*

<sup>122</sup> IAS 38 Costs of acquiring or developing content for electronic databases. Available on: <https://www.iasplus.com/en/meeting-notes/ifrs-ic/not-added/2002/ias-38-costs-of-acquiring-or-developing-content-for-electronic-databases> Accessed: April 30, 2021.

<sup>123</sup> Business Essentials, Ronald J. Ebert, Ricky W. Griffin. — 10th ed., Pearson Education, Inc. (2015) page. 552.

allows us to fund the operation, acquire assets, hire employees etc. Furthermore, earning money is also the main objective for any business operation. Often due to previously mentioned factors, companies may face financial problems that could potentially lead to being insolvent. Insolvency is a situation where a firm or an individual is unable to meet financial obligations to creditors that creates debt.<sup>124</sup> From a legal standpoint, insolvency is a legal action brought against the debtor for the purpose of restructuring the debt, rescue, reorganize or liquidate.<sup>125</sup> Insolvency is a very broad concept and differs significantly depending on national legislations, however, the general principle of asset distribution is rather unitary. Primary focusing on assets that have selling value, therefore, looking whether data assets may be sold for this purpose is further discussed.

The aim of this thesis is to understand whether a business has rights to the acquired personal data and whether this data can be transferred to the potential buyer in order to recoup the money to satisfy creditor's claims. In order to determine this aspect, it is not necessary to look at insolvency, bankruptcy and liquidation separately, but rather as a concept within which the company might have to distribute their assets specifically regarding personal data assets. Looking at the EU general approach and that of the U.S. is necessary to better understand the case law regarding this matter. First, general comments about insolvency will be mentioned and how those would affect personal data assets. Second, look at the E.U. and the U.S. insolvency procedure comparison and whether it significantly differs regarding personal data assets and thirdly, case law regarding this matter will be analyzed.

### **3.1. EU insolvency proceedings**

The EU has set out common rules regarding cross-border issues due to expanding business activities across EU countries, however, each country has their national laws regarding insolvency and its proceedings. According to Regulation (EU) 2015/848 (22) the result of widely differing substantive laws it is not practical to introduce insolvency proceedings with universal scope within the Union.<sup>126</sup> This corresponds to the fact that each Member State has their own legislation regarding insolvency proceedings. However, expanding of the internal market and cross-border involvement means that creditors and debtors are from more than one EU country, therefore, widespread ruling is necessary in order to offer proper solutions for all the parties involved in the insolvency procedure. Every year in the EU more than 200,000 companies goes bankrupt, meaning that many jobs are lost and the impact on economic well being that it has is substantial, therefore, solutions for safeguarding companies by providing constructive solutions for their conservation and recovery.<sup>127</sup> Common EU framework encourages international investors to trust with their

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<sup>124</sup> Corporate Finance Institute, Insolvency. Available on:

<https://corporatefinanceinstitute.com/resources/knowledge/finance/insolvency/> Accessed: May 1, 2021.

<sup>125</sup> *Supra* note 1. Art. 2(5).

<sup>126</sup> *Ibid.* Recital 22.

<sup>127</sup> European Commission, Věra Jourová, "Early restructuring and a second chance for entrepreneurs A modern and streamlined approach to business insolvency." Available on: [https://ec.europa.eu/info/sites/default/files/factsheet\\_-\\_a\\_modern\\_and\\_streamlined\\_approach\\_to\\_business\\_insolvency.pdf](https://ec.europa.eu/info/sites/default/files/factsheet_-_a_modern_and_streamlined_approach_to_business_insolvency.pdf) Accessed: May1, 2021.

cross-border investment, thus boosting Union's capital markets.<sup>128</sup> Internal markets are becoming much more open to cross-border investment allowing well-functioning of Capital Markets Union, thus expanding economic benefit within the Union.

Facilitating business functioning throughout the EU is crucial for the economic benefit and wellbeing. Introduction of regulations that encourage economic activity is necessary in order to stimulate the economy, provide a healthy business environment and create jobs, thus ensuring overall stability and beneficial contribution to the country's gross domestic product. The main goal of insolvency is to satisfy creditors while recouping what is left to then recover or dissolve the business. One of the main steps in insolvency is assessment of the value of the assets, therefore, allowing them to be distributed accordingly based on the amount of debt and who the money is owed to. Further in the next chapter, comparison of different assets and their evaluation is outlined, in order to compare different methods and whether those apply to data.

Regulation (EU) 2015/848 on insolvency proceedings states that "(22) [...] as a result of widely differing substantive laws it is not practical to introduce insolvency proceedings with universal scope throughout the Union [...]" As mentioned before, EU gives a common framework and also an ability to open main insolvency proceedings "[...] where debtor has the center of its main interests [...]" Regulation (EU) 2015/848 further provides an ability to open secondary insolvency proceedings in a Member State "[...] where the debtor has an establishment [...]" Secondary insolvency proceedings have effects limited to the assets located in that State.<sup>129</sup> This regulation provides coordination of the Member States and their insolvency proceedings in order to unify the Union. Regarding tangible assets the laws applicable are ones in the Member State where they are registered that is mentioned in Article 2 (9)(iv) under the authority of which the register is kept or where tangible assets are located (Article 2 (9)(vii)). Tangible asset registration is rather simple such as land register, vehicle registration which are in public registry, therefore, choice of Member State regarding those assets is easily determined. Similar approach is regarding issued shares, according to Article 2 (9)(i) shares issued by the company within the territory of the company's registered office. Other financial instruments shall be determined by the registry or accounts of the Member State where entries are made (Article 2 (9)(ii)). Regarding Intellectual Property and Patents, Member State where such rights are granted or owner has habitual residence or registered office. Following is a short breakdown of insolvency proceedings within some EU jurisdictions.

