

# LUISS



**DEPARTMENT OF BUSINESS AND MANAGEMENT**

**Chair of Entrepreneurship and Venture Capital**

## **Entrepreneurial Ventures and Venture Capital relationship:**

### **A Geographical Perspective**

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*"The credit belongs to the man who is actually in the arena;  
whose face is marred with dust and sweat;  
who strives valiantly,  
who errors and may fall again and again,  
because there is no effort without error or shortcoming"*

**Theodore Roosevelt (1910)**

# Introduction

## Topic and research question

The concept of entrepreneurial activity is very year evolving and becoming more complex, with more different factors to consider when starting a new business. Globalization and digitalization also affect this study area, and now there are ten times more opportunities to be perceived than just 20 years ago. Nowadays, it is possible to start new activities in every sector and follow their respective norms and regulations.

One of the essential characteristics of new entrepreneurs is related to their ability to perceive new opportunities and their propensity to overcome failures. The Entrepreneurship field of studies evolved drastically, taking into consideration several new different aspects of the "Entrepreneur" figure. The psychological parts of new entrepreneurs become a crucial part of this field, followed by a contextual and relational perspective.

The context and the possible networks became relevant due to the increase of new entities in the entrepreneurial context like angel investors, accelerators hubs, and venture capitalists. Venture capitalists become relevant players of the entrepreneurial environment thanks to their ability to make new innovative prospects consolidated realities. The success of this type of entity is due to its ability to be not only a source of investments for new business activities or start-ups but also a source of more experienced and qualified instructions and directives.

This analysis aims to find an answer to the following research question: considering the current entrepreneurial activity and venture capital presence and amount of investment in Europe, which are the best countries where a potential entrepreneurs should start its new business activity considering the specific market sector in which he wants to operate?

## Theoretical Framework and contents summary

This thesis starts its analysis giving an understanding of the concept of entrepreneur, starting from the first entrepreneur definition of Cantillon and then considering all the different perspectives evolved through the years thanks to the different authors that given their contribution to this field of studies. Once given a proper understanding of the entrepreneur's concept, the thesis continues

with a comprehension of what can be considered a new entrepreneurial venture and venture capitalists' role in their entrepreneurial life.

The analysis continues by giving a useful overview of the phenomena of new entrepreneurial activity and venture capital investments worldwide and then focusing on the European area. Through the overview, it is possible to understand the development of the phenomena and the current situation in Europe compared to the rest of the world.

After understanding the current situation, the analysis goes further with the aggregation of the data collected for the development of a model to classify the countries in terms of entrepreneurial ecosystems. It starts with understanding the numbers related to active start-ups in specific sectors and countries and then go further with the development of a scale regarding location factors. The location factors considered are related to more than three hundred start-ups founders' response through a survey that classified which factors are more relevant when considering a location to start a new activity.

With the combination of these two data constructed and the venture capital investment condition of each country, in the last chapter, there is an illustration of the European entrepreneurial ecosystem condition by the country for each specific sector considered. From the results obtained, are then developed the relative conclusions answering the research question of this work.

## Chapter 1 – Entrepreneurial Ventures and Venture Capital

Entrepreneurial ventures<sup>1</sup> are modelling the current economic worldwide market, growing in numbers, and the degree of Innovation. With their more innovative work environment and orientation, these firms are increasing the necessity to keep the pace of the market that is continuously evolving. These types of Firms are involved in several different markets facing different phases of growth, influenced by the industry in which they are operating. Such a situation makes them riskier than regular businesses but with a higher potential for wealth creation. There are many examples of entrepreneurial ventures that, in recent years, exploited in the best way their resources becoming leaders in their respective markets<sup>2</sup>.

One example can be Deliveroo, that reached 104% of growth rate over four years, and has achieved a valuation of more than £1.5bn in five short years (Deloitte, 2018). This company wholly overcome the food delivery market, creating an entirely new way of doing the service, allowing it to become the most significant player.

Right now, some firms are attracting attention due to the fast growth that is reaching. Start-up firms like Rothy's and Remitly forecast shows as these two will probably reach one billion dollars as the value before 2021 (Feldman & Carson, 2019). Rothy's and Remitly reached in 2018, respectively, the revenue of 140 million dollars and raised equity for 320 million dollars.

Remitly is already one of the largest fintech firms targeting immigrants and is pointing to other financial services to increase its scope (Feldman & Carson, 2019). Instead, Rothy's is gaining many success selling shoes made recycling plastics, having settled a consolidated direct-to-consumers sales online.

This environment of new, highly innovative firms with high growth potential, brought a significant increase in private equity funding, creating different solutions for this new venture. More ventures are utilizing Capital Ventures as a way of funding in order to have something that gives them backward sustainment. Venture capitals typically invest in only 2% of entrepreneurial ventures because of the high risk related to these investments and the possibility of monitoring them during their growth<sup>3</sup>.

Before analysing the current situation of Venture Capital and how they work, it is essential to bear in mind, which is the meaning of "Entrepreneurial Ventures" and what it comprehends.

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<sup>1</sup> Ventures context refers to the organizational arrangements or formation where new venture activities are restrained or encouraged in a specific direction (Morris, Neumeier, Jang, & Kuratko, 2018)

<sup>2</sup> That can be an already existing market or a new one created by themselves.

<sup>3</sup> These firms require a high possibility to monitor the new venture if they start working with them.

## 1.1 Entrepreneurship and Entrepreneurial Ventures phenomena

The Entrepreneurship field never gave out a proper definition and concise boundaries of which topics are part of it. Several different areas or research are put together in a fragmented way, making it difficult to narrow down the field of study to focus on the analysis.

Let us start considering where the "Entrepreneur" concept comes from: the first time that the word "Entrepreneur" become utilized to describe a physical person dates back to 1775 when Cantillon<sup>4</sup> used it to describe an individual that transforms inputs into outputs and sells final outputs at a not fixed price (Matricano, 2020).

After him in 1803, a French economist, Jean Baptiste Say, gave another definition of an entrepreneur: he described it as the individual that "shifts economic resources out of an area of lower and into an area of higher productivity and greater yield".

Despite these two definitions of Entrepreneur, the area of study gain interest only after Schumpeter's effort with his research. Entrepreneurship scholars, from the first meaning given by Schumpeter (1911), tried to give a proper definition to this phenomenon but not finding a common point of view. Schumpeter (1991) is the first one that introduced the Entrepreneurship concept, and he did it, giving a focus on the role of Innovation in the essence of the entrepreneurial spirit. He firmly believed in the concept of "creative destruction"<sup>5</sup>, and Innovation was the first goal for new entrepreneurs.

Afterwards, a new different idea and perspective have been developed by different authors throughout the 20th century. A significant number of authors like Cooper & Dunkelberg (1981) and Low and MacMillian (1988) investigate accordingly with the Schumpeterian idea of Entrepreneurship, but at the same time, a significant number had another perspective on the Entrepreneurship concepts.

Johnson, in 2001, tried to give a more specific description of the entrepreneurship concept: "Entrepreneurship, in its narrowest sense, involves capturing ideas, converting them into products and, or services and then building a venture to take the product to market" (Johnson, 2001). This definition is the nearest to the idea of Entrepreneurial ventures because it underlines the concept of creating a venture to bring the product inside de market (or to create a new one).

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<sup>4</sup> Cantillon utilized it in his book published in 1755 "*Essay Sur la Nature du Commerce au General* (Essay on the Nature of Commerce)". He also introduced the idea of an Entrepreneur as a "Risk-taker".

<sup>5</sup> "process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one" (Schumpeter, 1911).



Around the Entrepreneurship area, different fields of studies arose through the last century, trying to analyse under different perspectives the phenomenon of entrepreneurship. Essentially, it is possible to identify four different approaches divided by the main topics that scholars investigated in the last century: Teleological Approach, Psychological Approach, Contextual Approach, Relational Approach (Matricano, 2020).

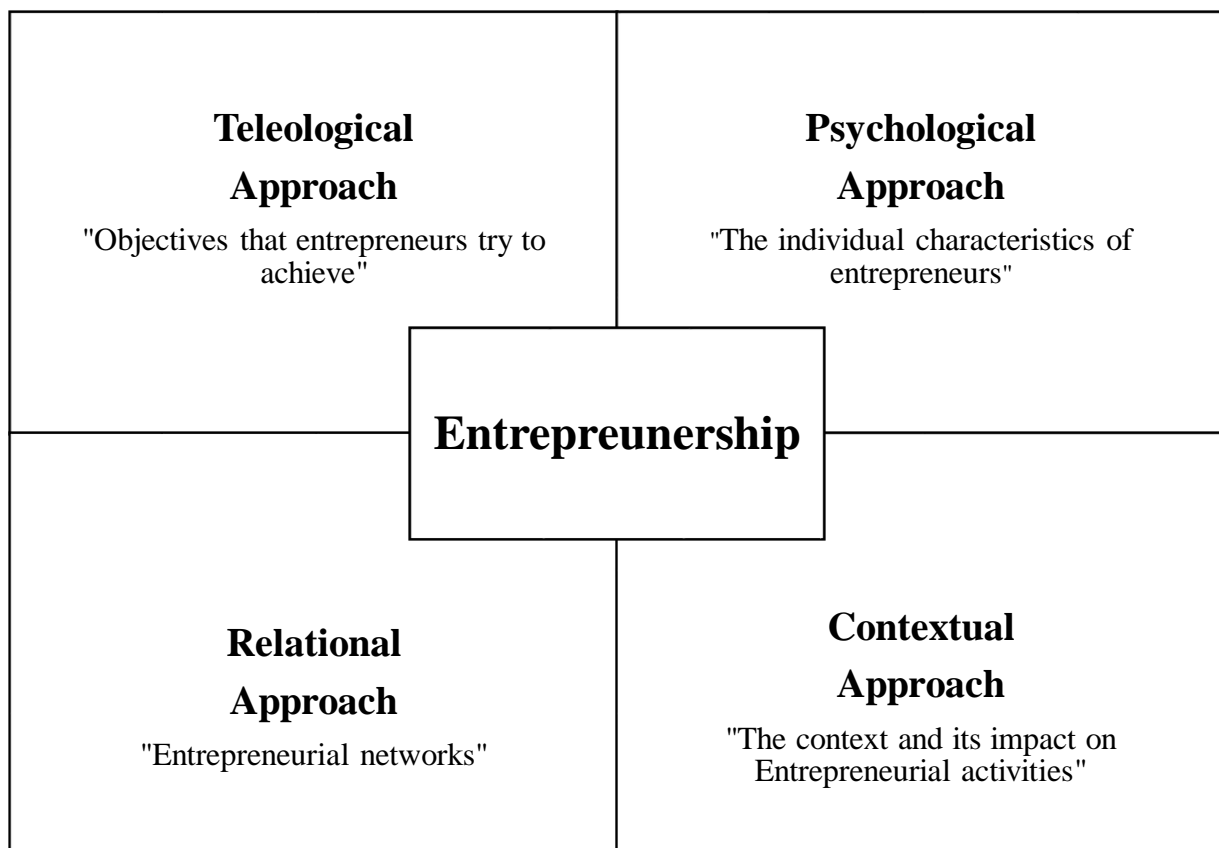


Figure 1: Entrepreneurship Approaches; Source: personal elaboration of Matricano 2020.

### 1.1.1 Teleological Approach

The Schumpeter definition makes the base of the Teleological approach. This approach looked to investigate the aims and scope that entrepreneurs try to achieve, and recently they introduced the idea that entrepreneurs aim to introduce new products or technologies into already existing markets or to seek new markets (Matricano, 2020). This approach has much relevance to understanding the growth in numbers of this phenomenon because it is related to the reasons why an entrepreneur decides to start a new business or venture. From this perspective, resulted crucial to focus on the perceiving of entrepreneurial opportunities by the Entrepreneur and the creation of new ventures. Schumpeter proposed Innovation as a base of Entrepreneurship and the firm as

the instrument to reach Innovation. The first is recognized as valid by scholars<sup>6</sup> instead of the second one that did not find much support. Probably, the reason is that innovative creation is not necessarily made through the creation of new ventures.

Gartner proposed a relevant framework built on four dimensions to analyse how the creation of entrepreneurship can be considered an instrumental objective for the Entrepreneur. The four dimensions are the individual, the environment, the organization, and the process; these four dimensions are useful to approach the analysis of a new venture creation only if are considered all at the same time (Gartner, 1985) . Other frameworks have been developed in the last years considering different variables like the resource's acquisitions, creations of exchange relations, trial-and-error approach, and the cognitive aspect (Matricano, 2015) . Despite these frameworks, the concept of new venture creation did not reach the consensus, as Schumpeter believed. Two critical issues arise that do not allow to reach that consensus: the heterogeneity of the proposed variables and the not agreement on a unique framework (Matricano, 2015).

On the other hand, looking through the Entrepreneur's perceptions of opportunities revealed itself as not definable as an objective of entrepreneurship. The ability to perceive of entrepreneurs comprises several possible aspects. The first one is related to the alertness of the Entrepreneur to opportunities not known until that moment (Kirzner, 1973). It is a subjective factor that is typically more efficient with entrepreneurs who have more experience than make them utilize a complex cognitive system. The second aspect focus on the sources from which entrepreneurship opportunities have their origin. These sources comprehend first of all the market<sup>7</sup> (Leibenstein, 1978) and the judgment of the Entrepreneur<sup>8</sup> (Casson, 1982) . It takes into consideration the idea that entrepreneurship opportunities derive from the ability to exploit changes due to Innovation. The idea makes sources of these opportunities come from inside and outside (Matricano, 2015). Also here, are two critical issues that influence this idea: first, Entrepreneur's characteristics are subjective, and so it is difficult to define which are the ones that an entrepreneur should have; second, the impossibility to establish the origin of entrepreneurship because there is not a unique source considered. This impossibility to define a proper objective for both the two concepts, created two different ways of study of the entrepreneurship matter.

### **1.1.2 Psychological Approach**

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<sup>6</sup> Drucker (1985) gave a great effort in the making, in consideration of scholars, the relevance of Innovation in Entrepreneurship significant (Drucker, Innovation and Entrepreneurship , 1985).

<sup>7</sup> It is important to feel every gap that the market will show.

<sup>8</sup> It is related to decisions that entrepreneurs have to make while managing scarce resources, that implicitly lead to creating new entrepreneurship opportunities (Matricano, Lo Studio dell'Imprenditorialità, 2015).

Meanwhile, the Psychological Approach investigates the individual characteristics of entrepreneurs<sup>9</sup> (Matricano, 2020) that are important to understand how the Entrepreneur will manage and make decisions for the new venture. The entrepreneurs must be reactive to possible opportunities and grab them in the right moment in order to have the chance to exploit them. So, the Entrepreneur's alertness and decision making became necessary not to lose an opportunity or to waste a good idea only because it was too late. Also, the origin of this approach can be attributed to Schumpeter because the Entrepreneur needs to have some personal characteristics to introduce innovations in the economic system (Matricano, 2015) . This approach did not have much interest until Kirzner's contribution to the introduction of the concept of alertness. From the concept, several different studies began about the psychological approach, and sometimes it becomes more related to psychology<sup>10</sup> itself than about the economy. Initially, studies related to the entrepreneurs, linked the capacity of being innovative (Schumpeter, 1911), of introducing changes (Mintzberg, 1973) and of organizing resources (Chandler, 1962) as characteristics of the Entrepreneurship profile. These three characteristics do not go far from the definition of an entrepreneur<sup>11</sup> and focus on which characteristics he should have.

An essential contribution of this approach derived from a different perspective that arises from the reasons that involved individuals in entrepreneurship. Different authors focused on their studies on the desire of responsibility<sup>12</sup> (Sutton, 1954), of independence<sup>13</sup> (Davids, 1963), Self-Confidence<sup>14</sup> (Timmons, 1978), Need for achievement (McClelland, 1961).

The need for achievement corresponds to the desire to reach goals decided before to find success. It attracted much interest, finding supporters that belief in a strong relationship between the need for achievement and the entrepreneurship success and others in a less strong one. It definitely underlines the focus of authors in focusing their attention on which reason can drive individuals to become entrepreneurs.

Despite all these perspectives, the characteristic that need more attention is the risk propensity, which is the one that reached more attention between the authors. The concept is not very clear, and it led to different interpretations of it. The first interpretation was related to the idea of an entrepreneur as "Risk-taker", having to bear all risks related to his activity (Welsh & White,

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<sup>9</sup>This comprehends qualities like risk propensity, self-efficacy, self-esteem, locus and control.

<sup>10</sup> An example of these studies is the one about trait models (Chell, 1985) that distorted the relationship between entrepreneurship and Entrepreneurs traits (Matricano, 2015).

<sup>11</sup> It is defined by Schumpeter (1911) as the individual that introduce innovations of products and process in the market.

<sup>12</sup> Referring to the desire to take decisions (Matricano, 2015).

<sup>13</sup> The character is capable of distinguishing between an entrepreneur and who is not, basing the idea on the capacity to come out from the social contest (Matricano, 2015).

<sup>14</sup> The trust in own capabilities.

1981). Another interpretation argues that the Entrepreneur does not have to bear entirely the risk related to the activity, making the Entrepreneur as a "risk-bearing" (Timmons, 1978).

The last one is related to the idea of Entrepreneurs as a moderate risk taker (Welsh & White, 1981), that try not to take a significant risk but only a moderate one that is possible to sustain. The result of different empiric studies demonstrates a higher risk propensity of entrepreneurs despite not ones (Matricano, 2015). This scenario led to the research on two crucial aspects of risk propensity: its determinants and the tolerance for ambiguity.

Weber (1997) identified three possible characteristics as its determinants: perceiving the specific risk of the activity, benefits that can be obtained, and the favourability to sustain that risk (Weber, 1997). The perceiving of the specific risk gained much interest, and it becomes of a significant matter for the final understanding of the risk propensity. The idea is that Entrepreneurs tend towards a more positive interpretation of the less clear economic situation (Parlich & Bagby, 1995). This idea means that the focus should be on the criteria that entrepreneurs use to evaluate risks more than their capacity to sustain it (Matricano, 2015). The tolerance for ambiguity instead refers to how entrepreneurs manage situations of uncertainty, so it focuses on the behavior of them through challenging and not predictable situations. It comprehends how to deal with risky or unexpected situations and the capacity to avoid a not clear situation. McGrath (1999) gave the Entrepreneur the tolerance to ambiguity if it can manage at the best unpredictable situation, whatever they are (Matricano, 2015).

Another essential characteristic that influences entrepreneurs' capabilities seems to be the so-called "locus of control". This concept derives from social studies and then has been held in economic terms by authors like Timmons (1978), and it is related to the feeling of being able to control the present to determine the future (Matricano, 2015). The "locus of control" is interior when an individual can be proactive and succeed in modifying the context in which he operates to reach his goals (Matricano, 2015). The idea leads to an Entrepreneur that is not only a passive subject in the context in which he operates and works, having an impact on all the consequences that his behavior can create. It is also possible to identify a "locus of control" exterior, in which the individual has to sustain what is in the environment, and he does not have the possibility or the capability to modify the current situation (Matricano, 2015). Such a situation leaves the entrepreneurs without any power to deal with whatever they will encounter making them useless to reach prefixed goals. Different studies demonstrate that the effect on entrepreneurship is higher and more positive when the locus of control is interior (Koh, 1996).

The Concept "Locus of control" is strongly related to ideas of Self-Efficacy<sup>15</sup> and Self Esteem<sup>16</sup> because these concepts refer to how better perceptions of entrepreneurs themselves can make their operations more effective and efficient. Figure 2 below shows every aspect that we went through, giving a proper snapshot of each aspect that the approach underlined analysing, trying to define a psychological profile of entrepreneurs.

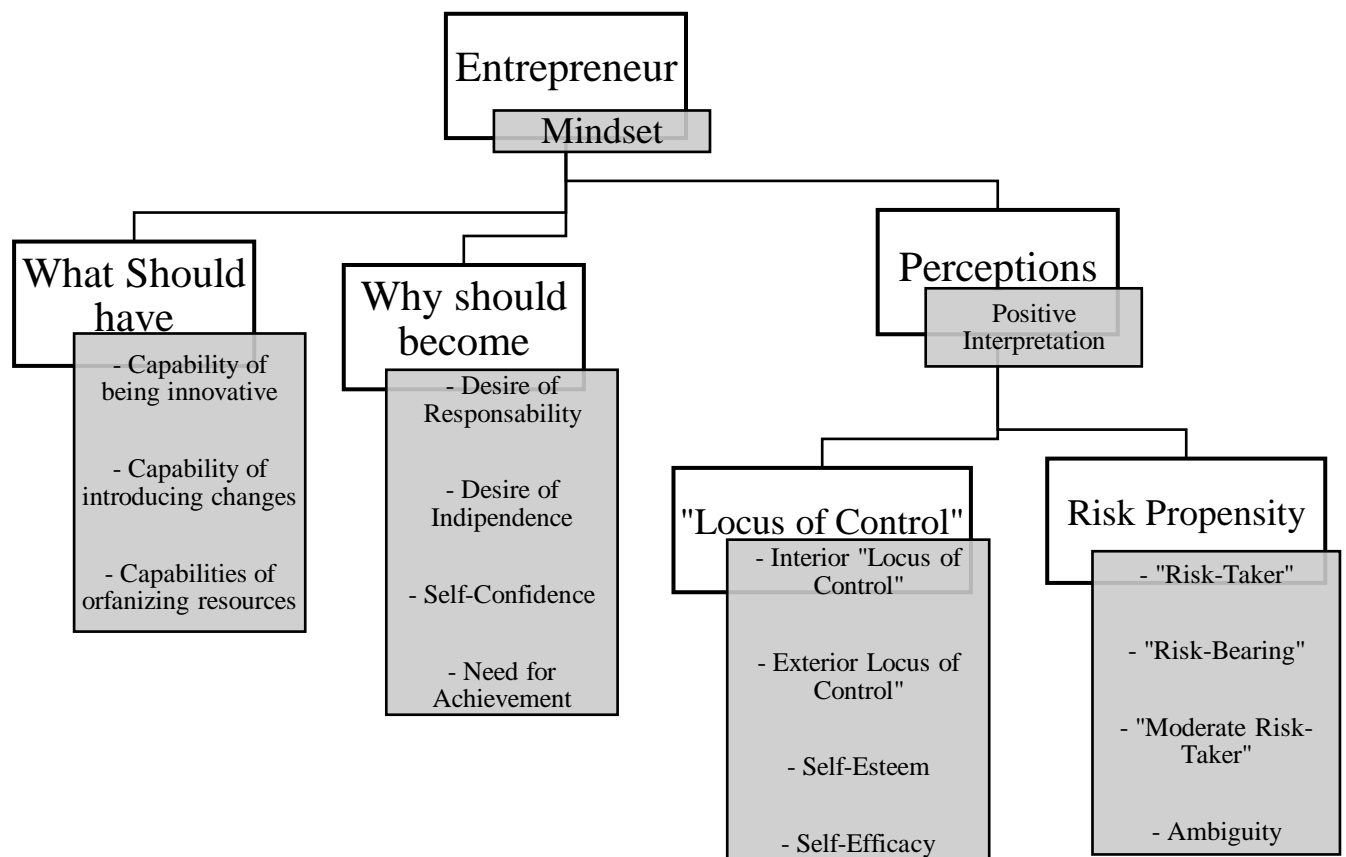


Figure 2: Entrepreneurship Psychological Aspects Source: personal elaboration

### 1.1.3 Contextual Approach

The Contextual Approach, instead, focuses on the context and its impact on entrepreneurial activities (Matricano, 2020) This approach investigates all the impacts that can influence the performance or sustainability of the company. The context has been a divide in different levels and categories to better understand from where it can influence the Entrepreneur's activities. It is

<sup>15</sup> It is related to the individual's perception of himself and his capabilities (Bandura, 1995).

<sup>16</sup> It is related to the valuation that the individual has of himself and his competences, higher it is, and the motivation that pushes to act (Rosenberg, 1965).

possible to identify a physical level (Low & MacMillan, 1988), Social level (Thornton, 1999) and Institutional level (North, 1990).

The first one is related to the environment in terms of Physical distance between subjects that make an economic exchange (Matricano, 2015). The social level focuses on the effect of relationships created by the company with different actors, and the institutional refers to all the different rules and agreements that can affect normal operations of the firms. It is crucial to underline all the differences that can emerge between different countries or regions to understand the possible choices the company can make and how it has to protect itself from the external environment in order to survive. There are many socio-cultural references of demographic tendencies like population increase and entrepreneurship culture diffusion (Matricano, 2015). Every country has its regulatory framework and its specific market, changing the level of competition and prosperity. A significant problem related to all these variables is that they are mutable, and some of them are not so easy to identify and understand. For example, political variables that comprehend all normative changes related both to economic exchanges, employment and taxation are easy to identify because these variables are country specific. Instead, socio-cultural variables can be diversified by region inside a country or even more. These variables are related to rules and behaviors that social groups can use concerning the entrepreneurship phenomenon. It let us understand how entrepreneurship is a mutable phenomenon that is different context by context (Matricano, 2015) changing all the possibilities that the company can consider.

An important concept to study the entrepreneurship context is the idea of industrial districts introduced by Marshall (1890) defined as a social-economic entity that comprehends a group of firms that operates in the same productive sector, and localized in a precise area, collaborating or competing with each other (Marshall, 1890). Inside these districts, it is possible to gain improvements due to the environment inside them: it can lead to a cost reduction in employment, resource attraction, and innovation diffusion (Matricano, 2015).

Becattini (1989) introduced an essential key lecture of this concept revisiting the concept of industrial districts. He redefined it as a social-territorial entity characterized by the active presence, in a precise location that is naturally and historically determined, of a community of individuals and a community of industrial firms (Becattini, 1989). This different interpretation gives to the industrial district concept a higher focus on the potential contribution that individuals can add to the entrepreneurial activity (Matricano, 2015). Becattini underlined how these districts have two main characteristics: a community of individuals and a community of firms. The first one needs that the individuals share the same values and interact with each other with trust,

increasing and improving interactions, and exchanging information that leads to the creation of learning processes. A positive district environment leads to a positive involvement of every member of the community into entrepreneurship activities because of the sharing of the same entrepreneurship culture (Matricano, 2015). Such an environment allows then the creation of new entrepreneurship opportunities that can make the entire community of firms grow in terms of innovation growth and exploiting of working processes.

A substantial effort focused on the concepts related to the positive and hostile context (Covin & Slevin, 1989), in order to focus specifically on the increase and decrease of performance due to a contextual effect (Covin & Covin, 1990). A scenario represents a positive context when there are high numbers of investments and opportunities, making a stable and prosperous economic environment. Instead, a hostile context shows an unstable scenario with high competition and low opportunities. If the effect of a positive context is linear and easy to understand, a hostile context did not show the same relation with entrepreneurial activities. The reason is behind the possibility that such a problematic scenario can stimulate entrepreneurs to overcome difficulties and to become more proactive, acting with a closer entrepreneurship behavior (Covin & Slevin, 1989). On the other side, a hostile context can make entrepreneurs waiting what will happen in the environment because they know that any effort will be for nothing.

#### ***1.1.4 Relational Approach***

The latter approach is the Relational Approach. This approach focuses on the entrepreneurial networks focusing on subjects involved in these networks<sup>17</sup> and on how they are tied together (Matricano, 2020). The essence of the approach starts from the idea: "Relations and cooperation instead of competition". Such a situation can give more benefits and increase the performance of every actor in the network because competition erodes profits for the parties. It is also essential to understand the strength of relationships and in which way are made by the actors involved.

The first effort for the development of this approach comes from Granovetter (1985) that made one of the first links between the economic field and the sociologic one (Granovetter, 1985). He firmly believed that interpersonal relations influence the individual's behavior, affecting different contexts, and also comprehending the working one. He switched from an individual or entrepreneurial network to a firm's network concept. With this new idea, the focus became the

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<sup>17</sup>Networks are defined as a set of high-trust relationships directly or indirectly linking everyone in a social group. A linkage is defined in terms of information flow between two people. It is a two-way flow in which both individuals send messages and receive (Casson, 1997).

study of economic activity and managed not by the Entrepreneur but by firms themselves (Matricano, 2015). These networks of firms are a real aggregation of entrepreneurs with a shared project, became a relationship with a contract that makes for the mandatory to do one or more common economic activities to increase their respective ability to innovate and their competitiveness on the market (Lombardi, 2015). The idea of networking for both entrepreneurs and firms, are based on how they can get access to resources. It is essential to create a strong trust relationship between parties because they are a possibility to reach resources that, without them, can be considered severe or expensive to achieve (Dubini, 1991). The resource attraction is one of the essential points to understand if the new idea can have solid bases and then work; it makes the understanding of the project's realizability. All the relationships can affect the potentiality of the new idea and its realization in the market, making the network relevant for the creation of new entrepreneurial ventures.

### ***1.1.5 Entrepreneurial Ventures***

With these four different approaches to understanding the Entrepreneurship area of study, it is clear that this phenomenon comprehends many different aspects that can modify lightly, moderately, or strongly the final result of the entrepreneurial activity.

Regarding this overview of primary research topics related to entrepreneurship studies, it is possible to understand how these prospects reflect in the definitions of entrepreneurial ventures. For example, depending on the teleological approach starting from the Schumpeter (1911) definition, new ventures are strictly related to their capabilities to innovate; instead, it can also be made by considering the act of organization creation as an entrepreneurship foundation (Gartner, 1988). With one of these criteria to define a set of possible firms that represent entrepreneurial new ventures, both definitions will lead to a very sizable and dynamic population of firms for further analysis. It makes it difficult to make a proper analysis considering new ventures as a set of firms based on particular criteria.

To better apply to the research question of this analysis, the definition will start from an "Emergent Venture" point of view (Morris, Neumeier, Jang, & Kuratko, 2018). This different key lecture of this concept shifts the focus from a "new resource combination" perspective to a "from inception to becoming sustainable or fail" one. Following the path of these new ventures, it gives more relevance to the uncertainty related firms. Innovation, growth, and sustainable business model may or may not happen as well as is not sure if, in the end, the company will have success or fail (Morris, Neumeier, Jang, & Kuratko, 2018). It is also not crucial if the innovation



pattern leads to radical or incremental Innovation<sup>18</sup>, meaning that it does not need to be mandatorily revolutionary or a significant innovation. For the research, the innovation concept will include new products, processes, and services<sup>19</sup>. Then, the size became a less relevant parameter because of all the different phases that these firms face during their "emergent period"<sup>20</sup>. It is also essential to consider all the cases of Corporate Entrepreneurship or intrapreneurship. With these terms, we refer to the case in which new venture creation happens in already existing large organizations<sup>21</sup>. The Corporate Entrepreneurship field of studies, focuses on the entrepreneurship behavior that happens while the quotidianly work inside a company.

There are typically three possible ways for the development of Corporate Entrepreneurship: through Innovation, Renewal, and Venturing. The first two are related to the creation of new products or services and the renewal of the firm's operations. For our purposes, we will focus on the Venturing way, which consists of entering new businesses to expand the boundaries of the company.

A great example of this is Niantic, launched in 2010 by Google to enter forcefully in the Augmented reality hardware market. This new venture, Niantic Labs, was formed inside Google but spun out with the formation of Alphabet (Bundl, 2018). This new venture had all the opportunities to exploit the resources of Google itself to better start in the new project. A situation like this one means access to data, supplies, equipment, knowledge that other competitors in the market can have. Niantic was able to reach great success with the launch of the app "Pokémon Go." The company was able to offer an effective working AR app that allowed Pokémon fans from all over the world to try to catch them walking through the real world. It worked because it was backed by one of the most innovative and big firms in the world.

Given this background, it is now essential to focus on what is crucial in the new venture's life: the financing part. This moment is vital for the Entrepreneur to understand if his idea can have the chance to become real. The Entrepreneur needs to be able to attract investments making the idea the most engaging as possible and decide which type of funding will be the best fit for what he needs to proceed.

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<sup>18</sup> Radical innovations refer to path-breaking, discontinuous, revolutionary, original, pioneering, primary, or significant innovations (Green, Gavin, & Aiman-Smith, 1995); Incremental innovations are small improvements made to enhance and extend the established processes, products, and services (Zhao, 2005).

<sup>19</sup> It also considers new use of established products, processes and services.

<sup>20</sup> Entrepreneurial Ventures are involved in several different markets and industries, so potential revenues and number of employees vary considerably depending on these two.

<sup>21</sup> Drucker in 1994 gave an important contribution to the definition of this phenomenon in "*Innovation and Entrepreneurship: Practice and Principles*." (Drucker, *Innovation And Entrepreneurship: Practice and Principles*, 1994)

## 1.2 Private Equity and Early Stage Financing

Early stages financing is a crucial part of the founders of new ventures. If founders have the chance to not use external funding for their company, they will not hesitate a second to not ask for that but often is necessary. The problem arises when the Entrepreneur finishes all the financial resources and those of family and friends. Usually, by the first significant round of funding, entrepreneurs often have already exhausted it (Benjamin & Margulis, 2005). Considering the Theory of pecking order, firms have a hierarchy of preferences on financing: internal equity over external debt and external debt over external equity financing (Myers & Majluf, 1984).

