



UNIVERSITÀ
DI PAVIA

Department of Economics and Management
Corso di Laurea in International business and
entrepreneurship

**Listing start-ups on stock exchanges in the EU and the
US: regulatory and financing differences; La quotazione
delle start-up nelle borse valori dell'UE e degli Stati Uniti:
differenze normative e finanziarie**

Relatore:

Prof. Stefano Denicolai

Tesi di Laurea

di Előd Puzsár

Matr.581698.

Anno Accademico 2025-2026

Contents

Abstract	3
1 Introduction	4
2 The Startup Lifecycle: Financing and Exit Strategies	6
2.1 Crowdfunding.....	8
2.2 Angel Capital.....	9
2.3 Venture Capital.....	10
2.4 IPO	12
2.5 Mergers and Acquisition	12
2.6 Sale	13
2.7 Failure.....	14
2.8 Special Purpose Acquisition Companies (SPACs).....	15
3 The Startup Financing Ecosystem in the United States.....	17
3.1 The bankruptcy law	27
3.2 Silicon valley	29
3.3 Case study Airbnb	37
4 The Startup Financing Ecosystem in the European Union.....	40
4.1 Entrepreneurial ecosystem	41
4.2 Structural gaps.....	43
4.3 Causes on the Supplier side.....	47
4.4 Causes on the demand side.....	48
4.5 Consequence.....	49
4.6 Solutions.....	51
4.7 Which European Countries Are the Most Innovative?.....	57
5 Comparison of Start-Up Listing Requirements on NASDAQ and Euronext.....	68
5.1 Nasdaq.....	68

5.2 Euronext	76
6 Interviews	80
6.1 Result of the interview	81
7 Conclusion.....	87
References:	90
Appendices	95

Abstract

Questa tesi universitaria analizza le differenze normative e finanziarie tra gli ecosistemi delle startup dell'Unione Europea e degli Stati Uniti d'America. L'autore esamina perché le imprese statunitensi raggiungono in misura maggiore eventi di exit di successo, come la quotazione in borsa (IPO) o l'acquisizione. Il testo descrive in dettaglio il ciclo di vita delle startup, il ruolo del capitale di rischio e soluzioni alternative come le società SPAC. Capitoli dedicati trattano il successo della Silicon Valley, i modelli di innovazione degli Stati del Nord e dell'Estonia, nonché il confronto tra i requisiti di quotazione del NASDAQ e dell'Euronext. La ricerca evidenzia che in Europa il principale ostacolo non è la costituzione di una società, ma la scalabilità e la burocrazia. Infine, la tesi illustra, attraverso interviste, le difficoltà pratiche degli imprenditori e formula raccomandazioni per lo sviluppo dell'Unione dei mercati dei capitali europei.

Abstract in English

This university thesis analyzes the regulatory and financial differences between the startup ecosystems of the European Union and the United States. The author examines why U.S. companies are more likely to achieve successful exit events, such as initial public offerings (IPOs) or acquisitions. The text provides a detailed description of the startup lifecycle, the role of venture capital, and alternative solutions such as SPACs. Dedicated chapters address the success of Silicon Valley, the innovation models of the Northern States and Estonia, as well as a comparison of the listing requirements of NASDAQ and Euronext. The research highlights that in Europe, the main obstacle is not company formation, but scalability and bureaucracy. Finally, the thesis illustrates, through interviews, the practical difficulties faced by entrepreneurs and offers recommendations for the development of the European Capital Markets Union.

1 Introduction

Startups have become an increasingly important part of modern economies due to their role in innovation, economic growth, and job creation. Although the term “startup” is widely used, its economic significance is often underestimated. Understanding how startups grow, scale, and eventually achieve successful exit outcomes is therefore an important topic for both researchers and policymakers.

During my master’s studies, I had the opportunity to meet several individuals who are actively involved in the startup ecosystem. These experiences increased my interest in understanding how startups operate and what factors influence their long-term success. This academic interest motivated me to examine the startup environment more closely, particularly the conditions under which startups are able to grow and reach capital markets.

Growth is a critical element in the development of startups. Startups that fail to grow have a limited impact on the economy, while those that achieve sustained high growth can significantly contribute to employment and economic development. Empirical evidence shows that startups which grow by more than 20 percent annually over several consecutive years tend to have a disproportionately large impact on job creation. Therefore, it is not only the number of startups in an economy that matters, but also their ability to scale successfully. (Garcia-Tapial, 2023)

In the long term, many startups and high-growth firms aim to reach a successful cash-out event, such as an initial public offering (IPO) or an acquisition. Access to public capital markets can provide companies with additional funding, credibility, and growth opportunities. However, the likelihood of achieving such exits differs significantly between regions. In particular, startups in the United States achieve IPOs and acquisitions at higher rates than startups in Europe, where exit opportunities are more limited and acquisitions are more common than public listings. (Alessia, 2018)

This observation leads to the central research question of this thesis: Why do U.S. startups achieve successful cash-out (exit) events through IPOs or acquisitions at higher rates than European startups?

Based on this question, the thesis formulates the following hypothesis: Regulatory and financing reforms in Europe would significantly reduce the gap in successful cash-out outcomes between European and U.S. startups. The purpose of this study is to examine whether differences in regulatory frameworks and financing structures can explain the observed disparity in exit outcomes between the two regions.

Methodology

This thesis applies a qualitative research approach based primarily on secondary data analysis. This is supplemented by primary qualitative research conducted in the form of structured interviews. The study focuses on examining the regulatory and financing differences related to listing startups on stock exchanges in the European Union and the United States. To achieve this objective, the research relies on the systematic review and comparison of existing academic literature, regulatory documents, industry reports, and publicly available financial analyses.

The data used in this research is collected from credible and reliable sources, including scientific journals, books, policy papers, and official publications of financial and regulatory institutions. These sources provide insights into the legal frameworks, listing requirements, and financial mechanisms that influence startup access to public capital markets in both regions. The selection of sources is based on their academic relevance, credibility, and contribution to understanding the institutional and financial environment of stock exchange listings.

2 The Startup Lifecycle: Financing and Exit Strategies

To address the main research question of this thesis, it is first necessary to clarify the fundamental concepts used throughout the analysis. One of the most important of these concepts is the definition of a startup. The term “startup” has been interpreted in various ways in academic literature and business practice, therefore it is essential to establish a clear and well-founded definition. One of the most widely cited definitions is provided by Eric Ries (2006), who describes a startup as a human institution designed to create innovation under conditions of extreme uncertainty. The high level of uncertainty stems from the fact that startups typically operate in markets that do not yet exist or are only partially developed. As a result, startups cannot rely on established demand, predictable customer behavior, or stable competitive environments. Instead, they often pursue so-called blue ocean strategies, aiming to create entirely new market spaces rather than competing in existing ones. Startups are commonly associated with dynamic market expansion, particularly within high-technology sectors, where innovation and knowledge-intensive activities play a central role. Their rapid growth is usually driven by unique know-how, proprietary technology, or innovative business models that differentiate them from traditional firms. However, this accelerated growth often requires significant financial resources, which cannot usually be generated internally during the early stages of development. Consequently, startups frequently seek external financing, most commonly in the form of venture capital or business angel investments (Pekevski 2025).

The involvement of external investors places strong emphasis on scalability, as startups are expected to grow rapidly and generate returns that justify the invested capital. High scalability is therefore a defining characteristic, as it enables startups to expand their operations efficiently and achieve substantial value creation. This value creation is often realized through an exit strategy, such as acquisition or initial public offering (IPO), which allows founders and

investors to monetize their investment. Based on the above considerations, startups can be categorized according to several key characteristics:

1. Age: Startups are typically young companies, most often operating for less than five years, which reflects their early-stage nature and ongoing search for a sustainable business model.
2. Independence: Startups are generally founded and driven by their original founders, who play a central role in strategic decision-making and the overall direction of the company.
3. Scalability and exit orientation: A defining feature of startups is their scalable business model, which enables rapid growth. This scalability is closely linked to a clear exit strategy, such as an acquisition or initial public offering, through which founders and investors can realize returns on their investment.
4. Innovation: Startups are inherently innovation-driven, focusing on the creation of new products, services, or business models. This innovation often targets new or underserved markets, contributing to their high scalability.
5. Technology orientation: Most startups operate in technology-based sectors, where digital solutions, advanced technologies, or knowledge-intensive processes form the foundation of their competitive advantage.
6. High growth potential: Compared to traditional small and medium-sized enterprises, startups are characterized by significantly higher growth ambitions and potential, aiming for rapid market expansion and value creation (Pekevski, 2025).

In the early stages of a start-up, attracting external investors is often challenging due to high risk and significant information asymmetry. As a result, founders typically rely on their own resources, including personal savings and, in some cases, personal debt, to finance the business.

At this stage, the founders bear the full financial risk, reflecting their commitment to the venture. As the start-up grows and provides greater transparency regarding its operations and financial performance, it becomes easier to access external funding. Over time, the relative importance of personal equity and debt decreases, while business loans, trade credit, and other forms of external financing play a more significant role. Start-ups can access various types of financing at different stages of development, including crowdfunding, angel capital, venture capital, each offering not only capital but often strategic support and expertise to foster growth (Farhat, 2017).

2.1 Crowdfunding

Crowdfunding can be categorized into several types depending on the nature of the transaction. There are different models that include donation model, lending model, and equity model. In the donation model, the entrepreneurs are given financial assistance by the participants without any kind of financial benefits. Purely, there are no rewards, though there are cases where the participants are offered some incentives.

Lending crowdfunding, also known as peer-to-peer (P2P) or peer-to-business (P2B) financing, involves raising funds with the expectation that the amount will be repaid. The key distinguishing factor of this model is risk, as lenders decide which projects to support based on their risk tolerance. Repayment conditions may vary, including traditional loans with interest or repayment only if the project generates profit. Equity crowdfunding allows investors to provide funding in exchange for ownership shares or similar financial instruments in a company. This user is closely related to other equity financing methods, such as venture capital and business angel investments, which will be discussed later. Equity crowdfunding has been growing rapidly and can involve both professional and general investors (Paschen, 2017).

Table 1 Typology of crowdfunding

	Donation Crowdfunding		Lending Crowdfunding			Equity Crowdfunding	
	Pure Donation	Reward Donation	Forgivable Loan	Presales	Traditional Loan	Investor-Led	Entrepreneur-Led
	no tangible reward						tangible reward
Reward Type	No reward	Recognition, tokens, or other non-tangible rewards	Interest only if the project has revenue or profit	Finished product	Fixed-term interest	Securities, revenue, or profit sharing; projects accessible to accredited investors only	Equity, bond-like shares, securities, revenue, or profit sharing; projects accessible to all investors
Platform Examples	Kopernik Crowdrise	Indiegogo Experiment	Quirky TubeStart AppsFunder	Kickstarter PledgeMe	SoMoLend Lending Club	AngelList Seedrs EquityNet	Crowdcube Fundable

Source: Paschen (2017) p. 180

2.2 Angel Capital

Angel capital refers to investments made by high-net-worth individuals who are willing to risk their own funds to support early-stage startups. These investors typically engage at a stage in the startup life cycle that follows initial funding from family and friends but precedes engagement with professional venture capital. By taking on this financial risk, angel investors provide critical resources to help young companies develop and grow during their formative phases.

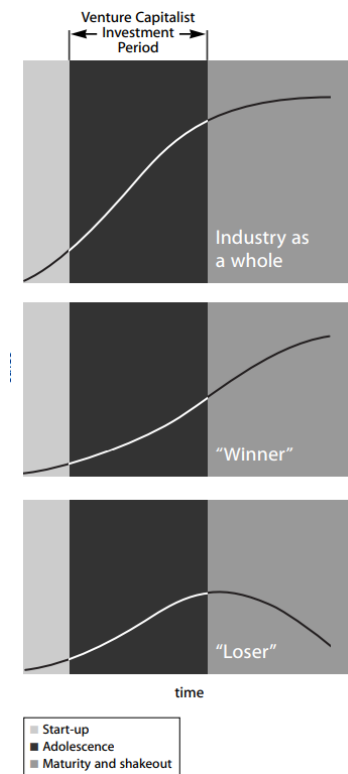
Angel investors often possess prior entrepreneurial experience, which allows them not only to provide financial support but also to offer strategic guidance and mentorship. They can be categorized into two main types: active and passive angels. Active angels are deeply involved in the startup's development, providing advice, promoting the company, and closely monitoring its progress. In contrast, passive angels primarily contribute capital without significant involvement in the management or operations of the company.

Angel investors generally focus on startups in the very early stages, where their involvement can have a substantial impact on the company's trajectory. Geographic proximity often plays a crucial role in their investment decisions, as angels prefer to support ventures located near them. Consequently, even with extensive international networks, access to angel capital may remain limited in regions where few local investors are available. This localized nature of angel investing highlights the importance of regional ecosystems in fostering early-stage entrepreneurial growth (Prowse, 1998).

2.3 Venture Capital

The capitalist framework provides the conditions necessary for the development and operation of venture capital structures. Venture capital institutions are typically large investment funds that allocate only a small percentage of their capital to highly risky startups. These investments are characterized by an expected return ranging between 25% and 35%, reflecting the fundamental principle that higher risk is generally associated with higher potential rewards. Venture capitalists tend to avoid investing in the very early stages of a startup, as the level of uncertainty and probability of failure is extremely high at this point. Conversely, they are also cautious about investing once the company has completed its initial development and growth has begun to slow, as the potential for significant returns diminishes. Consequently, the optimal stage for venture capital involvement is the intermediate phase of a startup's life cycle—after the initial concept has been validated but before growth has plateaued. This timing allows investors to balance risk with the potential for substantial returns effectively (Zider 1998).

1 figure: The best time to join a start-up



Source: Zider (1998) p. 134

There are a number of common exit strategies that can be identified in the lifecycle of start-ups. These include selling the business to a financial investor, being acquired by another operating business, or in a few cases, shutting down operations. Another exit strategy that can be identified in start-ups is going public through an initial public offering (IPO), where a start-up becomes a publicly listed company on a stock exchange. These exit strategies are beneficial to investors in that they are able to recoup their investment in a start-up, which had been subjected to a high level of risk and uncertainty during its early stages of development.

Investors are often prompted to seek an exit when they realize that they can no longer add value to a start-up. This is more likely to happen to early-stage investors like angel investors who can transfer ownership to another party that can add more value to a start-up. On the other hand, a

start-up can also consider an exit in order to access more resources, expand its network, and increase its operational efficiency.

2.4 IPO

For companies, especially new ones a main goal is to have an initial public offering, which is also known as an IPO. People think that having an IPO is a sign of how well a company is doing. This is really important for companies that need a lot of money to operate like those in biotechnology and pharmaceuticals. When a company is listed on the stock market it is easier for them to get the money they need. This is because more people can invest in the company and it can get money from places. Companies that are publicly traded are also seen as trustworthy and credible by their employees, which makes them better places to work. The fact that these companies can offer stock to their employees as part of their pay is another way they can get and keep managers. Initial public offering or IPO is a deal, for these companies and it helps them in many ways (Rajora (n.a.)).

The initial public offering, although transitioning into a publicly traded company entails significant administrative responsibilities and financial disclosure requirements, firms generally retain their strategic and operational independence. In most cases, the existing management team continues to lead the organization after the transition. This process involves listing the company's shares on a public stock exchange, which enables investors to sell their equity stakes to the broader public and thereby realize their invested capital. At the same time, founders and managers may also liquidate a portion of their ownership by selling shares during the offering, generating personal financial returns (Rajora (n.a.)).

2.5 Mergers and Acquisition

In an acquisition scenario, a startup is integrated into a larger firm and ceases to operate as an independent legal entity. Instead, it becomes part of the acquiring company, typically

functioning as a division or subsidiary within the new corporate structure. This transaction allows investors to exit by selling their ownership stakes to the acquiring firm, receiving either cash compensation or shares in the acquiring company, thereby realizing their returns. During the transition period, the existing management team generally remains in place to ensure operational continuity and facilitate a smooth integration process, although their long-term involvement is not guaranteed.