Insolvency proceedings are "(...) an aggregate of measures of a legal nature (...)"<sup>130</sup> Opening of the insolvency proceeding is ordered by the court in charge of the insolvency in that

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<sup>128</sup> European Commission, Insolvency proceedings. EU activities in the area of cross-border insolvency cases. Available on:

[https://ec.europa.eu/info/policies/justice-and-fundamental-rights/civil-justice/civil-and-commercial-law/insolvency-proceedings\\_en](https://ec.europa.eu/info/policies/justice-and-fundamental-rights/civil-justice/civil-and-commercial-law/insolvency-proceedings_en) Accessed: May 2, 2021.

<sup>129</sup> *Supra* note 1. Recital 23.

<sup>130</sup> Latvijas Maksātnespējas Likums (Latvian Insolvency Law), (01.11.2010). Chapter I Section 4. Available on: <https://likumi.lv/ta/en/en/id/214590-insolvency-law> Accessed: May 3, 2021.

state.<sup>131</sup> Arising from this the insolvency proceeding is a legal obligation ordered by the court, therefore, in correspondence with sub-chapter 1.2.2 it is a legal obligation for which the purpose of personal data processing is satisfied. Moreover the nature of complying with the insolvency law contains legitimate interest by which the debtor might more successfully satisfy the claims against them, therefore, corresponding to the findings about the GDPR compliance the legitimate interest for data processing will also be satisfied. Recital 47 states that one example of legitimate interest constitutes processing of personal data for the purposes of direct marketing. If the debtor in question processes personal data for the purpose of direct marketing and the buyer of such data is also intended to be used for such purpose, it constitutes legitimate interest. Further, the insolvency practitioner, administrator or trustee, depending on the jurisdiction, is then appointed and takes over the insolvent estate where the debtor then “(...) loses power of disposal in relation to the assets belonging to the estate (...)”<sup>132</sup> Insolvency practitioner duties includes distribution of the insolvent debtor’s assets. In relation to data assets, as mentioned in sub-chapter 1.2.2, insolvency practitioner becomes a data controller due to its position as a state officer acting according to the state regulations.<sup>133</sup> Further, assets that are subject to insolvency proceedings in most jurisdictions such as German, Estonian, Austrian are assets owned or belonging to the debtor.<sup>134</sup> After successful distribution of debtor’s assets to satisfy creditor’s claims, insolvency proceedings are terminated and the decision is published.<sup>135</sup> Any remaining debtor’s assets if there are such, reverts to the debtor.

Regulation (EU) 2015/848 further outlines personal data aspect in recital 83, which provides that the regulation “(...) respects the fundamental rights and observes the principles recognized in the Charter of Fundamental Rights of the European Union. In particular, this Regulation seeks to promote the application of Articles 8, 17 and 47 concerning, respectively, the protection of personal data, the right to property (...)”. This correlates to the findings in sub-section 1.4. regarding personal data and the right to property. Further recital 84 states that full compliance with Directive 95/46/EC of the European Parliament and of the Council within the framework of the regulation. This legal act has been repealed, therefore, Article 94 of GDPR states that references to the repealed directive shall be constructed as references to GDPR.<sup>136</sup> This is an indication that within the proceedings of insolvency, member states that are subject to this regulation that is legally binding and enforced throughout the EU shall comply with personal data protection laws throughout the proceedings including those related to sale of personal data assets.<sup>137</sup>

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<sup>131</sup> European Judicial Network, Insolvency – Germany. Available on: [https://e-justice.europa.eu/content\\_insolvency-474-de-en.do?member=1#toc\\_3](https://e-justice.europa.eu/content_insolvency-474-de-en.do?member=1#toc_3) Accessed: May 3, 2021.

<sup>132</sup> European Judicial Network, Insolvency – Austria. Available on: [https://e-justice.europa.eu/content\\_insolvency-474-at-en.do?member=1](https://e-justice.europa.eu/content_insolvency-474-at-en.do?member=1) Accessed: May 3, 2021.

<sup>133</sup> European Judicial Network, Insolvency – Estonia. Available on [https://e-justice.europa.eu/content\\_insolvency-474-ee-en.do?member=1](https://e-justice.europa.eu/content_insolvency-474-ee-en.do?member=1) Accessed: May 3, 2021.

<sup>134</sup> *Supra* note 131, 132,133.

<sup>135</sup> *Ibid.*

<sup>136</sup> GDPR, *Supra* note 7. Art. 94

<sup>137</sup> European Union. Regulation, Directives and Other Acts. Available on: [https://europa.eu/european-union/law/legal-acts\\_en](https://europa.eu/european-union/law/legal-acts_en) Accessed: May 3, 2021.



### 3.2. U.S. Bankruptcy Code

As a key player in the world economic playground, looking into U.S. bankruptcy laws is necessary in fact that most big data companies are based there. U.S. Bankruptcy Code was enacted in 1978 by Congress as “uniform Laws on the subject of Bankruptcies” authorized by United States Constitution Article I, Section 8.<sup>138</sup> Bankruptcies that are concerning businesses are outlined in Chapter 7 and Chapter 11 of the Code. Chapter 7 is concerning matters related to liquidation and Chapter 11 related to reorganization. Further looking at Chapter 5 is necessary to understand what is property within the bankruptcy estate.

Liquidation entitled by Chapter 7 of the Code is a court-supervised procedure, where the trustee takes over the bankrupt estate and distributes that to the creditors.<sup>139</sup> Estate is defined by the Code as following: “(...) all legal or equitable interests of the debtor in property as of the commencement of the case.”<sup>140</sup> Estate consists of the debtor’s property that is subject to the case. Chapter 7 considers asset cases when the creditor has filed a proof of claim and is, therefore, subject to distribution of the bankruptcy estate.<sup>141</sup> Further, section 704 (a) of Chapter 7 outlines duties of the trustee that includes: 1) collection and reduction to money the property of the estate, 2) responsibility of the property, 3) ensure proper performance of the debtor and 4) examine financial affairs of the debtor and proof of claims by the creditor.<sup>142</sup> In correspondence with the EU insolvency laws, the trustee is the insolvency practitioner or officer.