The quantity needed for each venture differs by different business models that arise for these ventures. Some ventures need only one time to raise money to then become autonomous, and others instead need different rounds of financing.

Firms like Papernest<sup>22</sup>, for example, needed only one round to start working and becoming sustainable. The business model is the key: Papernest offers a digital service to real estate firms for free, and every time a new customer signs a contract for utilities (through its platform), it gains a percentage from the company that offers the utilities to the customer. Papernest will have to pay for each contract the real estate company makes with its customers. The company costs are strictly related to the profit, creating a situation in which there is not a definite necessity of new funding.

There are firms instead that need more money for the development of the product and the commercialization. Start-ups firms usually take different years to reach the break-even point, generating a loss in the first years<sup>23</sup>. So, it becomes relevant for the future Entrepreneur to make a proper forecast of future financial cash flows that the company will have to understand which will be the financing necessity. With a correct forecast of his financial cash flow, the Entrepreneur will be able to ask the right amount of money repaying it with the right amount in the future.

The first initial financing tends to derive from the Entrepreneur himself, family members, or friends as the basis for subsequent acquisition of additional financial resources<sup>24</sup> (Berger & Udell, 1998). Instead, entrepreneurial finance literature focused on how the additional resources secured in new ventures' later stages are mainly due to angel financing and venture capital (Walezczyk, Zehren, & Flatten, 2018). It would be unfortunate if a promising venture will not have adequate

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<sup>22</sup> Start-up founded in Paris in 2015 by Philippe de la Chevasnerie et Benoit Fabre. It is a digital platform that allows taking care of all the contracts to be made when moving into a new house (energy, insurance).

<sup>23</sup> New ventures that generate profits in the early years are rare.

<sup>24</sup> Berger and Udell in 1998 gave for first-time relevance to initial insider financing.

resources to overcome all the difficulties that will have to face. The wasting possibility of promising ideas is the reason why the funding process for these new ventures is a relevant matter. Ventures without resources will never have the possibility to start working and to compete, making even good ideas not to work.

### ***1.2.1 Funding Stages***

Before to start talking about all the different possibilities that entrepreneurs have to finance their new ventures, it is essential to understand how the funding process works.

Every new venture is different not only in terms of industry, market, and business model but also in its founding process. For different reasons, one company can take much time looking for funding and other ones avoiding some stages. Below, we are going to explain the general structure of the funding rounds. This structure is followed only by a bunch of fortunate firms because usually, this process requires many efforts for the majority of firms.

The first stage is "Pre-seed Funding". It is the earliest stage that is possible to consider, referring to when the first operations are going to start, and funds derive mainly from the Entrepreneur itself, friends, and family (Cremades, 2019). Investors in this phase can also become one of the funders instead of receiving equity in exchange. At this point, the Entrepreneur builds the new venture from scratch, and typically the resources that he will gather will not be enough. This phase is one of the most common phrases at the beginning of new ventures.

The "Seed Funding" is the first time that the company succeeded in bringing money into the venture. The Entrepreneur, to attract money in this phase, has to be able to create interest from the investors to the project explaining which he requires from them and what will give back in exchange. The name let us understand that in this round, the company receives the first real financial support that will make it grow until it becomes a "tree". In this phase, the range of potential investors becomes of every type, starting from founders and family to incubators, venture capital firms, and the so-called "angel investor" of which we will go through later (Cremades, 2019). Typically, funders at this round require what they think that is strictly necessary for making their new venture start to grow and succeed<sup>25</sup>.

Series A rounds happen when the company has built a solid track record. These rounds are essential for entrepreneurs seeking to improve their product or services, but more money is needed to reach that goal (Cremades, 2019). What investors will receive back is always the same

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<sup>25</sup>It is vital for the Founder to correctly calculate all the cost and possible profit that can arise in the next years (considering the growth and all the possible scenarios).

in each round, equity, but obviously, the investors' demand can slightly differ depending on the investor's interests. In this round potential investors evaluate how the Entrepreneur exploited the funds received from the seed round (Cremades, 2019). The results that he reached will be crucial for investors to decide to believe in the company and put their money on it or not. Once a company has reached the first investors, the research for other investors can become more manageable. Then there are Series B and C funding to develop the company further the company growth. Series B rounds focus on bringing in investments to expanding the numbers of the company. Thanks to the success and the position reached, the idea is to go after the increasing demand. The goal is to attract investments to convey for the expansion of the offer. The investors' structure is similar to Series A, but there is more relevance to key investors that can attract other investors. This step is a further improvement of an already consolidated reality.

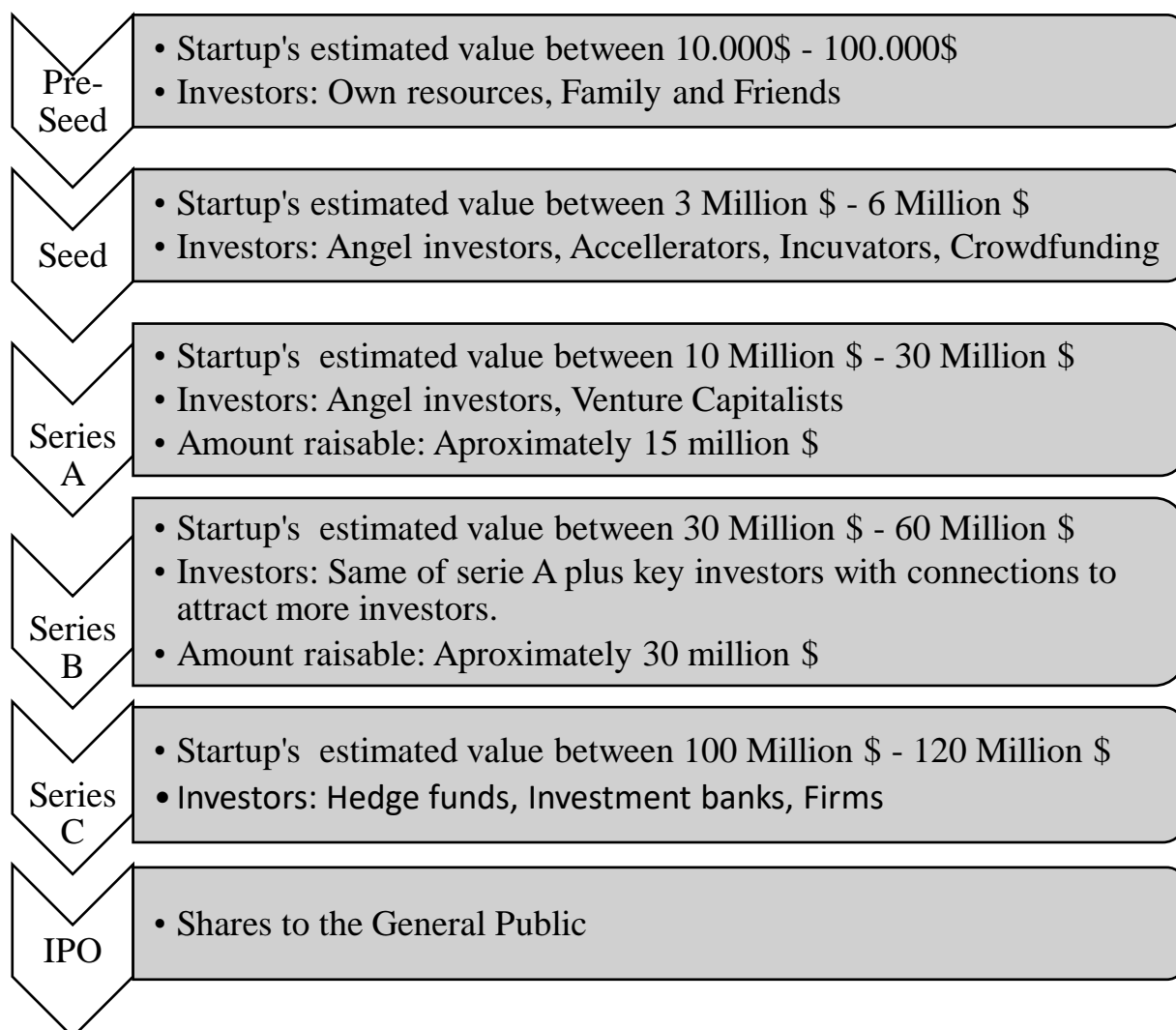


Figure 3: Start-up Funding Stages; Source: personal elaboration

Firms that reach series C rounds are a successful reality that has reached a significant position in its markets. The company became mature and started to think about growth possibilities. This foundation round is related to new product development projects, new market reach, or M&A (Cremades, 2019). It is natural for investors to decide whether to invest or not due to the company situation. A successful and stable company is less risky for a small new business trying to find a position in the market or to create a new one.

After these rounds that sometimes (but rarely) can go even further, the final way of getting financed is the IPO<sup>26</sup> transforming the company from a private company to a public one.

### 1.2.2 Ways of funding

Now, it is crucial to have a proper idea of all the possibilities that the Entrepreneur has when he has to consider a way to fund his company. In the table below, it is possible to see all the different ways of financing that Entrepreneurs can consider for their new ventures.

Table 1; Different financing solutions depending on the equity type. Source: personal elaboration

Equity type	Financing solutions
<b>1. Internal Equity</b>	Entrepreneur funds
	Family members
	Friends
<b>2. Private Equity</b>	Angel Capital
	Crowdfunding
	Accelerators
	Venture Capital & Corporate Venture Capital
<b>3. External Debt</b>	Small business line of credit
	Accounts receivable financing
	Working capital loans
	Small business term loans
	SBA small business loans
	Equipment loans

<sup>26</sup> IPO or initial public offering is a process that usually established businesses and acquires firms by allowing start-ups or even mid-level firms to sell their shares to the general public.

	Direct online lenders
	Large commercial banks
	Local community banks
	Peer-to Peer lending sites

For this research, we will look through the private equity solutions briefly and focus on particular on the Venture Capital solution.

This choice is related to the preference for Entrepreneurs of private capital despite public equity capital. Entrepreneurs like Public equities for the long-term structure, but at the same time, the long time needed to recover from the Bear market reduce their interest and preference in it.

Starting from the Angel Capital, it consists of capital derive from so-called "Angel investors"<sup>27</sup>. This type of investor is mostly wealthy individuals and families willing to invest in high-risk deals offered by people they admire and with whom they seek to be associated or also financially sophisticated private investors willing to provide seed and start-up capital for higher-risk ventures (Benjamin & Margulis, 2005). This type of investor can is like a private informal venture capitalist.

There is not much data about the angel market due to the structure. It involves transactions in private equity securities, not subject to the rigorous disclosure requirements for public equities<sup>28</sup> (Prowse, 1998). Angels investors can have a different degree of involvement in the firm activity, differentiating by an "active" angel and a "passive" angel. An active angel can be one that actively monitors the firms in which he invests in, sits on the board, and advise the firm on various matters (Prowse, 1998). Instead, a passive one provides the money and rarely monitor the firm closely (Prowse, 1998).

Crowdfunding involves individuals, typically entrepreneurial oriented, or entrepreneurial firms raising capital through typically online Internet platforms from large numbers of small investors (Cumming & Johan, 2020) There are several different ways for crowdfunding that comes out in four different types: donations, in which trough platform firms and individuals raise money for charitable causes; rewards, in which entrepreneurs give in exchange rewards for the money raised; debt, in which they raise money from individuals in exchange for debt security; and equity, whereby firms raise money from an individual in exchange for ownership in the firm (Cumming & Johan, 2020)

<sup>27</sup> There are almost 400,000 active angel investors, according to Forbes (Harroch & Sullivan, 2019).

<sup>28</sup> Also, there is almost no institutional infrastructure supporting the market.

In Table 1.1, we collocated the crowdfunding solution between the equity's solution because, considering the research, on an entrepreneurship-oriented vision is most commonly to take into account equity ways of crowdfunding. Crowdfunding is a cheap and effective way for entrepreneurs to raise capital at their earliest stages of starting and growing their ideas and products (Cumming & Johan, 2020). These platforms function as intermediaries between the two parts, Entrepreneurs and investors, screening and monitoring the Entrepreneurs before taking into account his request (Agrawal, Catalini, & Goldfarb, 2015).

The significant problem that arises in this type of funding option is related to the asymmetry of information. Successful crowdfunding enables entrepreneurs to seek capital at a very early stage of development when there is a scant track record, and scant information disclosure requirements and regulation requires effective handling of information asymmetries and agency problems (Cumming & Johan, 2020).

Incubators and accelerators raised much space in the new ventures' environment due to the morphological changes in the entrepreneurship mindset. New Entrepreneurs are younger and have less experience and knowledge about their industries than in the past years. The relevance switched from knowing about the market to understand all the problems with the way the market works (Kestenbaum, 2018). The difference between these two is that incubators are places where ideas turn into a start-up, instead accelerators, where existing start-ups turn into more developed or sustainable businesses (Kestenbaum, 2018). What is relevant for us is the work that accelerators do to new ventures that approach with them. Accelerators do not only give fund, but also support early-stage, growth-driven firms through education, mentorship, and financing; Start-ups enter accelerators for a fixed time, and as part of a cohort of firms (Hathaway, 2016). This means a high level of mentorship to make venture growth in the best and fast ways possible. The last way is trough Venture capital or Corporate Venture capital. Previously we described which is the meaning of corporate venture capital, recalling the concept of entrepreneurship in large organizations. In the case of venture capital, instead, the entrepreneurship phenomena happen outside a large organization, meaning that entrepreneurs look for a company that can help their new venture. Firms backed by venture capitalists tend to achieve a higher survival rate than those that are not<sup>29</sup> (Cumming D. J., 2010).

In the next paragraph, we will go more accurately trough the concept of Venture capital, describing the phenomena from its beginning.

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<sup>29</sup>Survival for VC- Backed ventures ranges from around 65% (Sahlman, 1990) to 85% of the VC portfolio (Dorsey, 1979).

### **1.3 Venture Capital Phenomenon**

Through venture capital, we mean a professionally managed pool of capital invested in equity-linked securities of private ventures at various stages in their development (Sahlman, 1990). It can be considered a financial intermediary that invests when others do not want to invest due to the high risk of investments in new ventures.

Venture capital is actively involved in the management of new ventures funded by them, putting managers between the members of board directors and retaining necessary economic rights in addition to their ownership rights. Primarily a partner lends money to the venture capital firm and afterwards he expects a return from it. The venture needs to screen properly between the possible ventures to invest in and then help them grow both with investment and solving potential issues (Metrick & Yasuda, 2010). The venture capitalist will propose to the venture the terms related to the degree of control rights and financial evaluation, with the purpose at the end to exiting the investments.

Venture capital is not to consider as a homogeneous phenomenon (Meglio, Mocciaro Li Destri, & Capasso, 2017) because it varies a great deal in terms of legal form, size, and stage of investment, motives, and criteria for investing, timing, and exit methods (De Clercq, Fried, Lehtonen, & Sapienza, 2006). Venture capitals, as described before, represents a particular segment of the private equity market associated with equity investments made for the launch, early development, or expansion of new ventures (Zider, 1998).

The process that these firms make, while searching the right new venture in which to invest, comprehend three different phases: the pre-investment, the post-investment, and the exit (Tyebjee & Bruno, 1984).



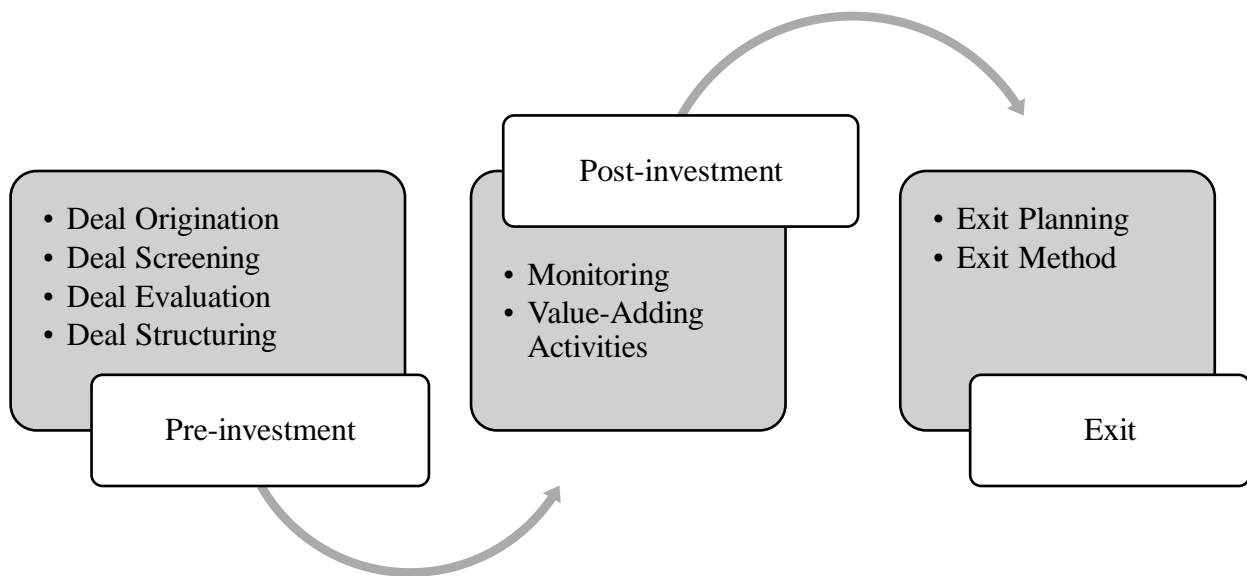


Figure 4: Venture Capital Investments Lifecycle; Source: (Meglio, Mocciaro Li Destri, & Capasso, 2017)

### 1.3.1 The Venture Capital investment lifecycle

The first phase, related to the pre-investment period, start with the deal origination, so with the Entrepreneur and the venture capitalist in an initial contact getting information from one another (Meglio, Mocciaro Li Destri, & Capasso, 2017). In this stage, the new venture must make a good impression to keep the venture capitalist interested and motivated to proceed with further steps. If the venture had success with it, then, the venture capitalist starts the screening stage that looks trough the industry sector, investment stage, geographic location, and amount of capital needed (Shepherd, 1999). After the screening process, if satisfactory for the venture capitalist, it will start a due diligence process that involves a variety of information gathering that typically focus on: the venture's management team, the market, the product or service, and the venture's financial potential as essential elements in their investments decisions (Zacharakis & Meyer, 2000). Once the venture capitalist gathered all these pieces of information and the business plan of the company convinced the venture capital firm, the two parties start to work on the deal structuring (Payne, Davis, Moore, & Bell, 2009). At this point, the two parties set up the price of equity securities and the rules regarding the allocation of cash flows and control rights (Meglio, Mocciaro Li Destri, & Capasso, 2017).

Once all these steps conclude successfully, the pre-investment stage will end with an investment from the venture capitalist to the new venture. Then, entering the post-investment phase, the activity to take care of the venture capitalist is the performance monitoring and addition of value (Meglio, Mocciaro Li Destri, & Capasso, 2017). It is a relevant stage for the venture capital firm because it receives payments from investors to monitor the venture capital fund's investments (Sahlman, 1990), and also much of their compensation depend on the fund's investments performance because often have a significant personal investment in it (Gifford, 1997). The monitoring action helps to keep contained the agency risk related to the relationship created between the Entrepreneur of the new venture and the venture capitalist<sup>30</sup>. During this phase, it is also essential the adding value process by the venture capitalist to the new venture. The venture capital firm has to involve itself in different value-adding activities (Busenitz, Fiet, & Moesel, 2004) like feedback, networking, reputational, and disciplinary (Meglio, Mocciaro Li Destri, & Capasso, 2017). The company sends feedbacks as advice to the Entrepreneur and the top management team taking care matters that range from financing from other investors<sup>31</sup> to make plans for an IPO or acquisition (Megginson & Weiss, 1991), to developing management procedures (Meglio, Mocciaro Li Destri, & Capasso, 2017).

It is also critical when there is a necessity to find the right players to create a proper network. It helps to overcome problems and to find better solutions in terms of cost, quality, and effectiveness.

The cycle ends with the exit phase, which represents the remuneration moment for the venture capitalist. At this point, the venture capitalist can convert non-liquid equity positions in a private company into cash or publicly traded stock<sup>32</sup> (De Clercq, Fried, Lehtonen, & Sapienza, 2006). The reasons behind the change of financial investor can derive from prospective: the successful growth of the invested company, the necessity of a new partnership with the different capabilities and or more significant financial resources, or a necessity of the venture capital fund (Cumming D. , 2008). This final phase typically happens three to seven years after the venture capitalist's investment (Meglio, Mocciaro Li Destri, & Capasso, 2017).

Explained how this type of company works and which are all the different phases they face for each new venture; we will go through how this phenomenon born and grow until today.

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<sup>30</sup> The monitoring activity comprehend the establishment of achievable milestones within a reasonable time horizon (Sapienza & Gupta, 1994)

<sup>31</sup> Such as venture capitalists or banks.

<sup>32</sup> Then, the venture capitalist has the choice to decide to exit by selling its stake to another investor.

### **1.3.2 Venture Capital History**

There is no clear information about the first appearance of the venture capital phenomena, but it definitely refers to the U.S geographic area. The modern venture capital era is linked to after the Second World War, with Laurence Rockefeller<sup>33</sup> as one of its most significant participants (Rind, 1981). From that point, more wealthy family groups become venture capitalists due to previous success investing in new ventures. Venture capital firms born to fill the gap made by the financial crisis in 1929<sup>34</sup> and the subsequent world war; it was thought as a minor response to the overall problem arose. The idea was to give support to small innovative new firms or smaller firms seeking to upgrade and expand their operations (Hus et al., 2005). The support aimed to become a huge source of capital gains and new employment creation, leading with innovations development to an improvement of the industry and the creation of new ones. It was elaborated after the crisis of 1929 but implemented only after World War II when facing the necessity of recovering from the Great Depression and the effect of New Deal reforms. In reality, it was the beginning of an institutional form at the base and a critical component of the U.S national innovation system (Hsu & Kenney, 2005).

An essential point in Venture Capital history is the formation of American Research and Development in 1946 by George Doriot and other professors from MIT<sup>35</sup> and Harvard. It was the first venture organization open to public investment (Rind, 1981). Unlike other venture capitals, it was the only non-family venture capital firm<sup>36</sup>. ARD did not have its financial founds, but it had to find founds from institutional investors and the public. The belief was that the development, coupled with professional management, could provide economic growth and capital appreciation (Hsu & Kenney, 2005). ARD faced different problems during his existence but helped to understand different critical issues for the small business and early stages of financing. It was clear that professional managers were not only able to screen all possible ventures to finance but also to give assistance to them while growing.

Venture capital becomes an essential solution of how to fund innovations that fell outside existing corporate boundaries, being more successful where it can pioneer new economic spaces (Hsu & Kenney, 2005).

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<sup>33</sup> Famous was the help given financially to Eastern Airlines in 1938 and McDonnell Douglas 1939

<sup>34</sup>The "Great Crash" of 1929 was a significant stock market crash that represented the most devastating stock market crash in the history of the United States (Wall Street Crash). It started with share prices on the New York Stock Exchange collapsed in September.

<sup>35</sup>Massachusetts Institute of Technology

<sup>36</sup>All the venture capitalists related to the afterwar period derive from wealthy families searching for suitable investment opportunities that can lead to high returns. An example of these is Rockefellers, Whitneys, Payson, and Trask.

The success that it had in the U.S Market attract much interest from other countries that started to follow, even if still with lower numbers. Now, the venture capital market is mature and with a large number of players that do vast numbers of transactions every year. In the figure below, it is possible to see the most significant players by the number of transactions made in 2019.

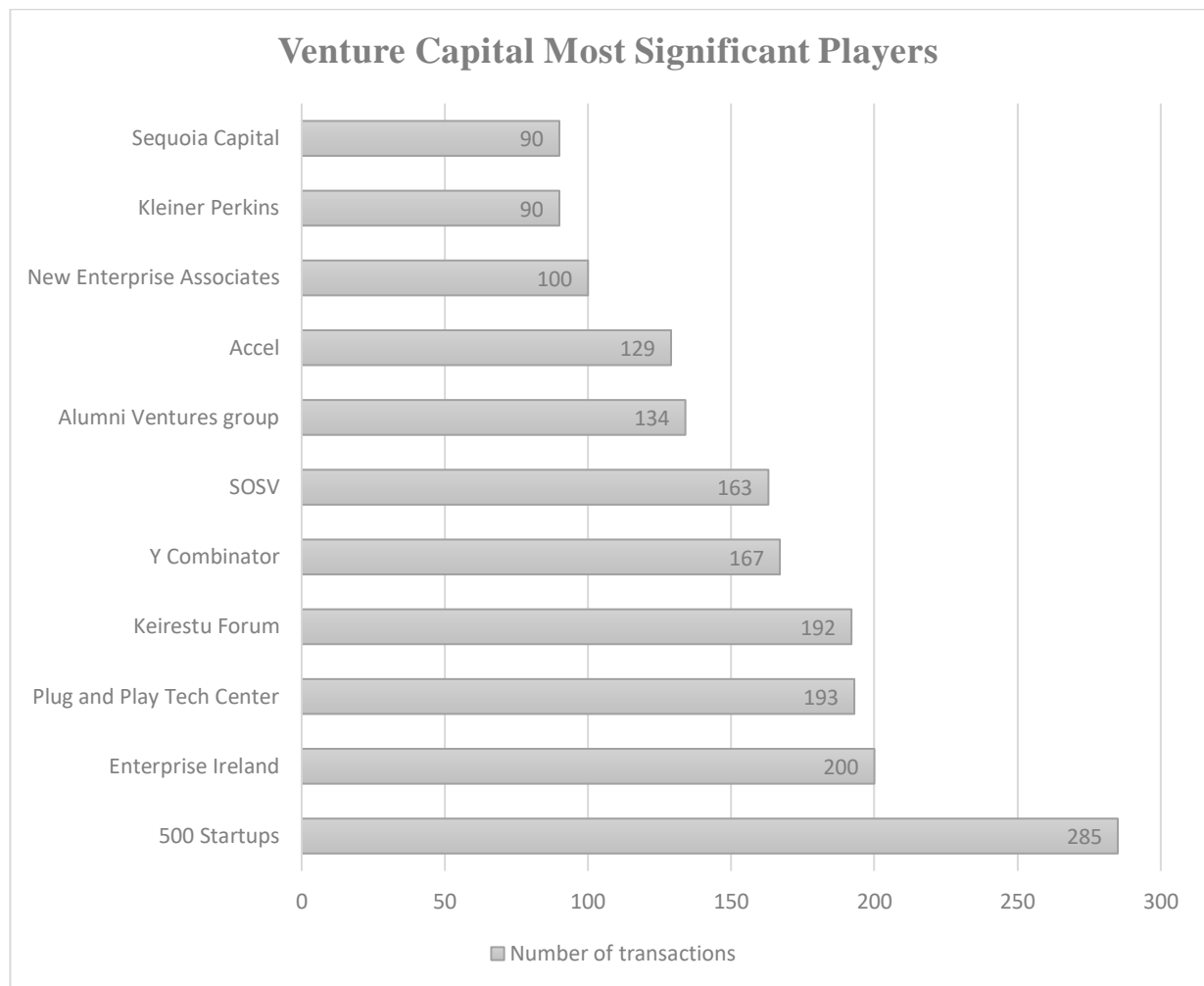


Figure 5: VC Most significant players by transaction (2019); Source: Statista 2020 (Rudden, 2020), Pitchbook.

Each transaction represents one different company with the venture capital firm started to work and in which invested. It makes understand how significant these players are, having to invest considerable capital to make each company grow properly. These firms also need to invest much effort to put correctly fit professionals to monitor, manage, and help these new ventures that became fundamental for the profitability of venture capitalists themselves.

The impact that these Venture Capital firms make on the new venture with which they are in contact shows the effort need to reach that type of result. "Obtaining venture capital is related to a variety of organizational milestones, such as the formulation of human resource policies, the adoption of stock option plans, or the hiring of a VP of sales and marketing" (Hellmann & Puri,

2002). In these cases, also happen more frequently that funders are replaced by outsider in the position of CEO to improves the company's activities, often keeping funders in the company despite that.

It is crucial, then, to understand if these types of changes are always suitable for a new small venture that is trying to reach the market with a new idea. So, now we will analyse the benefits and the backward related to be backed by a venture capitalist firm.

### **1.3.3 Benefits and Backwards of Venture Capital funding**

The impact that these Venture Capital firms make on the new venture with which they are in contact shows the effort need to reach that type of result. "Obtaining venture capital is related to a variety of organizational milestones, such as the formulation of human resource policies, the adoption of stock option plans, or the hiring of a VP of sales and marketing" (Hellmann & Puri, 2002). In these cases, also happen more frequently that funders are replaced by outsider in the position of CEO to improves the company's activities, often keeping funders in the company despite that.

From a data related study on the life cycle dynamics of VC-Financed and non-VC-Financed firms of Puri (2012), that took into account a set panel of 25 years, it derived that Venture capitalists disproportionately invest in firms that have no commercial sales but that exhibit high levels of the initial investment. Further, VC-financed firms grow larger than non-VC-financed firms, as measured by employment and sales, suggesting that VC backs firms that can achieve a large scale (Puri & Zarutskie, 2012). VC-financed firms also exhibit more significant levels of sales, but their payroll expenditures increase correspondingly, so VC-financed firms appear no more profitable than non-VC financed firms before they are exit (Puri & Zarutskie, 2012). Significant data that comes out is also related to the statistic about exit percentages for both VC-financed Firms and the not ones.

*Table 2; Exit Percentage; Source: elaboration of data from Puri (2012).*

Exit solutions	VC-Backed Ventures	Not VC-Backed Ventures
Fail	39,7 %	78,9 %
Acquisition	33,5 %	1,04 %
IPO – Become Public	16,1 %	0,02 %

As shown in table 2, ventures not financed by venture capital firms profoundly struggle with failure, rarely reaching a satisfactory result. These data are significant, considering that, instead, VC financed firms give an improved result reducing the percentage of failing significantly (from 78,9% to 39,7%). It is also important to remember that Venture capitalist screen through several different possible firms investing in a minimal number<sup>37</sup> of them after a precise analysis. Considering this factor, for sure, make the numbers more comprehensible, but still show a better result with this type of financing than without it.

Taking in consideration the case of Corporate venture capital there are few main aspects to consider: if venture capital financing helps new ventures to avoid failure, the case of Corporate venture capital funding is to consider more beneficial to those new ventures requiring specialized complementary assets as opposed to generic complementary assets (Park & Steensma, 2012). The tight relationship created with the Corporate Venture Capital firm gives many benefits when attaining specialized complementary assets because, for example, it can mitigate all the potential opportunistic behaviors that can arise with the providers of this type of asset (Park & Steensma, 2012). In the opposite situation in which such specialized complementary assets are not a requirement, a tied relationship can reduce the benefit of accessing diverse resources in the open market.

Now that we went through both phenomena, analysing them both separately and together, in the next chapter, we are going to understand the geographical dispersion of venture capital firms and new ventures. The geographical location of these two parties is relevant to understanding if there are possible links between the geographical collocation and the decision to invest by the venture capitalist or the research of funds by the new venture.

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<sup>37</sup> According to Puri (2012), only 0,11% of new firms along a period of 25 years were financed by Venture Capital firms.

## Chapter 2 – EV and VC geographical perspective

In the previous chapter, we went through these two phenomena analysing their historical background and their development over the years. Now the focus will switch on the actual market situation of both venture capital firms and entrepreneurial ventures, which is the result of the historical background analysed. It is relevant to understand that this phenomenon grew and developed in different ways depending on every country, creating different levels of entrepreneurship and venture capitalist presence and investments worldwide. A specific example of this is the geographic area of Silicon Valley<sup>38</sup>, in which many high-tech new ventures born and grow thanks to its innovative environment efficiently. In that area, there is a considerable concentration of investors and resources for new entrepreneurs that want to start a high-tech company, having the possibility to find easily specific knowledge that can be useful to the development of their idea. These areas give new entrepreneurs an option for them to locate their company and search for funds, sometimes making them not worth starting their company in their current location. Typically, entrepreneurs decide to start their new venture in a familiar place<sup>39</sup> (Michelacci & Silva, 2007). Still, with the development, they may require access to new resources that are not abundant in their geographic location due to the necessity to finance their growth ambitions (De Prijcker, Manigart, & Collewaert, 2019). This necessity leads them to search for possible funding solutions, considering the venture capital case, and it can make them think about relocating to areas with a more significant presence of venture capital firms. Often, venture capital firms create a massive concentration in a specific area<sup>40</sup> because this phenomenon is strongly characterized by spatial clustering (Cumming & Dai, Local Bias in venture capital investments, 2010). Such a situation makes it difficult for new ventures established in places with the scarcity of venture capitalist presence, difficult to attract investments reducing their probabilities to success. The difficulties in attracting investments from venture capital investors derive from their preference to prefer geographic proximity to their targets (De Prijcker, Manigart, & Collewaert, 2019). The proximity between the two parties facilitates the venture capitalist the venture identification, evaluation, and post-investment monitoring (Mäkelä & Maula, 2006). Venture capital requires and higher return in case of long-distance investments (Chen, Gompers, Kovner, & Lerner, 2010) and also try to mitigate the liabilities related to distance by syndicating with

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<sup>38</sup> This name corresponds to the geographic area of the southern part of San Francisco in the United States of America. It represents the epicentre of high-tech innovations.