This is so because mergers and acquisition are widely accepted as a major strategy that enables startups to transcend limitations in terms of knowledge and resources, but also enables them to gain better opportunities quickly. In addition, M&A can provide an important external source of innovation (Lee & Geum 2023).

2.6 Sale

In the case of a sale to a financial investor, the company remains a privately held and legally independent entity following the transaction. Unlike strategic acquisitions, the firm continues its operations without being absorbed into another corporate structure. This type of exit may take the form of a full divestment, in which all shareholders transfer their ownership stakes (commonly referred to as a buyout), or a partial divestment, where only one or several investors sell their shares, known as a secondary sale. Through this process, investors are able to recover their initial capital and potentially realize a return on their investment. Generally, the existing management team retains its position to ensure continuity, except in cases of a management buy-in, where a new managerial team assumes control of the company.

Regardless of the exit strategy, the majority of small business owners have privately held firms, and the selling of such firms is a challenging process. Perhaps the biggest challenge is finding a suitable buyer, as this is crucial to a successful valuation. While the reasons for selling a business may vary for the owner, a privately held firm is significantly different from a publicly

traded firm, especially when considering transparency. While publicly traded firms have to disclose a wide range of information to their shareholders, this is not the case for a privately held firm, and this may make the selling of a business a bit challenging (Williams, Duncan & Ginter 2006).

2.7 Failure

The fourth form of exit occurs when a company ceases operations due to failure. In such cases, the firm discontinues its activities and terminates its business existence. If outstanding liabilities remain unresolved, the company may be required to initiate bankruptcy proceedings in order to address creditor claims. Conversely, if no significant debts are present, the firm can proceed with an orderly liquidation by selling its remaining assets and formally dissolving the business.

In most cases, it is not possible for startups to attain a valuation that will allow for a return on investment for all parties, and hence, there is an unfavorable outcome. This may happen for a number of reasons, such as financial issues, issues within the team, issues with the product, too much competition, insufficient market demand, and issues within the external environment. In most cases, these startups will not become profitable, and as a result, they will not be able to obtain additional funding, whether it is venture capital or debt, and hence, there is a termination of operations. While there is a tendency for people to want to term this as a ‘soft landing’ as opposed to failure, it is, nonetheless, a termination of operations without a successful exit, such as going public or being sold, where there is a return on investment. This is what is called startup failure and is, by far, the most common path within the entrepreneurial process (Pollman, 2023).

2.8 Special Purpose Acquisition Companies (SPACs)

The influence of SPACs on the changes taking place in the area of digital finance cannot be denied, as such entities have been playing a notable role because of their organizational structure and functions. While there are plenty of other ways for startups in the digital assets sphere and the technology industry in general to attract investments, raising capital from public capital markets remains an essential step in gaining competitive sustainability. Specifically, for disruptive technology companies that need substantial funding in the initial stages of their development, it may be crucial for quick penetration into the market and growth. As such, mergers with the help of SPACs have proven an effective way for gaining access to public capital markets and funding faster compared to traditional IPO procedures. In terms of relevance, one should note that SPACs have gained popularity in the technology field as well, making them an important source of funding in entrepreneurship finance. A considerable number of SPACs acquiring different organizations are oriented towards those working in the technological area. SPACs are fundamentally shell companies, sometimes referred to as “blank check” companies, which are formed to raise capital through public offerings with the intention of buying out one or several existing firms at a subsequent point in time. Although they lack any operational functions when listed on the stock market, they have grown up to be a valid option that is becoming more common than an IPO. SPACs have grown to become a big trend in the equity market in the US, and have accounted for a significant portion of all IPOs during their peak periods. One of the key strengths of SPACs is related to the fact that they make accessing public capital markets easier and more efficient. The use of such vehicles allows for avoiding the cumbersome IPO listing procedure and minimizing exposure to stock market price fluctuations while raising capital. In addition, SPACs can offer companies with relatively undeveloped financial profile a chance to obtain access to public funding through them. It means that such vehicles might significantly affect entrepreneurial finance since they present a

convenient way to gain access to public capital markets. Moreover, SPACs are considered to be relevant for today's conditions as far as they are able to meet challenges and requirements of the digital age (Anconetani 2024).

Nevertheless, along with the benefits discussed above, SPACs possess a number of weaknesses. For instance, it was noted that in the majority of cases SPAC mergers failed to deliver good returns on investments. In addition, some experts noted that historically SPACs experienced rather high rates of failures. As a result, there were discussions concerning the sustainability of rapid SPAC development, which had taken place at that moment. After that, there was a sharp decline in the number of SPAC IPOs. Some of the structural problems that can contribute to the aforementioned concerns include the problem of sponsoring compensation and incentive misalignment between the sponsor, investor, and target company. Such problems could contribute to conflicts that may affect deal quality and performance. Overall, although SPACs present great potential for young companies in entrepreneurial finance, there are also some risks associated with these types of deals that must be considered carefully. Thus, the importance of SPACs in entrepreneurial finance is defined by more than just the positive aspects of using SPACs as an alternative means of listing; one should consider SPACs critically, looking into their performance and governance issues as well.

In conclusion, SPACs represent an interesting innovation within the field of entrepreneurial finance, which provides promising means for financing startups, especially high-tech firms. Nonetheless, whether SPACs prove to be efficient over time will depend on various factors, such as deal structure and performance and market dynamics (Anconetani 2024).

3 The Startup Financing Ecosystem in the United States

It is really important to figure out what has made financial markets so exciting especially when it comes to venture capital. There are a things that have helped make this happen but two things stand out: technology getting better and changes in rules. The rule maker is the government, so we will discuss the USA government as well.

First new technology has changed the way venture capital works. If we look at the areas where venture capital firms like to invest we can see that a lot of the companies they fund are working on technology projects. New ideas in areas like computers, online platforms and advanced technology have made it a great time for people to start businesses. So venture capital has become a way for companies to get the money they need to develop and sell new technology. Venture capital is very important, for companies that want to work on technology and make money from it. (William 2021).

Innovation in the United States is fast, and its speed is typically measured by the time required for an idea to move from initial concept to successful commercialization. The Global Innovation Index (2024) highlights the relative strength of countries in terms of their commitment to innovation and their overall innovation performance. In this global ranking, the United States holds a leading position, placing third out of 133 countries, which reflects its strong and stable innovation capacity. The country performs particularly well in the area of digitalization, where it is considered one of the global frontrunners, and it continues to play a pioneering role in the advancement of artificial intelligence technologies. The high level of digital development is also evident in consumer behaviour, as a significant share of the population regularly engages in online shopping (William 2021).

One of the most fundamental conditions for a well-functioning entrepreneurial environment is political stability. Even the perception of potential instability can have immediate consequences in financial markets, as investors tend to price in higher levels of risk, which can create significant challenges for startups. In countries where political conditions are uncertain or volatile, firms often face constrained access to capital and less favorable financing conditions. This is closely reflected in sovereign credit ratings assigned by major agencies such as Moody's, Fitch Ratings, and S&P Global Ratings, where weaker political and institutional environments typically result in lower ratings. Consequently, businesses operating in such contexts are exposed to higher borrowing costs, as increased interest rates make external financing more expensive and less accessible (William 2021).

In terms of specific figures, the Political Stability and Absence of Violence/Terrorism index is also a relevant metric, and lower figures imply more favorable conditions. In this case, the United States has a score of 45.28, and it is favorable because lower scores imply more stability and fewer risks of violence and other factors. This indicates that, apart from its favorable economic and innovation environment, the country also offers a secure environment for conducting business activities (William 2021).

Second, changes in the regulatory environment significantly contributed to the expansion of venture capital investments. A major milestone occurred in 1979 with the clarification of the Employment Retirement Income Security Act (ERISA) in the United States. This regulatory adjustment allowed large institutional investors, particularly pension funds, to allocate a portion of their portfolios to higher-risk investments, including venture capital. Although such investments carried greater risk, they also offered the potential for higher returns, thereby making them attractive components of a diversified investment strategy. Over the last four decades since the clarification of the ERISA regulations, venture capital has become the

dominant form of risk capital for technology-driven start-ups in the USA and, to a large extent, the rest of the world. The first reason for the dominance of venture capital is the enormous assets under management by corporate and public pension funds. A moderate investment from these massive assets is sufficient to create a strong inflow of capital into venture capital funds. This phenomenon first began in the 1980s when corporate pension funds invested modestly in venture capital. A decade later, public pension funds in the USA began to follow the same investment strategy, thereby adding strength to the financial underpinning of the venture capital industry (William 2021).

However, for those start-ups that have reached a more mature and later stage of development, access to large amounts of capital becomes more feasible. This large increase in funding for more developed and matured stages of venture capital firms can be partially attributed to the deregulation of securities laws. In fact, a specific piece of legislation, the National Securities Markets Improvement Act of 1996 (NSMIA), has been deemed pivotal in facilitating this process. This piece of legislation has eased regulatory restrictions, thus allowing later-stage start-ups to access large amounts of capital without having to go public. This easing of restrictions on large private investments has created a more conducive environment for later-stage start-ups backed by venture capital to access funding necessary for scaling their operations and growth (William 2021).

Although the U.S. government has initiated a number of programs that have achieved limited success, some programs have shown promise in promoting innovation in the country. A research study has shown that firms that have obtained funding for the first phase of the Small Business Innovation Research (SBIR) program have shown significantly higher patenting rates compared to firms that have not obtained such funding. This indicates that the SBIR program is successful in promoting innovation in the country. Not only has the SBIR program shown

promise in promoting innovation in the country, but it has also shown promise in promoting venture capital investments for the firms that have participated in the program. This indicates that the SBIR program is successful in promoting innovation in the country. The Small Business Innovation Research program is a three-phase program that promotes innovative ideas in the country. In the first stage of the SBIR program, a firm can apply for a grant for the first phase of the program. If they are selected, they will have access to as much as \$100,000 in order to evaluate the scientific and technological feasibility of this concept. The first phase of this process is primarily concerned with determining whether this concept has enough potential for further development. If they have access to this phase and they succeed in it, they will be eligible for Phase II. In this phase, they will have access to as much as \$750,000 in order to further develop this technology or innovation and bring it closer to practical application. The third phase, Phase III, is different from the first two in that it does not allow for SBIR funding. Instead, it is expected that they will attempt to commercialize this product or technology that they have developed (William 2021).

The role of government has been a fundamental element in shaping the innovation and financing ecosystem of the United States. Throughout the twentieth century and into the twenty-first, the U.S. government has supported large-scale, mission-oriented initiatives that have indirectly stimulated technological progress, entrepreneurial activity, and the creation of new markets. Public investment aimed at solving strategic national challenges has frequently generated technological spillovers that later became foundational components of the modern digital economy.

One of the most visible manifestations of such a phenomenon is the significant amount of public expenditure on scientific and technological development undertaken as part of national missions. The various government initiatives undertaken as part of defense, aerospace, and

scientific research initiatives created a conducive environment for high-risk technological experiments, which might have otherwise been difficult for private players to undertake on their own. For example, significant public expenditure on space research undertaken by governments in the mid-twentieth century paved the path for technological advancements, which later found their way into private enterprises. The development of satellite navigation technology, touchscreen technology, voice recognition technology, and even the early versions of the internet can be traced to publicly funded research initiatives. While these initiatives were not undertaken for the primary purpose of developing such technologies, they played a significant role in the development of entire industries. As these technologies have matured, they have found widespread acceptance and application within private enterprises, thereby contributing to economic growth (Wallsten 2020)

A second important role played by the government within the U.S. innovation ecosystem is that of a major customer. Government demand for advanced technological solutions has historically created stable markets for emerging industries. In sectors characterized by high research and development costs and substantial technological uncertainty, early demand from public institutions has helped firms scale production and move down the cost curve. This dynamic was particularly visible in the development of the semiconductor industry, where public procurement by defense and aerospace agencies played a critical role in the early stages of the industry's growth. By purchasing newly developed technologies and integrating them into large-scale government programs, public institutions helped transform experimental innovations into commercially viable products. (Wallsten 2020)

The government's position as a customer has also been particularly significant in the life sciences industry. The government's public health programs that pay for the cost of various medical treatments and technologies greatly reduce uncertainty in the life sciences industry.

This is because these government health programs ensure a certain level of demand for products that have been approved by regulators. Therefore, firms in industries such as pharmaceuticals and biotechnology are less likely to experience commercial risk in comparison to firms in industries where demand for products is less certain. This explains why biotech start-up firms have been able to access capital markets relatively frequently in comparison to industries that have longer product development cycles, are more costly to research, and have more stringent regulatory requirements (Wallsten 2020).

A third significant aspect of government involvement is in setting up institutional and legal structures that are supportive of innovation and competition. This can be achieved through defining property rights and structuring the competitive environment in a way that can promote new firms to compete effectively with existing ones. In the United States, a number of policy decisions have been instrumental in opening up avenues for new technology firms. Antitrust actions and various regulatory measures have sometimes forced large firms to open up access to certain technologies or markets, thus allowing smaller firms to develop complementary technologies (Wallsten 2020).

In addition, the development of open technology standards and research networks funded by governments has played a very significant role in promoting and encouraging entrepreneurial activities. The early digital infrastructure initiatives undertaken by governments were designed to be “open” and “collaborative,” enabling a wide range of organizations to build on top of the technology. This, in turn, helped to reduce barriers to new technology firms and accelerate the growth of the digital economy (Wallsten 2020).

One of the policy mechanisms of the Bayh-Dole Act, which provides support for the development of the U.S. start-up ecosystem, is the framework for intellectual property developed through publicly funded research. The policies that allow universities and research

institutions to develop and commercialize intellectual property developed through publicly funded research have strengthened the relationship between university research and entrepreneurial activity. Universities have become key drivers of innovation and technology transfer to start-ups through various mechanisms, including licensing and spin-offs. This has provided a framework for the commercialization of scientific discoveries and created a pipeline of high-technology start-ups that will eventually seek venture capital financing and potentially access public equity markets in the future. These mechanisms highlight that government intervention has catalyzed the development of the U.S. innovation ecosystem. Mission-based investments, public procurements, and the development of favorable public policy and institutional frameworks have encouraged the development of industries that would eventually become key drivers of entrepreneurial activity in the United States. These factors have also encouraged the development of a financing system in which venture capital markets and public equity markets are key drivers of financing innovative start-ups (Wallsten 2020).

Within the broader context of startup financing, these government-driven dynamics have supported the development of a robust pipeline of high-growth firms capable of reaching public markets. As a result, the United States has developed one of the most mature ecosystems for venture-backed companies progressing from early-stage innovation to initial public offerings (Wallsten 2020).

Following the global financial crisis in 2008, the venture capital landscape experienced a period of rapid expansion. During this time, investors increasingly sought high-risk, high-reward opportunities, often referred to as the search for 'unicorns'—startups valued at over \$1 billion. Private financing rounds of this magnitude became more frequent, reflecting the growing appetite for ambitious ventures. At the same time, the macroeconomic environment was characterized by historically low interest rates, which in some cases turned negative, further

motivating investors to allocate capital toward ventures with substantial growth potential despite their elevated risk. This combination of abundant capital, low borrowing costs, and a focus on extraordinary returns shaped a distinctive era in venture capital investment strategies.

(William 2021)

How simple is it to start a business in the USA? The next example is from New York. To register a Limited Liability Company in New York City, there are 6 steps.

1. You reserve the company's business name,
2. Apply for federal identification number,
3. Register to collect state sales tax
4. , Register as an employer with the Unemployment Insurance Division,
5. Arrange for workers' compensation and disability insurance,
6. Arrange for publication of a copy of the Articles of Organization.