Chapter 11 is concerning cases of reorganization of the cooperation, sole proprietorship or partnership. The debtor then takes on an additional identity as debtor in possession that mean the debtor keeps the possession and control of the assets while undergoing reorganization under chapter 11, meanwhile performing all but investigative duties of a trustee.<sup>143</sup> Under chapter 11 reorganization, a business subject to such proceedings shall implement reorganization plan under subchapter II including following content: 1) specification of any claims or interests that are not impaired under the plan, 2) specification of treatment of claims or interests that are impaired under the plan, 3) provide adequate means for the plans implementation and actions for their satisfaction including retention by the debtor of any parts of the property of the estate and relevant transfers regarding the property of the estate.<sup>144</sup> This plan is then accepted by the court and proceeded for execution. After successful execution of the plan and satisfaction of the creditors, the case is then dismissed and the business is reorganized and can continue its operations with a new start.

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<sup>138</sup> United States Courts. Process – Bankruptcy Basics. Available on: <https://www.uscourts.gov/services-forms/bankruptcy/bankruptcy-basics/process-bankruptcy-basics> Accessed: May 4, 2021.

<sup>139</sup> *Ibid.*

<sup>140</sup> U.S. bankruptcy Code. Section 541. Available on: <https://www.usbankruptcycode.org/chapter-5-creditors-the-debtor-and-the-estate/subchapter-iii-the-estate/section-541-property-of-the-estate/> Accessed: May 4, 2021.

<sup>141</sup> *Supra* note 138.

<sup>142</sup> *Supra* note 140. Section 704.

<sup>143</sup> United States Courts. Chapter 11 – Bankruptcy Basics. Available on: <https://www.uscourts.gov/services-forms/bankruptcy/bankruptcy-basics/chapter-11-bankruptcy-basics> Accessed: May 4, 2021.

<sup>144</sup> *Supra* note 140. Section 1123.

Both of these chapters are subject to section 363 and 332. Section 363 provides that the trustee, after notice and a hearing, can use, sell, lease property of the estate unless there is a policy prohibiting transfer of personally identifiable information (hereinafter, PII) that restricts trustee to sell or lease personally identifiable information to any person.<sup>145</sup> PII is defined in section 101(41A) as “ if provided by an individual to the debtor in connection with obtaining a product or a service from the debtor primarily for personal, family, or household purposes.” Such information includes name, address, e-mail, telephone number, social security number, credit card information. Exceptions include when after appointment of consumer privacy ombudsman, the court allows such sale or lease.<sup>146</sup> The role and duty of the consumer privacy ombudsman as provided in section 332 include cooperation with court regarding consideration of the facts, circumstances, and conditions of the proposed sale or lease of PII subject to section 363(b)(1)(B). The information subject to disclosure to the court include 1) debtor’s privacy policy, 2) the potential effects of privacy to consumers if such sale or such lease is approved by the court, 3) potential costs and benefits for such sale or lease, 4) potential alternatives that would mitigate potential privacy losses.<sup>147</sup> The customer privacy ombudsman makes recommendations to the court regarding cases involving PII. Such recommendations may include allowing transfer of PII to the same line of business so long as the buyer adopts the privacy policy of the debtor, or the persons on the list consents for the transfer or is offered opt-out possibility.<sup>148</sup> Trustee shall determine whether appointment of consumer privacy ombudsman is necessary for particular case. Rising emphasis on privacy or personal information will most likely make this practice a norm.

Chapter 5, subchapter II, section 541 of the Code outlines what is property of the estate subject to bankruptcy. Bankruptcy estate is created when filing for bankruptcy petition pursuant to section 541. The bankruptcy estate is a new legal entity that is separate from the debtor.<sup>149</sup> According to section 704 trustee has a control over the bankruptcy estate including the right to sell in order to satisfy creditors. From this arises that the ownership rights transfers from the debtor to the estate.<sup>150</sup> Section 541(a)(1) defines property as “(...) all legal or equitable interests of the debtor in property as of the commencement of the case.” This definition, however, rises question what are debtor’s legal or equitable interests in a particular property?<sup>151</sup> Supreme Court has clarified this by stating in *Butner v. United States*, 440 U.S. 48, 55 that “property interests are created and defined by state law” and these definitions shall apply to bankruptcy cases.<sup>152</sup> Arising from this it is clear

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<sup>145</sup> U.S. Bankruptcy Code. Section 363. Available on: <https://www.usbankruptcycode.org/chapter-3/subchapter-iv-administrative-powers/section-363-use-sale-or-lease-of-property/> Accessed: May 4, 2021.

<sup>146</sup> *Supra* note 145.

<sup>147</sup> U.S. Bankruptcy Code. Section 332. Available on: <https://www.usbankruptcycode.org/chapter-3/subchapter-ii-officers/section-332-consumer-privacy-ombudsman/> Accessed: May 4, 2021.

<sup>148</sup> William Baker “Don't Forget the Consumer Privacy Ombudsman in Bankruptcy Proceedings” November 2009 |Bankruptcy Protector. Available on: <https://s3.amazonaws.com/documents.lexology.com/> Accessed: May 4, 2021.

<sup>149</sup> Smita Gautam, “#Bankruptcy: Reconsidering 'Property To Determine The Role of Social Media in the Bankruptcy Estate”, 31 *Emory Bankr. Dev. J.* 127 (2014). Page 130. Available at: <https://scholarlycommons.law.emory.edu/ebdj/vol31/iss1/10> Accessed: May 4, 2021.

<sup>150</sup> *Ibid.*

<sup>151</sup> *Ibid.*

<sup>152</sup> *Ibid.*

that the Code does not specify which property is subject to bankruptcy, rather assessing it case-by-case. To understand how personal data has been characterized for the purposes of bankruptcy, looking at case law is necessary.