<sup>39</sup> This location can be relevant for opportunity identification, resource acquisitions, and all the initial activities related to the development of the new venture.

<sup>40</sup> Two persuasive examples for the U.S. Market are California, as already mentioned with Silicon Valley; and Massachusetts. These two regions are the ones with the greater availability of venture capital firms.

local venture capital firms that can act as leads in these deals (De Prijcker, Manigart, & Collewaert, 2019). This perspective makes the deals more difficult for both the two parties because each of them sees it as less favourable. The venture capitalist will see the investment as riskier and as more challenging to manage, instead of the entrepreneur that will see it as more costly because it will reduce more the number of stakes, he will lose to get the enhancement. Consequently, most long-distance investments by venture capital firms flow to regions with greater availability of Venture Capital investments (Fritsch & Schilder, 2008), increasing the concentration of this phenomenon. A new entrepreneurial venture will decrease the propensity to look for external equity, consequently increasing geographical distance from prospective venture capital investors (Colombo, D'Adda, & Quas, 2019). It will become negligible when reaching a distance greater than 250km or when crossing national borders, independently of geographic distance<sup>41</sup> (Colombo, D'Adda, & Quas, 2019). The situation for new ventures established in places with scarce presence of venture capital firm become critical in both accessing initial foundlings from a local and distant venture capitalist (De Prijcker, Manigart, & Collewaert, 2019).

## **2.1 Worldwide Snapshot of VC and EV Phenomena**

This issue for entrepreneurs when starting their new ventures lead to an interest related to which are the best locations for making their ideas grown considering the type of industry in which the new company will work and the financial and knowledge required to achieve it<sup>42</sup>. The ventures' location may also influence the terms that VC investors offer them because more competitive is the local venture capital market, the better the conditions that venture capital investors must offer to local entrepreneurs (Colombo, D'Adda, & Quas, 2019). A situation like this one happens in regions with a high presence of venture capitalists that have to make better deals to overcome other competitors to reach the few promising opportunities in that area. The result makes suppose a positive influence of competition in the local venture capital market on the venture capital seeking propensity of entrepreneurial ventures located in the same region (Colombo, D'Adda, & Quas, 2019). The positive influence is a belief in reducing the cost by the entrepreneurs when dealing with getting investments from venture capital firms.

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<sup>41</sup> Highly reputed investors can make these distances less strict, making countries borders less powerful and reaching up to 500km for investments in new ventures (Colombo, D'Adda, & Quas, 2019).

<sup>42</sup> Regions like Silicon Valley are recognized explicitly for new high-tech ventures, gathering the best possible employees to develop high tech projects.



It is then relevant to bear in mind, which is the geographic diffusion of the venture capital phenomenon, to better understand which regions give a higher possibility to get in contact with this type of investor.

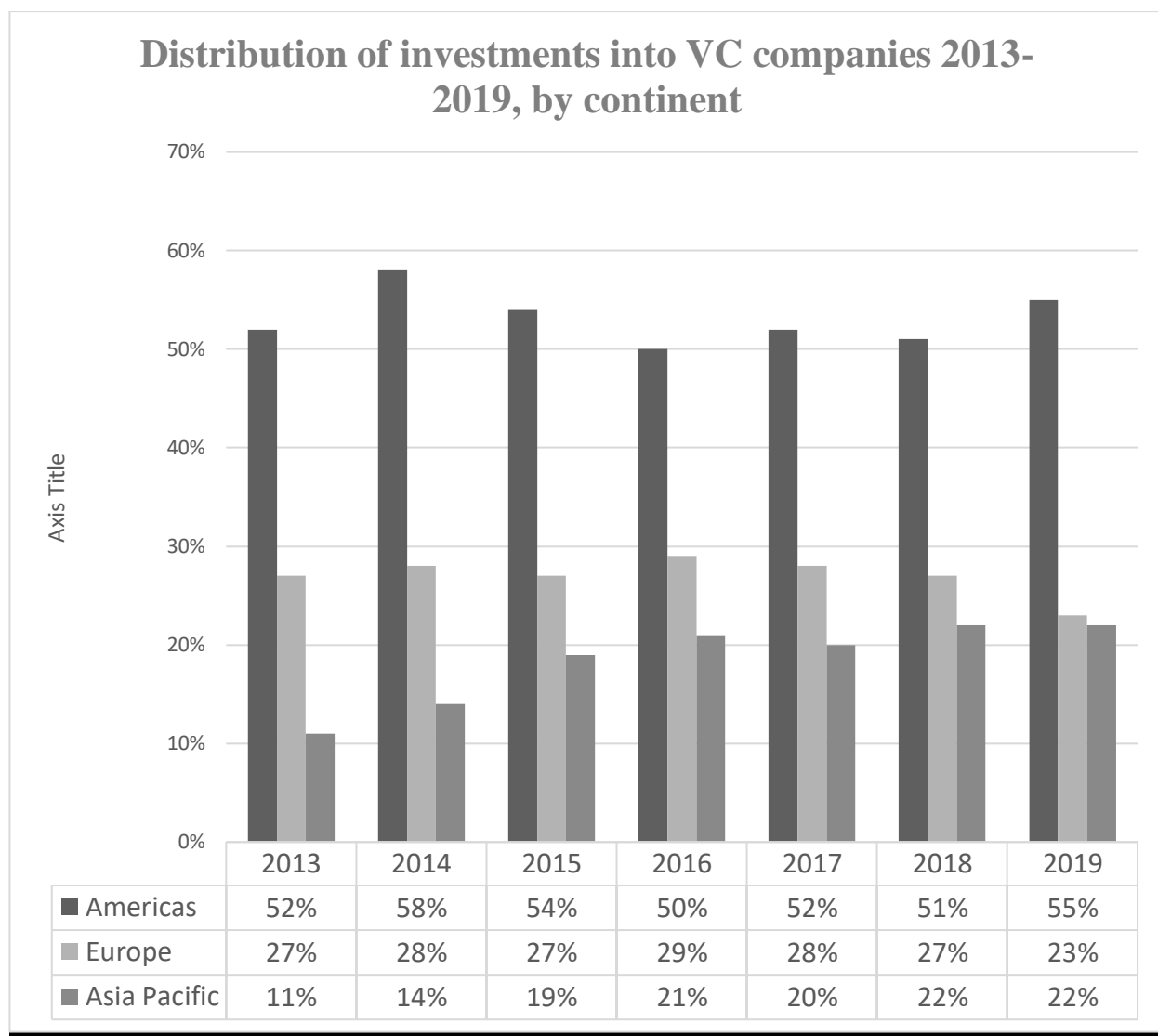


Figure 6: Distribution of Investments into VC companies 2013-2019, by continent; Source: Statista 2020, (Rudden, 2020). Data: KPMG, Pitchbook

As it is possible to see from the chart, the Americas represent almost 50% of the investment into venture capital firms per year, being followed by Europe and Asia Pacific that split virtually the same amount of the remaining percentage. This chart shows that the other continents are trying to reach the Americas<sup>43</sup> levels but are still making lower numbers, not creating the same offer possible to consider when establishing a new venture in these regions. Europe and the Asia Pacific

<sup>43</sup> This difference is strongly led by the U.S area that, as we saw in the previous chapter, was the area in which the phenomenon developed until today.

are trying to emulate the venture capital U.S market due to the success from its beginning becoming considered as a fundamental source of finance for entrepreneurial ventures (Gompers & Lerner, 2001). In 2018 the U.S market alone made almost 49 billion \$ of investments in venture capital organizations followed by Europe with only 21.2 billion \$. Taking into consideration that the six most significant venture capital in the world in 2019 by the number of transactions are all based in the U.S, and the majority of them are precisely in the San Francisco Area<sup>44</sup> (Statista.com, 2020), these numbers can be the right reflection of that. The only one that is not in that area and for dimensions is quite similar is Enterprise Ireland<sup>45</sup>. The growth in venture capital investments in Europe and the Asia Pacific is continually growing year by year despite the U.S market in which there is a more fragmented growth due to a more mature market. The relevance of venture capital firms is correlated to the importance of the entrepreneurial venture activity for the wealth of countries because they sustain the potential of the country's economy and, more than everything else, create new employment spots. It also put the first steps to create a robust innovation system for the country, creating a reliable source to improve the current economic system.

### **2.1.1 Total-Early Stage Entrepreneurial Activity - Worldwide**

After considering the venture capital activity level, it is crucial to understand how this number is reflected in the percentage of early-stage activity<sup>46</sup> in the same geographic areas. With the Total Early-stage Entrepreneurial Activity (TEA), we refer to the proportion of the working-age adult population actively engaged in starting or running a new business (Bosma, et al., 2020). It includes the sum of those that are actively starting a new business<sup>47</sup> plus those already running a new business<sup>48</sup>, without double counting those who are comprehended in both categories (Bosma, et al., 2020).

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<sup>44</sup> The first venture capital by the number of transactions is 500 startups, then there are Plug and Play Tech Center, Keiretsu Forum, Y Combinator (all based in the U.S).

<sup>45</sup> Enterprise Ireland is an Irish state economic development agency focused on helping Irish-owned businesses deliver new export sales. Enterprise Ireland aims to accelerate the development of Irish enterprises capable of achieving strong positions in global markets resulting in increased national and regional prosperity and purchasing power

<sup>46</sup> "An economy's total early-stage entrepreneurial activity (TEA) rate is defined as the prevalence rate of individuals in the working-age population who are actively involved in business start-ups, either in the phase in advance of the birth of the firm, or the phase spanning 42 months after the birth of the firm" (Duffin, Early-stage entrepreneurial activity rate in the Americas by country 2019, 2020)

<sup>47</sup> They have not yet paid salaries or any other payments. This type of entrepreneur is recalled as "The Nascent Entrepreneur" (Bosma, et al., 2020)

<sup>48</sup> They have paid wages and founders, but for less than 42 months.

Before going through the numbers related to TEA worldwide, it is essential to briefly consider the implications of different income levels between the countries. Countries with higher income levels, potential entrepreneurs have easier access to all the resources necessary for successful start-up activity. It also includes a significant presence of potential investors for their new firms. Instead, in regions with lower income levels, the less viability of resources is compensated by a higher motivation to start a business. The motivation results in higher in these countries due to the absence of alternative income resources and a higher chance of less intensive competition with a growing demand for new products and services (Bosma, et al., 2020). The result of this type of situation is that countries with a higher level of incomes result with lowers level of TEA, and, instead, countries with lower levels of income result with levels that can vary from very low to very high levels that will depend on the specific conformation of the region.

More precisely, if an economy is expanding, it is natural that there are more attractive entrepreneurial opportunities for potential entrepreneurs. The meaning of the positive effect is related to the GDP<sup>49</sup> growth that increases the demand for venture capital (Felix, Pires, & Gulamhussen, 2012). The effect is also valid on the supply side because an economy expanding also brings periods of high profitability due to these businesses (Romain & de la Potterie, 2004). At the same time, the increase in the level of interest rates harms the supply of venture capital because it makes investments more expensive<sup>50</sup>.

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<sup>49</sup> "Gross domestic product (GDP) is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific period. As a broad measure of overall domestic production, it functions as a comprehensive scorecard of a given country's economic health." (Chappelow, 2020)

<sup>50</sup> This situation makes the attractiveness of investing in venture capital funds diminishing (Felix, Pires, & Gulamhussen, 2012).

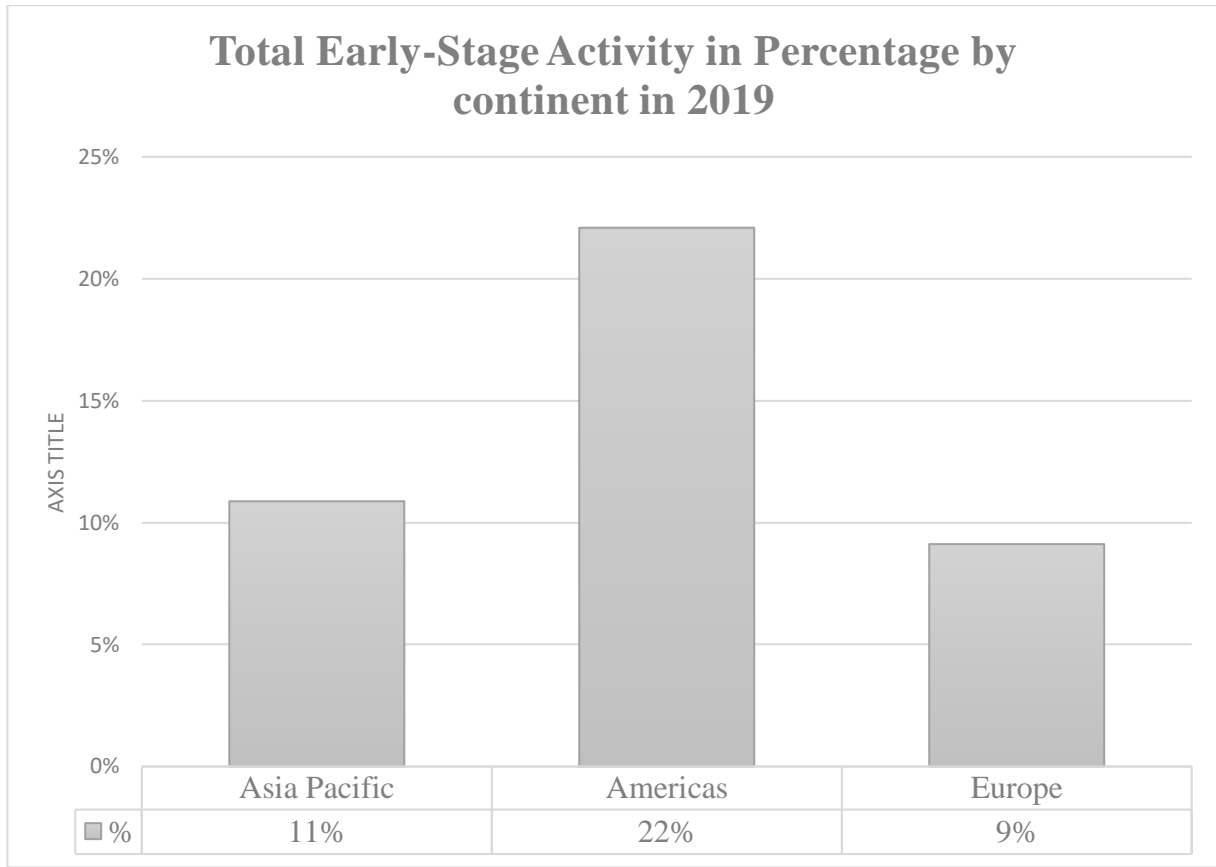


Figure 7: Total Early-Stage Activity in percentage by Country; Source: personal elaboration of data from GEM (Bosma, et al., 2020)

As it is possible to see in figure 7, the entrepreneurial activity reflects what we saw in the previous graph regarding venture capital activity. Americas shows. Also, in terms of entrepreneurial activity, leadership. It is crucial to notice that this number is led, in particular, by the Latin American and Caribbean regions, with a 36.7% of Early-stage Activity in Chile (Bosma, et al., 2020) . Due to their underdeveloped markets, these Latin American countries are showing a significant number of potential entrepreneurs rising from scratch. People in these countries are mainly motivated to earn a living because jobs are scarce, while in other countries in the world, there is a wider variety of motivations with the same weight<sup>51</sup>. The income level is an essential factor in entrepreneurial activity because, for the reasons mentioned before, when there is a low-income level, there is a more entrepreneurial activity. The Madagascar country has a higher % of TEA<sup>52</sup> than in the U.S or Canada, making it easy to understand how the scarcity of high levels of income makes individuals looking for entrepreneurial opportunities.

<sup>51</sup> Typical motives that are mostly agreed by the entrepreneurs worldwide are: to make a difference in the world; To build a great wealth or very high income; To continue a family tradition; to earn a living because jobs are scarce

<sup>52</sup> The Total early stage of activity in Madagascar is about 19%, considering the entire population.

The North American regions have a higher percentage than in the Asia Pacific and Europe, with 17.4% in the U.S and 18.2% in Canada (Bosma, et al., 2020). This result underlines more how the U.S market structure for new entrepreneurs, is giving them more opportunities and possibilities. Places matter because entrepreneurial activity occurs within a specific context related to the environment in which they are collocated, with specific social, cultural, and economic characteristics (Bosma, et al., 2020). A substantial effort to the entrepreneurial venture diffusion in the U.S is related to the type of business in which the most crucial venture capital and entrepreneurial ventures hubs focused on business services. Instead of customer services that are relatively low-cost and with low entry barriers but potentially with fierce competition and low margins, business services are typically characterized by technology or knowledge intensity, making them more difficult to replicate<sup>53</sup> (Bosma, et al., 2020). According to GEM (2019/2020), the U.S shows how their business services are also more inclined to be something entirely new for the entire world. This country has shown a high level of products and services that are new to their area or country and the entire world, with a higher percentage than every country in Europe or Asia & Pacific.

### **2.1.2 Industry sector distribution of new entrepreneurial ventures - Worldwide**

These numbers must mislead if not directed in the right direction. It is vital to collocate each investment and a new venture in the right industry, understanding in which directions the venture capitalist tend to invest and where these propensities are geographically located. There are regions like Silicon Valley in which the concentration of venture capitalists, and then entrepreneurial ventures, are characterized accurately for being all reconnected to High-Tech ideas. Each industry has its percentage of entrepreneurial activity and correlated investment attractiveness.

The sector distribution is relevant because it can indicate a change in the economy. New sectors emerge and grow, enhancing the business's ability to grow and prosper. Instead, older ones stagnate or decline. Potential Entrepreneurs consider starting new activities in sectors with all the possible positive effects that can enable them to thrive<sup>54</sup>.

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<sup>53</sup> The difficulty of replication leads to higher durability.

<sup>54</sup> It can include abundant natural resources, Human and financial capital, growing markets, low entry barriers, government support (Bosma, et al., 2020).

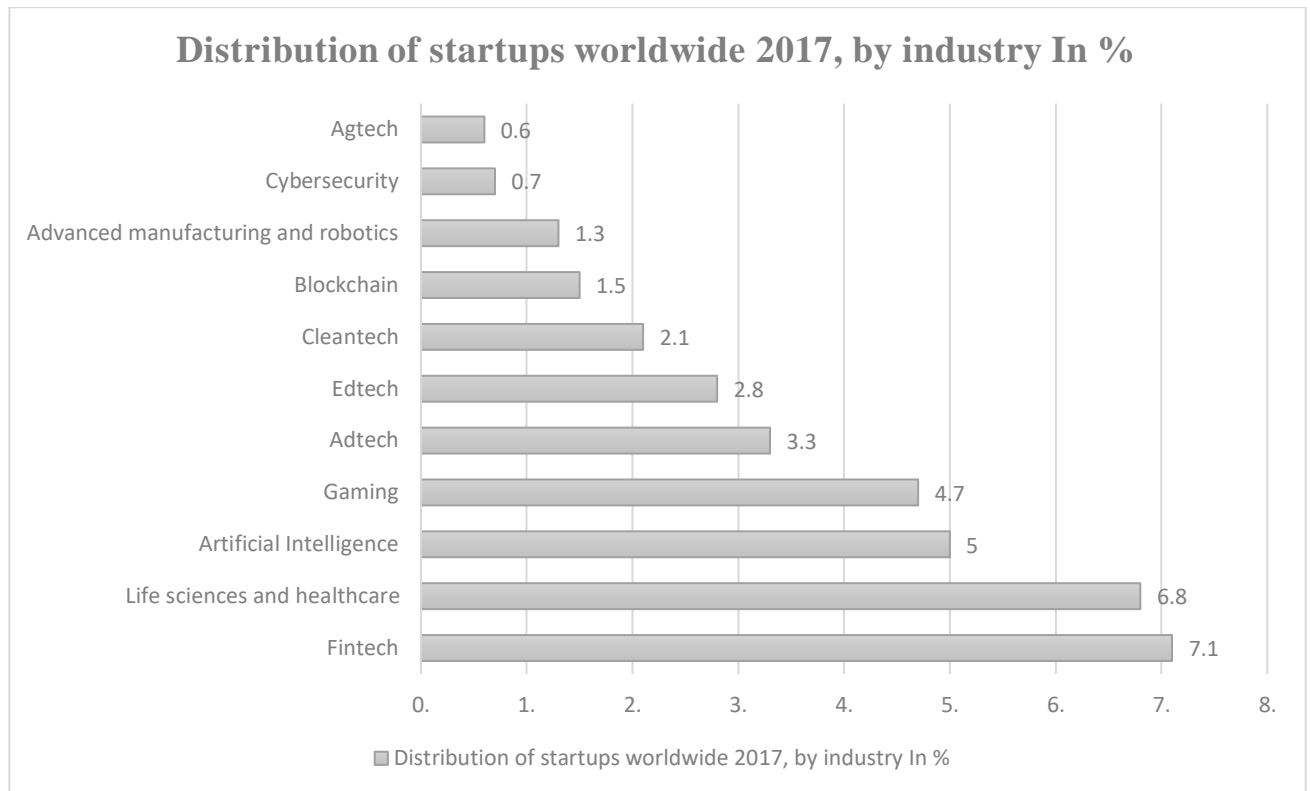


Figure 8: Distribution of Startups worldwide 2017, by industry; Source: Statista.com (Duffin, 2019)

As it is possible to see from the chart, the prevalence of the new start-up creation is related to a tech-related industry. The technologization of many different industries is one of the critical aspects of the current innovation period, revolutionizing production process, and conformation. The Fintech<sup>55</sup> industry is the most representative one, followed closely by Life sciences and healthcare. The reason for the Fintech numbers is related to its importance in helping firms, business owners, and consumers better manage their financial operations, processes, and lives (Kagan, 2019) The diffusion of smartphones helped this phenomenon, even more, allowing it to make it more useful than ever before. The switch to the diffusion of more consumer-oriented perspectives made the number of sectors included in Fintech increase, including, for example, education, retail banking, fundraising and non-profit, and investment management (Kagan, 2019). With this connotation, the numbers related to fintech becomes even more significant because other voices in the chart should be included in it<sup>56</sup>.

Lifesciences and healthcare are the closest to fintech's number, having to increase much interest around itself with all the possibilities of digitalization and technologization of services and facilities. Also, big organizations like Amazon, Apple, Google, and Facebook are looking to

<sup>55</sup> Financial technology (Fintech) refers to new tech that seeks to improve and automate the delivery and use of financial services (Kagan, 2019).

<sup>56</sup> Considering Kagan's (2019) definition, it should include, for example, EdTech and Blockchain.

create new services with new ventures to enter this market. The idea of corporate venture capital to exploit resources and capabilities is the main idea of these firms to enter this market with a high potential of innovations.

### **2.1.3 Established Business Ownership - Worldwide**

The diffusion of these phenomena isn't relevant if the percentage of the new venture that becomes a mature company is considered. It is important to understand how many ventures become a substantial reality in the industry. Here is an important criterion that can reflect the number of entrepreneurs that own a mature company in a specific area: the Entrepreneurship Business Ownership (EBO). It is an excellent parameter to analyse the health of entrepreneurship in a country because typically, the proportion of adults starting and running a business exceeds that of those owning established businesses<sup>57</sup> (Bosma, et al., 2020). The relationship between early-stage activity and established business ownership<sup>58</sup> is significant in understanding the effectiveness of the entrepreneurial activity in the economy. The ratio of early stage to established business activity in each of its extremes does not indicate a bad or good situation of the entrepreneurship environment in the area. Considering a low ratio of the two parameters, it can indicate a situation with potential difficulties in replenishing an economy's business base in the future (Bosma, et al., 2020). At the same time, a very high ratio can indicate difficulties related to the transitioning of venture into established businesses<sup>59</sup>. A high ratio can be the reflection of entrepreneurs that start a business for short-term financial gain or as a stop pending other options (Bosma, et al., 2020) Instead, in the case is not due to the entrepreneur's reasons, the business environment may not be conducive to enabling that development over time (Bosma, et al., 2020). The possibilities can also include that entrepreneurship rates may be on the increase, and these may not yet be reflected in the established business rate (Bosma, et al., 2020). The majority of economies have a higher level of early-stage entrepreneurship than established business

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<sup>57</sup> This could be a time lag issue for those economies experiencing a recent increase in entrepreneurship that is not yet reflected in mature activity (Bosma, et al., 2020). However, there can be little doubt that this points to difficulties in some economies in transitioning new starts into established businesses (Bosma, et al., 2020).

<sup>58</sup> "Established business ownership rate refers to the percentage of 18-64 population who are currently owner-manager of an established business, i.e., owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than 42 months" (Duffin, 2019)

<sup>59</sup> It comes with a high number of early-stage activity that makes more critical the low number of resulted in established businesses.

ownerships, showing a distinct time-spending conversion to established businesses<sup>60</sup> (Bosma, et al., 2020).

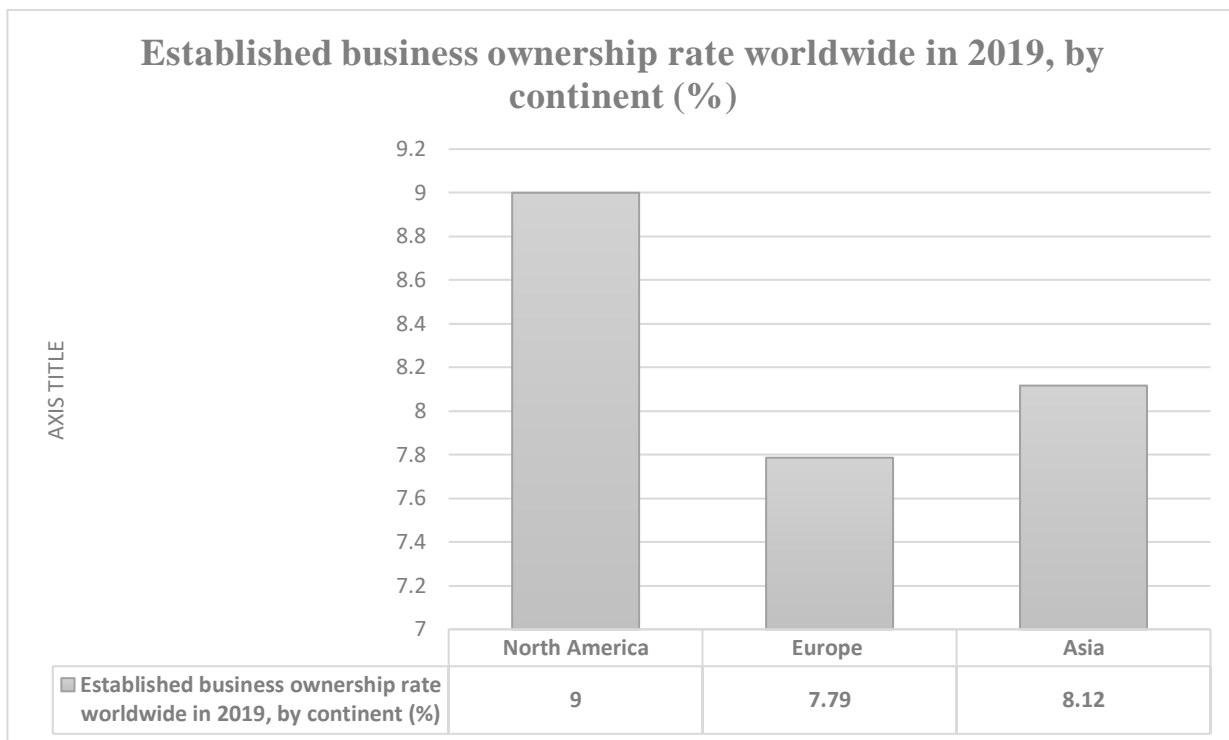


Figure 9: Established business ownership rate worldwide in 2019, by continent (%); Source: personal elaboration of data from GEM (Bosma, et al., 2020)

As shown in the graph, North America region maintain the leadership even when considering the transitioning to established business ownership. Also, this parameter underlined how the America regions are the pioneers of this phenomena and how are better behaving, generating higher results considering other areas. Europe, instead, shows the lowest level EBO with only 7.79 % despite of the 9% of the North America region. This result let understand that Europe as still a lot to do to recover the gap created by the America regions.

Europe has shown, almost for each parameter, to be still underdeveloped to follow the pace of other regions. Its entrepreneurial system needs to be improved and organized to better apply for the current economic system requirements. The current venture capital and entrepreneurial ventures situation makes difficult for a European entrepreneur to decide properly where and how to start its new activity. Entrepreneurs will have to understand properly which are the possible perspectives of the European market and if there are the proper solutions and specifically in which

<sup>60</sup> Only in twelve economies, the level of TEA is lower than the corresponding level of EBO: Italy, Poland, Spain, North Macedonia, Slovenia, Greece, Switzerland, and the Netherlands in Europe and; Madagascar, Pakistan, Japan, and Taiwan. (Bosma, et al., 2020)



country. The fragmentation of the European market makes the choice relevant for entrepreneurs to better collocate the company considering the amount and the quality of resources needed. Then, in the next chapter the focus will be specifically on the European market, going through all the relevant factors that determine the actual entrepreneurial activity in the country and the favourability of the success.

## **2.2 European VC and EV market**

The analysis will focus more on the European area, analysing all the criteria that we saw in the previous paragraph of the chapter. The geographical issue for Europe is more relevant despite that for the U.S market: the European Market is divided into different national markets, creating a fragmented venture capital market (Colombo, D'Adda, & Quas, 2019). The fragmentation is one of the reasons for the underdevelopment of the European High-tech entrepreneurial ecosystem (European Commission, 2007). Recalling the issues related to geographic borders identified by Colombo (2019), this represents a high barrier for the venture capital and entrepreneurial ventures market in Europe. The result is a slower entrepreneurial activity development and an unexpressed potential to innovate blocked by the fragmentation. Recalling that this phenomenon concentrates itself in specific areas, we can identify London and Paris metropolitan areas as venture capital hub centres in Europe<sup>61</sup>, with another small one heterogeneously distributed in the other countries. The country border issues can probably arise when the BREXIT<sup>62</sup> effects arise at the beginning of 2021, considering London's centrality in the venture capital market for the European territory.

The policymakers are striving to help channel more funds to venture capital firms as a form of financial intermediation both on European and national levels. They understood that as a mature venture capital industry, it is the key to the U.S leadership in the commercialization of technological innovation (Bottazzi & Da Rin, 2014). The lack of this mature industry makes European firms competing from a lower level than firms from the United States (European Commission, 1994).

Venture capital in Europe, even if it is still far from the U.S levels, is growing fast in Europe, becoming every time more important for entrepreneurial firms. The real problem related to the European venture capital market is related to the sums invested because are what is growing less

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<sup>61</sup> These can be compared, with the right proportion, to the Silicon Valley, Boston, and New York Metropolitan areas.

<sup>62</sup> Process through which the United Kingdom left the European Union (EU). The decision arises on 23/06/2016 through referendum, and the effective separation will be effective from the 1st January 2021.

than in the U.S. According to Bottazzi (2014), venture capital in Europe is not systematically associated with particularly dynamic firms, underlying as these firms lack more human than financial resources<sup>63</sup> (Bottazzi & Da Rin, 2014). The lack of human resources reflects the immaturity of the industry that the European regions are facing.

The European Commission, working closely with the countries, is trying to improve the efficiency equity investment markets to sustain all the new projects with a suitable investor. The commission's goal is to create a pan-European venture capital market, and, to do so, the European Union adopted the regulation on European Venture capital Funds (EUVECA) in 2013. Through this regulation, the European Commission sets out a new venture capital fund label and put new measures for venture capitalists to market their funds across the EU<sup>64</sup> (European, 2020). As we saw in the previous paragraph, the average EU venture capital fund size is half of the amount in the U.S, and the idea of the European Commission is to enable these funds to grow, making it possible to boost capital contributions to individual firms. With the regulation, firms will adopt a more diversified investment strategy, making them specialize in different sectors like IT, biotechnology, and healthcare. The diversification in these different sectors will allow European firms to become more competitive worldwide. The European Commission, with the 2014-2020 Multiannual Financial Framework, is trying to support SMEs and small mid-caps access to venture capital<sup>65</sup> (European, 2020).

The policies that are currently affecting the European results derive from the European Commission, and each country is using its policymakers to find a better solution to improve the phenomenon inside their country. It means that every country should be analysed considering the actual results and terms to understand the real potential of each of them.

### **2.2.1 Venture Capital investments - Europe**

Understood, which is the current approach of the European Commission and the frameworks and rules that are utilizing concerning these phenomena, it is relevant to understand more clearly, which is the situation of the phenomena in Europe. In the previous paragraph, it was possible to

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<sup>63</sup> In the 1990s, for example, in Germany, the venture capital market suffered from a lack of qualified, experienced professionals (Becker & Hellmann, 2000). That revealed it as a significant problem for the maturation of the German venture capital industry (Bottazzi & Da Rin, 2014).