The time required for the formation of a company in New York City is efficient, averaging around four days. This indicates that the environment in New York City is favorable for businesses, as reflected by the streamlined procedures for company formation. The cost of forming an LLC in New York City varies from €661 to €707. This can be regarded as a low cost compared to other regions in Europe. In Europe, the capital formation requirements are not standardized and involve a much higher cost, posing a significant financial requirement for entrepreneurs. In Europe, the minimum capital requirement for forming a company is around €2,500 in Finland, around €5,000 in Austria, and around €7,679 in Hungary (Ezhkov 2025).

Another reason for the failure of a nation to develop economically and prosper lies in the fact that entrepreneurship may be absent among people, organizations, and societies. The significance of entrepreneurship for economic development and as a major element of

productivity and growth is well recognized. The need for entrepreneurship as an innovator was also stressed but, unfortunately, it was disregarded in the past. Traditionally, entrepreneurs were thought of as individuals who introduced innovations, developed new markets and business procedures, and transformed innovative ideas into tangible products and practices. In spite of it, there existed a misconception concerning the fact that innovation by entrepreneurs is less necessary for the development of emerging countries than for the development of developed ones. In this respect, the increase of the numbers of entrepreneurs is possible through their proper education and training. But the problem here is that there is no set pattern of education of entrepreneurs since higher education institutes lack universal standards for designing these courses. As far as entrepreneurship training within non-formal, informal, and vocational education is concerned, then it only covers practical skills but not theoretical knowledge. Education must endeavor to produce creators of employment opportunities, not merely employees. Consequently, learning at university level must incorporate entrepreneurial management and business skills, especially those that relate to identifying and solving problems that can arise when growing a new firm in its early stages. Such an approach will spur innovation not just in the economy but in society as well, while also providing a basis for developing innovative business concepts (Santoso 2021)

The most significant components are the presence of leading higher education and research institutions, a well-developed venture capital market, a societal openness toward risk-taking and innovation, as well as policy frameworks designed to encourage entrepreneurial activity. One of the pillars of this ecosystem is represented by globally recognized universities, which have a very important role to play in promoting innovation and generating knowledge. The most prominent universities, such as Stanford University, Massachusetts Institute of Technology, and Harvard University, have globally recognized capabilities for generating exceptional research output and contributing to technological advancements. These universities

not only generate new knowledge but also actively enhance its transfer to the market through dedicated research centers, incubators, and innovation hubs. By building strong connections between universities and businesses, they create a space where research ideas can more easily turn into real, marketable products and services.

Startups in the United States are really interesting. Most of the people who start these companies in high tech areas have a good education. They usually have a degree from college and 47% of them even have a master's degree. This shows that going to college is important if you want to start your business. A lot of the people who start companies come from schools where they studied economics or engineering. This is because these subjects teach you the skills you need to make a company successful. Startups in the United States and their founders with educational backgrounds are a key part of this. Startups and their founders are proof that education's important, for people who want to start their own companies (Freeman, 2008).

Another notable aspect of the U.S. entrepreneurial environment is the significant amount of financial resources available to startups in the form of a well-developed venture capital market. Compared to other countries in the world, startups in the United States have relatively easier access to external finance in the form of venture capital. There are a large number of venture capital firms in the United States, ranging from well-established and large venture capital firms to smaller and more specialized ones, all of which are constantly on the lookout for innovative and promising business ideas. A notable aspect of the U.S. venture capital market is the relatively high willingness to take risks. Compared to venture capital firms in other countries in the world, venture capital firms in the United States are relatively more open to investing in startups, especially when there is a high amount of uncertainty associated with them, provided that they have high growth potential and the ability to disrupt the market. This is a notable factor in the high scalability of startups in the country. In addition to institutional venture capital

financing, startup ventures are further supported in early-stage financing by a well-developed network of angel investors. Angel investors are composed of experienced entrepreneurs who not only offer initial funding but also valuable knowledge and strategic advice to startup ventures. The combination of both venture capital firms and angel investors provides a multilayered structure in startup financing.

Angel investors invested approximately €409,762,650 into startups across the United States in 2023. It is noteworthy to mention that the majority of the investments were made into startups that are at the prototype phase. In fact, 52% of the investments made by angel investors are directed toward startups that are at the prototype phase. More specifically, 41% of the investments are made into startups that have already commenced generating revenue. Furthermore, 23% of the investments are directed toward startups that are at the product development phase. In addition, 18% of the investments are made into startups that are focused on expanding. In terms of the sectors into which investments are being made by angel investors, the highest investments are being directed toward the software and data analytics sectors. In fact, 22% of the investments are being directed toward the software sector. In addition, 16% of the investments are being directed toward the medical devices sector. Furthermore, 11% of the investments are being directed toward the energy sector (Prowse, 1998)

3.1 The bankruptcy law

Bankruptcy refers to the process whereby a company or an individual, or even a government at times, gets rid of all its debts legally. For businesses, the significance of bankruptcy lies in the fact that economic competition leads to inefficient businesses shutting down, thus improving efficiency among the rest. This helps consumers, since the surviving businesses end up producing products or services at a cheaper price. Bankruptcy becomes the official means of

dealing with debts and quitting the business by most financially unstable businesses (White 2005)

The basic philosophy of the US Bankruptcy Law has remained the same for more than a century. The philosophy of a "fresh start" has guided US bankruptcy laws since the early nineteenth century. According to this concept, an individual debtor is provided a way to discharge all their old unsecured debts by filing for bankruptcy, thereby gaining a new lease of life. A fresh start implies that the debtors are freed from all their old debts, allowing them to start afresh. This is because it is expected that once the burden of debts is lifted, they will have a brighter future ahead, as they will be able to enjoy all the fruits of their labor. This research aims at exploring if the Bankruptcy Law does deliver on its promise, especially from the perspective of small business owners or start-ups (Aparna 2013).

How do entrepreneurs, having experienced bankruptcy before, perform thereafter? Also, what constitutes a real "fresh start"? In an ideal situation, filing for bankruptcy provides a new start to an entrepreneur, clearing out their financial record. In actuality, such situations rarely occur due to various factors. For instance, some creditors report bankruptcies but may inaccurately indicate that any debts incurred during that period remain unpaid or show instances of delinquent or missed payments. Moreover, bankruptcy stays on a person's credit record for up to a decade. While the data becomes inaccessible after ten years, some creditors can gain access to the information contained therein throughout the duration of the period. Thus, while bankruptcy discharges debtors of certain debts, a real "fresh start" does not automatically follow suit (Aparna 2013).

Positive aspects are that these firms do not suffer from significant difficulties associated with profit generation or cash flow. Among the main conclusions, particularly regarding the concept of "a fresh start," are limitations in financing. If the system of bankruptcy were really providing

these firms with a new financial start, the differences between firms with and without a history of bankruptcy would have been negligible, even after controlling for simple variables like size and age. Nevertheless, our results show that financing is still a key constraint faced by firms with a history of bankruptcy. Firms with a history of bankruptcy pay higher interest rates, over one percentage point higher, than firms without a history of bankruptcy. Moreover, firms with a history of bankruptcy are less successful when applying for loans, being rejected more often than firms without a history of bankruptcy. These limitations in financing also affect their ability to obtain trade credit. Furthermore, it seems that bankruptcy discourages a certain segment of borrowers from even applying for loans. Lastly, those who have owned businesses that have filed for bankruptcy are less likely to own credit cards and are more inclined to look for outside finance from venture capitalists (Aparna 2013).

It can be inferred from the analysis that the bankruptcy system has limited effectiveness in facilitating the recovery of small businesses. According to the information obtained from the data set, approximately 2–2.6% of the business owners and roughly 1% of the firms have declared bankruptcy per annum. The continued operation and profitability of such owners imply that the system permits partial recovery of some firms and enables them to engage in business activities even after filing for bankruptcy, thus giving them a fresh start. Nevertheless, it may not be easy to ascertain the efficiency of the bankruptcy system from the data because it refers to the optimal economic outcome attained by the firm following bankruptcy. (Aparna 2013).

3.2 Silicon valley

Indeed, the relationship between innovation and America cannot be analyzed without referring to the Silicon Valley phenomenon, because many researchers tend to consider this place not only the main center of innovation within the USA, but also the entire planet. Thus, one of the

most interesting topics is why the phenomenon of innovation is so intensive in Silicon Valley and what mechanisms were implemented to develop such an ecosystem in which the emergence of prosperous start-ups takes place on an extremely high level. In its turn, this chapter is devoted to answering these questions and revealing important facts about the conditions and processes which made Silicon Valley one of the leading innovation centers in the modern world. The initial entrepreneurs of Silicon Valley saw themselves as pioneers who not only created a new industry but also helped form a new economic community. On one hand, they were developing a center for industries in Western America while, on the other hand, moving forward the creation of a revolutionary technology semiconductor electronics. The risks connected with working in a yet unknown technological area were very important for the formation of the image these people saw in themselves as well as in their community. Furthermore, the similar backgrounds of most founders of Silicon Valley contributed to the formation of a common identity. They all belonged to a generation of young white males, mostly of twenty or thirty years old, educated at leading colleges in technical sciences. Most of them had never worked in any industry before and were not connected with Silicon Valley. It is remarkable that many of these founders came from small towns of the Midwest and showed some distrust to the Eastern elites of the USA. The company where lot of engineering worked the Fairly child semiconductor company was (AnnaLee 1994).

The presence of many scientists and engineers working at Fairchild Semiconductor resulted in several spin-offs being formed, among which were Intel, Advanced Micro Devices, and National Semiconductor. This collection of talented specialists provided the necessary knowledge base and foundation for new innovations. One of these was the creation of the microprocessor at Intel in 1971; after this, personal computers were developed rapidly during the 1970s and 1980s. A highly developed infrastructure, which consisted of a large pool of talented professionals, specialized support sectors, venture capital, and an environment that

positively encouraged creativity and taking risks, facilitated the process by which emerging enterprises like Apple and Hewlett-Packard successfully turned computers into widely used everyday objects. In addition, the mass use of computers gave birth to the World Wide Web and Internet as we know them today. The subsequent wave of entrepreneurship in Internet and IT sphere resulted in spin-off businesses, such as Netscape and Cisco. These companies contributed greatly to further growth of computer software sector and thus attracted even more people who were eager to innovate.

This trend persisted through the rise of another generation of enterprises in the realms of Internet services and social media, including leading corporations like Google, Facebook, Twitter, Airbnb, and Uber. In parallel, the Silicon Valley cluster was also nurturing the emergence of startups in other sectors characterized by high innovation potential, such as biotechnology and cleantech, represented by entities like 23andMe and Tesla. During this process, many spin-offs were formed geographically adjacent to their founding companies, thus gaining access to the networks of economic and social relations already in place. This factor only further facilitated the accumulation of essential resources within the cluster, encompassing both human capital and supporting industries. The good economic performance of the region led to its geographic expansion beyond the original confines of Silicon Valley in Santa Clara County—comprising cities like Palo Alto, Cupertino, and San Jose—to encompass neighboring territories in San Mateo, Alameda, and Santa Cruz counties, including the cities of San Francisco, Fremont, and Gilroy, which progressively became more integrated within the network of Silicon Valley. The result was the formation of an extensive economic region with a considerable number of inhabitants and a considerable amount of international migration (Stephensa 2019).

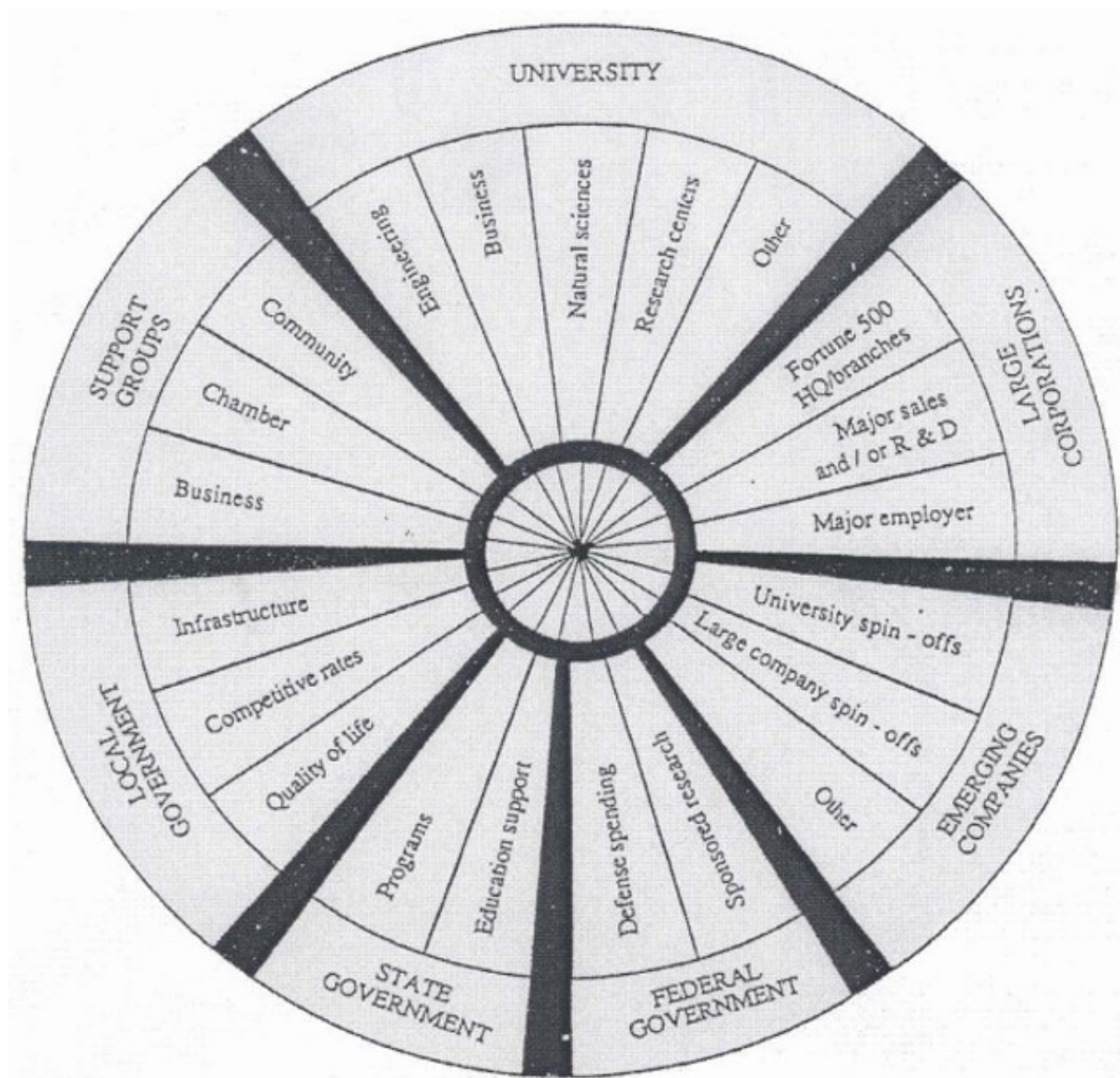
The regional advantage is created by the geographical concentration of innovative businesses that constantly create spin-off businesses. This geographical concentration of business clusters

provides several advantages to startups. Business clusters tend to specialize in a particular industry or technology and attract suppliers and employees into the geographical region. Therefore, startups will be able to enjoy cheaper access to raw materials and labor force because of economies of scale, transaction cost savings, and spillover demands. Institutional theories are becoming increasingly popular among studies concerning high-tech regions, as they provide a theoretical framework to understand entrepreneurship. Institutions refer to stable and lasting features of social structure, according to the institutional theory. According to the institutional approach, the business cluster is strongly networked with institutional organizations that are consistent with its specialization. Institutional organizations from academia, businesses, and governments are instrumental in formulating strategies and facilitating cooperation (Stephensa 2019).