### **3.3. Data Asset Sale in Practice**

Personal data as determined within this research has a significant value to a business mostly regarding their marketing strategies. Businesses benefit from customer data in regards to business development. Knowing your customer is key. Understanding that the potential buyer is keen to get a hold of dissolving company's customer personal data is given. From a perspective of an insolvent company – recouping as much money as possible in order to pay back its debts. So what exactly are the options of an insolvent company to sell their data assets for the buyer to enjoy full benefits from it? In order to sell personal data as an asset, compliance with GDPR is necessary for the lawfulness of the transaction and also for the purchaser to benefit from acquiring such assets.

Selling personal data as a separate asset is made difficult in order to comply with the GDPR. As found in Chapter 1, in order to sell personal data, the consent of data subjects and indication of how this data will be processed at the time of data collection is necessary.<sup>153</sup> In practice this is not easily conductible. Ensuring that such consent for such processing has been acquired prior to the data collection is rare. It is notable that at the beginning of the business operations or at the point of data collection any company rarely suspects being insolvent and needing to sell their assets including personal data assets, therefore, this is very unlikely to have occurred. Easier of the later is offering the right to the data subject to object for such processing. GDPR article 13 provides that in case further processing differs from that it was initially collected for then the controller shall inform data subjects with the relevant information such as the right to request rectification, erasure or restriction of processing, and the right to withdraw consent at any time.<sup>154</sup> If such consent as legal basis, which as determined is very unlikely to be obtained at the point of data collection, therefore, relying on legal basis being either a legal obligation or legitimate interest is left with a requirement of notification regarding such purpose of processing. GDPR Article 6(1)(c) states that “processing is necessary for the compliance with a legal obligation to which the controller is subject.” As determined in sub-chapter 3.2. insolvency proceeding and distribution of assets is a legal obligation ordered by the court, therefore, processing of data under such circumstances is lawful as laid down by the Union or Member State Law. Purchase of distressed business assets is usually with an intention of benefit to the purchasing company, however, GDPR has made it difficult with an intent to secure people's privacy. If compliance with above stated requirements is not met, then the purchaser is simply not going to benefit from such purchase. What makes this asset sale different from a regular business asset sale is the fact that this sale would be a subject to an insolvency proceeding, therefore, legal basis would be a legal obligation and according to GDPR Article 6(1)(c) such processing is possible if requirements set in Article 6 are fulfilled.

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<sup>153</sup> GDPR, *Supra* note 7. Art. 13.

<sup>154</sup> GDPR, *Supra* note 7. Art 13 and Recital 61.

### 3.4. Case Law

#### 3.4.1 CTLI, LLC, 528 B.R. 359

This case arising from Chapter 11 reorganization under U.S. Bankruptcy Code, whereas, debtor CTLI, LLC, formerly operating under the name of Tactical Firearms was founded in 2011 and originally owned by Jeremy Alcede and his no former wife Sarah Alcede. It was operating as a gun store and shooting range in Katy, Texas. Later in 2011 Steven Coe Wilson purchased a building for the debtor for \$2.2 million in exchange for 30% membership interest of the debtor cooperation. Further, a debtor filed for Chapter 11 petition, having Mr. Alcede remain in the control of the debtor and Mr. Wilson proposing a reorganization plan under Chapter 11. According to the plan, Mr. Willson became 100% owner of the reorganized debtor.

The issue arises regarding a company's Twitter and Facebook pages that were used for marketing purposes. According to Bankruptcy court's order, Mr. Alcede was required to "deliver possession and control" of debtor's social media accounts including Twitter and Facebook. Mr. Alcede did not comply with such an order, claiming that those pages belonged to him, not the debtor. According to section 541 of U.S. Bankruptcy Code "all legal or equitable interests of the debtor in property as of the commencement of the case."<sup>155</sup> For determining property rights, bankruptcy courts are required to look at the state law.<sup>156</sup> For the purposes of this case, no previous precedent regarding social media accounts and property interest has been found by court of Texas. Determination of the property rights regarding social media accounts have been regarded as intangibles such as customer lists and goodwill under Chapter 11 section 541.<sup>157</sup> Further, based on the previously cited case law, the court of Texas determined that business social media accounts are property interest just like subscriber list and, thus providing valuable access to the customers.<sup>158</sup> Based on the following facts: 1) Facebook page being linked to the Tactical Firearms webpage. 2) Posts were generated with an intent of boosting Tactical Firearms marketing, including promotions. 3) Status updates were made using the Tactical Firearms page. 4) Access to Tactical Firearms Facebook page was granted to other employees, in order to be able to post on behalf of the company.<sup>159</sup> Based on these findings, it was determined that the Facebook page belongs to the reorganized debtor. Regardless of Mr. Alcede objections stating that this Facebook page is his personal property, initially created for personal reasons, does not hold against the evidence that this page was solely created for the purposes of the business.

Regarding Tactical Firearms Twitter account, the court found that it holds the same nature as the Facebook page, therefore, being business related and not personal as stated by Mr. Alcede. His attempts on changing the Twitter handle over to his name, was not sufficient enough for the

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<sup>155</sup> U.S. Bankruptcy Code. Section 541. Available on: <https://www.usbankruptcycode.org/chapter-5-creditors-the-debtor-and-the-estate/subchapter-iii-the-estate/section-541-property-of-the-estate/> Accessed: May 5, 2021.

<sup>156</sup> *Butner v. United States*, 440 U.S. 48, 99 S. Ct. 914 (1979).