<sup>64</sup> The shared measures across the European Union allow the use of a single set of rules. The single rulebook allow investor to know exactly what they can expect when investing in EUVECA.

<sup>65</sup> The programs are: the single EU Equity Financial Instrument, that supports the businesses' growth and R&I (Research and innovation); The European Fund for Strategic Investment (EFSI); The Pan-European Venture Capital Fund of Funds program (VentureEU), that further address Europe's equity gap by investing in VC funds-of-funds; and the European scale-up Action for Risk capital (ESCALAR) that is a risk/reward mechanism to support scale-ups with venture capital and growth financing (European, 2020)

see which was the phenomena's situation in Europe related to the other parts of the world. Taking back into account the fragmentation of the European market, with borders that make more heavy investments from venture capitalists from one country to another one, the values related to each country become relevant to understand the phenomena diffusion. As preannounced at the beginning of the paragraph, some countries are the leading countries for a specified phenomenon, like the United Kingdom with London in the case of venture capital investments, and others that are entirely underdeveloped about it, like Russia and Austria.

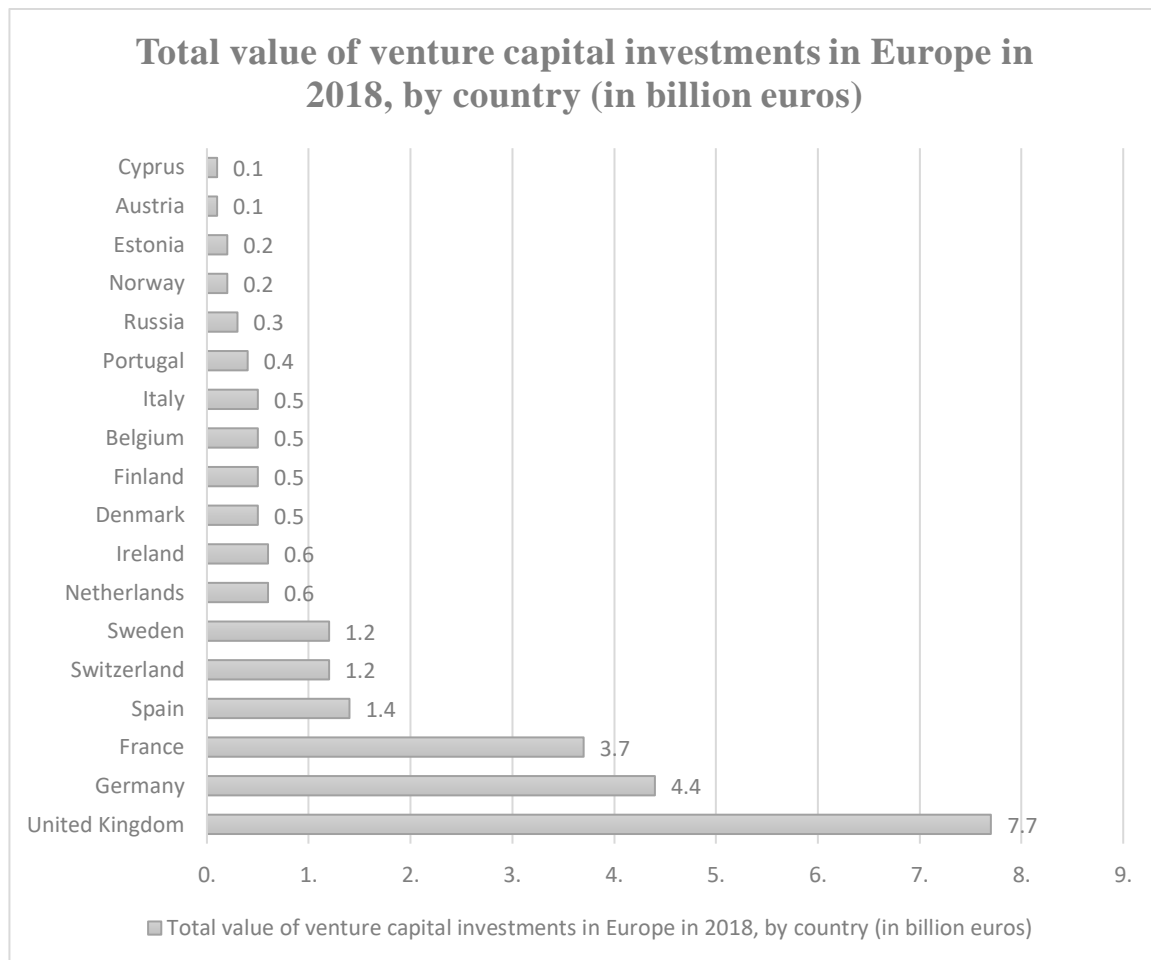


Figure 10: Total Value of venture capital investments in Europe in 2018, by country (in billion euros); Source: Statista.com (Cherowbrier, Statista.com, 2019)

Figure 9 shows that the United Kingdom is the leading country in terms of venture capital investments in Euros with 7.7 billion euros in one year. The second one, Germany, is a little more than half of the investments made by the United Kingdom. This chart makes clear the importance of the United Kingdom in the venture capital European market. The other important hub is located in Paris, reflecting the importance of France being the third one in Europe in terms of venture capital investments. In Germany, instead, even without a massive concentration of venture capital

in a specific hub, it represents the second source of venture capital investment in Europe. It has a venture capital market spread across six hubs that allow better geographic dispersion of venture capitalists (Martin, Berndt, Klagge, & Sunley, 2005). The structure makes contact easier between new ventures and venture capitalist, increasing the numbers of deals and the efficiency of their relationships.

From figure 10, it is possible to see how there is a considerable gap from the bottom countries to the top ones. The European countries' fragmentation is also reflected in terms of development in venture capital investments. Some countries are not attracting money from venture capital firms and don't have proper systems to improve the venture capital and private equity market. According to Felix (2012), in Europe, the size of M&A market is relevant in explaining venture capital investment, and it is interesting because can suggest that venture capital markets may grow more in countries with vibrant M&A markets even if IPO market is not very developed (Felix, Pires, & Gulamhussen, 2012).

As understood at the beginning of the paragraph, the role of policymakers is crucial for the development of the venture capital market due to the address of regulatory, administrative barriers, and coherent policies (Caselli & Negri, 2018). The relevance of the policies arises from their capacity to enable investors to create taxable value or returns. The taxation system has a strong effect on the venture capital market development, with a correlation between specific tax benefits and the increase of venture capital volumes<sup>66</sup>. The Taxation and fiscal incentives apply to firms, vehicles, and investors related to venture capital deal, or from a broader point of view to all private equity deals. There is a distinction regarding the taxation rules applicable to firms, to vehicles or investors. The distinction includes the case of domestic participants and foreign ones because also, in this case, a different set of rules would be applied depending on the type of participant. Firms, being representing the demand side of private equity and at the same time the developer of deals to improve the private equity market, make policymakers prone to the utilization of fiscal policies as incentives for start-up and investment in R&D (Caselli & Negri, 2018). To understand how Taxation influenced the venture capital market in E.U., having already been through the European commission policies, is essential to see the specific current taxation rules in the countries with a higher level of venture capital investments. In the United Kingdom, the country with the highest number of venture capital investments, the main tax rate is 19%. The main rate in specific cases is not applied, but capital gains are generally taxed<sup>67</sup>. There is no withholding tax or dividends nor a branch remittance tax in the British fiscal system (Caselli &

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<sup>66</sup> Examples of the correlation are Taxation on capital gains, earnings, and dividends, fiscal incentive to start-up, to R&D investment, to increase the leverage ratio or to increase the equity (Caselli & Negri, 2018).

<sup>67</sup> Exemption for firms with substantial shareholdings, that typically is higher than 10%

Negri, 2018). In France, instead, the standard tax rate for firms is 33.3%, but for SMEs and new businesses, lower rates are applied.

Without going so deep into all the taxation systems, an important factor for the Taxation of each country is related to the most important vehicles established in Europe. From the top, one is possible to identify "Fondo chiuso" in Italy, which makes Italian closed-end funds follow a particular treatment that includes a flat tax rate of 12.5% applicable to the funds' results (Caselli & Negri, 2018). In France, there is the "Fonds Commun de Placement a Risques" (FCPR)<sup>68</sup> that is not subject of any taxation, instead of in the United Kingdom there is the "Limited partnership" in which capital gains are de-taxed while other revenues and costs are tax-sensitive (Caselli & Negri, 2018). The last two are: "The limited partnership (GmbH & Co K.G.)" in Germany, in which corporation and solidarity tax is payable on profits and another trade tax on trade earning, interest and amortization are deductible. The "Soci t  d'Investissement en Capital   Risque (SICAR)" in Luxembourg, in which profits realize by a SICAR are subject to corporate income tax and municipal business tax. (Caselli & Negri, 2018).

### **2.2.2 Total Early Stage Entrepreneurial activity - Europe**

Given the picture of the policies and the frameworks utilized until know from the policymakers in their respective countries, it is crucial to understand which is the current Total Early-Stage Entrepreneurial Activity of each country. The data related to the TEA help to understand in which area in Europe there is a higher rate of entrepreneurial activity. The purpose of the analysis will give a snapshot of the actual entrepreneurial activity in the European area. It will then be essential to understand the influences that affect the current situation of the phenomenon. The possible influences include all the different prospects that potential entrepreneurs can have while thinking about starting a new business in the area. The perceptions of the environment can sharply reduce the number of potential entrepreneurs who decide to start a new business effectively. These perceptions, as already mentioned few of them previously, are sometimes influenced by the closest events that quotidianly happens around a specific individual. The variability explains how the perception of the same phenomenon in the same countries can be completely different, resulting in a profoundly different decision by each individual.

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<sup>68</sup> It comprehends that no corporate income tax is payable by FCPR on any dividend income remitted by a target company in which FCPR has a participating interest; no capital gains tax is payable by the FCPR on any profitable sales of its shareholding in a target company (Caselli & Negri, 2018).

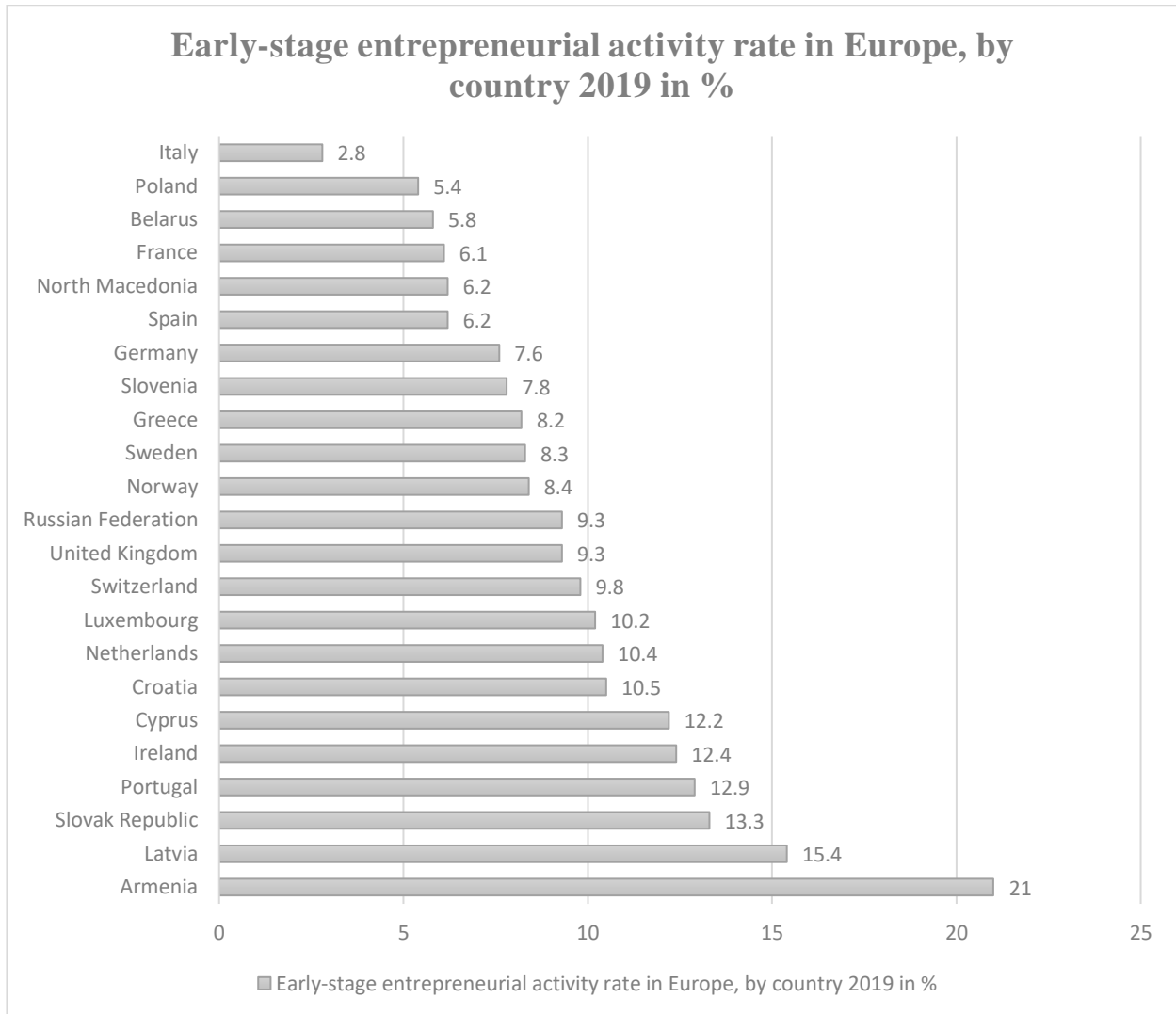


Figure 11: Early-Stage entrepreneurial activity rate in Europe, By country 2019; Source: Statista.com (Duffin.E, 2020)

It is clear how here, the countries with higher levels of venture capital investments do not reflect the individual level of early-stage entrepreneurial activity. The reason for such type of result can be found behind a different type of source, and it is also essential to take in to account the different numbers in terms of size and population of these countries. A relevant factor is for sure that the impact of the TEA index on venture capital activity is negative because venture capital is especially oriented towards innovative projects (Felix, Pires, & Gulamhussen, 2012). If there is not an increase in innovative entrepreneurship, any increase in TEA can be only a bigger problem than a decisive factor<sup>69</sup>.

Armenia results in a higher country in terms of Early-Stage entrepreneurial activity with 21%. It is overcoming countries like the U.K, France, and Germany that are not even reaching 10% of

<sup>69</sup> In case of no increase in innovation, the result will be that venture capitalists will have only to spend more time in selecting projects to be financed, reducing the time for management and monitoring activities (Felix, Pires, & Gulamhussen, 2012).

TEA. This underlines how the TEA does not affect the venture capital investment phenomenon closely because the major countries in terms of venture capital investment in Europe have a low level of TEA. As preannounced, this phenomenon is affected by different points related to the Entrepreneurship area, being affected by both a psychological and contextual point of view. With a psychological approach, as we preannounced before, perceptions are an important part of entrepreneurs and potential entrepreneurs' decision-making process. It is essential how in countries like Portugal and Croatia, there is a more significant perception of themselves regarding the possibility of starting a new business. In these two countries, through a population survey, more than 50% in Portugal and 70% in Croatia affirm to have the knowledge, skills, and experience to start a new business (GEM, 2019). As understood when looking at the numbers related to the worldwide distribution of TEA, there is also the income level that strongly influences the behaviour of potential entrepreneurs.

From figure 11, it is possible to see how is also reflected inside Europe because Armenia and Latvia are the leading countries. These two countries led individuals to become entrepreneurs to find a better wealth than with ordinary employments that guarantee only low incomes. The result is TEA that corresponds to more than double the United Kingdom for Armenia and almost it for Latvia. The resulting TEA of these three countries together is a fundamental data to be considered when analysing this phenomenon because without considering this type of perception, it seems a controversial data regarding TEA.

Having considered the motivational part of entrepreneurs to understand the numbers reflected in the chart, another critical factor that can be a deterrent for the entrepreneurial activity in the area is undoubtedly related to the cost of starting a new business. It is significant how countries in which even if there is a reasonable perception related to the opportunity to start a new business like in Italy, there is a deficient level of TEA. Italy is the bottom level of the chart, with only 2.8 % of TEA overall, also linked with a low level of venture capital investments with only 0.5. At the same time, it shows to be the most expensive country in terms of cost to start a new business. According to the European Commission (2017), the cost of starting a business in Italy is an average of two thousand euros<sup>70</sup>. The cost can be a strong deterrent for potential entrepreneurs that may find an excellent opportunity to start a new activity but that are not so convinced to go forward for it.

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<sup>70</sup> In Slovenia, the cost to start a private company is exactly none; there is not any payment to make in order to begin working.

### 2.2.3 Industry Sector distribution - Europe

Once understood the possible reasons behind the specific result regarding TEA, it is crucial to understand of which industry sectors the new entrepreneurial ventures are typically inside

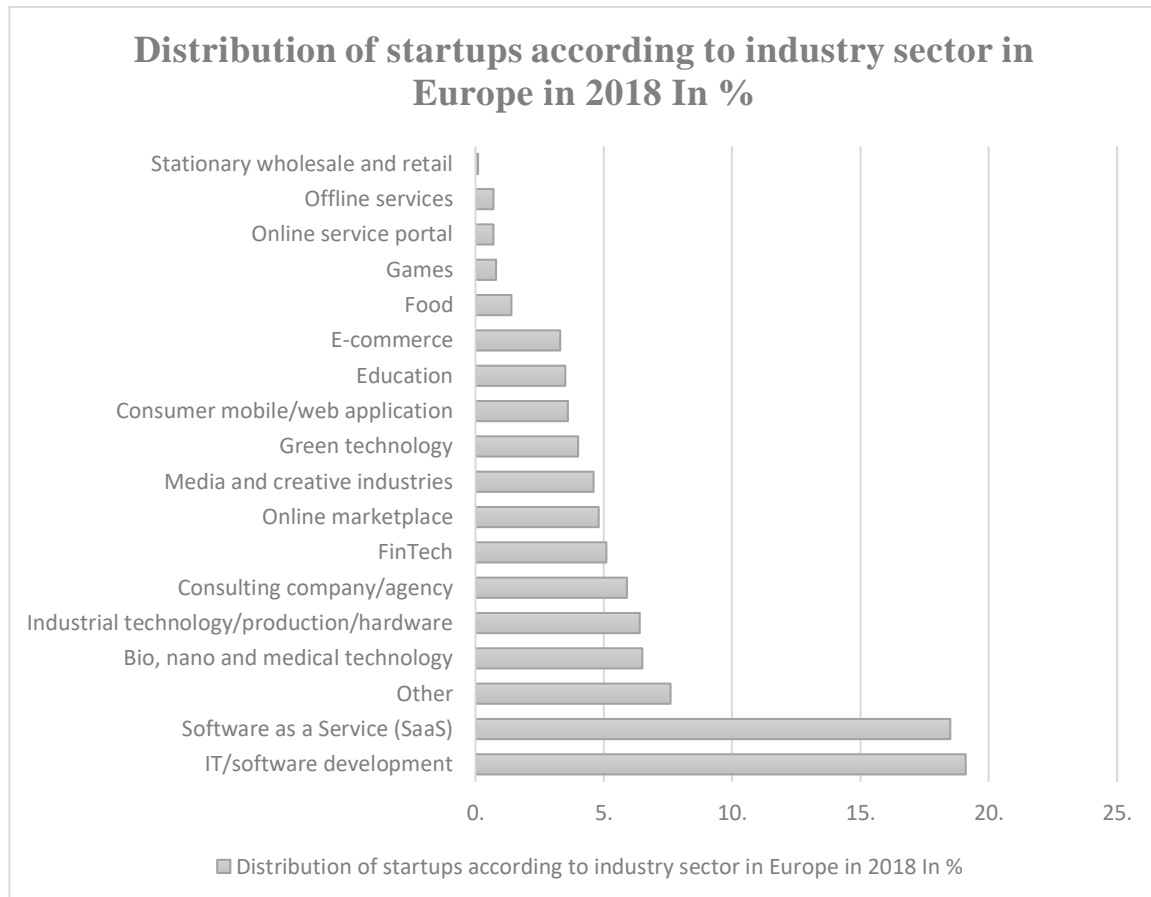


Figure 12; Distribution of Startups according to industry sector in Europe in 2018 in %; Source:Statista.com (Clark, Distribution of startups according to industry sector in Europe in 2018 , 2019)

In figure 12, there is the European start-up’s distribution by industry sectors, and just as the first impact is clear, there is a massive difference with the result shown in figure 8, which took into account the entire population of start-ups worldwide. Fintech is no longer the leading industry, showing just a 5.1 % that compared with the leading industries is almost less than a quarter of them. The two leading industries are IT/software development and Software as a Service (SaaS)<sup>71</sup> with respectively 19.1% and 18.5% of the entire population of start-ups. The result makes us

<sup>71</sup> " "Software-as-a-Service (SaaS) is a software licensing model in which access to the Software is provided on a subscription basis, with the Software being located on external servers rather than on servers located in-house. Software-as-a-Service is typically accessed through a web browser, with users logging into the system using a username and password. Instead of each user installing the Software on their computer, the user can access the program via the internet." (Grant, 2020)



understand how the United States is shaping the worldwide market of new entrepreneurial ventures. The numbers worldwide are entirely different compared to the ones related to the ones inside the European market. The U.S also leads the SaaS market and IT, but for the other sectors like fintech, they have even more. In Europe, the SaaS sector is becoming more relevant because every country is raising a specialized start-up company that focuses on a more specific sector. In the U.K, for example, there is Drover, a "mobility as a service" and all-in car subscription service platform that allows customers to simplify the process of taking care of all the necessary related. The business model work thanks to the typical monthly subscription payment from the customer that through the internet reaches the service that he wants. The SaaS sector is growing faster, and many industries are changing their way of operates to a subscription payment method. Many firms like Shadow, for example, are renting Software that is possible to use just with an internet connection reaching a "mirrored" screen of the real Software-based where the company is located. This way, people with a low-cost pc can pay a subscription to use a high proficiency one just for the time that he needs.

Regarding the software development sector, there is an essential hub in Spain, precisely in Barcelona, that is actively innovating. The company is called Apiumhub. It offers all sorts of services going from web development to mobile app development. The company is aiming to concentrate in the same place as innovation, design, and technology. The U.K and London also have a small diamond in this sector, Geek Ltd, which helps all sorts of clients solve business problems or boost efficiency and digital success by developing software platforms.

The numbers related to start-ups sector distribution in Europe are a good snapshot to understand the trends in this moment of new entrepreneurs when starting new activities, but if the focus switch to the attractiveness of investments, the result can be quite different. The next figure will show venture capital investments in Europe divided by the specific industry sector.

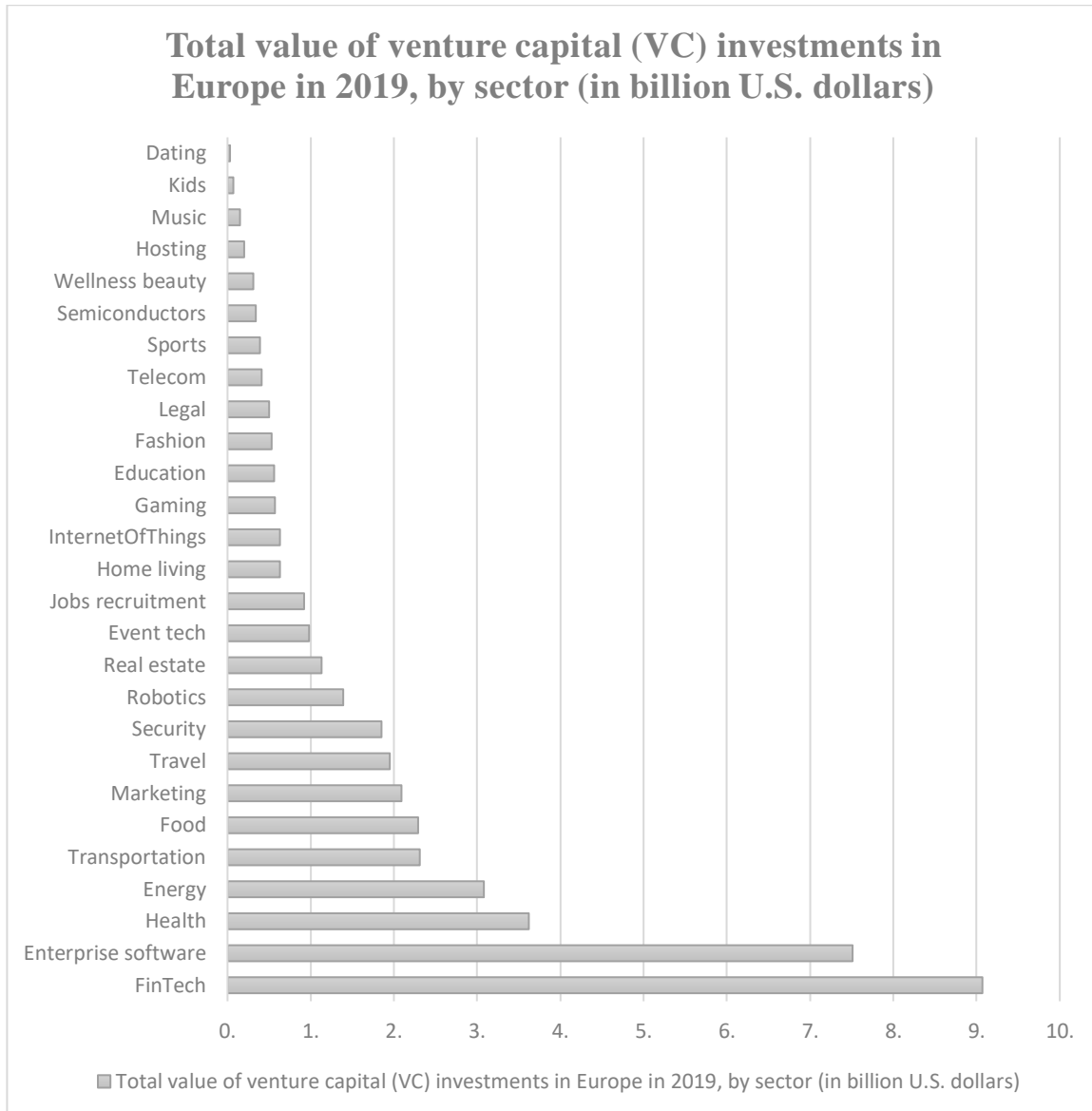


Figure 13; Total Value of Venture Capital Investments in Europe 2019, By sector (In billion U.S. dollars); Source: Statista.com (Cherowbrier, 2020)

The new chart show how the FinTech sectors remain the ones that attract more interest from potential investors such as venture capital firms. An important factor that is possible to derive from this chart is the prevalence of the digital sector in both the two prospects. Entrepreneurs and potential investors agree on the relevance of digitalization and software development as new core matters of the next future. The two can then be applied to different sectors, improving the effectiveness of different areas. It is possible to see how the first four sectors of the chart represent half of venture capital firms' total investments in Europe. The result underlines how the finances are so focused on a few relevant areas instead of being spread to different ones.

### 2.2.4 Established business ownership - Europe

From figure 12, it is possible to understand then which are trends in the European area regarding start-ups industry sectors. As seen while looking through the comprehensive data, it is imperative to see which is the percentage of established business ownership, to understand where there is a higher maturation of entrepreneurial activity.

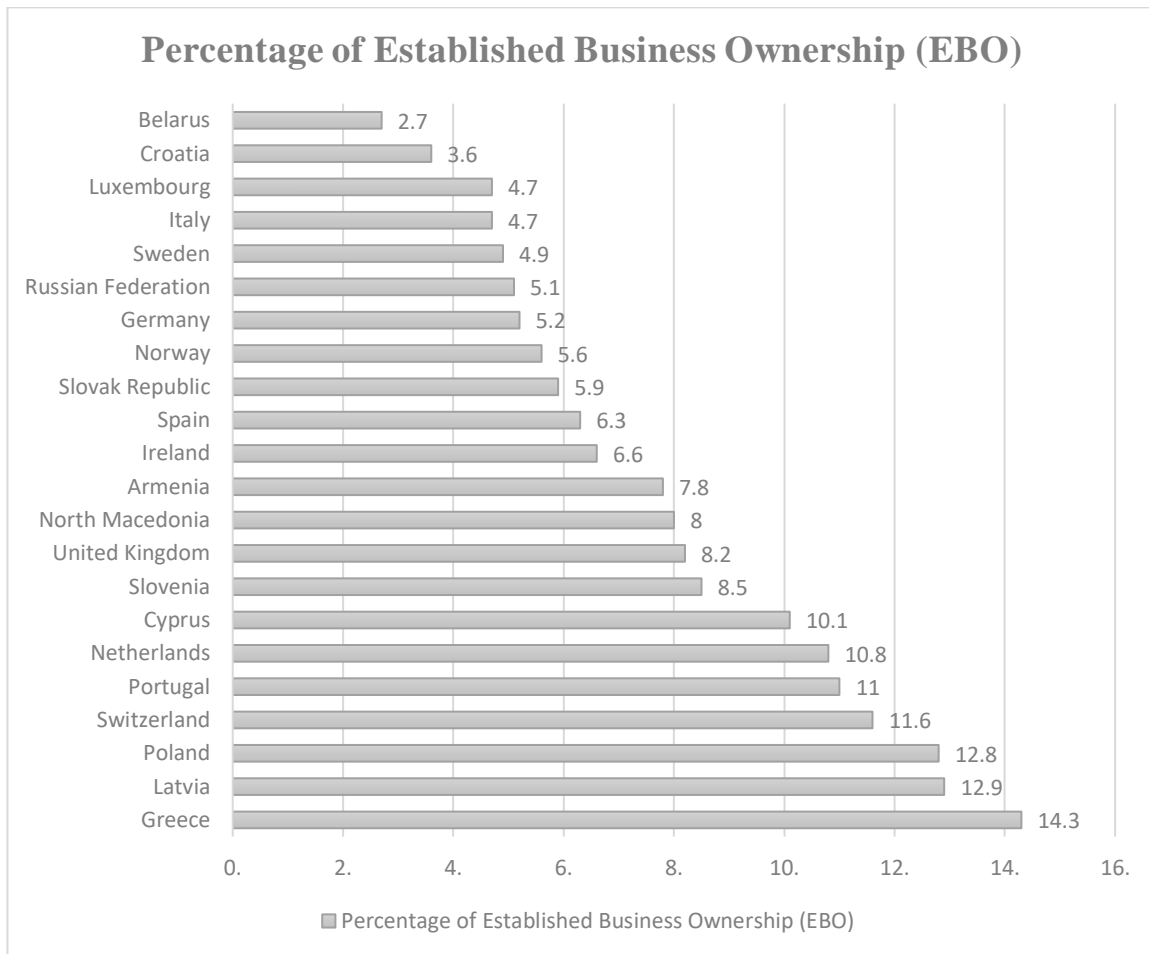


Figure 14; Established business ownership rate in Europe, by country in % 2019; Source: Statista.com (Duffin, 2020)

Greece shows the highest level of EBO in the European geographic area, representing the country which the most percentage of established businesses. It is significant how Poland represents a high number in EBO but a shallow one in the TEA. The result let us think about the possibility of a region in which there are few new activities, and at the same time, there are a lot already established ones that can be a deterrent to others. The U.K remains the only country that in every graph always shown at least to be at an average rate if it is not the top one. At the same time, Italy has shown not the right level in each graph in which data was collected. It is always at the bottom of the list with low numbers of venture capital investments, TEA, and EBO. Italy is probably one

of the countries that should work more on the market to develop further potential opportunities for individuals for a particular entrepreneurial mindset. Instead, Latvia and Cyprus show in both TEA's graph and EBO's graph an unusually high level, but a deficient level of venture capital investments. Such a result is probably driven by a scarce level of innovation in the new activities of that particular area.

This chapter aims to properly understand the current situation of the two phenomena considering the entire worldwide market and then specifically on Europe. The focus on the European region is crucial because it is relevant to understand the current situation and the past results of the new entrepreneurial ventures in different areas. With the result, it is possible to understand which countries are leading more to an excellent environment to develop the current market of entrepreneurial ventures and venture capital firms. The analysis has been possible to understand which are the reasons behind different types of results to understand which countries will be more indicated for a new venture depending on the specific needs of the particular activity that entrepreneurs are about to start.

It is crucial to understand which other specific indicators can be used to understand better which region is the better fit for a specific entrepreneurial venture regarding the sector, the funding and resources needed, and the policies related to a specific area.