Expanding on this theoretical knowledge, this paper intends to employ the principles of institutionalism and the Technopolis Wheel model for empirical exploration of the location choice of technology entrepreneurs. Specifically, the primary goal of the investigation will be to acquire further insight into the determinants of entrepreneurs' decisions to stay, participate, and continually reinforce an established entrepreneurial system. Moreover, this research seeks to shed light on the mechanism through which the sustainability of the systems occurs as the result of the interplay of individual decisions and structural forces. Along with individual-level variables, the research will explore the connection between entrepreneurial mobility and institutional and economic conditions prevailing within four major entrepreneurial ecosystems: Austin, Silicon Valley, Boston, and New York. Over the past decades, these locations have developed into the most prominent technology-based entrepreneurial communities that attract skilled employees and firms. What is more, each of the ecosystems features a unique combination of institutional conditions, resources, and entrepreneurship performance (Stephensa 2019).

The technopolis wheel though intense competition exists between university institutions, business organizations, and even the public sector and the private sector, cooperation is critical for the future growth and sustainability of the technopolis. Competition should be balanced with cooperation amongst the different components of the technopolis wheel. Effective networking is thus important, especially amongst the different components of the technopolis wheel, such as the public sector, private sector, even in cases where the parties are antagonistic towards each other (Smilor 1989). This will be discussed further in the rest of the chapter.

Figure 2: The technopolis wheel



Source: Smilor (1989) pp 51

The traditional notion of clustering highlights the potential for clustered areas with a concentration of firms involved in a particular industrial field to attain competitive advantage by virtue of economies of scale, low transaction cost, and the leveraging of spillover effects. The ability of such regions to leverage these advantages is based on the location of the firms and other resources such as suppliers and skilled workers. Nevertheless, the classical idea of clustering fails to address how innovative clusters manage to generate a steady stream of growth firms. This observation becomes especially clear when new firms located in such clusters do not fall within the specialization area of the industries in the clusters.

A landmark paper laid out the framework of the "Technopolis" wheel that underlined the critical role of university research centers, business entrepreneurs, and governmental officials in stimulating technological innovation and economic growth. The key to success is based on the ability to form institutional coalitions within all these three components, which would determine the direction and methods for innovation management (Stephensa 2019).

The "Technopolis" model considers the interactions among leading research universities, regarded as a nucleus of "science cities," policy makers at federal, regional, and municipal levels, business entrepreneurs, and relevant intermediaries, including venture capitalists, lawyers, accountants, and professional consultants. It is also emphasized that both primary and secondary stakeholders can provide leadership, facilitate cooperation, and create organizational and social structures in their regions. As proposed by the Technopolis theory, the presence of such links can substantially affect the development of high-technology companies over time, not only through corporate mobility and territorial expansion but also by generating innovative start-ups. This model has been initially demonstrated using the case of Austin, now known as an advanced high-technology industrial cluster alongside Silicon Valley and Boston.

Aside from having an abundance of tangible assets, the success of the region may also be linked to its unique innovative spirit, along with the fact that many of the top-notch research universities are found in this area. The role of venture capital funds is critical within this system since venture capital funds usually finance ventures that involve great risks but offer a lot of potential opportunities. In addition, both venture capital funds and angel investors serve as integral parts of innovation systems because they not only provide financing for technology-based ventures but also connect entrepreneurs and foster collaboration (Stephensa 2019).

From previous studies, it is apparent that the entrepreneur's place of residence and place of employment tend to play a crucial role in influencing the geographical location of entrepreneurship activity. Entrepreneurs tend to develop an affinity for establishing startups in regions they have lived or worked in before. The reasoning behind this is that it allows entrepreneurs to build on their network of acquaintances within the region. By doing so, they get an opportunity to enjoy the benefits of their personal connections, thus minimizing uncertainties during the initial phase of the establishment process. Nevertheless, most literature on entrepreneurship has tended to focus on founders of non-technology companies in conventional sectors, such as hospitality, food services, business services, and construction. Therefore, the findings presented in previous studies may not be entirely relevant in understanding the behavior of entrepreneurs in the technology industry, especially when developing ventures in innovation clusters such as the San Francisco Bay Area, Boston, Austin, or New York. Moreover, previous research has predominantly defined social networks through close interpersonal relations between people who are family members or friends. Although this view is appropriate for companies operating in the context of local market environments and clients, it may not be sufficient for studying needs in the context of technological entrepreneurship. Within the framework of the technology industry, the emergence of digital technologies and their increased popularity greatly broadens the potential opportunities for

developing entrepreneurial networking. Thus, a deeper and wider definition of professional networking is essential while conducting analysis of technological entrepreneurs. Entrepreneurship in the technology sector implies the presence of particular knowledge, skills, and connections, which are critical for developing innovative business ideas. In other words, successful innovation-driven business projects in the technological environment require extensive professional networking opportunities (Stephens 2019).

While considering only the structural elements of the institutions' stable characteristics proves insufficient, a broader approach to the issue of differential economic growth experienced by urban centers would entail placing entrepreneurs' mobility under scrutiny as well. With respect to the "Technopolis" wheel model, the present work aims to explore the most significant factors influencing the selection of place for starting up a venture by entrepreneurs. The "Technopolis" wheel depicts the relationship between the institutional components involved in the creation of innovation-based business clusters. In line with that, some quantifiable indices have been incorporated into the "Technopolis" wheel to serve as determinants of entrepreneurs' choice in terms of the place of establishment of their venture. Firstly, an entrepreneur's social network, represented by his/her degree of tie density, is considered as an indicator of an individual's level of involvement with the local institutions and organizations.

Second, due to the importance of external finance in the technology industry, the "emerging companies" aspect of the Technopolis model is evaluated using metrics like the annual number of investment rounds, the amount of money available for investments in a particular area, etc. The indicators measure the availability of financial resources needed to foster emerging companies. Third, the degree of innovation is calculated using metrics like the annual number of patents filed, which is a measure of the research activities in the region and technological

progress. In the literature, there is consensus about the validity of using the number of patents filed to estimate innovation output and creation of new technologies. Furthermore, higher patent intensity increases the productivity of metropolitan areas and enhances the innovative performance, and it helps in the emergence of geographically concentrated clusters of firms. Moreover, additional information is obtained through a metro performance index, which considers the overall level of economic vitality, infrastructural development, effectiveness of the government, and high technology industries in the respective regions. Such measures provide an additional perspective into the external factors affecting the decision-making process. Control variables at individual levels are introduced as well, which can affect entrepreneurship in terms of geographical mobility and behavior. The research is focused on four leading entrepreneurial ecosystems: Silicon Valley, Austin, Boston, and New York City. The analysis of such cases makes it possible to incorporate institutional factors into the study of entrepreneurial migration, which helps us gain insight into factors promoting entrepreneurial behavior. In particular, the study explores the determinants of success for entrepreneurs in different situations, namely founding a business within a region, relocating in order to do so, and moving into a new region to engage in the labor market prior to founding a firm (Stephensa 2019)

3.3 Case study Airbnb

The case of Airbnb stands out as perhaps the most popular example of how a company turned an ordinary idea into a dominant global player in its industry. Indeed, the beginnings of this corporation can be dated back to 2007, when the founders of the firm came up with their first concept in response to a lack of accommodation during peak season in San Francisco. The idea to earn money to pay for rent turned into the foundation for a more ambitious business idea that aimed to disrupt traditional hospitality. Unlike conventional hospitality services based on

offering accommodation, the creators focused on experience, trust, and the concept of making tourists feel as "locals" do (Kovacs, 2022).

The formal incorporation of Airbnb took place in 2008, at which point the founding group was augmented with technical skills to boost the ability of the venture to grow into a platform. The process of growing was facilitated by mentorship and early investments from startup incubators and angel investors. Starting off with the name AirBed & Breakfast, the organization went on to adopt the name Airbnb, transforming into a community-oriented technology-based global platform that provides hospitality services, rental opportunities, and accommodation. It has grown based on the fact that it is a two-sided platform that serves both guests and hosts, and it generates value using the principle of network effects. For hosts, some of the tools available include assistance in listings, recommendations on pricing, scheduling tools, community support services, and protection. To help guests, some of the offerings of the platform include communication, review system, and search functions among others (Kovacs, 2022).

Technology has contributed a lot to the competitive advantage of Airbnb. Some of the digital technology used by the firm includes those responsible for global payment systems, multilingual support, fraud detection systems, safety services, and business intelligence tools for data optimization. Apart from these, the firm also uses machine learning technologies to enhance the user experience, enable market efficiency, and offer tools to the hosts for optimizing revenue and occupancy. One of the key factors driving the success of Airbnb is its fundraising methods. Over the course of its existence, the organization was able to raise large sums of money by engaging in a number of rounds of financing, covering practically all stages of startup funding. Among other things, Airbnb raised funds at later stages specifically for purposes of internationalization, platform building, and overall growth. At the same time, the firm continued to invest organically in its technology platform and also made acquisitions in order to grow. At the stage of later rounds of financing, the company was well-established as a

high-growth business. It appears that Airbnb was considering entering the public markets for a number of years prior to the IPO but chose to defer this step until 2020 (Kovacs, 2022).

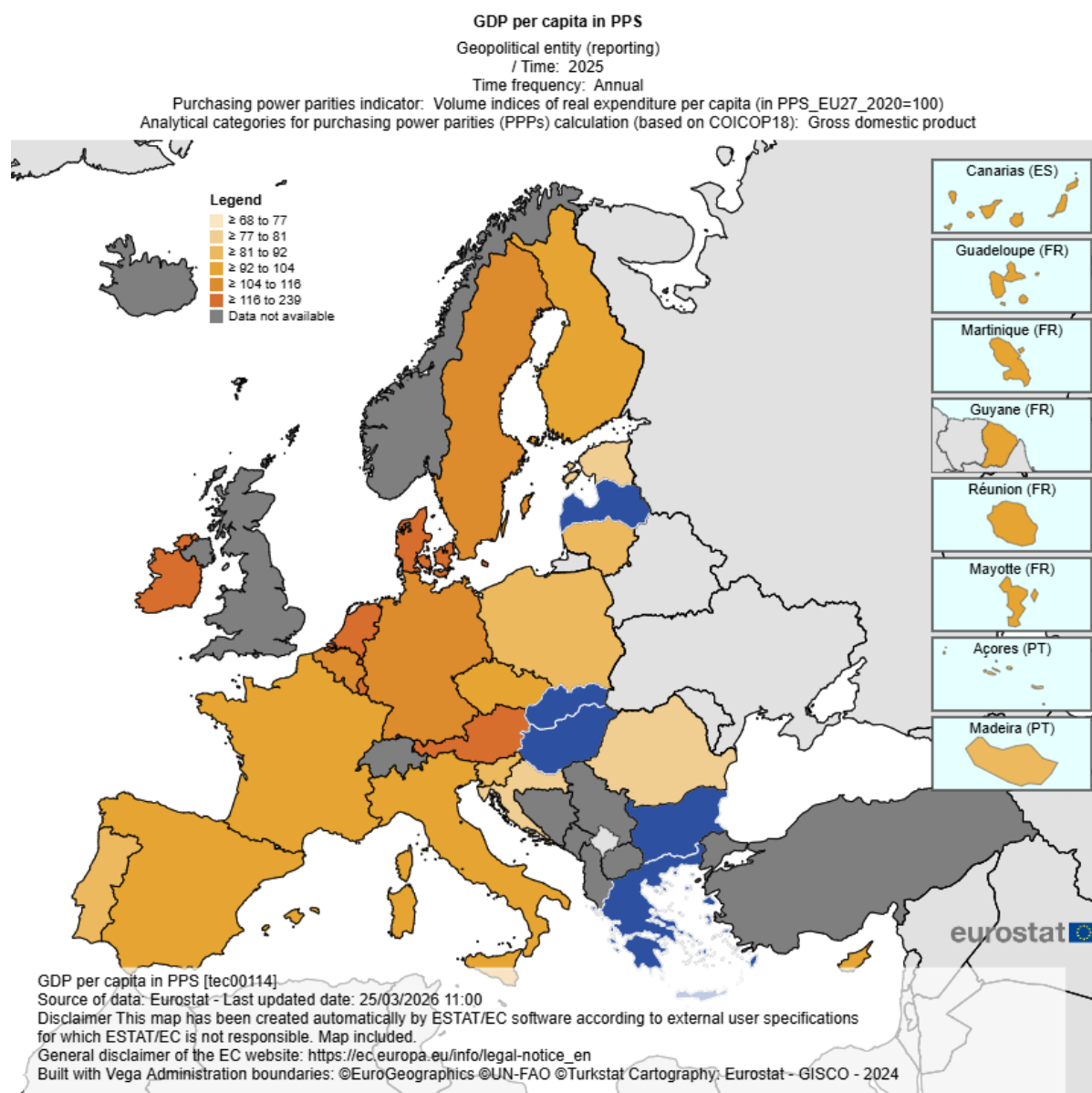
The IPO of Airbnb is considered one of the major and most anticipated IPOs to take place in the U.S. in 2020. The interest on the part of investors far surpassed initial expectations, leading to a much higher price being set for the stock than originally forecasted. The company managed to raise several billions of dollars from the offering, and high market reaction can be viewed as a manifestation of extremely positive investor sentiment towards Airbnb. The price of stock on the first day of trading was significantly higher than the IPO price. In view of the current context of the company's activities, such results seem especially impressive. Before going public, Airbnb faced a substantial reduction in valuation due to the effects of the coronavirus epidemic on international tourism. As a result, the firm had to attract additional investment to ensure continued viability amidst the crisis. Despite all these difficulties, Airbnb succeeded in not only recovering but also increasing its valuation compared to the figures achieved at the previous fundraising stage. On balance, the evolution of Airbnb is a case study of how a start-up business can progress from its initial concept to becoming a global platform business, thanks to robust entrepreneurship, innovation, diversified sources of funding, and timely public market entry. The IPO of Airbnb is a valuable case study for platform businesses looking to use both private and public funding sources for their growth (Kovacs, 2022)

4 The Startup Financing Ecosystem in the European Union

The fragmented nature of the EU's market is much larger compared to the United States. This is because, unlike the United States, which is comprised of states under a federal government, the EU is comprised of individual sovereign countries. Each of these countries has different regulations and economic conditions. Western countries are more developed than Eastern countries, with higher levels of purchasing power parity, or higher GDP. This is because of historical reasons.

The imbalances are major challenges for the EU. Although the Union is working towards harmonization of regulations among countries, there are differences, which are barriers for startups. This chapter focuses on how the EU can solve these challenges. We look at the major changes in regulations that are helpful for startup growth and areas for improvement (Murtada, 2025)

Figure 3 GDP per capita in PPS



Source: Eurostat GDP per capita in PPS (2026)

4.1 Entrepreneurial ecosystem

The relationship between the strength of the entrepreneurial ecosystem and the strength of the performance of start-ups is close. The scaling up of successful start-ups is not only dependent upon the availability of finance; it is equally dependent upon the availability of an advanced

entrepreneurial ecosystem. The entrepreneurial ecosystem is not only represented by the presence of venture capital investors and start-ups; it is represented by the presence of universities, incubators, accelerators, research institutions, financial intermediaries, and so on. It is best represented in an environment where the regulatory environment is not only coherent but also homogeneous. The first aspect of the European entrepreneurial ecosystem is the geographical fragmentation of the ecosystem. Unlike the case in the United States, where the presence of venture capital is concentrated in only a few hubs such as San Francisco, New York, or Boston, or in China, where the presence of venture capital is concentrated in the hubs of Beijing, Shanghai, Shenzhen, or Hong Kong. European venture capitalists are scattered around several other small cities. It may become difficult to carry out the procedures of screening and monitoring because of the distance, especially during the early stages of investment, but there are ways to overcome such problems by building better infrastructure facilities. Nevertheless, when we consider how beneficial a properly functioning ecoecosystem is, having all the different elements present in close proximity to each other becomes advantageous.