<sup>157</sup> *Debrececi v. Bru-Jell Leasing Corp.*, 710 F. Supp. 15 (D. Mass. 1989)

<sup>158</sup> *In re CTLI, LLC*, 528 B.R. 359 (Bankr. S.D. Tex. 2015)

<sup>159</sup> *Ibid.*

court to determine this as a personal account. Based on these facts the court ruled that the Twitter page is the business account of the reorganized debtor.<sup>160</sup> This case provides some clarity regarding business ownership rights of their social media pages and accounts. The following criteria was applied: 1) social media accounts created in the name of the business, 2) it is displayed in the business's web page, 3) the accounts were created with the purpose of the business. By fulfilling this criteria it was determined that the accounts were indeed a property of the business and in the reorganizing bankruptcy case the property of the reorganized debtor.

## CONCLUSION

Personal data is clearly considered valuable and with a practical use for the business overall growth, management and marketing purposes. Considering the cross-border aspect of data use and application, many businesses have collected personal data of the EU data subjects, therefore, applying GDPR to consider personal data protection and allowances for processing under it serves a good basis for determination of how in compliance with data protection laws personal data contributes to the business portfolio and is there a benefit of such data to a business when facing insolvency and restructuring of assets,

After an extensive analysis of GDPR it was determined that it **does not** give any **property rights** to the data controller, that in this case would be the company that has collected personal data for the purposes of their business. However, it does not exclude that processing of such data includes selling and transferring personal data to the other controllers, therefore, **does give insolvent company rights to personal data in their possession such as rights to sell**. It was determined that in case of an insolvency that is a state regulated, court ordered legal process in which an insolvency practitioner is then appointed to administer and distribute company's assets in order to satisfy their creditor's claims, such practitioner, administrator or trustee (depending on the jurisdiction), therefore, becomes a controller of such data due to the fact that this role includes determining purposes and means of processing of personal data. Article 6 of GDPR sets out requirements or legal bases for such processing being lawful that includes processing for the compliance with a legal obligation. After analyzing the concept of insolvency in the EU and the U.S. it was then determined that insolvency does constitute a legal obligation for which compliance is mandatory, therefore, granting legal basis for lawful data processing. For processing to comply with a legal obligation, data subject's rights shall be respected and complied with. Such rights include a right to restrict processing, giving data subjects an opportunity to abstain from their data being processed.

Furthermore, data as an asset is a complex terminology. While IFRS does not include data assets on the balance sheet as an asset, it does not automatically mean it does not have an economic benefit to the company. According to the same IFRS **data assets are classified as intangible**

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<sup>160</sup> *Supra* note 158.

**property** corresponding to the IP asset characteristics. To prove data asset correspondence to the IP assets, analysis of IP asset valuation methods was conducted in order to apply the same methods to the data assets. According to the findings based on WIPO determined IP asset valuation methods, academic resources and deductive analysis of prerequisites for such valuation, it was concluded that data assets does in fact apply for these methods and corresponds to the IP asset characteristics. Three methods for data asset valuation are applicable – income method, market method and cost methods, it was determined that the most appropriate method resulting in highest potential value assessment is income method.

Insolvency involves many aspects within it, making it a very complex area of law that due to the word count restriction set on this Thesis and the author not having extensive knowledge on the subject resulted in determining this aspect from a conceptual standpoint. As mentioned previously, **insolvency does constitute a basis for that being a legal obligation**. The EU regulation on insolvency proceedings that is binding throughout the Union reminds that full compliance with the GDPR is required. The purpose of an insolvency is to recoup a proportionate amount of money owed to the creditors, therefore, data asset sale to another company to comply with the insolvency law might constitute as a legitimate interest that is also one of the legal basis for processing outlined in Article 6 of the GDPR. If an insolvent company located in the U.S. who wants to sell data assets, where data sales are notably much more lenient compared to Europe, encloses personal data of the EU persons, therefore, complying with the GDPR is necessary. The U.S. Bankruptcy Code provides that the insolvent company's assets under Chapter 7 liquidation constructs a bankrupt estate that is taken over and managed by the appointed trustee that similarly to the insolvency practitioner distributes the assets. Under Chapter 7 an appointment of a consumer privacy ombudsman is suggested who determines whether sale of personal data assets is appropriate regarding safeguards and privacy rights of the consumer. Considering the trans-continental flows of personal data and that many U.S. companies also possess personal data of the EU data subjects, appointment of consumer privacy ombudsman might become a regular practice.

Personal data **can be sold** as a separate asset only after full compliance with the GDPR, that provides that consent of data subject regarding processing shall be obtained or other legal basis outlined in Article 6 is met. In fact, that such consent rarely would include all the necessary details to rely on for the sale of the data to a third party at the time of data collection of the company that later becomes subject to insolvency, therefore, relying on other remedies is still possible. As already mentioned, legal basis for insolvency and, thus, personal data processing including sale, is a legal obligation. Offering data subject an option to restrict processing is mandatory in order to comply with data subject's rights. Personal data sale as a legal obligation is easier to comply with than that of a regular business sale. In its technical meaning, sale for the purposes of insolvency rather differs from a regular asset sale that is not a subject to asset administration to cover legal obligation for satisfying the creditor's claims. According to the GDPR data subjects shall be informed about their rights, further information regarding further processing and whether the intent and purpose for such processing changes. In order for the purchaser to enjoy full benefits for what this personal data is most likely being purchased for in the first place, fully complying with the

GDPR is necessary, otherwise such personal data would not bring the expected benefits for their business.

Case law regarding personal data sale in an insolvency is very limited. This aspect has been determined in the U.S. court regarding social media pages of an insolvent business that also contains extensive personal data. In *CTLI, LLC*, 528 B.R. 359 case the court decided that Facebook and Twitter pages of the insolvent company, despite the fact that created by an individual, shall belong to the reorganized debtor under Chapter 11 reorganization, due to those created in the name of the business and used for marketing purposes. This particular subject has not been determined in the Court of Justice of the European Union after the GDPR implementation. The author suspects that this soon will be a rather regular practice, therefore, more case law will arise and will facilitate determination of personal data sale in an insolvency. Author also indicates that further research on personal data sale in an insolvency shall be conducted, due to the fact that this aspect involves many jurisdictions that might further regulate it within their laws. Due to word count restriction, the author was not able to look into this aspect within specific jurisdictions. It would be advisable to include insolvency in either the GDPR or personal data sale in insolvency laws. Realization that data is a very valuable asset is already in place, therefore, clear regulation on what a company that is insolvent shall do with their data assets might be useful and also facilitating insolvency proceedings for the insolvency practitioners, whose area of expertise rarely lies in personal data protection.