### **Chapter 3 – European market potential analysis**

Through the previous chapters, the two phenomena were analysed from both a historical and geographical perspective. Now that there is a more precise idea of how these phenomena developed through the years and how it is its conformation nowadays worldwide and more precisely in Europe is possible to go further for a sharper analysis. The focus will be on the European regions, starting from the actual result of entrepreneurial activity that was possible to understand from the data analysed in the second chapter. Different countries were leading under different aspects due to the high fragmentation of the European area, which created highly differentiated countries in terms of cultural and economic systems. Few countries show a reasonable level and continuity between the different aspects. The only country that seems to be the more developed one is the venture capital market and entrepreneurial venture one. It also guarantees a good average of EBO despite other countries. Considering that from 2021, BREXIT will become valid with all the new changes, an essential consideration of possible changes in cash flows of investments in the European regions should be taken into account. The analysis will consider the U.K as before 2021 in order to make better formulations. It, because predictions on the future after 2021 are risky, and with high volatility, a better overview of the impact will be understandable in a precise way only after the effective separation of the U.K from the European Union. The separation, if not handled with the right policies will probably result in a decrease of investments to other countries deriving from venture capital firms in the U.K and at the same time the possibility of a large number of firms<sup>72</sup> leaving the U.K as their headquarters or first establishment<sup>73</sup>.

The objective of this analysis will be to understand where it will be better for new entrepreneurs to start a new business activity, considering all the different aspects that can be involved. The analysis will go through all the possible cases, for example, considering the specific sector of the company involved or the investment attraction and venture capital presence in the area. From the previous chapter, relevant information for the analysis was discovered, like the Established business ownership percentage and the distribution of start-ups in different industry sectors. These numbers will be crucial for the next steps of the analysis because they need to understand the potential of a specific sector and the possible conversion rate of these new businesses to mature ones.

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<sup>72</sup> Including venture capitalist and new entrepreneurial ventures

<sup>73</sup> It is already happening for different huge banks and firms that previously had their HQ located in the U.K area.

The data collected until now is undoubtedly useful but not enough for the further steps of the analysis, so at the beginning of this chapter, it will be essential to find all the possible factors that can affect the new venture behaviours and results.

### **3.1 Factors influencing the Entrepreneurial Activity**

Different factors can influence the development and the diffusion of entrepreneurial activity in a specific area. It will now be essential to consider all the most influential factors and data that can help us understand the potential of a specific country in terms of Entrepreneurship success.

An excellent point to start the analysis is to consider data related to the percentage of success and failure of new entrepreneurial activities.

#### **3.1.1 Success and Failure Rate**

The success or the failure of a new start-up company can depend on a different set of factors. In the previous chapter, the analysis of the entrepreneurial activity led to factors related to the specific context and culture, including policies and psychological approaches and motivations. The better way to start the analysis is to consider the success and failure rate and then break down the data to find possible factors that can be the result of such survival percentage.

It is essential to understand each country properly, which is the specific survival rate, considering different new entrepreneurial ventures' life-stage. The distinction helps us understand how many new ventures do not reach a proper maturation of the business, becoming a stable and prosperous activity. New ventures that do not reach the end of the first year show pessimistic conditions to run a business<sup>74</sup>. Other ventures end after 2-3 years because they do not reach the business's sustainability, and there are no more sufficient conditions to keep working. After five years, the ones that are still in the activity have reached sustainability of the activity, finding a market segment, and targeting a specific group of customers. After five years, new ventures have started to generate positive profits to start repaying all the investments done in the previous year. The new venture will then now consider a mature business in continuous growth.

*Table 3; Survival rate in Europe of New ventures by year in percentage; Source: personal elaboration of data from Eurostat (Eurostat, 2017).*

<b>Country</b>	<b>1-year survival rate</b>	<b>3-year survival rate</b>	<b>5-year survival rate</b>
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<sup>74</sup> The termination of a new venture in the first year can also be due to not correct planning of the new business activity. It includes a not consideration of the environment and the business model of the activity.

European Average	83.25%	57.96%	43.86%
Sweden	96.22%	76.37%	61.42%
Netherlands	94.53%	71.37%	53.32%
Belgium	91.60%	72.51%	59.85%
United Kingdom	91.16%	60.63%	42.53%
Malta	89.79%	69.16%	72.88%
Luxembourg	89.42%	67.55%	54.82%
Cyprus	88.69%	64.17%	49.11%
Ireland	86.69%	87.09%	80.48%
Finland	85.82%	60.34%	40%
Austria	85.41%	66.74%	51.29%
Romania	84.97%	58.35%	42.48%
Slovenia	84.96%	63.56%	48.36%
Turkey	84.74%	56.94%	54.31%
Croatia	84.44%	66.94%	51.84%
Poland	84.03%	53.36%	41.12%
Czechia	84%	61.07%	45.29%
France	83.95%	59.67%	49.05%
Slovakia	83.93%	58.05%	47.36%
Switzerland	83.24%	58.61%	52.36%
Italy	81.86%	58.37%	41.14%
Norway	81.79%	55.67%	42.1%
Bulgaria	79.45%	56.35%	46.19%
Estonia	78.29%	58.6%	46.45%
Hungary	78.06%	53.23%	38.62%
Germany	77.33%	52.14%	38.97%
Spain	76.54%	53.68%	41.84%
Portugal	73.62%	44.36%	30.06%
Denmark	73.28%	49.36%	36.36%
Latvia	72.18%	55.98%	43.95%
Lithuania	64.12%	39.08%	29.49%

In Table 3, a complete overview of the different survival rates by country is divided by year in the European Countries. In the beginning, it is possible to see the European average of the sample with 83.25% survival rate after the first year, 57.96% after the third one, and 43.86% after five years.

Sweden is the country with the highest percentage of survival rate for new ventures with 96.22%, making Sweden a new entrepreneurial activity-oriented country that tries to stimulate its economy. Issues arise with the growth of new ventures because the survival rate decreases drastically year by year. After five years, Sweden shows a 61.42% survival rate, but even if the percentage dropped in this way, it shows the third value considering all the countries in Europe. Lithuania shows the worst numbers in terms of survival rate in each different life phase, with 64.12% after the first year, 39.08% after the third one, and 29.49% after the fifth one. Countries like Lithuania and Latvia showed in the graphs in chapter 2 related to the entrepreneurial activity are high numbers, but how is it possible to see from the table in figure 14 both have meager survival rates through years? It makes all the high numbers related to the entrepreneurial activity less relevant due to the scarce possibility to convert a new activity to a mature business.

There are eighteen countries above the European average considering the 5-years survival rate percentage, and in particular, there are two countries that are showing a higher value despite all the other countries: Ireland and Malta. These two countries have respectively 80.48% and 72.88% regarding 5-years survival rates, creating particular attention to understand the possible reasons for this result.

These numbers include a straightforward implication that should be considered: the data is based on business activities that have been really implemented. The meaning is that before understanding which possible factors can be influencing the possible success of a new venture in a specific location, data relative deterrents to start a business in the area should be analysed.

### **3.1.2 Cost and Timing to start a new private limited company**

The cost and the timing required in a specific area, as preannounced in chapter 2, can deter potential entrepreneurs regarding the possibility of starting a business. As understood, Italy is the most expensive country in terms of the cost of the implementation of a new business. Now, let us consider all the costs connected to each country's time in the European Area.



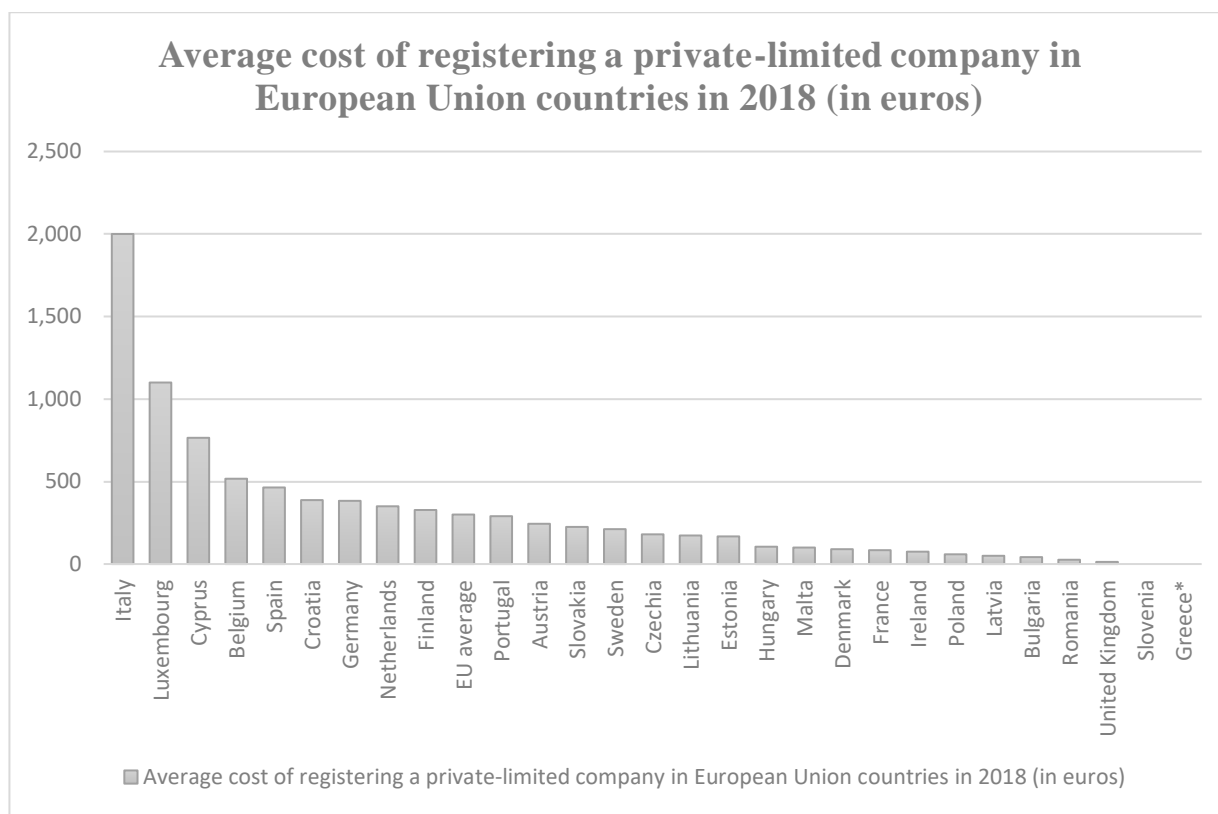


Figure 15; Average cost of registering a private-limited Company in European Union countries in 2018; Source: Statista.com (Clark, 2020)

As preannounced, Italy has a higher average cost for registering a private limited company in the European Union area. Significantly, the cost is almost double the one in Luxembourg, and considering not the next three countries is always at least more than four times than other places. In countries like Greece and Slovenia, there is no cost to register a private limited company, and in places like France, Ireland, Poland, Latvia, Bulgaria, Romania, and United Kingdom is almost nothing<sup>75</sup>. The average cost in Europe is about 300 euros, which can be considered not too much compared to an optimum level of zero.

The European Commission set a specific target of 100 euros to be reached by each country in terms of the cost related to private limited company registration. As it is possible to see from the graph, few countries are meeting this target. Malta is the country with exactly cost equal to 100 euros, and then there are Denmark, France, Ireland, Poland, Latvia, Bulgaria, Romania, the United Kingdom, Slovenia, and Greece. Greece is a particular case because the graph is set to 0.

<sup>75</sup> In the United Kingdom, for example, the cost is 13 euros. It means that it can be considered almost "for free".

After all, temporarily, it is free<sup>76</sup>. Considering all the twenty-eight countries, fifteen of them are not following the target, showing a higher average cost higher than the 100 euros target<sup>77</sup>.

Another critical factor to consider when registering a new private limited company is the time necessary to make it done. Every country has a different period necessary to make the company officially registered. As for the cost, the European Commission set a target time of three days to make possible the registration of a private limited company in a country of the European Union.

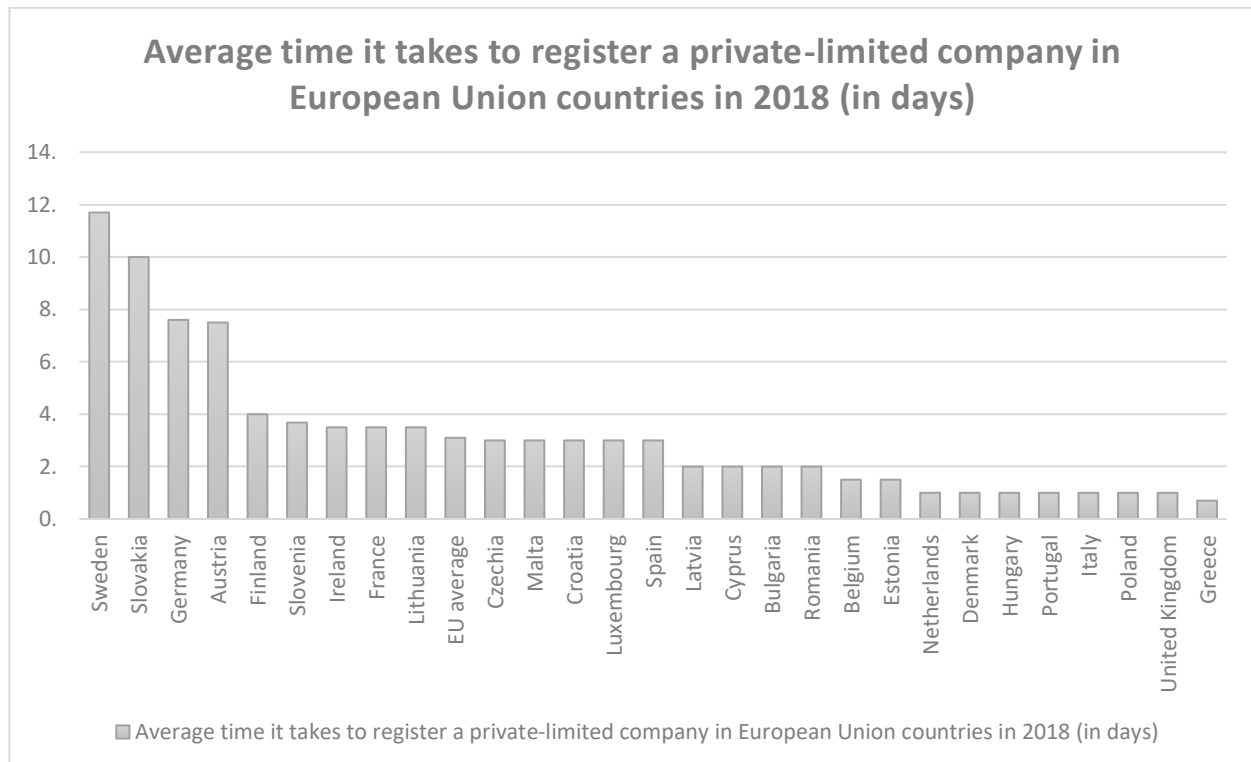


Figure 16: Average time it takes to register a private-limited company in European Union countries in 2018 (in days); Source: Statista.com (Clark, 2020)

It is possible to see from the chart that even, in this case, different countries are not following the European Commission's target set. Sweden and Slovakia show the average highest number of days to register a private limited company, with respectively 12 and 10 days. These countries reflected almost four times the required number of the European Commission, elevating the European average to 3.1 days. Even if a few countries are elevating the average in Europe, the average is following the European commission expectations. Countries like Greece help the result, the U.K and the Netherlands, in which it is possible to register a company in less of one

<sup>76</sup> "Registering in Greece was temporarily free of charge between July 2018 and July 2019 while a new electronic registration system is being introduced". (Clark, 2020) "In July 2019, the cost of the electronic registration is foreseen to be €21". (Clark, 2020)

<sup>77</sup> The result shows how more than half of the European Union countries are not following the European commission's rules.

day. The number of countries that are considered not following the target imposed by the European commission is six: Austria, France, Germany, Sweden, Slovakia, and Slovenia <sup>78</sup>. These countries will have to redirect their target to the one set of the European Commission. The reduction would be helpful for the economy of the European Area and the economy of the specific country.

These two factors, cost, and timing can influence the decision chosen by potential entrepreneurs on the specific location from where to start their new activity. Imagine being a potential entrepreneur with a brilliant idea to apply as soon as possible, the choice on the place will be the one that will take more time and more costs to start or the fastest and cheapest solution? The choice would be for sure the second one, allowing us to start the business instantly and not wasting more money than the strictly necessary.

An essential understanding of potential entrepreneurs' reasoning can be understood from the migration flows of new entrepreneurial activity funders and what was behind their choice.

### **3.1.3 Migration flows and Relevant location factors**

The migration flows of start-up funders can be a good indicator of the perceptions that potential entrepreneurs have on the current European situation. It makes us understand how they are thinking about the best places to start a new activity, considering specific countries instead of others. The snapshot of these flows can be an excellent point to start because it will help us understand which are the countries that are perceived as better locations and why is so. At the end of the analysis, there will be the possibility to see if current perceptions of new potential entrepreneurs are correct or are only misleading to the wrong countries. The result would be significant to be compared because it will allow us to think about why specific countries are better considered than others if they are not better in reality.

There will be a description of the percentage of the migration flows in Europe in the next chart. Countries are divide by geographic location in the European Area: U.K and Ireland; Benelux comprehending the Netherlands, Belgium, and Luxembourg; Western Europe with France, Germany, Austria and Switzerland; the Mediterranean with Spain, Italy, Greece, and Mediterranean Islands; Nordics with Denmark, Norway, Sweden, and Finland; Baltics countries and then all the others in Central Eastern Europe (*Clark, 2018*)

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<sup>78</sup> Countries like Finland, Ireland, and Lithuania are considered as following the target because their number of days vary from a lower number of three days to a little bit greater one. An example is in in Finland, in which a company can be registered within 3 days or maximum five.

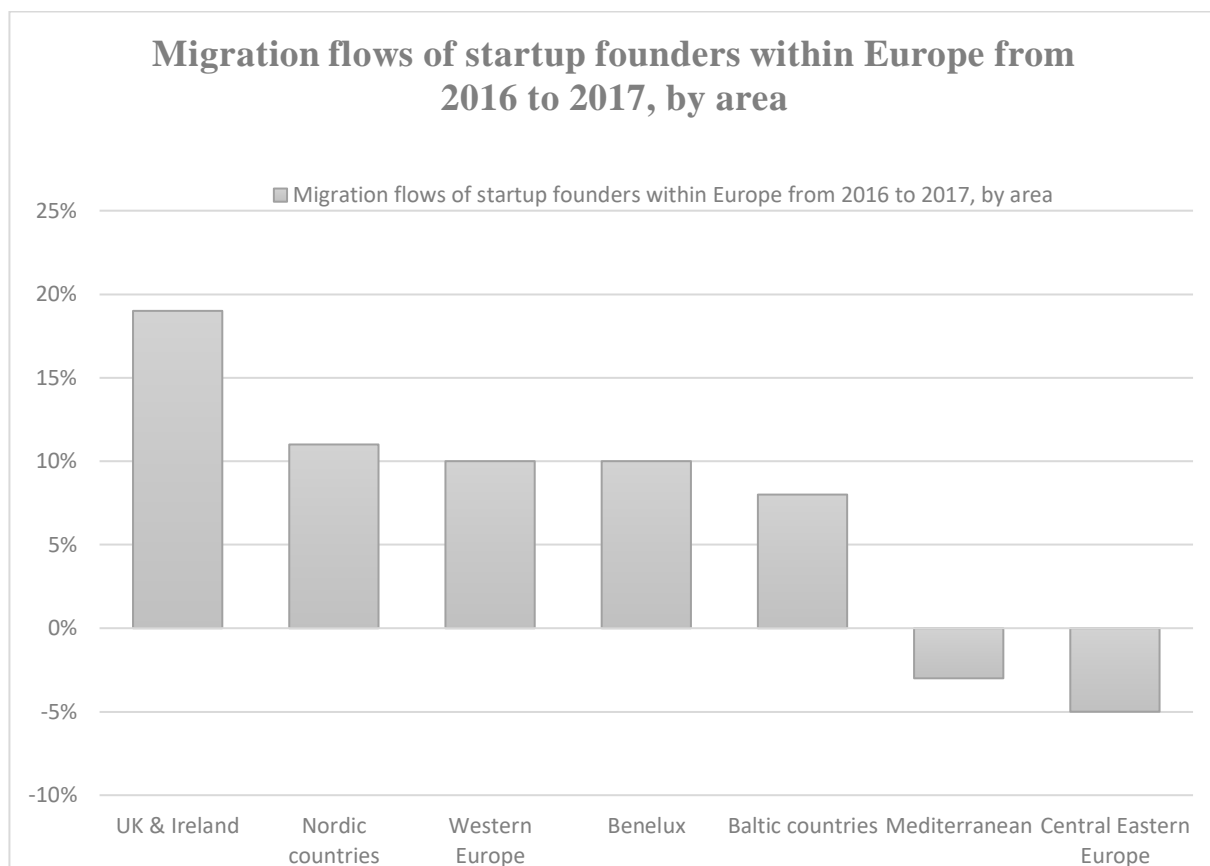


Figure 17; Migration flows of startup founders within Europe from 2016 to 2017, by area; Source: Statista.com (Clark, 2018)

Figure 17 shows how the U.K and Ireland, with almost 20% of positive migration, are the two countries in which there is a higher migration of funders in entire Europe. These two countries are Followed by Nordic countries with 12% and then by Western Europe and Benelux with 10% positive migration. Significant how Mediterranean and Central Eastern Europe show a negative percentage of the migration flow, with -3% and -5%, respectively. The chart underlines more what was reflected in the different charts related to TEA and venture capital investments. The U.K is perceived as an excellent point to start a new venture, and this perception helped a lot with the incrementation of TEA levels in the area. London is considered the most trusted place to start a new entrepreneurial activity with a trust score of 100/100 (Heatmap, 2019), followed by Berlin, Barcelona, Paris, and Amsterdam. The "Trust" in a particular city must be addressed to specific criteria that can be considered in the evaluation. Behind their decision to migrate into other countries, different possible factors let them think that a country is better than another one. Heatmap Start-up did a survey related to the relevance of specific factors when considering the best location to start a new business activity. They took European Start-up activities from April

to July 2017, asking 321 start-up founders in Europe through an online survey, which are more relevant factors and less when thinking about the location.

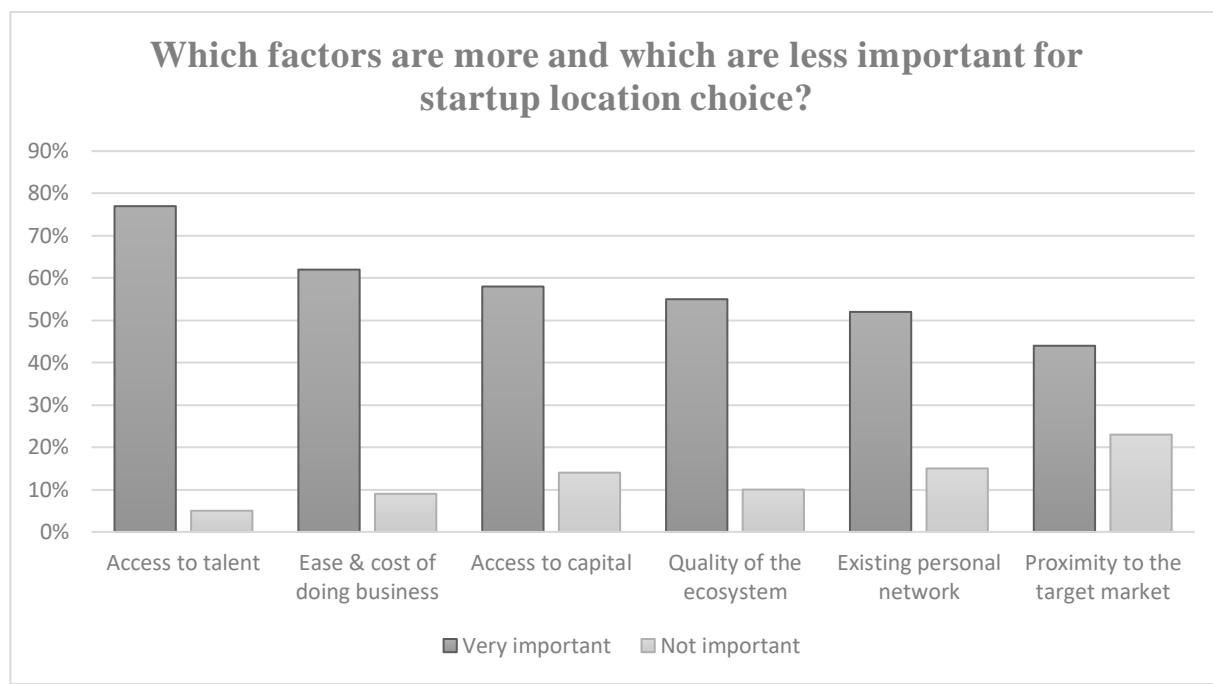


Figure 18; Which factors are more and which are less important for startup location choice?; Source: Statista.com (Clark, 2018)

The survey assessed which factors are considered more and which less when choosing the right location. As it is possible to see from the chart, the first factor considered when choosing a location is the access to talent, with 77% of the respondents agreeing with its relevance. The result is reflected when referring to the Silicon Valley area in the U.S, in which the cost of establishing a new start-up can be expensive, but there is the best access to talents and resources. In the second place with 62%, there is the Ease and cost of doing business, underlying how costs are still critical criteria when considering the possible new venture location. The cost includes all the expenses related to starting the activity in a specific place, including the ones to register the company and the ones related to effectively running the business. In specific places, there is a lower cost related to resource attractions, including the acquirement of raw materials and specific knowledge necessary for the daily operations.

The other relevant factors are access to capital, quality of the ecosystem, existing personal network, and the proximity to the target market. The relevant consideration about this final four is related to the last one, the proximity to the target market. For less than 50%, it can be considered not very important for the start-up location, and for a little, more than 20% is considered unimportant. The meaning is that other factors related to the sustainability of the activity are considered more relevant than staying near the market target. Many firms choose the best places

where they can operate, but then, they try to find a better way to sell in a specific market. The market target location can be an excellent point to consider, but other aspects have more significant relevance while choosing.

The next step to consider is related to the Global Entrepreneurship and Innovation indexes, which will help us to have aggregate value data that consider different factors to understand the entrepreneurship and innovation level in a specific country.

### **3.1.3 Global Entrepreneurship and Innovation Indexes**

The Global Entrepreneurship Index (GEI)<sup>79</sup> has been created and introduced by GEDI<sup>80</sup> through different annual reports. This index considers entrepreneurship as something strongly related to its particular geographical location, taking into account a local, national, or even supranational economy and society level (GEDI, 2018).

As described, the interest of the research needs to consider all the possible factors affecting the survival chances of new entrepreneurial activities. The GEI is an index that includes many of them because it considers all the mix of attitudes, resources, and infrastructures related to a specific location<sup>81</sup>. It is useful because the focus is on the health of these entrepreneurship ecosystems reranking countries' performance against each other, providing a snapshot of how these are performing in both the domestic and international contexts (GEDI, 2018). For the construction of the index they utilized fourteen different pillars when considering about the entrepreneurship ecosystem, these are Opportunity Perception, Start-up skills<sup>82</sup>, Risk acceptance, Networking, Cultural support, Opportunity Perception, Technology Absorption<sup>83</sup>, Human Capital, Competition, Product innovation, Process innovation, High growth, Internationalization and Risk capital. Generally, Europe shows stable high scores in technology absorption and internationalization, with different countries also showing an average high score on Start-up Skills (Acs, Szerb, & Lloyd, 2018)

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<sup>79</sup>It is a breakthrough advance in measuring the quality and dynamics of entrepreneurship ecosystems at a national, regional, and local level (GEDI, 2020).

<sup>80</sup> The Global Entrepreneurship and Development Institute is a research organization that advances knowledge on links between entrepreneurship, economic development, and property (GEDI, 2020). "The methodology has been endorsed by the European Commission and used to inform the allocation of EU Structural and Cohesion Funds. The theoretical approach of The GEDI Institute has also influenced entrepreneurship policy thinking in transnational organizations such as the United Nations Conference on Trade and Development. Further details can be found in the research tab" (GEDI, 2020).

<sup>81</sup> It refers to what is also known as the entrepreneurship ecosystem.

<sup>82</sup> Does the population have proper skills to start a new activity base on their educational background?

<sup>83</sup> Is the technology sector able to make fast the absorption of new technology for businesses?

The Global Innovation Index (GII) aims to capture the multi-dimensional facets of innovation, providing tools that can assist policymakers to promote economies growth<sup>84</sup> (GEDI, 2018). The GII is the base for understanding the innovation development in each country, made by utilizing five different input pillars and two output ones to capture from the national economies all the elements that can enable innovative activities. The five input pillars are Institutions, Human Capital and Research, Infrastructure, Market sophistication, and Business sophistication (GEDI, 2018). Simultaneously, the two output pillars are Knowledge and technology outputs and Creative outputs (GEDI, 2018)<sup>85</sup>.

Table 4; Global Entrepreneurship and Innovation indexes; Source: personal elaboration of data from (GEDI, 2018) and (WIPO, 2019).

Country / Economy	Innovation Index (0-100)	Entrepreneurship Index (0-100)
Switzerland	67.24	82.2
Sweden	63.65	70.2
Netherlands	61.44	72.3
United Kingdom	61.30	77.5
Finland	59.83	70.2
Denmark	58.44	79.3
Germany	58.19	66.7
Ireland	56.10	71.3
France	54.25	67.1
Luxembourg	53.47	58.1
Norway	51.87	56.1
Iceland	51.53	73.0
Austria	50.94	64.9
Belgium	50.18	62.2
Estonia	49.97	57.8
Czech Republic	49.43	43.5
Malta	49.01	/
Cyprus	48.34	45.6
Spain	47.85	46.9
Italy	46.30	45.1
Slovenia	45.25	56.5
Portugal	44.65	46.3
Hungary	44.51	46.2
Latvia	43.23	39.3
Slovakia	42.05	42.6
Lithuania	41.46	44.1

<sup>84</sup> The improvement will affect long-term output growth, developed productivity, and job growth (GEDI, 2018).

<sup>85</sup> Each pillar is also divided into different sub-pillars. To reach the final result of the index, there are three calculations necessary: Innovation Input Sub-Index as the average of the input pillars; Innovation Output Sub-Index is the average of the output pillars; The overall GII score developed from the average of the input and output Sub-Indices

Poland	41.31	49.5
Bulgaria	40.35	30.1
Greece	38.90	35.4
Croatia	37.82	36.1
Romania	36.76	38.6

In Table 4, there are both the Global Entrepreneurship and Innovation Indexes related to each specific country in Europe. Switzerland is the country that in both indexes is the main leading country, with 67.24 as GII and 82.2 as GEI. The result is due to the support that policymakers of the country are giving to entrepreneurs to improve the geographic and social network connecting entrepreneurs. The effect is the creation of a region where it is possible to see the quickest gains by improving.

European nations show high scores on Start-up Skills due to the spreading availability of tertiary education and a wide range of population holding the right skills necessary to start a new business activity (GEDI, 2018). In the European area, the major weakness between the countries is related to the Networking structures availability. The pillar related to Networking results in every time lower than the average globally (GEDI, 2018). In general, all the pillars in Europe have an average score, showing a balanced result between different pillars. It means that the composition of the GEI for the European countries is almost perfectly balanced between all the components, probably due to a higher relevance of the mix of policy related to the higher overall European area than the ones related to the specific countries. From the table in figure 19, it is clear how Northern European nations are in the top ranks, while Eastern European ones are all in the bottom (GEDI, 2018). It is significant how seven of the ten top countries in the GEI index are in the European region. Regarding the GII index, the European countries are showing a good shape showing the higher continental presence in the top ten countries, reflecting more or less the same result of the GEI index in terms of rankings. The correlation between the two indexes and phenomenon is clear from the two results, reflecting almost identical ranks and results.

Now that different components are related to the possible chance of survival and prosperity of new entrepreneurial ventures in the European area, it is possible to derive an analysis. From the next part of the chapter, all the data that have been taken until this point will be considered to evaluate how countries and regions there are the best conditions to run a new business activity and make it prosper.

### 3.2 Data Analysis



The analysis, as already preannounced, aims to understand better the current European conditions in terms of new entrepreneurial activity potential. It will start finding a proper overview of the sector distribution in the European countries relating it to the specific division in each specific country. It will consider the exact numbers of active start-ups in the geographic location, taking into account the most crucial sector for the specific country.

Once that all the numbers related to the sector distribution are derived, the analysis will go further on the location factors analysis. In that part of the analysis, there will be a breakdown of the most relevant factors for start-ups-funders shown in the previous chapter. The breakdown of these factors is necessary to develop new values to determine the respective ones for each location factor related to a specific country. Then, all the factors location will be calculated for each specific country, creating an "Entrepreneurship profile" for every location took into consideration. Once that all the location has been calculated and aggregated, it will find the best country, in terms of location factors, to start a new business activity considering what concerns start-ups.

### **3.2.1 New Ventures Numbers and Distribution**

It is relevant to start the analysis from a precise understanding of the real numbers of new entrepreneurial activities in a specific country. Each country has its typical sector distribution of new businesses that may differ from the results possible to see from figure 12 in the second chapter. That graph is shown, which are the most common sectors of new entrepreneurial activity in Europe, showing as Fintech and SaaS are dominating the market. Each country has different characteristics, and the aim is to understand how many innovative start-ups and in which sectors are collocated.