Another characteristic of the EU entrepreneurial system is its fragmentation. The geographical difference alone is not the only reason that poses obstacles to creating an integrated and unified pan-European environment that will help startups to grow. Cultural, institutional, and regulatory differences make it harder for start-ups to access the necessary sources of funding, such as investments from other countries, and also to get access to necessary human capital, such as international professionals. Venture capital exit strategy options are also limited due to the fragmentation of European capital markets. For instance, the share of venture capital-backed IPOs in Europe was only 2.6% in 2015, while in the USA, it reached 16.4% (Quas, 2022).

In the European Union, as emphasized by Murtada Ahmed in "European Startup Ecosystem: Gaps, Improvement Trends, and Economic Impact," the number of new startups formed outnumbers that of the United States. Yet, the problem does not rest with the creation of these

new businesses but with the capacity for scaling these businesses. In fact, a substantial number of these businesses are at the nascent stage and are not able to successfully scale.

A pertinent issue that needs to be addressed relates to the European Union and its capability to facilitate the scaling process of these businesses. Following this line of thought, some specific gaps may be identified with regards to the education sector, specifically the lack of standardized curricula and the limited availability of longitudinal studies on the effectiveness of entrepreneurial education on the ultimate success of businesses, starting from the secondary level. With regards to another dimension, studies on entrepreneurial hubs have identified the lack of extensive research on the ways by which local innovation may be boosted, as well as the specific ways by which this may be done to increase the performance and success rates of these hubs.

Another dimension that needs to be explored extensively relates to the overall impact of entrepreneurial innovation on the economy, specifically with regards to jobs creation, economic growth, and the overall entrepreneurial ecosystem.

Lastly, when the focus is on investor communities as a whole, a substantial disparity can be noted with regards to funding willingness, and this can be attributed to the disparity between the way ideas are expressed and investors' perceptions about the viability of businesses. This issue can be noted especially when the focus is on social ventures. Therefore, there is a need to develop more effective ways of communication that can be used to improve the effectiveness of these ventures (Murtada 2025).

4.2 Structural gaps

The analysis highlights various structural gaps that have traditionally acted as major roadblocks in the progress of startups in Europe. Of these gaps, perhaps the most significant is the so-called "scaling gap," wherein startups in Europe face significant problems in procuring late-stage

funding in comparison to those in the United States. Over time, this has led to an estimated shortfall of as much as \$375 billion in funding over the past decade, where late-stage funding in the U.S. is seven times higher than in Europe.

Europe has recorded lower performance compared to the rest of the world, particularly the United States, in the development of scale-ups, which are considered to be the most successful startups that have entered the growth stage where they are seeking to achieve significant growth in the market.

The most successful scale-ups are the unicorns, which are startups with valuations of more than \$1 billion. As of June 2021, Europe recorded 92 unicorns with an aggregate valuation of €253.3 billion, compared to the United States, which recorded 394 unicorns with an aggregate valuation of €1.2 trillion

Another measure of the success of startups in the two regions is the valuation recorded in the initial public offerings (IPOs), which is the stage where startups make their first public offer. Since 2016, the United States has recorded 71 successful IPOs with valuations of more than \$1 billion, compared to only 21 in Europe.

Regulatory fragmentation is another major factor in this context, as startups need to deal with a highly heterogeneous regulatory landscape, including over 100 different VAT rates as well as varying product standards in EU member states. In this context, it is mentioned that some startups even spend up to 7% of their total turnover in dealing with these costs related to regulatory fragmentation. This is particularly critical in terms of market access as well as the successful implementation of scaling-up strategies.

Furthermore, talent acquisition is another major factor that is considered critical in this context. According to the European Startup Survey (2024), 62% of startups consider talent acquisition as a major challenge. The high levels of competition in acquiring highly skilled resources in

fields such as technology, artificial intelligence, and cybersecurity have created a highly critical phenomenon of ‘brain drain,’ particularly in favor of the United States as well as Asia. Additionally, the low levels of intra-EU labor migration also need to be considered in this context.

Within Europe itself, there are a limited number of venture capital firms that have the capacity to support large-scale growth stages; in addition, later-stage funding is considered to be underdeveloped compared to what is available in the United States. Though investments in later stages contribute to 81% of total venture capital funding in the U.S., this figure is less in the case of the EU, which stands at 74%, showing a basic flaw in supporting businesses in later stages.

As a result of the lack of funding in Europe, a significant percentage of investment in European scale-ups is being funded by investors from outside Europe itself. While this is a positive factor in terms of ensuring scale-up growth in Europe, there are nevertheless certain potential downsides associated with this trend.

As a result of these problems and challenges associated with venture capital in Europe, there has been a proposal put forward regarding the creation of large-scale investment funds at the EU level in support of high-growth technology-driven firms. However, in view of the already significant role played by public institutions in the European venture capital market, the emergence of these large venture capital funds raises issues in terms of their efficiency, distortion, and long-term effects.

In terms of scale-up financing, the existence of a well-founded and substantiated justification for policy intervention is still limited. Nevertheless, even if the initial equity gap hurdle is overcome, the existence of market imperfections can still be seen. These issues can be seen in emerging industries, where the novelty of the investment opportunities and the lack of

familiarity with the new business models can affect the capacity of investors to evaluate the potential of the investment, which can lead to the risk of adverse selection. In terms of this, the coordination failure between early-stage and later-stage investors can add to the scale-up gap.

One of the significant implications of the inability of European venture capital investors to adequately finance scale-up phases of the business life cycle is the rising trend of dominance by foreign investors in large-scale and later-stage funding rounds of European start-ups and scale-ups. According to data from PitchBook, the total value of European deals with the involvement of US investors has seen a significant increase from 2011 to 2020. The total value reached as high as €23.0 billion in 2020. Out of the 24 venture capital investors who participated in the investment in EU-headquartered unicorns from 2011 to 2020, only eight were from the European Union. This might also be a reflection of the valuation gap, where start-ups in Europe are typically valued lower than those in the US and therefore might be more attractive to US-based investors. However, the situation might also be a threat to European start-ups, as the involvement of foreign investors usually leads to acquisitions by non-European companies.

Although there is limited research about the wider implications of these kinds of acquisition, it is recognized that the acquired company will be able to take advantage of access to further financial, managerial, and strategic resources that the acquiring company can provide. On the other hand, it is possible that the acquisition will have negative implications, such as the consolidation or relocation of functions that have an overlap with those of the acquiring company. Whatever the outcome, it is possible that high-growth companies will be removed from the European ecosystem. This is highlighted by some participants' concerns that Europe will become an incubator for unicorns that are owned elsewhere (Murtada 2025).

4.3 Causes on the Supplier side

VC capital funds: The European venture capital market is seen as younger and less developed compared to the US market. The size of European VC funds is seen as smaller on average compared to their US counterparts. This is mainly due to the fact that the size of venture capital funds increases as the number of fundraising cycles increases, and these cycles are less developed in Europe compared to the US market. Fundraising is seen as more challenging in the European market compared to the US market, especially for institutional investors such as pension funds. These types of investors are seen as less comfortable investing in the venture capital asset class compared to their US counterparts. This can be explained by the relatively lower returns earned in venture capital investments in Europe compared to other regions. These lower returns are seen as contributing to smaller fund sizes, limited operational and entrepreneurial experience among limited partners, as well as a lower risk appetite.

Public policy in Europe is still largely fragmented at the national level, with countries investing heavily in the development of their own national venture capital markets. This has led to the fragmented structure of the venture capital industry in Europe, consisting of a large number of relatively small funds in the different countries of the EU. While the measures taken at the EU level have certainly led to the gradual professionalisation of the venture capital industry over the last decade, they have so far been insufficient to allow the emergence of large, well-capitalised funds like those seen in the US.

VC investors: In general, venture capital investors tend to operate in an environment with high levels of uncertainty, especially when scale-ups are considered, as these involve high levels of risk and require long-term capital commitment. Typically, venture capital funds are set up as closed-end funds with a definite lifespan, normally 10 years, within which general partners are required to identify investments, invest, support, and exit these investments. However, within this framework, the investment period is normally shorter, normally 5-7 years. This places an

inherent need to exit investments within a particular timeframe, which might also influence investors to prefer business models without extended periods of research and development, such as those required in biotechnology and, more recently, deep-tech.

Although there is little empirical evidence of the inherently lower patience levels of European venture capital investors in comparison to those in the US, there is some evidence of the inherently higher risk-taking propensities of VCs in the US. In addition, there has been some concern voiced regarding the inherently lower screening and mentoring abilities of venture capital firms in the EU. This could have a significant impact on the accurate identification and mentoring of high-potential business ventures, which might help explain the fewer large-scale growth stages achieved by EU-based firms in comparison (Quas, 2022).

4.4 Causes on the demand side

A further constraint in the VC markets is the percentage of businesses seeking finance that are actually selected by the investors, which has been estimated to be around 1-2%. Research undertaken on the process of decision-making in the VC markets has identified the screening parameters to be the size and growth prospects of the market, the nature of the products or services being offered, the returns expected, and the perceived risks associated with the business. There has been a lack of empirical research undertaken to compare the success rate of businesses seeking VC finance in Europe and other economic regions. Nonetheless, some themes have been established in the literature and discussions as factors on the demand side that could act as constraints on accessing finance for scaling up in the context of the European Union. Firstly, differences in entrepreneurial culture have been seen as an important factor. Unlike their counterparts in the US, entrepreneurs in Europe have been seen as less risk-tolerant and less willing to let go of their businesses. Secondly, the financial literacy and managerial skills of entrepreneurs have been seen as an important factor in accessing finance. New

innovative start-ups could be less knowledgeable about the options available for financing their businesses or could be avoiding accessing finance due to their implications.

Lastly, the concept of investor readiness represents a further significant factor in the funding process. Indeed, start-ups with high potential might be deemed unworthy of investment on the basis of a lack of 'investment readiness' in the context of the quality of the presentation, the availability and transparency of financial information, and the understanding of the terminology and frameworks used in the context of venture capital. (Quas, 2022)

It is crucial to mention that not many firms look for external sources of funds. It has been found that most technology entrepreneurs (60%) refrain from using external funds since they believe it to be unnecessary. Moreover, some are dissuaded from doing so owing to the risks involved in receiving rejections or unfavorable financing terms or losing control over their enterprise. Moreover, it can be seen that those entrepreneurs who have a higher educational background are more inclined towards external funds. Likewise, start-up founders who anticipate a better future for themselves and their company, along with having extensive experience in the industry, are more willing to explore external sources (Quas, 2022).

4.5 Consequence

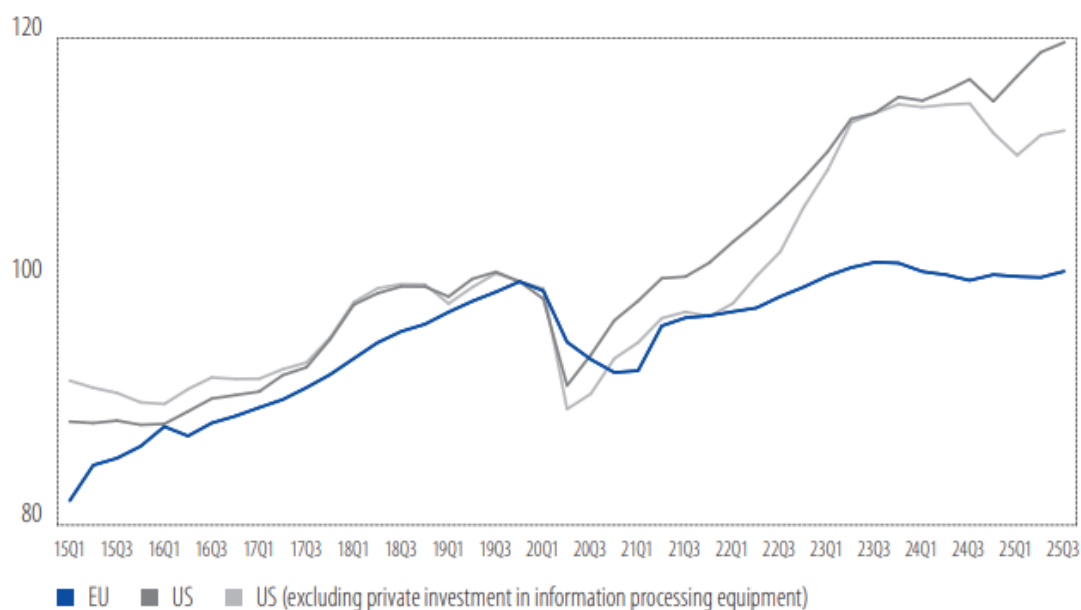
This lack of late-stage investments in Europe is having severe negative consequences in the overall potential for economic growth of successful entrepreneurial businesses. Without the necessary investments, start-ups in Europe will not be able to grow to the required scale in order to compete with the rest of the world. In the end, the potential economic benefits that these businesses could bring will be lost. Where the businesses end up moving elsewhere, the economic benefits will be realized in the new countries, which will be equivalent to economic value transfer away from the European Union.

Additionally, the scale-up gap not only leads to the loss of jobs but also contributes to the loss of human capital. This is because the skills and experience acquired in the start-ups, especially in emerging and high technology industries, will either be lost for the EU economy or diverted to another economy if the EU does not have adequate opportunities for growth. This underlines the need for an entrepreneurial ecosystem that has the capability of reallocation.

Apart from these economic impacts, there are also potential strategic implications for the European Union as a whole. Indeed, as mentioned above, leaders in new high-tech sectors are often those that determine world standards, and failing to support or maintain these firms within Europe may mean that these standards are set elsewhere. This may have negative implications for the EU's strategic autonomy, for example, in areas such as digital technologies, where there may be implications for data governance, and in green technologies, where there may be implications for the development and worldwide positioning of initiatives such as the European Green Deal.

As can be seen from the following figure, the level of investment in Europe has decreased dramatically after the COVID-19 period. Although the levels of investment in Europe increased somewhat after the COVID-19 period, they have not increased significantly and have remained stagnant. On the contrary, the levels of investment in the United States have continued to increase significantly. This indicates the general weakening of the dynamics of investment in Europe. This situation causes concerns about the willingness and ability of firms to invest in more risky investment activities. When the general level of investment remains low and stagnant, it becomes difficult to expect the levels of investment in more risky areas such as venture capital and scale-up financing to improve. These trends clearly indicate that Europe faces the challenge of improving the levels of investment in the region urgently in order not to lag further behind in the world and not to lose the opportunity to invest in new areas (Quas, 2022).

Figura 3 Real corporate investment (index, 2019Q4=100)



Source: EIB staff calculations based on Eurostat and Federal Reserve economic data (FRED).

Note: EU data exclude Ireland. All figures were adjusted using the implicit price index for gross fixed capital formation for the European Union and the United States. The most recent data for the United States were for the second quarter of 2025, and for the European Union, the first quarter of 2025. Private investment in information processing equipment was adjusted using the specific price index for that kind of investment. Quarterly data are presented as four-quarter moving averages.

Source: European Investment Bank (2026) pp 2

4.6 Solutions

Governmental venture capital (GVC) programs can be seen as one type of direct support; however, their effectiveness is questionable in terms of their limited or even negative contribution to the performance of the supported firms. The underperformance of the supported firms is often explained by the inefficient allocation of capital, which might be the result of political pressures and non-market-based decision-making mechanisms. At the same time, it is worth noting that GVC programs might have some positive effects in terms of their contribution to the mobilization of additional private venture capital investments. This is particularly

relevant in the case of firms experiencing the scale-up gap or strategically important industries/regions where the lack of finance might be an issue.

The solution could involve the **private investors**. The role of private investors is vital in supporting the financing requirements of scale-up firms, especially in consideration of public budgetary limitations and the risk of crowding out private sector investment. Public sector finance is found to be inadequate in supporting the significant capital requirements of high-growth firms. Thus, policy initiatives are required to be geared towards maximising private sector participation. In this regard, there is a significant role for the public sector as anchor investors, which can add credence to venture capital funds and hence increase the likelihood of attracting additional resources from private sector limited partners. However, the success of this model depends on the selection of public funding for venture capital general partners. Additionally, governments should take a long-term investment approach. This involves reducing the returns required in the short term and the need for long holding periods. The long holding periods are more consistent with the growth profile of scale-up companies. Finally, the issue of the continued perception challenge of European venture capital for institutional investors should be addressed. This may be done by improving the level of transparency and information available in terms of performance and development (Quas, 2022).