# BIBLIOGRAPHY

## 1. PRIMARY SOURCES

### 1.1. Legislation.

1. Charter of Fundamental Rights of the European Union. *OJ C* 326, 26.10.2012. Available on: [http://data.europa.eu/eli/treaty/char\\_2012/oj](http://data.europa.eu/eli/treaty/char_2012/oj) Accessed: April 21, 2021.
2. Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, *OJ L* 281, 23.11.1995. Available on: <http://data.europa.eu/eli/dir/1995/46/oj> Accessed: April 16, 2021.
3. European Convention on Human Rights, Available on: [https://www.echr.coe.int/documents/convention\\_eng.pdf](https://www.echr.coe.int/documents/convention_eng.pdf) Accessed: April 21, 2021.
4. Latvijas Maksātnespējas Likums (Latvian Insolvency Law), (01.11.2010). Available on: <https://likumi.lv/ta/en/en/id/214590-insolvency-law> Accessed: May 3, 2021.
5. Regulation (EU) 2015/848 on insolvency proceedings. *OJ L* 141, 5.6.2015. Available on: <http://data.europa.eu/eli/reg/2015/848/oj> Accessed April 14, 2021.
6. Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), *OJ L* 119, 4.5.2016. Available on: <http://data.europa.eu/eli/reg/2016/679/oj> Accessed: May 10, 2021.
7. U.S. Bankruptcy Code. Available on: <https://www.usbankruptcycode.org/> Accessed: May 4, 2021.

### 1.2. Case Law

1. Court of Justice: Judgment in Data Protection Commissioner v Facebook Ireland Limited and Maximillian Schrems (Grand Chamber) of 16 July 2020. ECLI identifier: ECLI:EU:C:2020:559. Available on: <https://curia.europa.eu/juris/liste.jsf?num=C-311/18> Accessed: May 4, 2021.
2. *S. and Marper v. the United Kingdom* [2008] ECHR 1581. Available on: <https://rm.coe.int/168067d216> Accessed: May 4, 2021.
3. *Butner v. United States*, 440 U.S. 48, 99 S. Ct. 914 (1979). Available on: <https://casetext.com/case/butner-v-united-states> Accessed: May 4, 2021.
4. *Debreceeni v. Bru-Jell Leasing Corp.*, 710 F. Supp. 15 (D. Mass. 1989). Available on: <https://law.justia.com/cases/federal/district-courts/FSupp/710/15/1462615/> Accessed: May 4, 2021.
5. *In re CTLLI, LLC*, 528 B.R. 359 (Bankr. S.D. Tex. 2015). Available on: <https://casetext.com/case/in-re-ctli-llc> Accessed: May 4, 2021.

## 2. SECONDARY SOURCES

### 2.1. Books

1. Alexander, David and Nobes, Christopher. *Financial accounting: An international introduction*. Essex: Prentice Hall 2<sup>nd</sup> Edition, 2004.
2. Ebert, Ronald J., and Griffin, Ricky W.. *Business Essentials* — 10th ed., Pearson Education, Inc. (2015).



3. Hand, Martin, Hillyard, Sam. *Big Data? : Qualitative Approaches to Digital Research. Vol. First edition Studies in Qualitative Methodology*. Bingley, UK 2014: Emerald Group Publishing Limited. Academic Search Complete (EBSCOhost).
4. Laro, David, and Pratt, Shannon P., *Business Valuation and Federal Taxes : Procedure, Law and Perspective*. (2011) Vol. 2<sup>nd</sup> ed. Hoboken, NJ: Wiley. Academic Search Complete (EBSCOhost).
5. Marr, Bernard. *Data Strategy : How to Profit From a World of Big Data, Analytics and the Internet of Things*. (Kogan Page Publishers, 2017).
6. Wherry, Timothy Lee. *Intellectual Property : Everything the Digital-Age Librarian Needs to Know*. Chicago ALA Editions of the American Library Association. 2008. Academic Search Complete (EBSCOhost).