The analysis starts with calculating the number of new entrepreneurs in a specific area, combining the TEA value with the population of each country. With the combination of the two, it is possible to find the number of Entrepreneurs between 18 and 64. Combining it with the GII and the EBO, it is possible to derive the number of innovative start-ups in the specific country that successfully became mature businesses.

$$N^{\circ} \text{ of Innovative Startups (Country)} = TEA * \text{Country Population} * EBO * GII (\%)$$

Once calculated, the number of innovative start-ups for each country will be applied to the sector distribution that characterizes every country. With the next calculation, it is possible to see the

distribution of these innovative start-ups in each country, allowing us to understand which countries can have better resources or be more attractive for a specific market sector.

In the next tables, the results related to the sector distribution of these innovative start-ups with the related best countries in terms of numbers of start-ups in that specific market sector.

The first sector to be considered is the IT and Software because how is shown in the chart in chapter two, it is the most relevant sector in terms of new entrepreneurial activities in Europe. In each table, some countries reach a significant number for that specific sector or represent the relevant one in the specific country.

*Table 5; Number of start-ups related to IT and software's Source: personal elaboration of data collected.*

<b>Countries</b>	<b>IT and software Start-ups</b>
Germany	43542
Poland	22803
Austria	11278
Italy	7809
Ireland	5715
Czech Republic	3531
Hungary	3454
Denmark	2609
Slovakia	2130

Table 5 shows that Germany is the best country in terms of active start-ups in IT and Software, with Poland that shows half of the firms compared to Germany. Then there is Austria with more than ten thousand firms and then Italy with just 7809. For Austria and Italy, the IT and Software sector is the main one in terms of active start-ups. Germany can exploit its high number in start-ups thanks to his significant dispersion of hubs throughout the country.

The second sector by relevance is SaaS, which is attracting more attention year by year, with several old-ways services that are completing changing their shape. It represents 18.5% of the total start-ups in Europe compared to 19.1% of the IT and Software sectors.

*Table 6; SaaS Start-ups by country; Source: personal elaboration of data collected*

<b>Countries</b>	<b>SaaS Start-ups</b>
United Kingdom	67272
Germany	42579
Poland	27451
Netherlands	18087
Greece	17396
Spain	16427

France	11648
Portugal	10782
Sweden	6144
Slovakia	3720
Denmark	2402

In this case, the dominant country became the United Kingdom, with almost seventy thousand start-ups in the SaaS market. Germany shows itself again as a valuable player in Europe with again more than forty thousand start-ups in the sector, followed by fascinating Poland becoming an attractive place for new start-ups funders. This sector is the leading sector in Poland, representing this time to be a good reality for start-ups funders that aim to enter one of the most relevant sectors in this period. The SaaS sector prominently attracts more different countries. Taking into consideration countries like Netherlands, Spain, and France, we can easily find significant realities regarding the SaaS sector with firms like Papernest in France that is becoming every year more a consolidated reality in the SaaS market internationally.

After these two sectors, the closer one is the Biotech and MedTech sector, with only 6.5 %. It is significant how there is a big drop between the first two and Biotech and MedTech, underlying how there is a considerable focus on two specific trends.

*Table 7; Biotech and MedTech Start-ups by country; Source: personal elaboration of data collected*

Countries	Biotech and MedTech Start-ups
Germany	17918
Spain	8213
Greece	3470
Italy	2910
Denmark	801

Germany, also from this table, let understand how its developed hubs structure is giving good results in terms of numbers. It has almost twenty thousand start-ups working on Biotechnologies and MedTechnologies, being the first countries in terms of consolidated realities. The following countries are Spain (8213) with then all the other countries with not so essential numbers.

The last two-sector to consider is hardware production and Fintech. The first one has the 6.4% of presence in Europe, being very close to MedTech and Biotech and the 4th sector in terms of relevance, the second one instead is the 6th with 5.1%, but its relevance is worldwide because it is the first one on a global level. The "Industrial technologies and hardware" sector is dominated

by the Netherlands with 13122 active start-ups, with the right presence of Italian ones amounting to 4457. There are no more significant countries in this sector, showing low numbers in all the others. The Netherlands represents the second sector in the country, having almost half of the entire active start-up's population.

*Table 8; Fintech active startups by country; Source: personal elaboration of data collected*

<b>Countries</b>	<b>Sum of Fintech</b>
United Kingdom	20943
Spain	6379
Ireland	1656
Belgium	1375

The Fintech sector instead is characterized by a little bit wider variety of countries led by the U.K with more than twenty-thousand firms, representing the second most significant sector in the country right before the E-commerce with almost nineteen-thousand firms. Spain is the only real follower of the U.K in the market with 6379 firms because Ireland and Belgium have just between one and two thousand firms each. The result underlines how fintech don't have the same consideration in Europe as the one that has worldwide. In the U.K there is a real consideration of the sector, and the numbers confirm it. Ireland and Belgium are shown in the table because they represent the leading start-up's sector in the country, even if compared to the other country's result as a low number.

Now that a comprehensive overview of the active start-up's dispersion in each European country, considering every sector is made, the next step will focus on the conditions that every country set for these firms. The chapter will give a more precise understanding of each country's general conditions in Europe in terms of location factors affecting the potentiality of these new business activities.

### **3.2.2 Factor Locations**

As understood in the first chapter of this thesis, each location is characterized by different factors that affect daily operations and future sustainability of the business in that specific area. Recalling the survey in figure 19, in which asked to 321 start-up funders, which were for them the most important factors when selecting a location, the decision was to take the four resulted more relevant to start the construction of "Entrepreneurial Conditions profiles" for each specific country. Looking at the result, are to consider

- Access to talent (77%),
- Ease & Cost of doing a Business (62%),
- Access to Capital (58%),
- Quality of the ecosystem (55%)

Starting from these four factors, it is possible to understand which countries have better structures to help the growth of new entrepreneurial activities, considering which are the most relevant factors from start-ups entrepreneurs themselves.

The data elaboration starts from the idea of constructing a "one to five" model that scale the efficiency of the specific factor in that area. It goes from a bad effort and structure with one point out of five to five points out of five in case of a perfect structure for that specific factor. Each factor has been constructed, starting from different specific criteria that can be reconnected to the macro area.

The first factor to consider in the elaboration is the "Access to Talent", being the most agreed by start-up funders as the principal factor when selecting a location

<sup>86</sup>. To assess the accessibility to talent, when constructing the value, I considered: Cultural and Social Norms<sup>87</sup>, Entrepreneurial education<sup>88</sup> and General Education level in the country to construct the value. With these three criteria, the idea is to give a proper overview and classification of the possibility of finding talented people in a specific location.

### ***Access to Talent***

$$= \text{Cultural and Social Norms} + \text{Entrepreneurial Education} \\ + \text{General Education level in the country}$$

The second-factor calculation considered more different criteria that strongly affect the sustainability and the opportunity to start a business in the area. The Ease & Cost of doing business has been created, taking into consideration four different criteria. Two are related to government action, giving relevance to the structure that is set for the entire local market. The first one is related to the governmental policies related to taxes and bureaucracy and the second one to the market regulation. Regarding the market regulation part, it also includes all the possible

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<sup>86</sup> The result recalls the relevance that Silicon Valley has in the U.S because even if it is an expensive area for facilities and employees' salaries is the best area to find talents.

<sup>87</sup> In terms of shared understanding and consideration of the entrepreneurial activity in a specific location.

<sup>88</sup> The Entrepreneurial Education includes both post and during School.

market burdens that can be found in the internal market. The other two factors were preannounced at the beginning of this chapter and are the cost of registering and the time required to register a new limited-private company. With these four criteria, we can bear in mind which are all the difficulties and different costs that can be found in a specific location instead of another.

### ***Ease and Cost of Doing a Buiness***

$$\begin{aligned} &= \textit{Government policies for taxes and Bureaucracy} \\ &+ \textit{Gov. Market regulation} + \textit{Cost to register} + \textit{Time to register} \end{aligned}$$

We have the last two location factors in dividing into all their components, the Access to capital, and the Quality of the Ecosystem. The Access to capital has been defined taking into considerations two criteria: the entrepreneurial finance in the area, referring to the availability of possible funding resources for new potential entrepreneurs; and the Venture capital investments in the specific country, recalling the numbers that are shown in figure 10 with all the investments divided by country.

$$\textit{Access to Capital} = \textit{Entrepreneurial Finance} + \textit{Venture capital Investments}$$

Regarding the Quality of the ecosystem, many different factors need to be considered while giving a structure of criteria to identify it. The first two criteria come from the government action, more in specific from its policies and programs. In the calculation of Ease and Cost, government policies regarding taxes and bureaucracy were already utilized, in this case, policies are regarding support activity of the government and their own relevance. It is also essential to consider all the Entrepreneurship Programs that the government is promoting and making effective to stimulate the country's entrepreneurial activity. The next two criteria for the definition of the factor focus on the infrastructure condition in the country. These two criteria are the physical infrastructure condition and the commercial and legal one. With the understanding of conditions related to these infrastructures, it is easier to see if there is a ready infrastructure for the development of new entrepreneurial activities. The final consideration is regarding the internal market dynamics. The last criteria that are considered aim to evaluate which are the conditions and if the dynamics of the internal market can be favourable for new businesses and activity or not. With the consideration of the five criteria explained above were possible to define all the different aspects that can affect the Quality of the ecosystem.

## **Quality of the Ecosystem**

= *Government entrepreneurial programs* + *Physical infrastructures*  
+ *Commercial and Legal Infrastructures*  
+ *Internal market conditions* + *Gov. Supporting activities*

Now that all four different factors have been described, the next table is possible to see the result of the construction of these factors with the respective value. Each country has a score for each specific factor, valued through the result of every criterion utilized and combined to create the new current values.

*Table 9; Factor's location scores by country; Source: personal elaboration of data collected from Statista (2020) and GEM (2019)*

<b>Countries</b>	<b>Access to talent</b>	<b>Ease &amp; cost of doing a Business</b>	<b>Access to capital</b>	<b>Quality of the ecosystem</b>
Austria	3.03	3.40	2.25	3.47
Belgium	3.39	3.44	2.44	3.47
Bulgaria	2.32	3.72	1.97	2.84
Croatia	2.36	3.20	1.93	2.73
Cyprus	4.20	3.49	1.76	2.96
Czech Republic	2.51	3.40	1.77	2.81
Denmark	3.50	4.10	2.13	3.45
Estonia	3.30	3.98	2.41	3.37
Finland	3.38	3.60	2.41	3.37
France	3.39	3.64	3.35	3.46
Germany	2.54	3.31	3.81	3.36
Greece	3.08	3.58	1.80	2.85
Hungary	2.39	3.46	1.93	2.80
Ireland	3.96	3.68	2.31	2.98
Italy	1.97	2.86	2.18	2.83
Latvia	3.26	3.71	2.09	3.20
Lithuania	4.13	3.49	2.28	3.32
Luxembourg	4.01	3.42	1.94	3.22
Netherlands	3.67	3.98	2.81	3.62
Norway	3.51	3.51	2.41	3.42
Poland	3.33	3.57	2.15	3.12
Portugal	2.59	3.38	2.23	3.00
Romania	1.84	3.49	1.41	2.66
Slovakia	2.86	2.97	1.95	2.84
Slovenia	3.21	3.59	2.01	3.17
Spain	3.19	3.65	2.64	3.50

Sweden	3.75	2.99	2.62	3.20
Switzerland	4.01	3.94	2.74	3.56
United Kingdom	3.57	3.98	4.99	3.07

From Table 9, it is possible to see all the results of the construction of these factors and their respective value. Every value is the result of the average between all the values combined to create that specific factor.

It is relevant how the leading country in terms of access to talent is Cyprus with 4.20 out of five, followed strictly by Lithuania (4.13), Luxembourg (4.01), and Switzerland (4.01). The chart's bottom shows in Romania with 1.84 and Italia with 1.97, being the only two countries with a value of less than 2. The result is shown in some countries; there is a lower level of entrepreneurial mindset due to a low level of orientation trough this type of activity.

Then considering the Ease and Cost of doing business, there is an entirely different situation in the country involved as best practices and worst ones. Denmark is the top country with a score of 4.1, being the only country that was able to reach four. Denmark is pushing very hard to make smoothest for new entrepreneurs to start and run their new businesses. Then, four countries are almost at the same level with a little bit less than four and are United Kingdom (3.98), Netherlands (3.98), Estonia (3.98), and Switzerland (3.94). In this case, Switzerland shows how it offers what start-up funders are mainly looking for, resulting in one of the potential best locations to start a new activity.

Taking into account the access to capital, it is easy to see how there is a broader difference between the United Kingdom with 4.99, top of the scale, and the bottom represented by Romania with 1.41. In this factor, the venture capital investments part had a significant impact on the result; having a real difference between the numbers of deals and value of venture capital investments in Europe. As represented in figure 10, The United Kingdom has a value of venture capital investments that are almost equal to the amount of France and Germany, or all the other countries in Europe without these two. Germany and France are the only two countries that are a little bit closer to the United Kingdom result with respectively 3.81 and 3.35, underlying more than the amount of venture capital investments is the more reliable determinant of this specific factor for the reasons underlined above.

The last factor is the Quality of the Ecosystem that being the factor with more variables as its determinants are also the factor with less variance. The best country in terms of quality of its ecosystem is the Netherlands with 3.66, followed by Switzerland (3.56), Belgium (3.50), Austria (3.47), and France (3.47). The worst ecosystem is in Romania, with 2.66, followed by Croatia (2.73) and Hungary (2.80). Romania shown itself again as the worst country in terms of the



specific factor selected, showing a not attractive market and the location where it can be initiated a new activity. It is the last of the chart in three out of four, being in a good position only regarding Ease and Cost of doing a Business, in which Italy is the worst country with 2.86.

The result gives a broad understanding of Europe's current situation, underlying each country by its points of strength and weaknesses. From the results, now it is essential to derive an understanding of which country can be the better fit for new potential entrepreneurs. The idea starts again from the survey, taking into account all the preferences that start-ups founders described through it.

$$**wfactor** = *Factor value* * *weighted Funders preferences*$$

Once all the values are weighted by the preferences expressed in the start-up's funder survey, it is possible to derive the Location factors score of the specific country. The result will allow us to classify every country depending on its entrepreneurial environment conditions and favourability.

$$**Location facors score** = \frac{(wfactor\ 1 + wfactor\ 2 + wfactor\ 3 + wfactor\ 4)}{4}$$

In the next chart, it is possible to see the result of deriving the "Location factors score" by aggregating all the four different factors for each country with a weighted average depending on the relevance given by the survey.

## European Country divided by location factor score

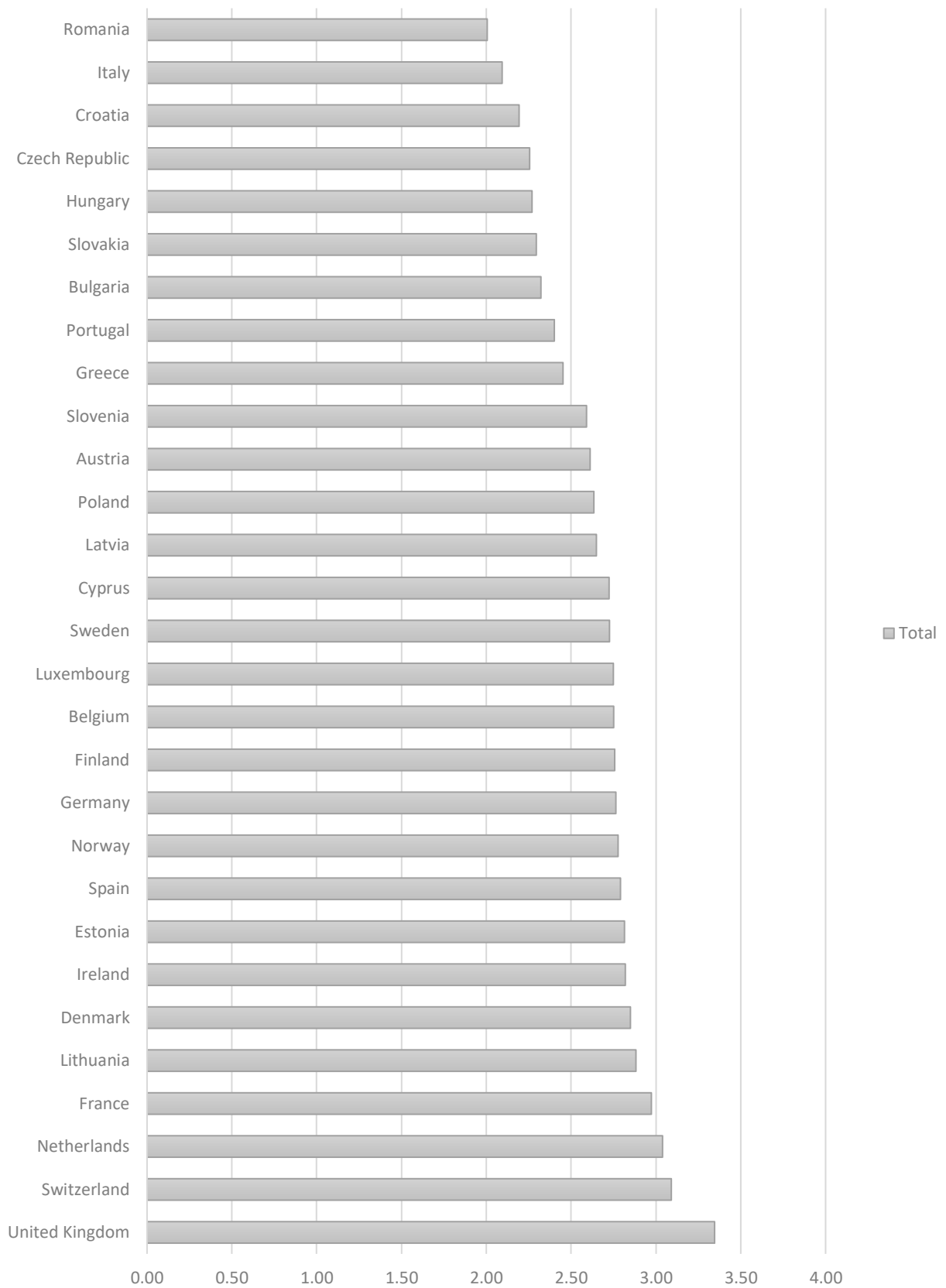


Figure 19; Country factor location quality; Source: personal elaboration of data collected

In Figure 19, it is possible to see every country with its respective score in terms of location factors quality. The United Kingdom is the best country in Europe considering location factors, with a score of 3.35 out of five, followed by Switzerland and Netherlands with 3.09 and 3.04 (the only two countries that reached a score of at least three out of five). The European average is 2.64, showing seventeen countries above it and twelve under. The minimum score is held by Romania with 2.01 and followed by Italy with 2.09, demonstrating how these two are still so far from reaching an excellent entrepreneurial environment in their geographical area. In general scores higher than three out of five can be considered "good" level of location factors presence in the area. Instead, score between two and two point five can be considered as a "sufficient" level, and lower than this range as not sufficiently developed.

Starting from the calculation of these two different parameters, the numbers of active start-ups by sector and the factor location score, these results will be combined and developed in the next chapter, adding to the consideration the specific value in terms of venture capital investments sectors and area. The end of the next chapter aims to find and give a proper understanding of which are the best countries for potential entrepreneurs taking into consideration the specific market sector.

## **Chapter 4 – Entrepreneurial Potential by Sector**

In Chapter 3, we went through the analysis of new innovative start-ups in a specific sector and the conditions of specific geographic locations in terms of entrepreneurship, keeping the two things separated. The analysis understood the current situation of specific sectors in the European area, understanding which countries have better-developed markets, higher saturation and maturation, more challenging competition, and higher survival rates. Then, through a proper analysis of what was considered as the most relevant factor by new start-ups founders, the location factors condition was discovered. The condition has been classified to give a scale of different levels and compare the different countries in the analysis.

The idea now is to take back into consideration what is shown in figure 13 regarding the sector distribution of venture capital investments in Europe to find essential insights into the current European situation. The aggregation of this data with the one discovered in the previous chapter will help us define which country is more suitable for specific entrepreneurs that want to start a new business activity in a specific market segment.

In the first part of the chapter, the analysis will go through the aggregation of the factor described above to discover the effective best environments for potential entrepreneurs. The relative sectors' selection will consider all the different points that can be a favourable factor to a specific country or sector, as the presence of colossal venture capital investors that tend to invest in specific market segments. The aggregation will need to construct new data through the analysis of the venture capital investment structure in Europe, taking into consideration all the different amounts, volumes, and numbers of deals made in 2019.

Once that a clear overview and understanding of the selected countries and relative sectors are made, the final part of this chapter will give an accurate description of the final results found. The description will be made utilizing geographical map graphs to show precisely which geographic regions represent the best country locations for new business activities related to one of the specific sectors considered.

### **4.1 Venture capital investments distribution to sectors**

All the data that were calculated would be useless if not applied to what is the venture capital activity for that specific sector and country. The analysis will then continue taking back into consideration figure 13, which described the venture capital investments in Europe by sector. If

we look at that graph is easy to see how the Fintech and the Enterprise software<sup>89</sup> sectors are the dominant sectors in Europe, with the Health one following with less than half of the Enterprise software one. The confirmation of these results regarding venture capital investments led the analysis to focus specifically on these three sectors. The idea is to consider the three most exciting sectors in terms of trends, both related to the new business activity and the venture capital investment perspective.

The paragraph will continue from analysing the first sector in terms of venture capital investments in Europe, Fintech, giving all the reasons for its relevance in the European market initially. Then, it is mandatory to continue with the Enterprise software and SaaS software due to their importance in the actual trends in terms of new entrepreneurial ventures and venture capital investments, being the only one that is following Fintech on this parameter. The third and last sector will be a healthy one with all the biotech and MedTech part included. The reason considers the current world situation in which the Covid-19 pandemic is switching the focus of investments to the research and development of medical and biotechnologies. It will probably have a higher attraction of investments and also a higher propensity of new potential entrepreneurs to start new innovating businesses in the sector due to its growing relevance.

#### **4.1.1 Fintech**

As preannounced, the first sector that will consider is the Fintech due to its more significant relevance than the other ones. It is a critical sector, and it is demonstrated by the investments that venture capitalists are making in this specific sector. It represents the sector with the highest number of new business activity worldwide, and in Europe, it is the leading investment sector of venture capitalist with almost eight billion euros invested in 2019.

The analysis now needs to discover the exact distribution of the eight billion euros invested in 2019 in the fintech sector by a venture capitalist. The idea is to consider the volume of investments in the fintech sector by country and make a proportion considering the total European volume.

#### ***Fintech Venture Capital Investments of a specific country***

$$= \frac{\text{Volume of VC deals in a country}}{\text{Total VC deals in Europe}} * \text{Total Fintech VC inv. (EU)}$$

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<sup>89</sup> It includes the SaaS sector.

This calculation has been possible to develop a pie graph showing the exact distribution of Venture Capital investments in the fintech sector by country. In the Figure below, there are shown the results related to the calculation explained and illustrated above.

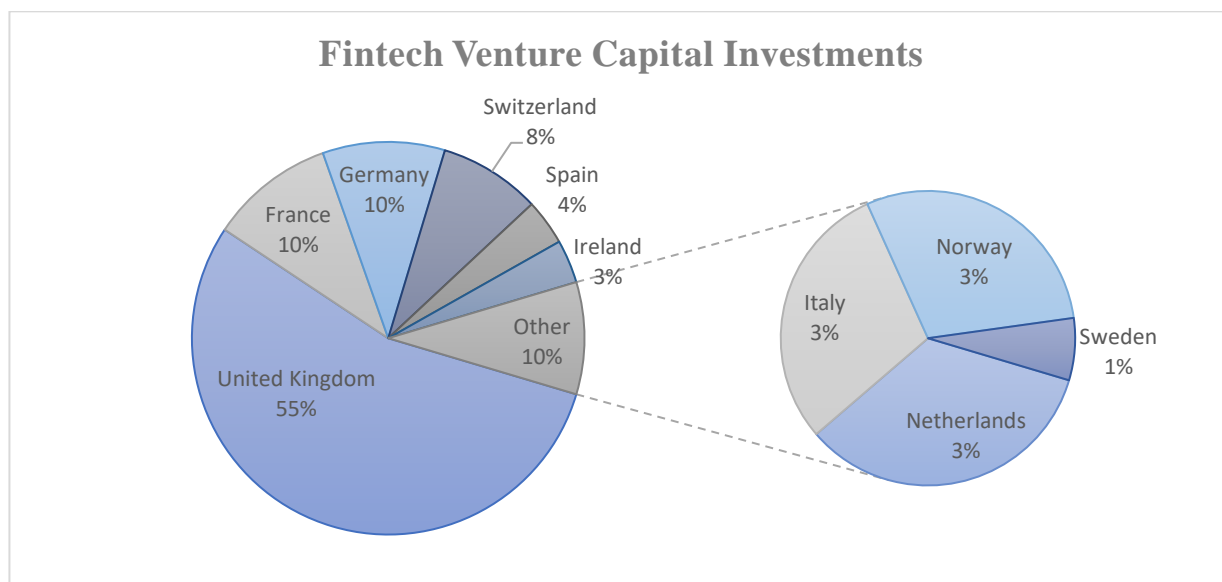


Figure 20; Fintech investments by country in Europe; Source: personal elaboration of data collected

The graph shows how the United Kingdom, leader country in terms of venture capital investments with 4.21 billion of euros (55% of the total venture capital investments in Europe for Fintech). Then, the following countries are Germany and France with a little bit less than one billion each and Switzerland with just a little bit more than a half.

Recalling what discovered in chapter 3 while looking at the numbers related to active start-ups by sector, it is clear how considering the United Kingdom is also reflected in the number of active start-ups. The U.K has more than twenty thousand active start-ups in the fintech sector, being the most relevant country for fintech, considering the number of active start-ups and venture capital investments. The other relevant countries by the number of active start-ups were Spain with more than six thousand businesses and Ireland with just more than one and a half billion. Regarding these two countries, figure 20 is not shown as two countries that are attracting venture capital investments in this sector as they should, with respectively 0.29 and 0.27 billion. Countries like France and Germany, instead, having a bit higher portion of investments, they do not show a significant portion of new business activity in this specific sector. Venture capital investors from outside do not see in these two countries potentiality in the fintech sector. The U.K represents the most significant point of interest in the specific matter in terms of potential entrepreneurs and

investment attraction. In France and Germany, the country related venture capitalist is not focusing so much in the specific sector, looking for other investments.

As we will see in the next paragraph, a country like Germany is focusing more on this specific market in the fintech one related to the enterprise software market. This type of different focus is probably made by the recent trend of the last years that is currently focusing on the idea of "Software as a Service" (SaaS)

#### **4.1.2 Enterprise software**

The second sector to be considered is the Enterprise software that comprehends both the SaaS and the IT and softer sector. It represents the second sector in terms of venture capital investments worldwide, with 6.38 billion euro, and the second in terms of the number of start-ups in Europe. The SaaS sector's most prominent venture capitalist is Sequoia, which is based in California, considered the tenth venture capital worldwide by numbers of deals. Sequoia's location does not affect their investments in good opportunities in Europe like Y Combinator is doing every year with challenges that lead to the opportunity to work with these types of accelerators<sup>90</sup>.

The construction of the venture capital investment distribution of the specific sector, in this case, has to be done differently. The issue arises from the impossibility of finding data related to the volume of venture capital investments. The calculation arises from a different computation of the data collected until this point.

The idea is to take the average percentage of the number of active start-ups in the enterprise software sector of the specific country divided by the total number of active start-ups in the same sector in Europe, and the number of venture capital investments in the specific country divided by the total of VC investments in Europe. Then, the percentage found has to be combined with the total of venture capital investments in the Enterprise software sector in Europe.

#### ***Enterprise software Venture Capital Investments of a specific country***

$$= \frac{\left( \frac{\text{Enterprise S. Active Startup (C)}}{\text{Total Enterprise S.Active Statup (EU)}} + \frac{\text{Venture capital Investments (C)}}{\text{Total Venture Capital investments (EU)}} \right)}{2}$$

\* *Enterprise software Venture Capital investments (EU)*

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<sup>90</sup> Y combinator makes a European challenge every year, allowing a few new firms to go to the United States to challenge other qualified firms from different continents. Y combinator shows that interest in the SaaS market when it let win Papernest the challenge because it was considered an outstanding idea that can drastically change the way of doing services.

Once estimated the data related to the venture capital investment distribution in each specific country, considering the Enterprise software sector, it is possible to construct a pie graph to illustrate the results.

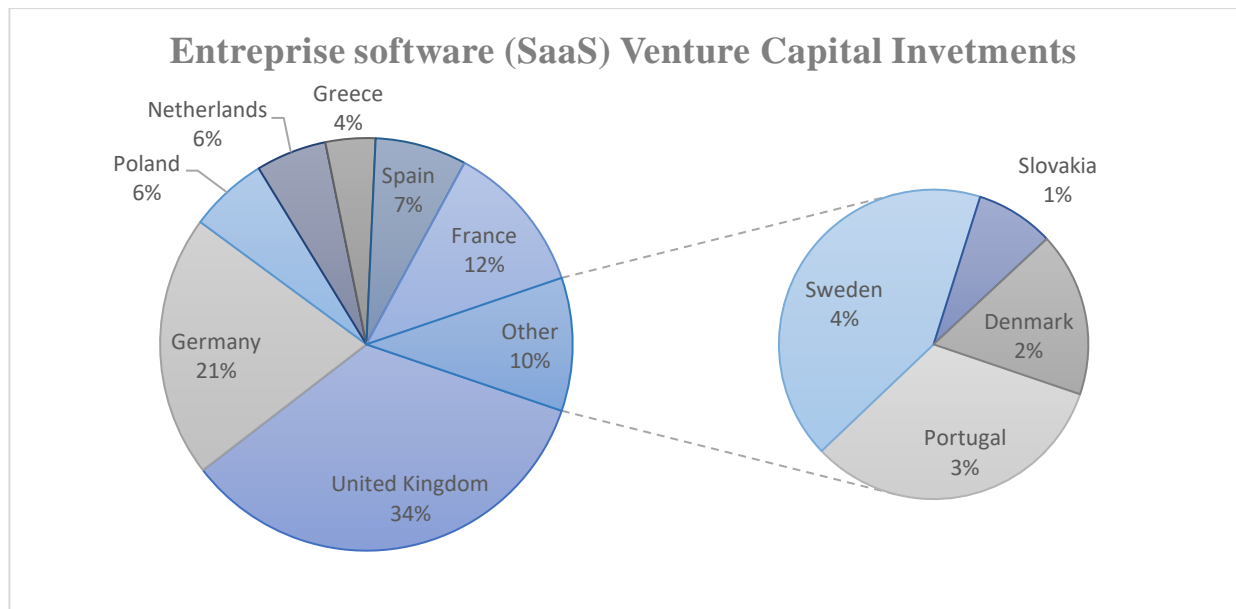


Figure 21; Enterprise software (SaaS) Venture Capital investments by country; Source: personal elaboration of data collected

The pie graph is more equally distributed this time, with again the United Kingdom as the leading country followed by Germany and France. The U.K reaches more than two billion euros, demonstrating itself as the most attractive country in terms of venture capital investments in general. The result is also justified by the result related to the numbers of active start-ups in the SaaS sector, being the first in Europe with more than sixty-seven thousand new businesses. Compared to what happened in the fintech market, it is significant how the number of active start-ups, in this case, is three times the one in the fintech market for the U.K, but the venture capital investments are lower than it. The phenomenon underlines how new potential entrepreneurs are more likely to see this type of market as a company's future based on services.

In this case, Germany becomes an outstanding player thanks to its focus on this type of sector. It is the second country in terms of venture capital investments with 1.31 billions of euros in the enterprise software market, sustained by more than forty thousand firms in the SaaS sector (2nd after the U.K) and other forty thousand in the IT and Software development one (Resulting as the first in Europe by the number of active start-ups). It configures a more developed market but with a higher competition due to the country market's huger saturation.



There is a different situation in France, in which there is still a fair amount of venture capital investments (0.76 billion euros) but not a significant presence of firms like in Germany or the U.K (Only ten thousand firms in the SaaS market).

#### **4.1.3 Medtech and Biotech**

The MedTech and Biotech market represents the third market in Europe regarding venture capital investments, following the other two sectors with a wide margin. The amount of venture capital investments in this sector is about three billion euro, representing less than half of the enterprise software one. Considering the number of start-ups in Europe, it also represents the third position, with 6.5% of the total European start-up activity.

The most prominent venture capital firm for the MedTech and Biotech sector is MedTech Venture Partners (MTVP) in California and locating is position again outside Europe. Also, in this case, there is no facilitation from the most significant venture capital of the sector, and this time become more relevant due to a generally lower level of venture capital investments in the MedTech and Biotech sector in Europe.

In this case, like for the enterprise software sector, there was no possibility of finding data regarding the volume of venture capital investments of that specific sector. The idea to overcome the problem and to find the data that we need to finalize the analysis recall the one already used for the enterprise software sector. In this case, the difference will be regarding the numbers of active start-ups that will consider the ones related to the MedTech and Biotech sector and the amount of venture capital investments that will be again considering the MedTech and Biotech one.