Currently, there are three specific domains of activity which are significant concerning the issue of scale-up financing gap. Firstly, there is the European Innovation Council (EIC) with its provision of patient capital via equity and quasi-equity investments up to €15 million to early-stage innovative firms, especially those which are engaged in emerging technologies. Secondly, within the framework of Invest EU Programme, the EU invests in growth-stage companies through the involvement of financial intermediaries, such as debt financiers (by means of guarantee) and venture capital firms (acting as limited partners). Thirdly, the initiative European Scale-up Action for Risk Capital (ESCALAR) seeks to attract private investors to the financing

of scale-ups through providing attractive investment terms. In order to improve these instruments, several additional actions can be suggested. It concerns the reduction of red tape linked with applying for EU grants; cooperation with the EU member states aimed at overcoming national obstacles in funding scale-up ventures; monitoring of supported projects in order to prevent their relocation to other countries and, therefore, using EU resources for promoting external economic development (Quas, 2022).

European Innovation Council They search SME and start up with high potential for the market growth and high potential with scale up. The innovation building on scientific discovery or deep tech. The SME or start up need to be high risk where the private investors wouldn't like to enter into the start up, and they need significant investment. Who is looking for investment, they can submit the application any time. After that they get support for the business. That means they get coach and they can improve the initial idea. If the new start ups fall, they can resubmit one time their idea, but they need to improve the company and the business idea. The program encourages the risk taking attitude and the radical ideas, what have already in the USA. The start ups and SME get reflection what they do good in their application or what they do in the wrong way. The program enhances the transparency. How is look the pitch? There are 4 steps.

1. Tell your story and submit your application. Your business has high potential growth.
2. During the program get coach who help improve the business plan and with the AI tools.
3. The evaluator accepts or declines your submission
4. You can pitch your ideas in front of the judges, and if you get the permission, you sign the contract (Eginard, 2021).

Breaking down the fragmented nature of the European Union was noted as being one of the most basic policy needs. Interaction between ecosystems is important in order for entrepreneurs to have access to resources that are not available in their own ecosystem, a matter which holds special importance for smaller ecosystems. Therefore, policy makers need to focus on making sure that there is increased interaction between ecosystems in different countries. Simplifying regulations, taxation laws, stock options, administration, and EU funding programs is important in ensuring that scale-up financing is possible for start-ups in the EU region. At the moment, the allocation of funds in the European venture capital market has a highly uneven nature. The majority of investments made by venture capital firms tend to concentrate on Germany, France, the Benelux region, and the Nordic countries, where the lion's share of the investment volume is pumped into their capital cities. As a consequence of this uneven geographic distribution of investments, especially during later stages of financing, the allocation of unicorn companies becomes unbalanced both within countries and between them, and this process takes place mainly in certain locations, such as Paris, Berlin, Stockholm, and Amsterdam. In order to equalize the situation, EU-level programs for financial support must be launched in collaboration with national authorities, which will contribute to the creation of an effective ecosystem for financing scale-ups (Quas, 2022).

Mobility of talent is an integral component of business growth because the availability of a quality workforce is considered as vital as the availability of capital. This problem becomes more relevant for firms functioning in a small ecosystem where the limited availability of talent could compel businesses to move or invest elsewhere, which would negatively impact the local economy. Policy interventions are required to enhance the availability of talent, especially in technological sectors.

It may include both interventions in schooling, higher education and further learning, as well as incentive to encourage in-house training programs in businesses, that could help reduce the

risks caused by labor mobility between firms. Furthermore, it is crucial for businesses to have mechanisms that will allow them to attract global talent to Europe more easily and quickly. From international experience, it is clear that attracting foreign talent is possible due to certain policies, for example, reducing costs of living for foreigners, like housing incentives offered by certain innovation centers (Quas, 2022).

In addition to promoting increased risk capital supply in terms of the availability of funding, European Union governments ought to promote increased demand for funding through improved quality of their entrepreneurship ecosystems. This includes building an entrepreneurial culture within Europe, improving financial literacy, introducing mentoring programmes and investment readiness initiatives, and ensuring that the firms to be scaled have access to build human and social capital via international hiring and cross-border cooperation. Furthermore, it was suggested that the achievements of successful entrepreneurs in the European Union should receive greater publicity, as successful European entrepreneurs could be used as examples for other entrepreneurs to follow (Quas, 2022).

Government should also use procurement to strategically create market demand for scale-up financing, especially those dealing with climate change-oriented deep tech products. Just as NASA and DARPA have successfully used procurement to drive innovation in the United States, government procurement can play a similar function. The challenge lies in making sure that the design of the procurement process makes it easier for innovative companies tackling society's issues to participate. Size and speed will be major determinants in the success of the procurement initiative (Quas, 2022).

Ultimately, growing demand for investments in scaling businesses needs to be matched by building an investment pipeline. It becomes important to have enough funding sources available early on to supply a continuous stream of promising investments to scale-up investors. This is

particularly important for industries like deep-tech, where long lead times imply that companies will take longer to become investable and make profits (Quas, 2022).

Despite being around for a while, the idea of the 28th regime gained traction from Enrico Letta's report in 2024 as an important element in improving the performance of the Single Market and tackling barriers. The International Monetary Fund suggests that ongoing barriers within the EU Single Market are estimated to have a tariff effect of 110% on services. As of now, the 28th regime is not clearly defined, although it is perceived as an optional framework that will regulate all aspects of firms' operations including organization, conduct of business, and disputes. The European Commission considers the 28th regime as a core aspect of its competitiveness strategy with special attention being paid to closing the innovation gap. This issue will be tackled through legislation due in Q1 2026. In addition, a start-up and scale-up strategy to be released in 2025 will include this regime, but will focus on younger innovative firms hence narrowing down its scope. At the moment, the European Parliament is involved in preliminary activities associated with the introduction of the 28th regime. Despite the unchanging goal of decreasing legal fragmentation within the EU, the content and architecture of the 28th regime has undergone different interpretations following the issuance of the report written by Enrico Letta. The Commission has incorporated the proposal into its plans to deepen the single market, as evidenced by the Commission's work program for 2026, which foresees the introduction of a 28th regime that applies to enterprises working in the EU region. The draft regulation expected in the first quarter of 2026 will target innovative enterprises within the context of a "28th Regime for Innovative Companies." It should be noted that the Commission has also recognized the development of the 28th regime as one of the key priorities for increasing EU competitiveness. As mentioned earlier, the January 2025 Competitiveness Compass, based on the findings of the report written by Mario Draghi, identifies three main goals: narrowing the innovation gap, promoting decarbonization, and minimizing foreign

dependencies. In this regard, the 28th regime is considered a part of the first goal—narrowing the innovation gap—which seeks to improve innovation through a number of initiatives.

The regime No.28 has been presented as an important and unique policy initiative dedicated to encouraging small young and innovational companies. The competitiveness compass defines the goal of the 28th regime as developing a single and consistent regulatory system, allowing firms to work without having to obey different national regulations. It is further explained in the start-up and scale-up strategy of 28 May 2025. In accordance with that document, the 28th regime is defined as a single regulatory approach to companies which puts less stress on harmonization of regulations. The development of a digital corporate entity will be promoted with a view to simplifying regulations and reducing costs related to the insolvency, labour and taxes among others. Moreover, it is suggested that the rapid incorporation of companies in the EU, even within 48 hours, may be facilitated under the regime No.28. Nonetheless, many questions still arise concerning what specific part of the regulatory framework would be included in the regime No.28 and which companies would be entitled to use it. The scope of EU competences is expected to be the main factor determining those points, especially considering existing documents such as Council Regulation 2157/2001 on the statute for a European company (Évroux 2025).

4.7 Which European Countries Are the Most Innovative?

Among several other European states, an analysis of best practices in terms of developed entrepreneurial ecosystems would inevitably point to one of the most prominent regions – Nordics. The notion itself is rather fluid and constantly evolving depending on the situation in question. In this chapter, the theoretical focus is on the Nordic entrepreneurial ecosystem,

namely Denmark, Finland, and Sweden. Those states are known to score highly in entrepreneurship-oriented indices, which makes them particularly relevant for consideration.

Besides having high performance indicators, Sweden and Finland in particular have proved to be leaders among the Nordics in terms of the amount of venture capital investments and attracting foreign investors. However, the development of the entrepreneurial ecosystem in the region is not only based on money. The primary factor that stimulates innovation and integration in Nordics is undoubtedly interdependence and cooperation between countries, which is reflected through various aspects of business and life. Among the most recent examples, one should name collaborative projects dealing with digital governance and initiatives that seek to integrate states from both political and economic perspectives in order to increase innovativeness and sustainability (Steigertahl 2021).

Moreover, by examining neighboring and related ecosystems in the Nordic region, this chapter seeks to shed light on the gaps in empirical studies regarding transnational entrepreneurial ecosystems and multilevel dynamics. The Nordics offer a good context for such studies since the countries exhibit a relatively high level of economic, institutional, and social integration.

On the societal level, Denmark, Finland, and Sweden have consistently ranked top in various global indexes assessing quality of life and social progress in countries. Quality of life and social progress generally take into consideration living standards, social conditions, and opportunities provided to people, which are crucial in building a supportive entrepreneurial ecosystem. Also, similar achievements can be noted when looking at global indexes of digital, human, and talent competitiveness, reflecting not only a high level of innovation but also the ability to attract talented individuals (Steigertahl 2021).

Another common denominator that can be seen in all these different rankings is the significant attention paid to human aspects – including the human dimension, welfare, capabilities, and

opportunities. Although this perspective may not be considered very common, being viewed rather as a part of an entrepreneurial ecosystem that has not been extensively studied in academia yet, it definitely seems to play a considerable role when it comes to the sustainability and performance of innovative regions. In general, both the scientific literature and various international rankings point out that the Nordic countries represent excellent innovation and entrepreneurial models. For instance, Sweden has recently received wide recognition for its high number of unicorns startups whose valuations exceed one billion USD. Among the most famous Swedish companies in this category, there are some world-known digital service and communication technologies companies such as Spotify or Northvolt. Moreover, numerous rankings, focusing on such aspects of entrepreneurship as innovative capacity, attitudes towards entrepreneurship, capabilities, and aspirations, put Denmark, Sweden, and Finland on top (Steigertahl 2021).

In addition to the aforementioned social factors, there are numerous other factors associated with the external environment of business that are crucial for the development and performance of entrepreneurial ecosystems. For example, access to financing is one of the main factors that determine whether an entrepreneurial ecosystem will be successful or not. In relation to the case study of Nordic entrepreneurial ecosystem, it should be noted that even well-skilled and creative entrepreneurs cannot implement their ideas if they lack sufficient financial resources in spite of a favorable social environment (Steigertahl 2021).

As far as the funding of ventures is concerned, in the Nordic ecosystem, sources of funds come from both the public and private sector, providing a good balance for entrepreneurs who wish to establish themselves in the business environment. Nevertheless, while funding may be considered an important component, there are other factors that need to be taken into consideration when discussing the strong entrepreneurship ecosystem of the Nordic region,

specifically high quality entrepreneurial education and good institutions, which ensure proper knowledge and skill acquisition by potential entrepreneurs (Steigertahl 2021).

Moreover, universities and other educational establishments located within the Nordic region play an important role in the process of development in the region, not only providing education services but also being significant players in the overall entrepreneurial ecosystem. Many universities tend to be relatively inexpensive compared to private institutions and they are known for providing good entrepreneurial educational opportunities, thus attracting many international students. Moreover, universities not only provide education but also offer knowledge and expertise, working together with government in developing relevant programs and policies to help develop entrepreneurial ventures in the country.

In addition, considering other European countries, favorable access to finance in the Nordic states turns out to be one of the main pull-factors attracting foreign talent to these areas. Moreover, the favorable access to funding helps to encourage foreign entrepreneurs to start a venture in the Nordic countries. Thus, this factor is included in the methodology used in ranking countries by various indexes, and this greatly influences the country's position in these indexes. According to the experts' opinion, financial capital is the main factor helping to determine whether or not a technology venture emerges in a certain place (Steigertahl 2021).

In Phase I, the ecosystem welcomes new entrants. Here, individuals entering the ecosystem are provided with diverse entry points such as welcoming programs by the government, networking events, and business incubators. In general, this phase aims to foster a favorable environment that would encourage both domestic and foreign entrepreneurship to launch and expand their businesses. It is important to note that the Nordic nations have many entry points in the form of regional and supranational systems. Therefore, entrepreneurs would not face many barriers when entering the ecosystem. After the introduction phase, entrepreneurs progress to the growth

phase in order to develop their skills. This phase involves access to individual mentoring as well as peer learning through networks. Usually, mentors provide coaching to the entrepreneurs; however, other active community members could help in the process of knowledge exchange and learning. It is evident that the growth phase relies heavily on the development stage and characteristics of the individual. For example, while some entrepreneurs would benefit from mentoring, others would find peer learning more beneficial in terms of experience sharing. Thus, this phase remains very dynamic, and entrepreneurs need to identify approaches and practices that would work best for their particular situation (Steigertahl 2021).

Additional challenges and needs faced by the entrepreneur throughout the transformation process will be further considered in Phase III, which is focused on the actual implementation of a business idea. At this stage, an entrepreneur works more intensively with the outside business environment and uses his/her knowledge in a practical way. In the case of Nordic countries, it should be mentioned that a very high level of diversity among different organizations and partners allows an entrepreneur to find everything necessary for him/her. Consequently, all theoretical issues covered in previous phases are very effectively supplemented with various practical opportunities for business development and cooperation (Steigertahl 2021).

Thus, an entrepreneur searching for financial resources can rely not only on public funding but also on private investment sources, including business angels, corporative investors, and venture capitalists. Simultaneously, an entrepreneur working on self-development and education can choose from numerous options, ranging from official education at universities or business schools to less formal training and workshops. It can be seen that in the case of the entrepreneurial phase described above, an entrepreneur gets an excellent opportunity to combine business implementation with education (Steigertahl 2021).

In addition to the process of talent transformation, it should be noted that both cultural specifics and government interventions also have an important role in creating a successful entrepreneurial ecosystem in the region. The first distinguishing factor about the Nordics' entrepreneurial culture is the high levels of trust and accessibility of entrepreneurship communities in the country, thus forming a favorable environment where one can develop his/her capabilities. Such culture encourages networking and the sharing of knowledge, which is vital for successful entrepreneurship development. Another important contributing factor in the Nordics' case is the massive government intervention through investment into entrepreneurship education and the presence of well-developed universities, resulting in a highly skilled domestic workforce that does not depend on hiring immigrants and ensures the acquisition of necessary skills both for doing business and developing new technologies. Therefore, it is safe to conclude that the education system in the Nordics has been developed in correspondence with the needs of an innovation-based economy and supported by various sources of finance (Steigertahl 2021).

Based on the above observations, certain recommendations can be made regarding ways to promote entrepreneurial ecosystems. In particular, when developing various policies and programs meant to assist entrepreneurs, it would be wise to test them beforehand to make sure that they really respond to the needs of people working in the business sphere. For example, it would be useful to involve entrepreneurs in the process of designing relevant solutions. At the same time, it is crucial to collaborate with existing entrepreneurship universities to make sure that such policies and programs stay relevant and practical. It is highly recommended to try out the new approaches using a smaller number of entrepreneurs volunteering for the task (Steigertahl 2021).