## 2.2. Authorities

1. European Agency for Fundamental Rights. Available on: <https://fra.europa.eu/en/about-fundamental-rights> Accessed: April 16, 2021.
2. European Commission, “What constitutes data processing?” Available on: [https://ec.europa.eu/info/law/law-topic/data-protection/reform/what-constitutes-data-processing\\_en](https://ec.europa.eu/info/law/law-topic/data-protection/reform/what-constitutes-data-processing_en) Accessed: April 20, 2021.
3. European Commission, “What rules apply if my organization transfers data outside the EU?” Available on: [https://ec.europa.eu/info/law/law-topic/data-protection/reform/rules-business-and-organisations/obligations/what-rules-apply-if-my-organisation-transfers-data-outside-eu\\_en](https://ec.europa.eu/info/law/law-topic/data-protection/reform/rules-business-and-organisations/obligations/what-rules-apply-if-my-organisation-transfers-data-outside-eu_en) Accessed: April 20, 2021.
4. European Commission, “Adequacy decisions. How the EU determines if a non-EU country has an adequate level of data protection.” Available on: [https://ec.europa.eu/info/law/law-topic/data-protection/international-dimension-data-protection/adequacy-decisions\\_en](https://ec.europa.eu/info/law/law-topic/data-protection/international-dimension-data-protection/adequacy-decisions_en) Accessed: April 20, 2021.
5. Your Europe, “Data Protection Under GDPR” Available on: <https://europa.eu/youreurope/business/dealing-with-customers/data-protection/data-protection-gdpr/> Accessed: April 21, 2021.
6. Infocomm Media Development Authority. “Guide to Data Valuation for Data Sharing” Available on : <https://www.imda.gov.sg/-/media/Imda/Files/Programme/Data-Collaborative-Programme/Guide-to-Data-Valuation-for-Data-Sharing.pdf?la=en>
7. International Chamber of Commerce, “Handbook on valuation of intellectual property assets.” Available on: <https://iccwbo.org/content/uploads/sites/3/2019/06/icc-handbook-valuation-ip-assets-we.pdf> Accessed: April 30, 2021.
8. European Commission, Věra Jourová, “Early restructuring and a second chance for entrepreneurs A modern and streamlined approach to business insolvency.” Available on: [https://ec.europa.eu/info/sites/default/files/factsheet\\_-\\_a\\_modern\\_and\\_streamlined\\_approach\\_to\\_business\\_insolvency.pdf](https://ec.europa.eu/info/sites/default/files/factsheet_-_a_modern_and_streamlined_approach_to_business_insolvency.pdf) Accessed: May 1, 2021.
9. European Commission, Insolvency proceedings. EU activities in the area of cross-border insolvency cases. Available on: <https://ec.europa.eu/info/policies/justice-and-fundamental-rights/> Accessed: May 2, 2021.
10. European Judicial Network, Insolvency – Germany. Available on: [https://e-justice.europa.eu/content\\_insolvency-474-de-en.do?member=1#toc\\_3](https://e-justice.europa.eu/content_insolvency-474-de-en.do?member=1#toc_3) Accessed: May 3, 2021.
11. European Judicial Network, Insolvency – Austria. Available on: [https://e-justice.europa.eu/content\\_insolvency-474-at-en.do?member=1](https://e-justice.europa.eu/content_insolvency-474-at-en.do?member=1) Accessed: May 3, 2021.
12. European Judicial Network, Insolvency – Estonia. Available on [https://e-justice.europa.eu/content\\_insolvency-474-ee-en.do?member=1](https://e-justice.europa.eu/content_insolvency-474-ee-en.do?member=1) Accessed: May 3, 2021.
13. European Union. Regulation, Directives and Other Acts. Available on: [https://europa.eu/european-union/law/legal-acts\\_en](https://europa.eu/european-union/law/legal-acts_en) Accessed: May 3, 2021.
14. United States Courts. Process – Bankruptcy Basics. Available on: <https://www.uscourts.gov/services-forms/bankruptcy/bankruptcy-basics/process-bankruptcy-basics> Accessed: May 4, 2021.
15. European Commission, Opinion 4/2007 on the concept of personal data. Available on: [https://ec.europa.eu/justice/article-29/documentation/opinion-recommendation/files/2007/wp136\\_en.pdf](https://ec.europa.eu/justice/article-29/documentation/opinion-recommendation/files/2007/wp136_en.pdf) Accessed: April 16, 2021.

### 2.3. Journal Articles

1. Goldheim, David, Slowinski, Gene, Daniele, Joseph, Hummel, Edward, and Tao, John. "Extracting Value from Intellectual Assets." *Research Technology Management* 48 (2) 2005. pp. 41–48. [doi:10.1080/08956308.2005.11657304](https://doi.org/10.1080/08956308.2005.11657304).
2. Huang, Jie. "Applicable Law to Transnational Personal Data: Trends and Dynamics." *German Law Journal* 21, no. 6 (2020): 1283–1308. Available on: [doi:10.1017/glj.2020.73](https://doi.org/10.1017/glj.2020.73). Accessed: April 25, 2021.
3. Landauer, Rolf. "Information is Physical," *44 Physics Today* (1991): pp. 23–29. Accessed: April 25, 2021. [doi: 10.1063/1.881299](https://doi.org/10.1063/1.881299).
4. Malgieri, Gianclaudio, and Custers, Bart. "Pricing Privacy – The Right to Know the Value of Your Personal Data" *Computer Law & Security Review* (2017). Available on: <https://ssrn.com/abstract=3047257> Accessed: April 25, 2021.
5. Pandey, Radhika. "Intellectual Property Valuation: A Critical Aspect of IP Securitization," (May 26, 2006). p. 6. Accessed on April 27, 2021. <http://dx.doi.org/10.2139/ssrn.904604>
6. Wirtz, Harald. "Valuation of Intellectual Property: A Review of Approaches and Methods" Vol. 7, No. 9; May 2012. p. 41. Accessed on April 27, 2021. [doi:10.5539/ijbm.v7n9p40](https://doi.org/10.5539/ijbm.v7n9p40).

### 2.4. Academic Papers

1. Bauer, Kinga. "Fixed assets valuation in the condition of bankruptcy risk: The role of estimates." (June, 2014). p. 653. Available on: [https://www.researchgate.net/publication/317174737\\_Fixed\\_assets\\_valuation\\_in\\_the\\_condition\\_of\\_bankruptcy\\_risk](https://www.researchgate.net/publication/317174737_Fixed_assets_valuation_in_the_condition_of_bankruptcy_risk) Accessed: April 5, 2021.
2. Austin, Lloyd. "Accounting for intangible assets" page 67. Available on: <https://cdn.auckland.ac.nz/assets/uabsknowledge/English/uabr-archives/2007-volume-9-issue-1/v13i1-accounting-for-intangible-assets.pdf> Accessed: April 30, 2021.
3. Gautam, Smita. "#Bankruptcy: Reconsidering 'Property To Determine The Role of Social Media in the Bankruptcy Estate'", 31 *Emory Bankr. Dev. J.* 127 (2014). Page 130. Available at: <https://scholarlycommons.law.emory.edu/ebdj/vol31/iss1/10> Accessed: May 4, 2021.
4. Gawron, Krzysztof, Yakymchuk, Alina, and Tyvonchuk Olena. "The bankrupt entity's assets valuation methods: Polish approach. *Investment Management and Financial Innovations*," 2019. 16(3), 319-331. Accessed: April 26, 2021. doi:10.21511/imfi.16(3).2019.28.