#### ***Medtech and Biotech Venture Capital Investments of a specific country***

$$= \frac{\left( \frac{\text{Med\&BioTech Active Startup (C)}}{\text{Total Med\&BioTech Active Statup (EU)}} + \frac{\text{Venture capital Investments (C)}}{\text{Total Venture Capital investments (EU)}} \right)}{2}$$

\* *MedTech and BioTech Venture Capital investments (EU)*

The construction is the same as the one saw for the enterprise software sector, applying only the data related to the MedTech and Biotech Sector. Like done for the other countries, all the results are recollected in the pie graph below.

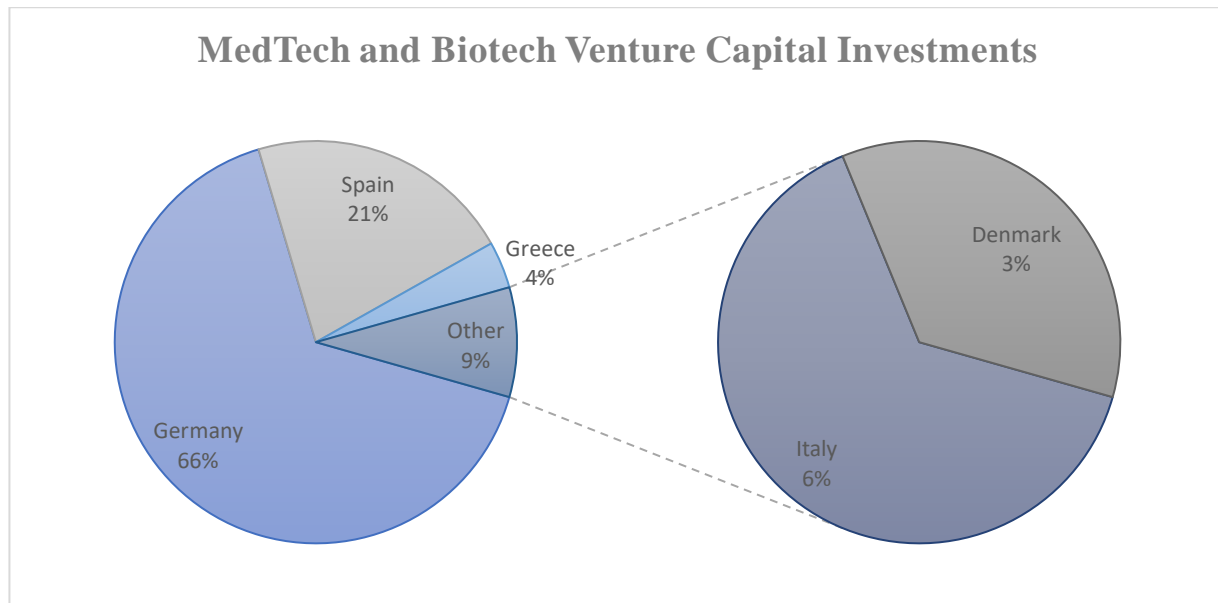


Figure 22; Medtech and Biotech Venture Capital investments by country; Source: personal elaboration of data collected

The MedTech and Biotech sector does not show, as happened in the two sectors before, the United Kingdom as a relevant country in venture capital investments. In this case, it is not even taken into consideration, using a tiny pool of countries. The first country is Germany, with more than sixty percent of the entire venture capital investments in Europe for MedTech and Biotech sectors. It amounts to 1.82 billion Euros, outstanding the second one in Spain with 0.59 billion euros, representing 21% of the total amount. The other countries are Italy, Greece, and Denmark, with low amounts of almost irrelevant investments for the analysis. Germany is the only country that, in terms of venture capital investments, kept a significant level in each sector, showing a well-developed entrepreneurial and venture capital ecosystem. In this case, the United Kingdom is totally out of the competition, not focusing on the specific MedTech and fintech sector.

Now that all the data collected has been aggregated together, it is essential to give an accurate image of the consequently European conditions considering all the different factors discovered until now. There will be the final combination of the data discovered regarding each specific sector and each specific country's general conditions in terms of location factors.

## 4.2 Geographic analysis overview

This final part of the thesis will go through the final European overview regarding entrepreneurship geographic potentiality. The collection of different aspects regarding entrepreneurship environments and venture capital investment structures allow creating a precise

image of the current European entrepreneurship ecosystem, giving a particular focus on the most relevant sectors and countries.

The idea to find the final result of this analysis and the related research question is related to combining all the data found until now to develop a "snapshot" of the countries ecosystem for the specific sector dividing it into different levels of entrepreneurship ecosystems. The starting points derive from the result obtained by analysing what was considered the most appropriate factor locations by more than three hundred start-up funders. From this starting point, it is possible to combine it with the results found in the first part of this chapter regarding each specific industrial sector. Combining the two will allow us to find which countries have better conditions to start a new business activity in that specific sector.

The chapter will continue with the division between the three main sectors analysed in the first part, showing all the differences in terms of conditions. The final construction for these sectors will allow us to understand, at the end, which countries can be considered as a starting point and which, instead, should be avoided and deleted from the pool of consideration.

#### **4.1.3 Fintech European Overview**

The Fintech sector, as we saw earlier, is mainly dominated by the presence of start-ups located in the United Kingdom, also representing the biggest country in terms of venture capital investments in this specific sector. It is the only country showing superior numbers in both of these two parameters, showing an extreme potential for every potential entrepreneur. In terms of active start-ups, the following country is Spain with more than six thousand active firms and, instead, in terms of venture capital investments, there are France and Germany with almost one billion of venture capital investments.

The only way to derive which country is for sure the best solution for every potential entrepreneur is to combine what was discovered in figure 19, regarding the factor location score, with the results in terms of active start-ups and number of venture capital investments. The aggregation combined the factor location score with a related investment and activity score derived from the numbers found while analysing the specific sector. The combination of the two led to constructing a geographic map with different evaluations of the related conditions in each specific country regarding the entrepreneurial potential in the specific sector. The result is possible to see in figure 23 just below.

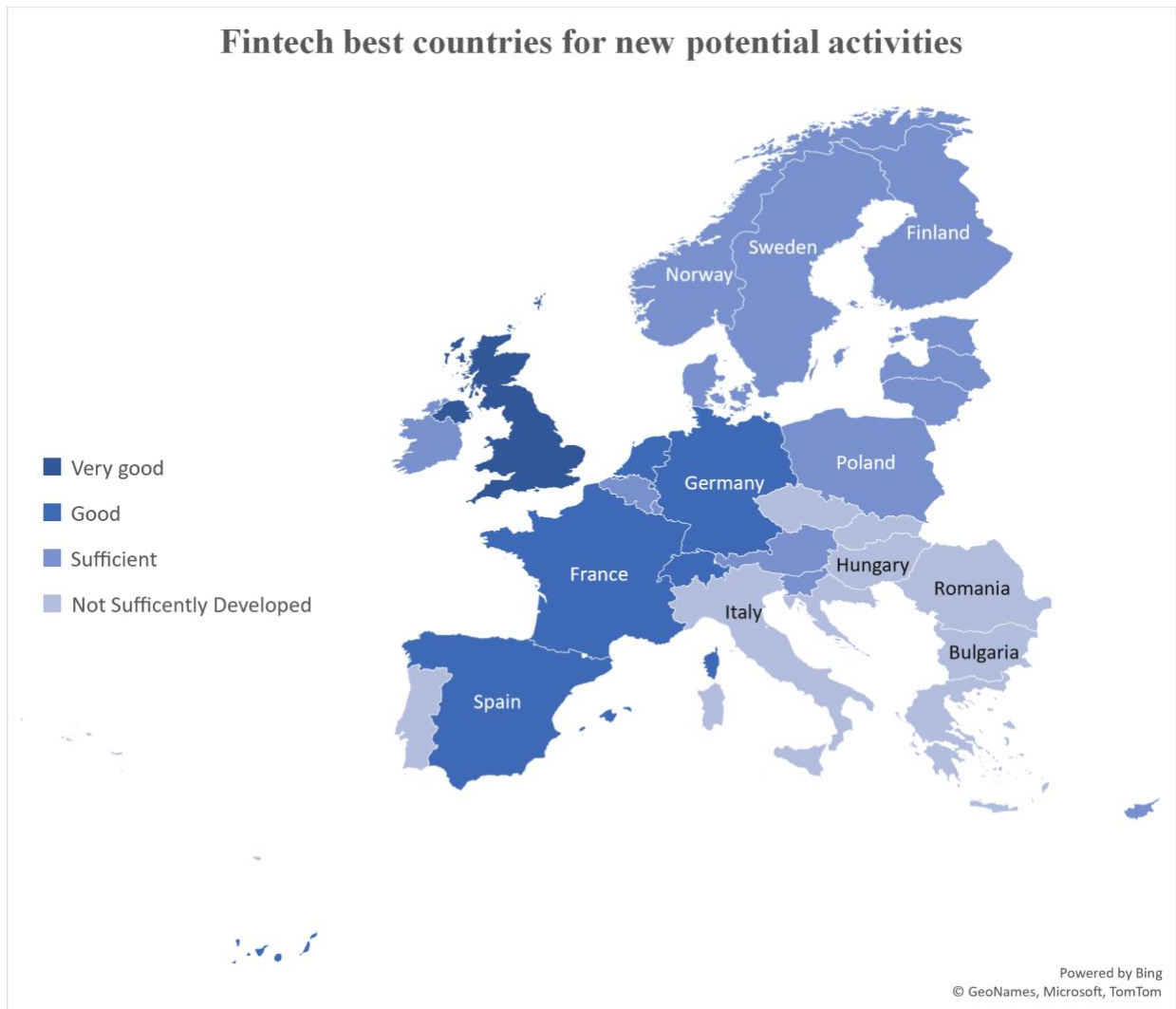


Figure 23: Geographic evaluation of the Entrepreneurship ecosystem for the Fintech sector; Source: personal elaboration of data collected

It is clear how the top country in the fintech sector in the United Kingdom was easy to predict from the beginning data related to this specific sector. The U.K. as also the best environment and location factors condition in Europe according to the analysis made in the previous chapter. Combining these two outstanding performances can only lead to this type of result, with the U.K. as the only country with an overperformance regarding the entrepreneurship quality ecosystem for new fintech start-ups. The "very good" level is considered when a country reaches a score higher of three points five out of five (in this particular case, the U.K. reaches almost the maximum score).

A still good entrepreneurship environment for the fintech sector can be found in Germany, France, Switzerland, the Netherlands, and Spain. In Germany and France, thanks to a good general level of location factors and, in particular, to an adequate level of venture capital investments in the specific sector in their area. Spain has good condition instead of a sufficient one, mainly thanks to the number of active start-ups that show an excellent establishment level,

followed by a sufficient location factors level. Switzerland, not showing a particular level in both numbers of active start-ups and venture capital investments is there thanks to its general good level of entrepreneurship ecosystems due to his location factors score. Like Switzerland in the Netherlands, but if it was not for a good presence of active start-ups, It could have been in the sufficient tier. Countries that are better to avoid due to their low levels of both numbers related to the specific sectors and location factors are Italy, Greece, Portugal, Bulgaria, Slovakia, Hungary, Czech Republic, Croatia, and Romania. The remaining country has a sufficient level to make a potential entrepreneur decide to start a new business activity in the area, but with the only risk of regretting the decision due to better opportunities and structures elsewhere.

#### **4.1.3 Enterprise software European Overview**

The enterprise software sectors have shown the United Kingdom's central domination over the other European countries again. It shows a higher level in the number of active start-ups (more than sixty thousand) and ventures capital investment (2.19 billion euros), but, this time, with a lower margin than in the fintech sector. The Fintech sector had more than fifty percent of the total venture capital investments in Europe's sector; instead, in the Enterprise software one, it has just thirty percent. Due to this market's relevance in the European region, many countries like Germany, France, and Poland have shown an excellent development level in the specific sector. Germany showed more than forty thousand active start-ups in the Enterprise software sector, attracting the twenty-one percent of the entire venture capital investments in the European region sector.

This situation can only create a better solution for a potential entrepreneur because it will have better opportunities to choose and a less concentrated competition in a specific area. It can also reduce migration flows to start a new activity because it will be more comfortable than the current country has an adequate level of entrepreneurship for the specific target sector. There are more efficient entrepreneurial structure and a higher number of countries showing at least a sufficient condition level. In the graph below, it is possible to see how the European area's general level shows an increased level despite the lower amount of investments than the fintech sector that the continent is attracting.

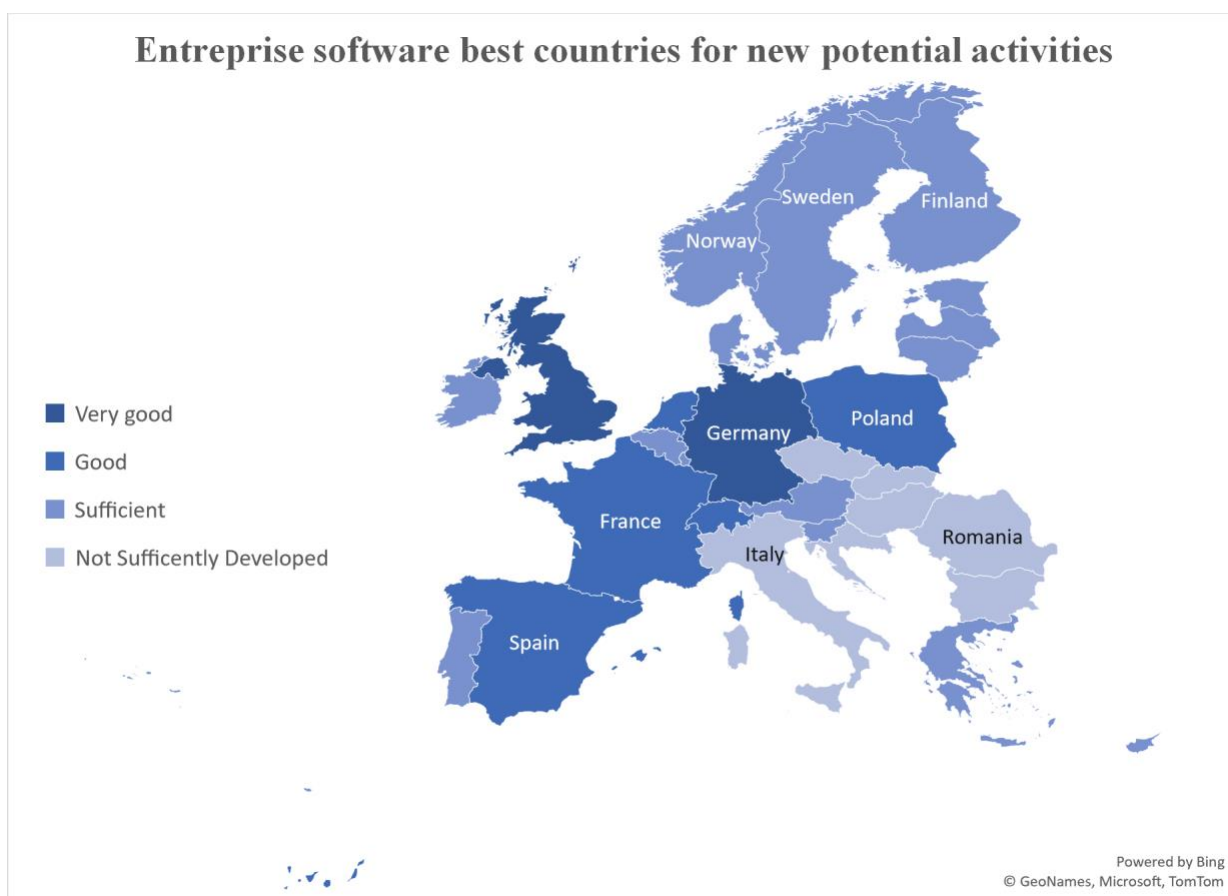


Figure 24: geographic evaluation of the Entrepreneurship ecosystem for the Enterprise software sector; Source: personal elaboration of data collected

As preannounced before, the two leading countries are Germany and the United Kingdom, which shows a well-developed environment. In this case, the best country to start a new business activity is the U.K, having still a better location score and a higher level of investments related to a higher percentage of survival than in Germany. Germany can be the right choice in specific situations because it can have lower competition in a particular market than in the U.K due to a lower number of active start-ups and a less saturated market.

The number of "good" level countries is more comprehensive thanks to a general higher number of active start-ups in general, showing a more sustainable and healthier market. Between the "good" level countries, there are Spain, France, Switzerland, Poland, and the Netherlands. Poland shows itself as one of the best in this tier, thanks to both a good level on the number of active start-ups (more than twenty thousand) and venture capital investments. Netherlands and Switzerland also, in this case, are mainly driven by their general good level of location factors. Instead, Spain and France are also driven by a sufficient level of venture capital investments and active start-ups.

The number of countries that is better to avoid is lower in this case because Portugal and Greece, thanks to a better presence, in this case, of venture capital investments and new business activity, are lifted to the "sufficient" level tier.

#### **4.1.3 Medtech and Biotech European overview**

The last sector to consider is the Medtech and Biotech one, which will be essential thanks to its different conformation despite the other two. There is a critical change in this sector considering the other two because the United Kingdom is not relevant in terms of venture capital investments and the number of active start-ups. Until now, the dominance shown is entirely overcome by Germany that shows 66% of the total amount of venture capital investments of this specific sector and the highest number of active start-ups (almost twenty thousand). There is a shallow distribution of investments in different countries because of the only other country with more than 4% of Europe's total venture capital investments for the Medtech and Biotech sectors in Spain with more than twenty percent. It is significant how 87% of the total amount of venture capital investments in the sector is held by only two countries, showing a massive concentration of this sector in Europe.

The high concentration of investments will lead to a generally lower level of European condition for this sector, which was already aggravated by a significantly reduced amount invested by venture capitalists and the number of active start-ups operating in the area.

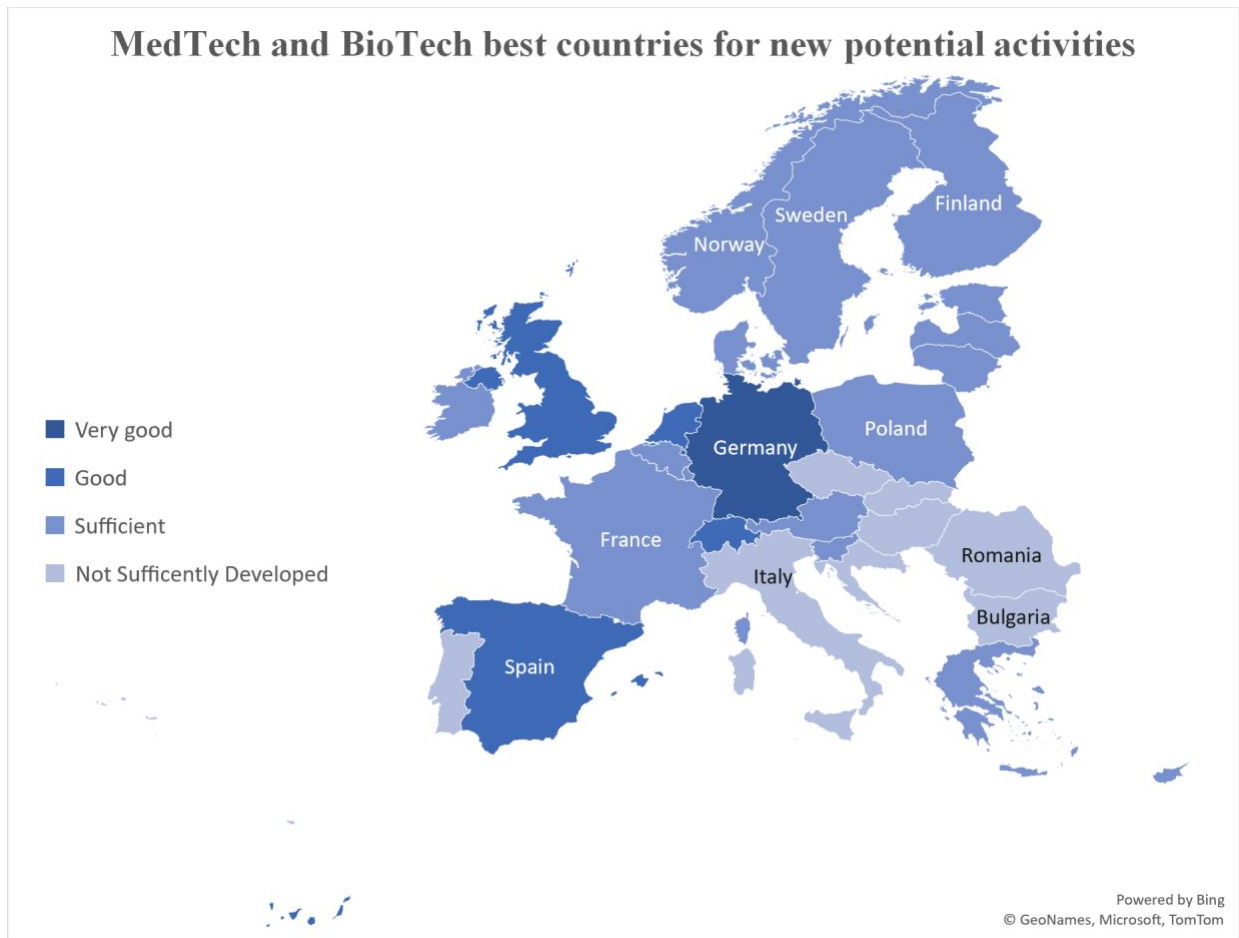


Figure 25: geographic evaluation of the Entrepreneurship ecosystem for the Medtech and Biotech sector; Source: personal elaboration of data collected

From figure 25, it is possible to see how, for the first time, the United Kingdom does not show itself as the best country where to start a new business activity. In the Medtech and Biotech sector, Germany's principal leader is the one with the most developed ecosystem for new business activity in this specific sector.

The Medtech sector and Biotech sector reflect the drastic drop possible to see when considering the amount of venture capital investments by sector in Europe. The Fintech and enterprise software sector had a lower difference in the amount despite the one between the enterprise software and the Medtech and Biotech one (less than half of the enterprise one). It is possible to see how the effect is reflected in the "good" level tier due to a decrease in the number of countries in this specific tier. The countries showing a good level are only the U.K, the Netherlands, Switzerland, and Spain. The first three countries are on a good level condition almost entirely thanks to their factor location score, and only Spain is there thanks to its good portion of the total venture capital investments in Europe for that specific sector (21%).

The number of countries with a not sufficiently developed market increases again with Portugal that comes back again in the lower tier due to no particular effort in this specific sector.



## Conclusions

The specific research question that this thesis sought to answer was discovering which countries in Europe are the best option to start a new business activity in a specific sector. Thus, this investigation's scope was to find all the possible factors that could affect the survival and success chances of new business activities in the area. This perspective has been chosen under the belief that there are general location factors that affect the potential of new potential start-ups and new start-up funders consider it while choosing where to start their activity. Essential for the development of this reasoning has been, therefore, to emphasize the relevance of all the different components that composed the four different location factors considered as the most relevant while choosing a location. The countries that result in a general best location factors structure were, in order, the United Kingdom, Switzerland, the Netherlands, and a close France. These countries have shown a general better structure considering what start-ups founders considered as more relevant through the survey.

The sectors considered for the analysis were just three due to the relevance of these in the European Market. The first two, FinTech and Enterprise software, have shown in their numbers a significant interest from venture capitalists. The two sectors represent together almost 40% of Europe's total venture capital investments, making them the most relevant sectors in Europe for new business activities. It is also justified and confirmed by the higher number of active start-ups despite the other sectors. The Medtech and Biotech one is the third in terms of venture capital investments, but it has a more similar level to the broader range of remaining sectors, with only 6.5 %. The decision to consider it is also behind the current worldwide condition related to the pandemic. It will become a critical sector for different reasons, increasing relevance, and the number of investments.

The results of the analysis led to make a strong consideration of a few crucial countries that are trailing the entire European area with a more developed structure. The two countries that show a general best structure development for new potential entrepreneurs for the three sectors considered were the United Kingdom and Germany. The U.K resulted as the best country in both Fintech and Enterprise software sectors, the two most important sectors for start-ups in Europe. It had these results showing in both cases the highest number of active start-ups and the amount of venture capital investments, showing a healthy market maturity. Germany shown how it is developing a competitive market, showing itself as a very developed structure in every segment and excelling in the Enterprise software market with the U.K and dominating the Medtech and Biotech sector with only Spain following it.

### Fintech sector conclusions

Considering the Fintech market, the United Kingdom's best option is entirely outstanding in Europe's other country. Good options that can be considered if the entrepreneur is already in that location are Germany, France, Switzerland, the Netherlands, and Spain. If the potential entrepreneur is not in one of these countries, he should consider migrating to one of these to find higher opportunities for success than in its current country.

### Enterprise software Conclusions

The Enterprise software sector has a broader selection of countries that can be selected than in the fintech one. The best options for this sector are the United Kingdom and Germany that shows the best structure development in Europe. Germany can be considered the best option in terms of competition but with a generally lower investment level than the U.K. Good options can be considered if the entrepreneur is already in that location, Spain, France, Switzerland, Poland, and the Netherlands. Poland can be an exciting option because it is developing an essential entrepreneurial structure, and it is focusing on this sector, focusing on the SaaS segment that is increasing its relevance year by year.

### Medtech and Biotech Conclusions

The Medtech and Biotech sector will be one of the most important in the next few years due to the current pandemic we are going through. With its already well-developed structure in these sectors, Germany will become a focus and central point in Europe regarding all the new business activities related to Medtech and Biotech. It already has 66% of the total venture capital investments, showing a great interest in the specific matter, followed only by Spain with 21%. It represents the best country for this specific sector. The other that can be considered still good are the U.K, the Netherlands, Switzerland, and Spain. Between these countries, the suggestion is to consider Spain over the others only due to a higher attraction of investments than the other countries (even if they have a general better-developed structure).

A general insight that this analysis allows to share and what should be done a vital consideration is the imminent officialization of BREXIT and the general not outstanding start-ups market development in Europe. It will be important that the European Commission create the best

conditions to cooperate with the United Kingdom to improve the entire area's improvement and innovation process. It should be considered strongly due to the not comprehensive and shared structure development that Europe shows in this specific matter. At the same time, the European Commission should consider why the European regions show a so delayed development despite the rest of the world, keeping a higher pace than Europe.

## Abstract

The concept of entrepreneurial activity is very year evolving and becoming more complex, with more different factors to consider when starting a new business. Globalization and digitalization also affect this study area, and now there are ten times more opportunities to be perceived than just 20 years ago. Nowadays, it is possible to start new activities in every sector and follow their respective norms and regulations. One of the essential characteristics of new entrepreneurs is related to their ability to perceive new opportunities and their propensity to overcome failures. The Entrepreneurship field of studies evolved drastically, taking into consideration several new different aspects of the "Entrepreneur" figure. The psychological parts of new entrepreneurs become a crucial part of this field, followed by a contextual and relational perspective.

The context and the possible networks became relevant due to the increase of new entities in the entrepreneurial context like angel investors, accelerators hubs, and venture capitalists. Venture capitalists become relevant players of the entrepreneurial environment thanks to their ability to make new innovative prospects consolidated realities. The success of this type of entity is due to its ability to be not only a source of investments for new business activities or start-ups but also a source of more experienced and qualified instructions and directives.

This analysis aims to find an answer to the following research question: considering the current entrepreneurial activity and venture capital presence and amount of investment in Europe, which are the best countries where a potential entrepreneur should start its new business activity considering the specific market sector in which he wants to operate?

The thesis starts its analysis giving an understanding of the concept of entrepreneur, starting from the first definition of the term made by Cantillon and then considering all the different perspectives evolved through the years thanks to the different authors that given their contribution to this field of studies. Once given a proper understanding of the entrepreneur's concept, the thesis continues with a comprehension of what can be considered a new entrepreneurial venture and venture capitalists' role in their entrepreneurial life.

Entrepreneurial ventures<sup>91</sup> are modelling the current economic worldwide market, growing in numbers, and the degree of Innovation. With their more innovative work environment and orientation, these firms are increasing the necessity to keep the pace of the market that is continuously evolving. These types of Firms are involved in several different markets facing different phases of growth, influenced by the industry in which they are operating. Such a

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<sup>91</sup> Ventures context refers to the organizational arrangements or formation where new venture activities are restrained or encouraged in a specific direction (Morris, Neumeier, Jang, & Kuratko, 2018)

situation makes them riskier than regular businesses but with a higher potential for wealth creation. This environment of new, highly innovative firms with high growth potential, brought a significant increase in private equity funding, creating different solutions for this new venture. More ventures are utilizing Capital Ventures as a way of funding in order to have something that gives them backward sustainment. Venture capitals typically invest in only 2% of entrepreneurial ventures because of the high risk related to these investments and the possibility of monitoring them during their growth<sup>92</sup>.

It is relevant to understand that this phenomenon grew and developed in different ways depending on every country, creating different levels of entrepreneurship and venture capitalist presence and investments worldwide. A specific example of this is the geographic area of Silicon Valley<sup>93</sup>, in which many high-tech new ventures born and grow thanks to its innovative environment efficiently. In that area, there is a considerable concentration of investors and resources for new entrepreneurs that want to start a high-tech company, having the possibility to find easily specific knowledge that can be useful to the development of their idea. These areas give new entrepreneurs an option for them to locate their company and search for funds, sometimes making them not worth starting their company in their current location. Typically, entrepreneurs decide to start their new venture in a familiar place<sup>94</sup> (Michelacci & Silva, 2007). Still, with the development, they may require access to new resources that are not abundant in their geographic location due to the necessity to finance their growth ambitions (De Prijcker, Manigart, & Collewaert, 2019). This necessity leads them to search for possible funding solutions, considering the venture capital case, and it can make them think about relocating to areas with a more significant presence of venture capital firms. Often, venture capital firms create a massive concentration in a specific area<sup>95</sup> because this phenomenon is strongly characterized by spatial clustering (Cumming & Dai, Local Bias in venture capital investments, 2010). Such a situation makes it difficult for new ventures established in places with the scarcity of venture capitalist presence, difficult to attract investments reducing their probabilities to success. The difficulties in attracting investments from venture capital investors derive from their preference to prefer geographic proximity to their targets (De Prijcker, Manigart, & Collewaert, 2019). The proximity between the two parties facilitates the venture capitalist the venture identification, evaluation, and post-investment

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<sup>92</sup> These firms require a high possibility to monitor the new venture if they start working with them.

<sup>93</sup> This name corresponds to the geographic area of the southern part of San Francisco in the United States of America. It represents the epicentre of high-tech innovations.

<sup>94</sup> This location can be relevant for opportunity identification, resource acquisitions, and all the initial activities related to the development of the new venture.

<sup>95</sup> Two persuasive examples for the U.S. Market are California, as already mentioned with Silicon Valley; and Massachusetts. These two regions are the ones with the greater availability of venture capital firms.

monitoring (Mäkelä & Maula, 2006). Venture capital requires and higher return in case of long-distance investments (Chen, Gompers, Kovner, & Lerner, 2010) and also try to mitigate the liabilities related to distance by syndicating with local venture capital firms that can act as leads in these deals (De Prijcker, Manigart, & Collewaert, 2019). This perspective makes the deals more difficult for both the two parties because each of them sees it as less favourable. The venture capitalist will see the investment as riskier and as more challenging to manage, instead of the entrepreneur that will see it as more costly because it will reduce more the number of stakes, he will lose to get the enhancement. Consequently, most long-distance investments by venture capital firms flow to regions with greater availability of Venture Capital investments (Fritsch & Schilder, 2008), increasing the concentration of this phenomenon. A new entrepreneurial venture will decrease the propensity to look for external equity, consequently increasing geographical distance from prospective venture capital investors (Colombo, D'Adda, & Quas, 2019). It will become negligible when reaching a distance greater than 250km or when crossing national borders, independently of geographic distance<sup>96</sup> (Colombo, D'Adda, & Quas, 2019). The situation for new ventures established in places with scarce presence of venture capital firm become critical in both accessing initial foundlings from a local and distant venture capitalist (De Prijcker, Manigart, & Collewaert, 2019).

The analysis continues by giving a useful overview of the phenomena of new entrepreneurial activity and venture capital investments worldwide and then focusing on the European area. Through the overview, it is possible to understand the development of the phenomena and the current situation in Europe compared to the rest of the world. The Americas represent almost 50% of the investment into venture capital firms per year, being followed by Europe and Asia pacific that split virtually the same amount of the remaining percentage. This chart shows that the other continents are trying to reach the Americas<sup>97</sup> levels but are still making lower numbers, not creating the same offer possible to consider when establishing a new venture in these regions. After considering the venture capital activity level, it is crucial to understand how this number is reflected in the percentage of early-stage activity<sup>98</sup> in the same geographic areas. With the Total Early-stage Entrepreneurial Activity (TEA), we refer to the proportion of the working-age adult population actively engaged in starting or running a new business (Bosma, et al., 2020). It

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<sup>96</sup> Highly reputed investors can make these distances less strict, making countries borders less powerful and reaching up to 500km for investments in new ventures (Colombo, D'Adda, & Quas, 2019).