These kinds of approach will not only help improve the effectiveness of policies, but also foster the image of the government organizations as being transparent and supportive players in the

entrepreneurial ecosystem. There is no doubt that governments may have some roles to play in making connections among the ecosystem members; for example, they might organize various physical events and create digital channels of communication. But, on the other hand, there should not be too much control of the process of development of the entrepreneurial ecosystem. Though, it is necessary to mention that governments are capable of providing frameworks for certain processes, such as the development of talents, but at the same time it should be flexible enough to provide individual ways for entrepreneurs. The second issue is connected to the Nordics' model of collaboration with several countries that can provide many interesting lessons to other geographical regions. Cross-border innovation projects could serve as an efficient tool for promoting knowledge transfer, resource allocation, and access to larger markets. These innovations could be organized either on a regional level or sectoral one (Steigertahl 2021).

Taxation and labor policies further form important regulatory aspects that impact entrepreneurial performance. Specifically, tax policies that make it easier for startups to attract foreign talent and labor will enhance the probability of success in innovation. For example, tax breaks to attract venture capitalists interested in funding early-stage businesses may result in the attraction of both local and international capital. Similarly, streamlining the process of incorporating stocks to reward employees may be an important factor that enables startups to attract and retain skilled personnel. Such an approach is vital because it enables businesses to offer other non-financial remuneration options to their workers in view of their inability to match the wage levels of big corporations. In conclusion, the combined effect of positive cultural values, government support policies, quality education, and regulatory approaches makes the business environment in the Nordic region one that is conducive for fostering entrepreneurship (Steigertahl 2021).

In order to discuss the most promising locations for startups, it is necessary to mention Estonia. It is among the most innovative nations in Europe due to its very high startup rate; moreover, a large number of them have already become unicorns. Despite the fact that Estonia's population consists of only 1.3 million people, and it is a small Baltic nation, the information presented above proves that Estonia has created an effective startup ecosystem (Steigertahl 2021).

Estonia is an interesting example that can be used in the discussion of FinTech firms. Several features can make it especially relevant for the research of the industry. For instance, the development of technologies in the banking system in the 1990s and the creation of an advanced economy based on digital solutions can play a significant role. The government also supported this process through the implementation of various projects related to the use of ICT in public administration (the concept of e-governance). As a consequence, the country has become a center of innovation where all spheres of life have been significantly transformed through the use of digital solutions (Steigertahl 2021).

Another important factor that should be discussed is the contribution of the ICT sector to the national economy. In particular, it is worth saying that this sphere plays a significant role in the formation of the country's gross domestic product. Moreover, the country has one of the highest densities of startups per capita among European nations. The emergence of several high-growth ventures (so-called unicorns) can also be considered an important indicator. In fact, the FinTech sphere takes quite a significant place within the existing ecosystem, with many companies being involved in this area. Some of those companies have received recognition on the international level, proving the competitive nature of Estonia in financial and technological sectors. All the advantages mentioned above provide a good basis for sustainable development of FinTech initiatives. Nonetheless, there are still some institutional and social aspects that need to be improved within the existing Estonian business ecosystem. For instance, the system of industrial relations, as well as collective bargaining and social dialogue, are considerably

underdeveloped compared to other EU member states. One can note the same situation regarding the sector of finance, which includes both traditional banks and FinTech companies. As a result, the perception of trade unions and collective bargaining is rather negative, or, in many instances, non-existing (Steigertahl 2021).

On the other hand, there is room for growth in this context. The growing recognition of the advantages of social dialogue and collective bargaining can help achieve balance and inclusiveness in the entrepreneurial ecosystem. Improvements in these institutional elements can increase the sustainability of the process without compromising the competitive edge that Estonia currently holds in FinTech innovations (Masso 2022).

The Estonian startup environment showcases impressive results despite the size of the nation. Over 1,500 startups are registered within the startup ecosystem, while their joint market capitalization amounts to roughly €36.3 billion as of 2023, positioning the nation among the most prosperous in the Central and Eastern European region. Its contribution to the national economy keeps growing, as evidenced by the fact that the turnover of the sector exceeded €400 million, while the revenue of the government from employment taxes reached almost €63 million as of the first quarter of 2025. In addition, the number of people employed in the sector has amounted to approximately 19,700 workers. Estonia regularly takes top spots in the global indexes of startup development despite having a small population. One reason why the country attracts startups is its quick, efficient, and predictable business environment (Kiorri 2026).

The Estonian digital revolution is a phenomenon that is the product of an evolutionary developmental process, rather than being a revolutionary event. The origins of Estonia's current strengths lie before the era of independence, wherein the country had a high degree of expertise in cybernetics and digital technology. This was further enhanced due to the close geographical and economic ties that Estonia shared with neighboring nations in Northern Europe, especially

during the time when rapid progress in telecommunications took place. Since gaining its independence in the early part of the 1990s, political leaders made the deliberate choice of specializing in digital technologies (Kiorri 2026).

Due to such a strategic approach, Estonia has become home to an extremely sophisticated digital government infrastructure. Currently, almost all public services can be performed using digital means of communication based on a reliable digital identity infrastructure of the country and a policy called “once only,” whereby citizens do not have to repeat the submission of the same information when contacting various organizations. A crucial element of such a system is the existence of a decentralized data exchange platform that facilitates safe sharing of information between organizations while maintaining no central data repositories (Kiorri 2026).

Estonia’s innovation that has received considerable international recognition is its e-Residency scheme. Launched in 2014, the program enables individuals who are not residing in the country to acquire their digital IDs and form companies in the EU region. The scheme has played an instrumental role in encouraging entrepreneurship because thousands of companies have been formed by e-residents, and many of them have been associated with this scheme. Moreover, the program has enhanced the global presence of Estonia and provided significant financial gains while offering entrepreneurs from other countries entry into the EU single market without moving there physically (Kiorri 2026).

Another aspect of Estonia’s entrepreneurship support is the corporate tax system that only taxes profits when distributed instead of when the money is reinvested in the firm. This approach encourages the development of businesses in the long run and is especially beneficial for small firms looking to grow. Alongside this process, digitalization has reduced the paperwork considerably, thus making Estonia a favorable place for entrepreneurs from abroad. In spite of the powerful brand image of Estonia as an integrated country based on digitalization and

entrepreneurship, it is crucial to separate the two relatively independent processes. Firstly, the digital government structure delivers efficient public service delivery, security of personal data identification, and sophisticated administrative capacities. Secondly, the fast development of the startup industry has occurred mainly due to market mechanisms. The early cases of success, in particular, the birth and final acquisition of Skype, have played a key role in forming the conditions for the development of entrepreneurs who accumulated capital, gained experience, and built connections across the world. These pioneers have been instrumental in forming new generations of startups, thus continuing the process in which earlier achievements lead to further innovations and entrepreneurship (Kiorri 2026).

It should be noted that the main players within the Estonian startup environment do not rely on governmental databases during their principal work, thus showing that the digital government system and the private sector's startup industry are relatively independent but highly efficient parts of the country's innovation system (Kiorri 2026).

5 Comparison of Start-Up Listing Requirements on NASDAQ and Euronext

In the coming chapter, my intention is to compare Euronext and Nasdaq by looking into what it entails when a start-up or a firm makes up its mind to join the public market. This chapter will serve to shed light on some of the major differences that exist between Euronext and Nasdaq, especially focusing on the growth-driven firms that seek to go for an initial public offering (IPO). Some of the key questions that will be answered include the following: Are there any significant structural and strategic differences between Euronext and Nasdaq? I chose these exchanges because the Nasdaq is undeniably a leading stock exchange platform in the United States and around the world. As for Euronext, it is the largest in Europe in terms of trading volume and activity. I have compiled the potential costs and capital requirements associated with entry into the Nasdaq and Euronext markets in tabular form. These tables provide a clear and structured presentation of the various listing criteria, based on the information obtained from official Nasdaq and Euronext documentation.

5.1 Nasdaq

Nasdaq, Inc. is an international technology corporation that supports capital markets as well as several other industries. By virtue of its products in the domains of information, analysis, software, and finance, it assists organizations in executing their business plans efficiently and confidently. Over 4,000 businesses are listed on Nasdaq Stock Market's stock exchanges located in the United States, Nordic countries, and Baltic nations, belonging to various sectors including retail, healthcare, banking, and technology. Nasdaq has emerged as the listing choice for some of the fastest-growing firms in the world, especially those in the technology industry, in the United States

Table 2 Financial Requirements:

Financial Requirements	Standard 1: Earnings	Standard 2: Capitalization with Cash Flow	Standard 3: Capitalization and Revenue	Standard 4: Assets with Equity
Pre-Tax Earnings (income from continuing operations before income taxes)	Aggregate in prior three fiscal years > \$11 million and Each of the prior three fiscal years > \$0 and Each of the two most recent fiscal years > \$2.2 million	---	---	---
Cash Flows	---	Aggregate in prior three fiscal years > \$27.5 million and Each of the prior three fiscal years > \$0	---	---

Market Capitalization	---	Average > \$550 million over prior 12 months	Average > \$850 million over prior 12 months	\$160 million
Revenue	---	Previous fiscal year > \$110 million	Previous fiscal year > \$90 million	---
Total Assets	---	---	---	\$80 million
Stockholders' Equity	---	---	---	\$55 million
Bid Price	\$4	\$4	\$4	\$4

Source: Nasdaq (2026) own table

Table 3 Liquidity Requirements

Liquidity Requirements	Initial Public Offerings and Spin-Off Companies	Direct Listing with a Capital Raise or Seasoned Companies: Currently Trading Common Stock or Equivalents	Direct Listing	Affiliated Companies
Unrestricted Round Lot Shareholders** or Total Shareholders or Total Shareholders and Average Monthly Trading Volume over Past Twelve Months	450 or 2,200	450 or 2,200 or 550 and 1.1 million	450 or 2,200 or 550 and 1.1 million	450 or 2,200 or 550 and 1.1 million

Unrestricted Publicly Held Shares	1,250,000	1,250,000	1,250,000	1,250,000
Market Value of Unrestricted Publicly Held Shares or Market Value of Unrestricted Publicly Held Shares and Stockholders' Equity	\$45 million	\$110 million or \$100 million and \$110 million	\$110 million or \$100 million and \$110 million	\$45 million
Valuation by an Independent Third-Party***	---	---	\$250 million Market Value of Publicly Held Shares	---

Source: Nasdaq (2026) own table

Table 4 Financial and Liquidity Requirements

Requirements	Income Standard	Equity Standard	Market Value Standard	Total Assets/ Total Revenue Standard
--------------	--------------------	-----------------	--------------------------	--

Income from Continuing Operations before Income Taxes (in latest fiscal year or in two of last three fiscal years)	\$1 million	---	---	---
Stockholders' Equity	\$15 million	\$30 million	---	---
Market Value of Listed Securities	---	---	\$75 million	---
Total Assets and Total Revenue (in latest fiscal year or in two of last three fiscal years)	---	---	---	\$75 million and \$75 million
Unrestricted Publicly Held Shares	1.1 million	1.1 million	1.1 million	1.1 million

Market Value of Unrestricted Publicly Held Shares**	\$15 million	\$18 million	\$20 million	\$20 million
Bid Price	\$4	\$4	\$4	\$4
Unrestricted Round LotShareholders	400	400	400	400
Market Makers	3	3	4	4
Operating History	---	2 years	---	---

Source: Nasdaq (2026) own table

Table 5 Alternative Listing Requirements for SPACs

Requirements	Standard
Market Value of Listed Securities	\$100 million
Publicly Held Shares	1.1 million
Market Value of Publicly Held Shares	\$80 million
Bid Price	\$4

Shareholders	300 Round Lot Holders; or at least 2,200 total stockholders and average monthly trading volume of 100,000 shares (for most recent 6 months); or at least 500 total stockholders and average monthly trading volume of 1,000,000 shares (for most recent 12 months).
Units, if any	The components of the units must satisfy the initial listing requirements for the Nasdaq Global Market applicable to the component.
Warrants, if any	At least 1,000,000 warrants outstanding; At least \$4 million aggregate market value; Warrants should have a minimum life of one year; and Warrants may not contain a voluntary exercise price adjustment provision, unless certain requirements are met

Source: Nasdaq (2026) own table

For companies wishing to go public through the Nasdaq market, there are different entry fees that depend on the market tier and the type of firm. If a firm is going to list its stock in either the Nasdaq Global Select Market or the Nasdaq Global Market, the entry fee will be \$325,000, and it will include a \$25,000 application fee. On the other hand, for companies whose listing will be in the Nasdaq Capital Market, their entry fees will depend on the total number of outstanding shares. In such cases, if there are no more than 15 million outstanding shares, then

the entry fee will be \$50,000 and will include an application fee of \$5,000. However, if there are more than 15 million outstanding shares, then the entry fee will be \$75,000 and will still include the application fee of \$5,000. Nevertheless, SPACs enjoy the advantage of a lower fee in all Nasdaq tiers because their entry fee will be just \$80,000 and will include the application fee of \$5,000 (Nasdaq 2026).

5.2 Euronext

In the past 25 years, Euronext has seen immense growth and transformation, growing from the first cross-border stock exchange to becoming a prominent pan-European market infrastructure organization playing a pivotal role in defining the future of capital markets in Europe. In this period, there have been several significant milestones in its development as an organization, and these milestones include its first Initial Public Offering in 2001, its stand-alone IPO in 2014, and its inclusion in the CAC 40 in September 2025. Each of these steps helped cement Euronext's role in the financial market ecosystem as an organization, expanding its capabilities to better serve companies, investors, and other institutions within Europe and elsewhere.

Table 6 Listing in the Euronext

	Euronext	Euronext growth	Euronext access+	Euronext access
	Large & mid-caps with international business	Specifically designed for SMEs	Dedicated to high profile small caps	Simplified access to market
Trading venues	AMSTERDAM, BRUSSELS, DUBLIN,	BRUSSELS, DUBLIN, LISBON,	BRUSSELS, DUBLIN,	RUSSELS, DUBLIN,

	LISBON, MILAN, OSLO AND PARIS	MILAN, OSLO AND PARIS	LISBON, PARIs	LISBON, PARIs
Free float	≥25% market cap or ≥5% and ≥€5m Milan: ≥25% market cap Oslo: market cap over NOK 300m (NOK 8m if on Expand) and a min of 500 shareholders meeting applicable criteria (100 shareholders if on Euronext Expand)	≥€2.5m Milan: ≥10% market cap through a private placement (5 institutional investors) Oslo: ≥15% market cap (with a min of 30 shareholders meeting applicable criteria	€1M	Not applicable
Financial statements	3 years (audited) 1 year (audited) for Euronext Expand	2 years (audited) 1 year (audited) for Milan	2 years incl. audited accounts of the last financial year	2 years (no requirement for audited accounts)

Accounting standards	IFRS for consolidated accounts	IFRS or local GAAP	IFRS or local GAAP	IFRS or local GAAP
Intermediary	Listing Agent (not required for Oslo)	Listing Sponsor (Euronext Growth Advisor for Oslo)	Listing Sponsor	Listing Sponsor
Main document to be provided	EU Prospectus	Euronext Growth: For a Public Offer >€8m in Brussels, Lisbon, Milan, Oslo or Paris, or >€5m in Dublin: EU Prospectus; EU Growth Prospectus Other cases for Dublin, Lisbon, Milan, Oslo and Paris Information Document Brussels:	Access and Access + For a Public Offer >€8m in Paris or Brussels or >€5m in Dublin or Lisbon: EU Prospectus Other cases for Dublin, Lisbon, Milan, Oslo and Paris: Information Document Brussels: Information Nota	

		Information	
		Nota	

Source: Euronext (2026) own table

One of the differences is that higher financial and liquidity thresholds are usually required by Nasdaq. The set of minimum criteria in terms of market capitalization, number of shareholders, publicly held shares, and corporate governance form a fairly stringent entry environment. Although such requirements may prove a hindrance for early stage companies, at the same time, they provide greater security for investors, increased credibility of the market, and access to capital. On the other hand, Euronext, especially via its Euronext Growth and Euronext Access platforms, provides a more relaxed way into the stock market for small and medium-sized enterprises. The lowered free float ratios, historical financial data criteria, and admission process are conducive to smaller companies that do not fit the criteria for larger exchanges. It can be deduced from this that the European approach values providing easier access to newer businesses, despite potentially having relatively low liquidity levels and investment depth.