### 2.5. Internet Sources and Articles

1. "What is the General Data Protection Regulation (GDPR)?" Available on: <https://www.facebook.com/business/gdpr> Accessed: April 20, 2021.
2. Mantelero, Alessandro. "Guidelines on the Protection of Individuals with Regard to the Processing or Personal Data in a World of Big Data", Strasbourg, 23 January 2017. Available on: <https://rm.coe.int/16806ebe7a> Accessed: April 16 2021.
3. Wolford, Ben. "What is GDPR, the EU's new data protection law?" Available on: <https://gdpr.eu/what-is-gdpr/> Accessed on: April 15, 2021.
4. Corporate Finance Institute, Insolvency. Available on: <https://corporatefinanceinstitute.com/resources/knowledge/finance/insolvency/> Accessed: May 1, 2021.
5. Deloitte Learning Module IAS 38 Intangible Assets. Available on: [https://www.deloitteifrslearning.com/media/modules/1b01062f/sco/story\\_html5.html](https://www.deloitteifrslearning.com/media/modules/1b01062f/sco/story_html5.html) Accessed: April 30, 2021.

6. Deloitte. “Data Valuation: Understanding value of your data assets” Available on: <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Finance/Valuation-Data-Digital.pdf>
7. Facebook Data Policy. Available on: <https://www.facebook.com/policy.php> Accessed: April 25, 2021.
8. Facebook Stock. Available on: <https://finance.yahoo.com/quote/FB/key-statistics/> Accessed: April 25, 2021.
9. Guide on case-law of the Convention – Data Protection. Page 72. Available on: [https://www.echr.coe.int/Documents/Guide\\_Data\\_protection\\_ENG.pdf](https://www.echr.coe.int/Documents/Guide_Data_protection_ENG.pdf) Accessed: April 21, 2021.
10. H. Tankovska, “Facebook: number of monthly active users worldwide 2008-2020” Feb 2, 2021. Available on: <https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/> Accessed: April 25, 2021.
11. I Chu Chao. “How to sell customer data under the GDPR?” July 11, 2018. <https://www.linkedin.com/pulse/how-sell-customer-data-under-gdpr-i-chu-chao> Accessed: April 20, 2021.
12. IAS 38 Costs of acquiring or developing content for electronic databases. Available on: <https://www.iasplus.com/en/meeting-notes/ifrs-ic/not-added/2002/ias-38-costs-of-acquiring-or-developing-content-for-electronic-databases> Accessed: April 30, 2021.
13. IBM “What is big data analytics?” Available on: <https://www.ibm.com/analytics/hadoop/big-data-analytics> Accessed: April 25, 2021.
14. Instagram Terms of Use. Available on: <https://help.instagram.com/478745558852511> Accessed: April 25, 2021.
15. International Financial Reporting Standards. Available on: <https://www.iasplus.com/en/standards> Accessed: April 26, 2021.
16. International Financial Reporting Standards. Use of IFRS standards. Available on: <https://www.ifrs.org/use-around-the-world/use-of-ifrs-standards-by-jurisdiction/> Accessed: April 30, 2021.
17. International Reporting Standards. Who we are. Available on: <https://www.ifrs.org/about-us/who-we-are/> Accessed: April 30, 2021.
18. ISA 38 retrieved from <https://www.iasplus.com/en/standards/ias/ias38> Accessed: April 30, 2021.
19. Desjardins, Jeff. “How much data is generated each day?” (April 17, 2019). Available on: <https://www.weforum.org/agenda/2019/04/how-much-data-is-generated-each-day> Accessed, April 14, 2021.
20. Pettijohn, Nathan. “Of Course Your Phone Is Listening To You” 2019. Available on : <https://www.forbes.com/sites/nathanpettijohn/2019/09/03/of-course-your-phone-is-listening-to-you/> Accessed: April 25, 2021.
21. Flignor, Paul, Orozco, David. “Intangible Asset & Intellectual Property Valuation: Intangible Asset & Intellectual Property Valuation: A Multidisciplinary Perspective A Multidisciplinary Perspect.” p. 11. June, 2016. Available on: [https://www.wipo.int/export/sites/www/sme/en/documents/pdf/ip\\_valuation.pdf](https://www.wipo.int/export/sites/www/sme/en/documents/pdf/ip_valuation.pdf) Accessed: April 27, 2021.
22. Koch, Richie. “What is considered personal data under the EU GDPR?” Available on: <https://gdpr.eu/eu-gdpr-personal-data/> Accessed: April 15, 2021
23. Ewing, Thomas. “A Practical Guide for Valuing Intangible Assets in Research and Development Institutions” Geneva, April 11 to 15, 2016, page 7. Available on: [https://www.wipo.int/edocs/mdocs/mdocs/en/cdip\\_17/cdip\\_17\\_inf\\_2.pdf](https://www.wipo.int/edocs/mdocs/mdocs/en/cdip_17/cdip_17_inf_2.pdf) Accessed: April 26, 2021.
24. Baker, William. “Don't Forget the Consumer Privacy Ombudsman in Bankruptcy Proceedings” November 2009 |Bankruptcy Protector. Available on: <https://s3.amazonaws.com/documents.lexology.com/> Accessed: May 4, 2021.
25. World Intellectual Property Organization. Module 11: IP Valuation. Available on: [https://www.wipo.int/export/sites/www/sme/en/documents/pdf/ip\\_panorama\\_11\\_learning\\_points.pdf](https://www.wipo.int/export/sites/www/sme/en/documents/pdf/ip_panorama_11_learning_points.pdf) Accessed: April 27, 2021.