<sup>97</sup> This difference is strongly led by the U.S area that, as we saw in the previous chapter, was the area in which the phenomenon developed until today.

<sup>98</sup> "An economy's total early-stage entrepreneurial activity (TEA) rate is defined as the prevalence rate of individuals in the working-age population who are actively involved in business start-ups, either in the phase in advance of the birth of the firm, or the phase spanning 42 months after the birth of the firm" (Duffin, Early-stage entrepreneurial activity rate in the Americas by country 2019, 2020)

includes the sum of those that are actively starting a new business<sup>99</sup> plus those already running a new business<sup>100</sup>, without double counting those who are comprehended in both categories (Bosma, et al., 2020). Americas shows. Also, in terms of entrepreneurial activity, leadership. It is crucial to notice that this number is led, in particular, by the Latin American and Caribbean regions, with a 36.7% of Early-stage Activity in Chile (Bosma, et al., 2020) . Due to their underdeveloped markets, these Latin American countries are showing a significant number of potential entrepreneurs rising from scratch. People in these countries are mainly motivated to earn a living because jobs are scarce, while in other countries in the world, there is a wider variety of motivations with the same weight<sup>101</sup>.

The analysis then focuses more on the European area, analysing all the criteria that we saw in the previous paragraph of the chapter. The geographical issue for Europe is more relevant despite that for the U.S market: the European Market is divided into different national markets, creating a fragmented venture capital market (Colombo, D'Adda, & Quas, 2019). The fragmentation is one of the reasons for the underdevelopment of the European High-tech entrepreneurial ecosystem (European Commission, 2007). Recalling the issues related to geographic borders identified by Colombo (2019), this represents a high barrier for the venture capital and entrepreneurial ventures market in Europe. The result is a slower entrepreneurial activity development and an unexpressed potential to innovate blocked by the fragmentation. Recalling that this phenomenon concentrates itself in specific areas, we can identify London and Paris metropolitan areas as venture capital hub centres in Europe<sup>102</sup>, with another small one heterogeneously distributed in the other countries. The country border issues can probably arise when the BREXIT<sup>103</sup> effects arise at the beginning of 2021, considering London's centrality in the venture capital market for the European territory.

The policymakers are striving to help channel more funds to venture capital firms as a form of financial intermediation both on European and national levels. They understood that as a mature venture capital industry, it is the key to the U.S leadership in the commercialization of technological innovation (Bottazzi & Da Rin, 2014). The lack of this mature industry makes

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<sup>99</sup> They have not yet paid salaries or any other payments. This type of entrepreneur is recalled as "The Nascent Entrepreneur" (Bosma, et al., 2020)

<sup>100</sup> They have paid wages and founders, but for less than 42 months.

<sup>101</sup> Typical motives that are mostly agreed by the entrepreneurs worldwide are: to make a difference in the world; To build a great wealth or very high income; To continue a family tradition; to earn a living because jobs are scarce

<sup>102</sup> These can be compared, with the right proportion, to the Silicon Valley, Boston, and New York Metropolitan areas.

<sup>103</sup> Process through which the United Kingdom left the European Union (EU). The decision arises on 23/06/2016 trough referendum, and the effective separation will be effective from the 1st January 2021.

European firms competing from a lower level than firms from the United States (European Commission, 1994).

Venture capital in Europe, even if it is still far from the U.S levels, is growing fast in Europe, becoming every time more important for entrepreneurial firms. The real problem related to the European venture capital market is related to the sums invested because are what is growing less than in the U.S. According to Bottazzi (2014), venture capital in Europe is not systematically associated with particularly dynamic firms, underlying as these firms lack more human than financial resources<sup>104</sup> (Bottazzi & Da Rin, 2014). The lack of human resources reflects the immaturity of the industry that the European regions are facing.

The European Commission, working closely with the countries, is trying to improve the efficiency equity investment markets to sustain all the new projects with a suitable investor. The commission's goal is to create a pan-European venture capital market, and, to do so, the European Union adopted the regulation on European Venture capital Funds (EUVECA) in 2013. Through this regulation, the European Commission sets out a new venture capital fund label and put new measures for venture capitalists to market their funds across the EU<sup>105</sup> (European, 2020). As we saw in the previous paragraph, the average EU venture capital fund size is half of the amount in the U.S, and the idea of the European Commission is to enable these funds to grow, making it possible to boost capital contributions to individual firms. With the regulation, firms will adopt a more diversified investment strategy, making them specialize in different sectors like IT, biotechnology, and healthcare. The diversification in these different sectors will allow European firms to become more competitive worldwide. The European Commission, with the 2014-2020 Multiannual Financial Framework, is trying to support SMEs and small mid-caps access to venture capital<sup>106</sup> (European, 2020).

The policies that are currently affecting the European results derive from the European Commission, and each country is using its policymakers to find a better solution to improve the phenomenon inside their country. It means that every country should be analysed considering the actual results and terms to understand the real potential of each of them.

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<sup>104</sup> In the 1990s, for example, in Germany, the venture capital market suffered from a lack of qualified, experienced professionals (Becker & Hellmann, 2000). That revealed it as a significant problem for the maturation of the German venture capital industry (Bottazzi & Da Rin, 2014).

<sup>105</sup> The shared measures across the European Union allow the use of a single set of rules. The single rulebook allow investor to know exactly what they can expect when investing in EUVECA.

<sup>106</sup> The programs are: the single EU Equity Financial Instrument, that supports the businesses' growth and R&I (Research and innovation); The European Fund for Strategic Investment (EFSI); The Pan-European Venture Capital Fund of Funds program (VentureEU), that further address Europe's equity gap by investing in VC funds-of-funds; and the European scale-up Action for Risk capital (ESCALAR) that is a risk/reward mechanism to support scale-ups with venture capital and growth financing (European, 2020)



The focus will be on the European regions, starting from the actual result of entrepreneurial activity that was possible to understand from the data analysed in the second chapter. Different countries were leading under different aspects due to the high fragmentation of the European area, which created highly differentiated countries in terms of cultural and economic systems. Few countries show a reasonable level and continuity between the different aspects. The only country that seems to be the more developed one in both the venture capital market and entrepreneurial venture one is the U.K. It also guarantees a good average of EBO despite other countries. Considering that from 2021, BREXIT will become valid with all the new changes, an essential consideration of possible changes in cash flows of investments in the European regions should be taken into account. The analysis will consider the U.K as before 2021 in order to make better formulations. It, because predictions on the future after 2021 are risky, and with high volatility, a better overview of the impact will be understandable in a precise way only after the effective separation of the U.K from the European Union. The separation, if not handled with the right policies will probably result in a decrease of investments to other countries deriving from venture capital firms in the U.K and at the same time the possibility of a large number of firms<sup>107</sup> leaving the U.K as their headquarters or first establishment<sup>108</sup>.

After understanding the current situation, the analysis goes further with the aggregation of the data collected for the development of a model to classify the countries in terms of entrepreneurial ecosystems. It is relevant to start the analysis from a precise understanding of the real numbers of new entrepreneurial activities in a specific country. Each country has its typical sector distribution of new businesses that may differ from the results of the most common sectors of new entrepreneurial activity in Europe, showing as Fintech and SaaS that are dominating the market. Each country has different characteristics, and the aim is to understand how many innovative start-ups and in which sectors are collocated.

The analysis starts with calculating the number of new entrepreneurs in a specific area, combining the TEA value with the population of each country. With the combination of the two, it is possible to find the number of Entrepreneurs between 18 and 64. Combining it with the GII<sup>109</sup> and the EBO, it is possible to derive the number of innovative start-ups in the specific country that successfully became mature businesses.

$$N^{\circ} \text{ of Innovative Startups (Country)} = TEA * \text{Country Population} * EBO * GII (\%)$$

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<sup>107</sup> Including venture capitalist and new entrepreneurial ventures

<sup>108</sup> It is already happening for different huge banks and firms that previously had their HQ located in the U.K area.

<sup>109</sup> Global Innovation Index (GII)

Once calculated, the number of innovative start-ups for each country will be applied to the sector distribution that characterizes every country. With the next calculation, it is possible to see the distribution of these innovative start-ups in each country, allowing us to understand which countries can have better resources or be more attractive for a specific market sector.

Once that all the numbers related to the sector distribution are derived, the analysis will go further on the location factors analysis. In that part of the analysis, there will be a breakdown of the most relevant factors for start-ups-funders shown in the previous chapter. The breakdown of these factors is necessary to develop new values to determine the respective ones for each location factor related to a specific country. The location factors considered are related to more than three hundred start-ups founders' response through a survey that classified which factors are more relevant when considering a location to start a new activity.

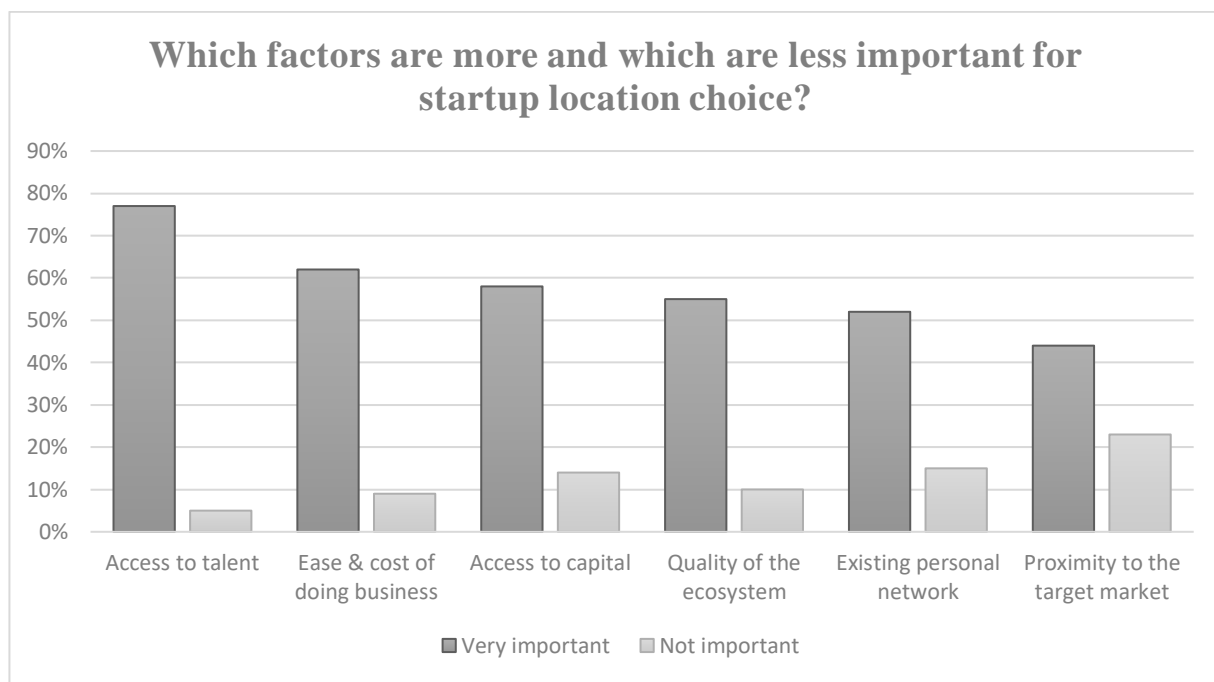


Figure 26; Which factors are more and which are less important for start-up location choice?; Source: Statista.com (Clark, 2018)

Starting from four more relevant factors, it is possible to understand which countries have better structures to help the growth of new entrepreneurial activities, considering which are the most relevant factors from start-ups entrepreneurs themselves. The data elaboration starts from the idea of constructing a "one to five" model that scale the efficiency of the specific factor in that area. It goes from a bad effort and structure with one point out of five to five points out of five in case of a perfect structure for that specific factor. Each factor has been constructed, starting from different specific criteria that can be reconnected to the macro area.

The first factor to consider in the elaboration is the "Access to Talent", being the most agreed by start-up funders as the principal factor when selecting a location<sup>110</sup>. To assess the accessibility to talent, when constructing the value, I considered: Cultural and Social Norms<sup>111</sup>, Entrepreneurial education<sup>112</sup> and General Education level in the country to construct the value. With these three criteria, the idea is to give a proper overview and classification of the possibility of finding talented people in a specific location.

### ***Access to Talent***

$$\begin{aligned} &= \textit{Cultural and Social Norms} + \textit{Entrpereneurial Education} \\ &+ \textit{General Education level in the country} \end{aligned}$$

The second-factor calculation considered more different criteria that strongly affect the sustainability and the opportunity to start a business in the area. The Ease & Cost of doing business has been created, taking into consideration four different criteria. Two are related to government action, giving relevance to the structure that is set for the entire local market. The first one is related to the governmental policies related to taxes and bureaucracy and the second one to the market regulation. Regarding the market regulation part, it also includes all the possible market burdens that can be found in the internal market. The other two factors were preannounced at the beginning of this chapter and are the cost of registering and the time required to register a new limited-private company. With these four criteria, we can bear in mind which are all the difficulties and different costs that can be found in a specific location instead of another.

### ***Ease and Cost of Doing a Buinsess***

$$\begin{aligned} &= \textit{Governament policies for taxes and Bureaucracy} \\ &+ \textit{Gov. Market regulation} + \textit{Cost to register} + \textit{Time to register} \end{aligned}$$

We have the last two location factors in dividing into all their components, the Access to capital, and the Quality of the Ecosystem. The Access to capital has been defined taking into considerations two criteria: the entrepreneurial finance in the area, referring to the availability of possible funding resources for new potential entrepreneurs; and the Venture capital investments

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<sup>110</sup> The result recalls the relevance that Silicon Valley has in the U.S because even if it is an expensive area for facilities and employees' salaries is the best area to find talents.

<sup>111</sup> In terms of shared understanding and consideration of the entrepreneurial activity in a specific location.

<sup>112</sup> The Entrepreneurial Education includes both post and during School.

in the specific country, recalling the numbers that are shown in figure 10 with all the investments divided by country.

$$\textit{Access to Capital} = \textit{Entrepreneurial Finance} + \textit{Venture capital Investments}$$

Regarding the Quality of the ecosystem, many different factors need to be considered while giving a structure of criteria to identify it. The first two criteria come from the government action, more in specific from its policies and programs. In the calculation of Ease and Cost, government policies regarding taxes and bureaucracy were already utilized, in this case, policies are regarding support activity of the government and their own relevance. It is also essential to consider all the Entrepreneurship Programs that the government is promoting and making effective to stimulate the country's entrepreneurial activity. The next two criteria for the definition of the factor focus on the infrastructure condition in the country. These two criteria are the physical infrastructure condition and the commercial and legal one. With the understanding of conditions related to these infrastructures, it is easier to see if there is a ready infrastructure for the development of new entrepreneurial activities. The final consideration is regarding the internal market dynamics. The last criteria that are considered aim to evaluate which are the conditions and if the dynamics of the internal market can be favourable for new businesses and activity or not. With the consideration of the five criteria explained above were possible to define all the different aspects that can affect the Quality of the ecosystem.

### ***Quality of the Ecosystem***

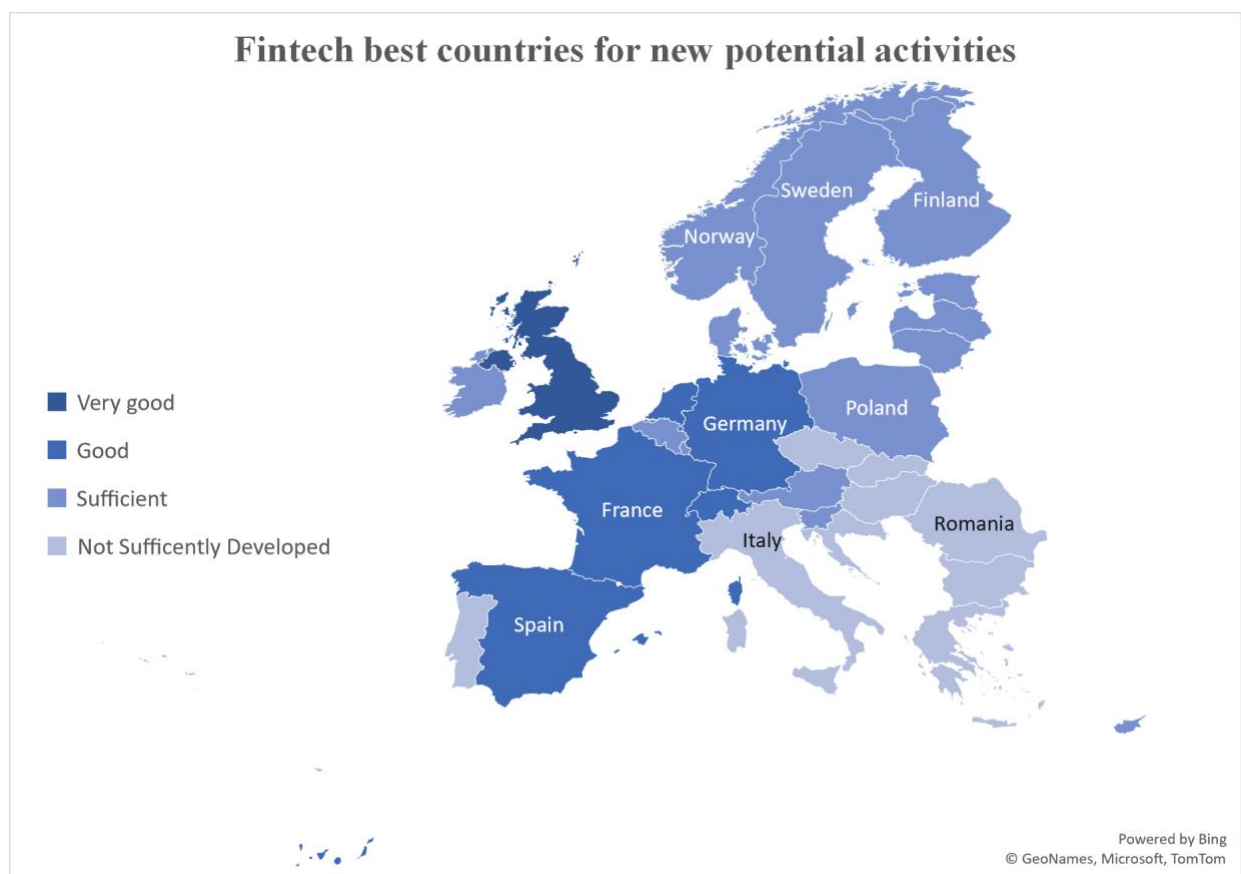
$$\begin{aligned} &= \textit{Government entrepreneurial programs} + \textit{Physical infrastructures} \\ &+ \textit{Commercial and Legal Infrastructures} \\ &+ \textit{Internal market conditions} + \textit{Gov.Supporting activities} \end{aligned}$$

Now that all four different factors have been described, the next table is possible to see the result of the construction of these factors with the respective value. Each country has a score for each specific factor, valuated through the result of every criterion utilized and combined to create the new current values.

With the combination of these two data constructed and the venture capital investment condition of each country, in the last chapter, there is an illustration of the European entrepreneurial ecosystem condition by the country for each specific sector considered. From the results obtained, are then developed the relative conclusions answering the research question of this work. All the

data that were calculated would be useless if not applied to what is the venture capital activity for that specific sector and country. The analysis will then continue taking back into consideration the venture capital investments in Europe by sector. Looking the data collected, is easy to see how the Fintech and the Enterprise software<sup>113</sup> sectors are the dominant sectors in Europe, with the Health one following with less than half of the Enterprise software one. The confirmation of these results regarding venture capital investments led the analysis to focus specifically on these three sectors. The idea is to consider the three most exciting sectors in terms of trends, both related to the new business activity and the venture capital investment perspective.

With the combination of these two data constructed and the venture capital investment condition of each country, in the last chapter, there is an illustration of the European entrepreneurial ecosystem condition by the country for each specific sector considered. From the results obtained, are then developed the relative conclusions answering the research question of this work.

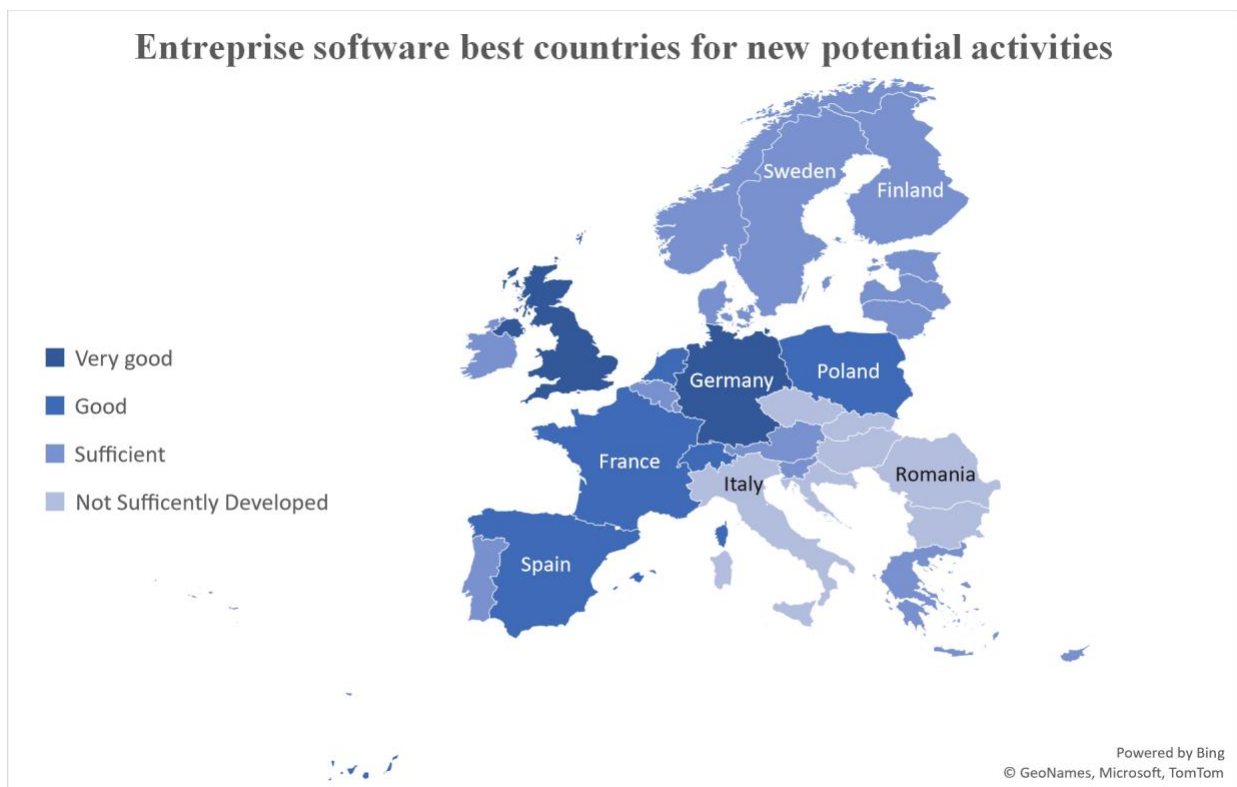


The U.K has both the best location factors conditions and venture capital investments in Europe according to the analysis made in the previous chapter. Combining these two outstanding

<sup>113</sup> It includes the SaaS sector.

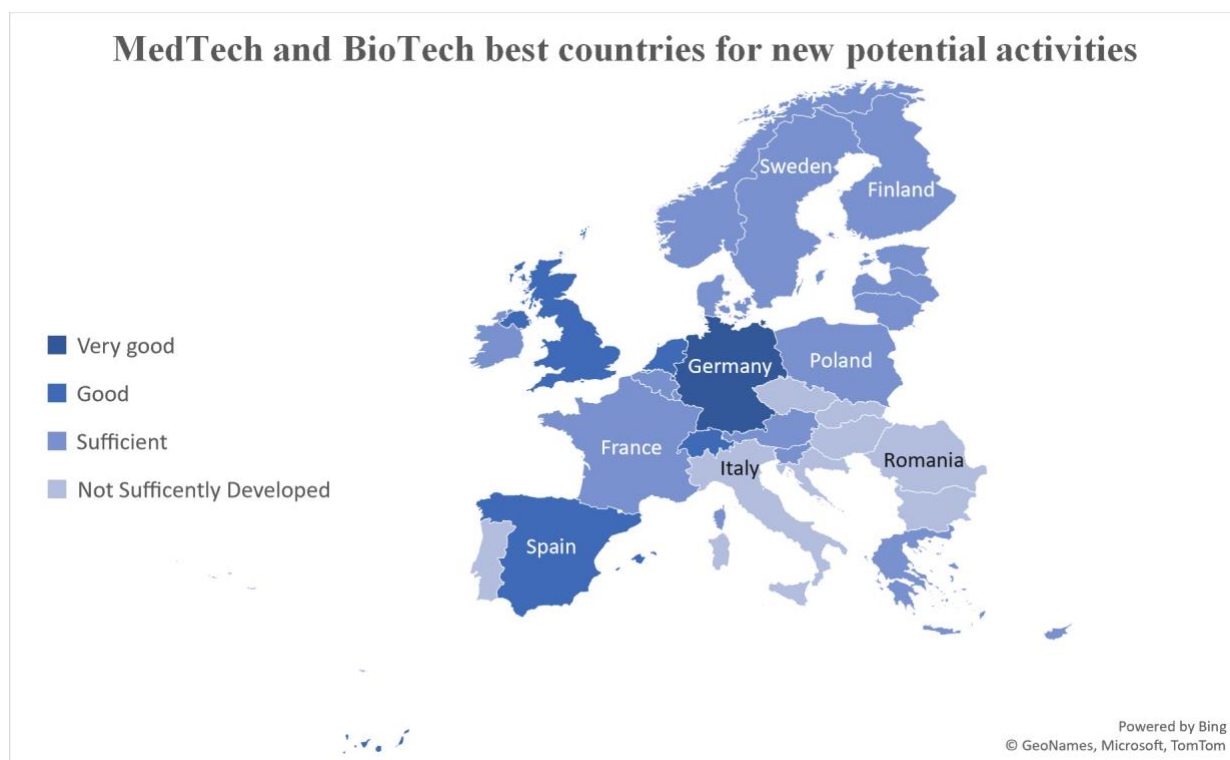
performances can only lead to this type of result, with the U.K as the only country with an overperformance regarding the entrepreneurship quality ecosystem for new fintech start-ups. The "very good" level is considered when a country reaches a score higher of three points five out of five (in this particular case, the U.K reaches almost the maximum score).

A still good entrepreneurship environment for the fintech sector can be found in Germany, France, Switzerland, the Netherlands, and Spain. In Germany and France, thanks to a good general level of location factors and, in particular, to an adequate level of venture capital investments in the specific sector in their area. Spain has good condition instead of a sufficient one, mainly thanks to the number of active start-ups that show an excellent establishment level, followed by a sufficient location factors level. Switzerland, not showing a particular level in both numbers of active start-ups and venture capital investments is there thanks to its general good level of entrepreneurship ecosystems due to his location factors score. Like Switzerland in the Netherlands, but if it was not for a good presence of active start-ups, it could have been in the sufficient tier. Countries that are better to avoid due to their low levels of both numbers related to the specific sectors and location factors are Italy, Greece, Portugal, Bulgaria, Slovakia, Hungary, Czech Republic, Croatia, and Romania. The remaining country has a sufficient level to make a potential entrepreneur decide to start a new business activity in the area, but with the only risk of regretting the decision due to better opportunities and structures elsewhere.



The last sector to consider is the Medtech and Biotech one, which will be essential thanks to its different conformation despite the other two. There is a critical change in this sector considering the other two because the United Kingdom is not relevant in terms of venture capital investments and the number of active start-ups. Until now, the dominance shown is entirely overcome by Germany that shows 66% of the total amount of venture capital investments of this specific sector and the highest number of active start-ups (almost twenty thousand). There is a shallow distribution of investments in different countries because of the only other country with more than 4% of Europe's total venture capital investments for the Medtech and Biotech sectors in Spain with more than twenty percent. It is significant how 87% of the total amount of venture capital investments in the sector is held by only two countries, showing a massive concentration of this sector in Europe.

The high concentration of investments will lead to a generally lower level of European condition for this sector, which was already aggravated by a significantly reduced amount invested by venture capitalists and the number of active start-ups operating in the area.



It is the first time in which the United Kingdom does not show itself as the best country where to start a new business activity. In the Medtech and Biotech sector, Germany's principal leader is the one with the most developed ecosystem for new business activity in this specific sector.

The Medtech sector and Biotech sector reflect the drastic drop possible to see when considering the amount of venture capital investments by sector in Europe. The Fintech and enterprise software sector had a lower difference in the amount despite the one between the enterprise software and the Medtech and Biotech one (less than half of the enterprise one). It is possible to see how the effect is reflected in the "good" level tier due to a decrease in the number of countries in this specific tier. The countries showing a good level are only the U.K, the Netherlands, Switzerland, and Spain. The first three countries are on a good level condition almost entirely thanks to their factor location score, and only Spain is there thanks to its good portion of the total venture capital investments in Europe for that specific sector (21%).

The number of countries with a not sufficiently developed market increases again with Portugal that comes back again in the lower tier due to no particular effort in this specific sector.

The specific research question that this thesis sought to answer was discovering which countries in Europe are the best option to start a new business activity in a specific sector. Thus, this investigation's scope was to find all the possible factors that could affect the survival and success chances of new business activities in the area. This perspective has been chosen under the belief that there are general location factors that affect the potential of new potential start-ups and new start-up funders consider it while choosing where to start their activity. Essential for the development of this reasoning has been, therefore, to emphasize the relevance of all the different components that composed the four different location factors considered as the most relevant while choosing a location. The countries that result in a general best location factors structure were, in order, the United Kingdom, Switzerland, the Netherlands, and a close France. These countries have shown a general better structure considering what start-ups founders considered as more relevant through the survey.

The sectors considered for the analysis were just three due to the relevance of these in the European Market. The first two, FinTech and Enterprise software, have shown in their numbers a significant interest from venture capitalists. The two sectors represent together almost 40% of Europe's total venture capital investments, making them the most relevant sectors in Europe for new business activities. It is also justified and confirmed by the higher number of active start-ups despite the other sectors. The Medtech and Biotech one is the third in terms of venture capital investments, but it has a more similar level to the broader range of remaining sectors, with only 6.5 %. The decision to consider it is also behind the current worldwide condition related to the pandemic. It will become a critical sector for different reasons, increasing relevance, and the number of investments.



The results of the analysis led to make a strong consideration of a few crucial countries that are trailing the entire European area with a more developed structure. The two countries that show a general best structure development for new potential entrepreneurs for the three sectors considered were the United Kingdom and Germany. The U.K resulted as the best country in both Fintech and Enterprise software sectors, the two most important sectors for start-ups in Europe. It had these results showing in both cases the highest number of active start-ups and the amount of venture capital investments, showing a healthy market maturity. Germany shown how it is developing a competitive market, showing itself as a very developed structure in every segment and excelling in the Enterprise software market with the U.K and dominating the Medtech and Biotech sector with only Spain following it.

#### *Fintech sector conclusions*

Considering the Fintech market, the United Kingdom's best option is entirely outstanding in Europe's other country. Good options that can be considered if the entrepreneur is already in that location are Germany, France, Switzerland, the Netherlands, and Spain. If the potential entrepreneur is not in one of these countries, he should consider migrating to one of these to find higher opportunities for success than in its current country.

#### *Enterprise software Conclusions*

The Enterprise software sector has a broader selection of countries that can be selected than in the fintech one. The best options for this sector are the United Kingdom and Germany that shows the best structure development in Europe. Germany can be considered the best option in terms of competition but with a generally lower investment level than the U.K. Good options can be considered if the entrepreneur is already in that location, Spain, France, Switzerland, Poland, and the Netherlands. Poland can be an exciting option because it is developing an essential entrepreneurial structure, and it is focusing on this sector, focusing on the SaaS segment that is increasing its relevance year by year.

#### *Medtech and Biotech Conclusions*

The Medtech and Biotech sector will be one of the most important in the next few years due to the current pandemic we are going through. With its already well-developed structure in these sectors, Germany will become a focus and central point in Europe regarding all the new business

activities related to Medtech and Biotech. It already has 66% of the total venture capital investments, showing a great interest in the specific matter, followed only by Spain with 21%. It represents the best country for this specific sector. The other that can be considered still good are the U.K, the Netherlands, Switzerland, and Spain. Between these countries, the suggestion is to consider Spain over the others only due to a higher attraction of investments than the other countries (even if they have a general better-developed structure).

A general insight that this analysis allows to share and what should be done a vital consideration is the imminent officialization of BREXIT and the general not outstanding start-ups market development in Europe. It will be important that the European Commission create the best conditions to cooperate with the United Kingdom to improve the entire area's improvement and innovation process. It should be considered strongly due to the not comprehensive and shared structure development that Europe shows in this specific matter. At the same time, the European Commission should consider why the European regions show a so delayed development despite the rest of the world, keeping a higher pace than Europe.

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