Another distinguishing factor is the relationship between ease of access and market depth. The stringent criteria required by Nasdaq may lead to higher listing expenses and compliance measures, but they also ensure that the business gets the exposure needed for high valuations. In the case of Euronext's growth segment, it is relatively easy to get listed, but there is the probability of less investment depth and liquidity of the stocks. Furthermore, the role played by SPACs emphasizes the different pathways into a stock exchange listing and is another example of the listing pathways available in the case of the US market. In addition, the increased prevalence of SPACs in the US versus their relative lack in Europe again demonstrates that regulatory systems can have an impact not only on the traditional process of IPOs, but on alternative listing methods as well. In general, the above comparison indicates that both exchanges have different strengths depending on issuer types.

6 Interviews

In order to conduct research on startups, I performed qualitative interviews during the course of the semester. As a consequence, three startups agreed to take part in the survey by answering my questions. The way how data was collected can be characterized by means of semi-structured interviews, conducted and sent by me, after which they were answered by participants through emails. The method gave me the opportunity to obtain relevant information straight from the actors who actually perform actions inside the entrepreneurship field. Thus, it was possible to understand what are the views of currently functioning startups about existing problems and potential opportunities regarding European Union. Moreover, this is helpful in understanding what are the main aspects of the business environment where there are needs for improvement.

Satoumi and the company specializing in the creation of AI tools represent two distinct startups that were involved in the interview process in this study. The first startup specializes in regenerative technologies, whereas the second startup develops AI-based solutions aimed at facilitating the operations of doctors.

In this regard, Sandor Adam, the founder of Satoumi, and Hasan, the founder of the company developing Puzzles Software, became sources of interesting information for the study. Due to their feedback, the answers to questions raised by the researchers in interviews could be formulated more carefully, as the opinions of the founders of startups provided additional insight into the operations of businesses. The interview questions and answers can be found in the appendices.

6.1 Result of the interview

While the two startups analyzed in the interview are distinctly different in their activities and priorities, certain similarities can still be drawn. Some of those features are even consistent with the previous findings made by the author of this thesis. The first similarity between the startups is that they are both in their early stages of growth, while having proven concepts. Another notable feature is the fact that one of the firms, Satoumi, is in the process of receiving a patent. The innovative nature of that company becomes apparent once again.

The last distinctive feature of both startups is the absence of any venture capital investments to date. It is a natural process for the firms, as they are just starting their journey in the market. Nevertheless, they can both be referred to as innovative ventures, as they offer solutions to address the particular and persistent issues in their industries. If the startups become successful in the market, they could positively affect economic development, along with other social outcomes.

In conclusion, both firms concentrate on creating products that address existing issues with the intention of improving areas where present systems may not be adequate. This aspect further strengthens their positioning as being innovative young firms that have great potential for growth.

Considering the financing of startups, the use of internal financing is predominant in the early stages of operation. In the majority of cases, internal financing will be generated due to founders' personal investments and funds received by participating in various competitions and innovation events. Being successful in these events can be viewed as a strong sign of validation of the startup idea since it will mean that the idea was recognized outside. Nevertheless, both firms have been looking into the possibility of attracting external funding. However, as shown in literature, the European environment can pose numerous challenges for early-stage firms in

terms of attracting external funding. The bureaucratic character, long processes, heavy paperwork, and other regulatory requirements can become significant obstacles for accessing external finance. This may hinder the growth of startups, taking up entrepreneurs' time which could be used in business operations.

However, regulations could also support entrepreneurship in some circumstances. Indeed, in the Satoumi case, for instance, strict regulations in terms of CO₂ emission expectations represent an obstacle but, at the same time, one of the main factors for the creation of the company itself. It is thus worth considering that regulation can be both a limitation and an enabling factor in the entrepreneurial environment.

It should also be mentioned that, so far, none of the two start-ups managed to raise funds through venture capitalists and/or business angels. This situation should however change since both start-ups intend to explore these sources of financing in the near future. However, while in Europe investors tend to demand more proof of concept and market potential, the US context seems rather more permissive. As such, US-based start-ups may find themselves in a situation where it becomes easier for them to expand quickly through the provision of an environment that encourages risks and healthy competition. The difference can be summarized as a high-pressure environment, which may be referred to as a “high risk-high reward” environment. Both the companies pointed out the same factor in explaining that although Europe offered a more systematic approach and regulatory environment, the US had conditions for quick growth and expansion.

With regard to the possibility of initiating an initial public offering (IPO), it is possible to highlight a definite difference between the two companies in terms of their strategy and long-term goals. While Satoumi pays much attention to making an impact on society, it puts its mission first rather than expecting financial gains. In other words, the common understanding

that a company should have a proper exit strategy before going public does not seem to fit into Satoumi's plans at the moment. Therefore, the idea of exiting through public means seems to be less relevant to this business.

On the contrary, Puzzles Software seems to be following a more common path when it comes to a typical business strategy of a startup. The main goal of this business is to raise enough funds to facilitate the process of scaling up and growing. In the long run, after achieving certain revenue streams, a company's stability, and gaining an appropriate market share, the company will move towards exiting through IPO. Concerning market targets, it is notable that Puzzles Software focuses its attention on such important stock markets abroad as NASDAQ. In turn, Satoumi, though not so eager to conduct an IPO, has shown some interest in the possible targeting of Asian countries. It again underlines the fact that the strategies used by these two companies differ from each other not only in financial aspects but also in general principles of development and expansion.

Another commonality in terms of regulation of the two businesses is the fact that it represents a rather complicated and cumbersome factor which makes it quite challenging at first to develop the business activities. On the other hand, at a later stage it may become an advantage for the companies in question. In this case, regulation is characterized by a dichotomy: in the short term it makes processes difficult and slow, while in the long run it helps establish a stable position in the market. Therefore, when looking at regulation, entrepreneurs should take into account both sides of the issue. At the same time, the difference between the two businesses under consideration is mainly determined by their specific nature and industry. While Satoumi provides a general criticism of the regulation problem, which is based on the systemic perspective on the problem, Puzzles Software gives more focus to the problems associated with

the implementation of business processes in different countries, as well as the need to comply with the regulation in the sphere of healthcare.

Furthermore, it can be said that there is also a clear distinction between the intellectual property protection strategies of both firms. The first firm clearly focuses on patenting as an important tool that will help protect their innovation. However, this is not the case with the second firm, which does not place such importance on patenting, opting instead for other measures, such as innovation speed or technological complexity.

It should be noted that in both cases, the process of entering the international market does not emerge as a future consideration but rather a cornerstone of their strategy right from the start. The founders of Satoumi explain their approach to globality by saying that it is an integral part of their “DNA.” This means that internationalization is inherent to the startup right from the beginning when it is being planned and launched. Similarly, the nature of Puzzles Software suggests that internationalization comes as a precondition to the development of any enterprise. Nevertheless, notable discrepancies can be seen in the choice of the target market. Specifically, Satoumi has taken a broad, global stance and now believes that Asia holds the greatest potential, with the European Union being a stable base. On the other hand, Puzzles Software has taken a narrow stance and focuses its attention only on Europe. In particular, it concentrates on countries that allocate a substantial amount of their budgets for the provision of healthcare services, such as Germany and France. The explanation for this is industry-specific. For instance, innovations related to sustainable development can be applied globally, while those connected with health care cannot be implemented without considering national regulations.

In terms of foreign markets, both startups view the USA as a significant reference point, yet they use different strategies. Puzzles Software views the American market as an essential goal since it offers greater possibilities for funding and company valuation. However, it should be

noted that entering this market presupposes preliminary verification and certain maturity of the organization and its technology. On the contrary, Satoumi is more skeptical about foreign markets, taking into account political and economic risks. Thus, it shows that international business is affected not only by economic but also geopolitical factors. Speaking about the difficulties related to the internationalization process, both startups face several similar problems. Yet, while Satoumi focuses on macro problems like the difference between the legal system and economic interests of the country and the needs of the company, Puzzles Software focuses on the problem of regulatory fragmentation, clinical trust building, and significant costs of entering and developing in the new market. It should be mentioned that healthcare adds complexity since even the partially unified market in Europe does not guarantee uniformity in practice. All things considered, both startups reveal a significant degree of determination to achieve international growth, although through different routes. The first startup seeks to expand to larger global markets by following a more strategic approach, while the second startup has been growing gradually, relying on a more systematic and validated approach suitable for its specific industry. It can be seen that the strategy used for the process of internationalization is greatly affected by the industry and technologies in which an organization operates.

Taking into account the answers given by the two startups, it can be easily concluded that one of the key issues faced by the European startup ecosystem is the problem of high levels of bureaucracy and inefficient regulation. As noted by both startups, regulations are crucial and have a certain role to play in providing safety and stability, although at present, the form that regulations take hampers innovations and adds costs and obstacles to success, especially for startups at the very beginning. Moreover, it can also be said that the issue of regulation goes beyond operational aspects and also affects strategic considerations. However, the distinctions between both startups arise primarily in the way they define and deal with these challenges.

First, Satoumi provides a wider and more holistic analysis of the European setting and proves by using real-life examples that the startup may be considering other regions, like Singapore, that can offer a more favorable context for innovation and business development. Second, Puzzles Software concentrates on a narrower issue related to the lack of proper regulation regarding the use of artificial intelligence in medical software. Furthermore, it suggests developing a faster approval process for technology-oriented products.

In general, one can state that an essential element of enhancing the ecosystem for startups in Europe would be the introduction of an improved and more dynamic regulatory regime, which would guarantee safety at the same time as encouraging innovation. Deficiencies of the existing system not only impede business success but might also motivate entrepreneurs to direct their efforts in more innovation-friendly regions other than Europe.

7 Conclusion

According to the results of the thesis, the reason why the US is creating a larger number of unicorns and has a greater success rate of cashing out compared to Europe is not related to the insufficient startup generation in the EU. It is not because there is a lack of entrepreneurs or any lack of initiative in this matter, but because it is difficult to create globally competitive businesses. Thus, the question is less about initiating the creation of startups and much more about scaling them up. This shift in focus is essential in order to transform promising early-stage ventures into globally competitive companies capable of sustaining long-term growth. Although the EU has already done enough to ensure that there are enough programs and initiatives to help with the creation of startups, there must be more focus on helping firms scale up. It appears that one of the key points that separates the U.S. entrepreneurial ecosystem from that of Europe is the very organizational nature and effectiveness of this ecosystem. The Technopolis model explains this by emphasizing strong collaboration between universities, policymakers, entrepreneurs, and key intermediaries, as clearly observed in Silicon Valley. These coordinated interactions foster innovation, support high-tech firm growth.

Although the European Union represents a politically united region, it lacks cohesion when it comes to innovation-related processes, specifically with regard to regulatory frameworks, financial resources, and market access. In order to facilitate the development process, greater harmonization of economic regulations and systems across member states should take place, and such action would enable the creation of a more uniform business ecosystem that would contribute to the growth of innovative enterprises. Moreover, the interviews conducted during this study confirm that bureaucracy is also one of the major problems on the continent. Administrative complexity and fragmented regulatory environments often slow down business

operations and discourage expansion across borders. In turn, one cannot say that Europe suffers from being at a disadvantage because of the lack of solutions in addressing issues in the business environment. Instead, it appears that effective initiatives are currently in place in certain EU countries, such as Nordic ones, where the presence of innovation-friendly ecosystems helped to achieve success with entrepreneurial activities.

The suggested Regime No. 28 is a relatively fresh policy proposal from the European Union that seeks to create a coherent regulatory system throughout its member countries. It aims to decrease fragmentation, reduce costs, and make procedures such as registering a business much simpler, which might make it possible to establish a company within 48 hours. It also encourages the use of virtual organizations. The regime is optional, and it will likely have little immediate effect. As a relatively fresh proposal, its consequences are yet to be seen, and its long-term impact on the European business environment remains uncertain.

In terms of answering the research question about why U.S. startups achieve successful exits through IPOs or acquisitions at higher rates than European startups. The first hypothesis states that changes in regulations and financing in Europe will dramatically lower the difference in successful exits between the two regions. The answer is found in the area of scale-up support, regulatory effectiveness, and access to the capital markets. In general, the U.S. business environment provides more favorable conditions for firms that are scaling up because it is less bureaucratic, there are better support systems for firms growing beyond the startup stage, and there are more options to move into a liquidity event. These factors collectively create an ecosystem in which companies can grow faster and access larger pools of capital more efficiently.

A bankruptcy procedure acts as an official approach for debt resolution and helps to remove inefficient firms from the market, thus contributing to economic efficiency. Under the U.S.

laws, the bankruptcy process is based on the centuries-old idea of providing a “fresh start” by discharging any debt obligations and participating in the economy again. Still, the reality is somewhat different since entrepreneurs with bankruptcies experience many financial limitations, such as high-interest rates, lower chances to get approved loans, and other financial obstacles. Despite these limitations, individuals who have experienced bankruptcy are often able to establish new businesses and, in some cases, successfully develop them into profitable ventures. This indicates that, although the system does not fully eliminate financial barriers, it still enables continued entrepreneurial activity and learning from past failures.

Thus, an important conclusion and a recommendation to be made based on this analysis is that more needs to be done to facilitate scale-up financing as well as public market access for such firms. In this regard, it would be useful for Euronext to take a more proactive strategic approach and introduce new programs that would help smaller firms to enter the public markets. In broader terms, the European Union needs to reconsider and restructure its approach to startup businesses from being centered mostly around creation to giving equal emphasis to growth and scaling as well. Such a balanced approach would ensure that not only are new firms created, but they are also supported in reaching their full potential. Should such an approach become reality, Europe will have an excellent chance not just of closing the existing gap compared to the U.S., but also becoming one of the most innovative regions in the world. In this respect, the goal of EU policy makers should be not just of catching up, but creating conditions for European startups “to shoot for the moon.”

References:

- Ahmed, M. (2025): *European Startup Ecosystem: Gaps, Improvement Trends, and Economic Impact*. Bucharest, Romania
- Anconetani, R. (2024): Are SPACs a good investment deal for investors? A performance comparison between SPACs vs IPOs. *Journal of Small Business and Enterprise Development* 32 (3): pp 705–724.
- Budi Santoso, R. T. P. (2021): Creating a startup at a University by using Shane's theory and the entrepreneurial learning model: a narrative method. *Journal of Innovation and Entrepreneurship*. pp 1-25
- Chandra Shekhar Rajora (n.a.): *Exiting Investments: Maximizing Returns and Opportunities*. Jaipur, India.
- Compañó, R., Quas, A., Mason, C., Testa, G. and Gavigan, J. P. (2022): The scale-up finance gap in the EU: Causes, consequences, and policy solutions. *European Management Journal*, 40, pp. 645–652.
- Cotei, C. and Farhat, J. (2017): The Evolution of Financing Structure in U.S. Startups. *The Journal of Entrepreneurial Finance*, 19(1). Arcticiel 4 Pepperdine University California
- Eginard, C. (2021): *Backing visionary entrepreneurs: The European Innovation Council*. Brussel European Commisson
- Euronext (n.a.): *A Guide to Listing on the Stock Exchange (IPO Guide)*.

European Investment Bank (2026): *Investment Report 2025/26: Capitalising on Europe's strengths*.

Évroux, C. and Hallak, I. (2025) *Members' Research Service*. EPRS – European Parliamentary Research Service, PE 779.233, December.

Freeman, R., Wadhwa, V. and Rissing, B. (2008): *Education and Tech Entrepreneurship*. Ewing Marion Kauffman Foundation.

Garcia-Tapial, J. and Cardenete, M. A. (2023): Start-Up or Scale-Up? An Approach through Economic Impact. *Journal of Management for Global Sustainability*, 1(1), pp. 155–196.

Ginter, P. M., Williams, D. R. and Duncan, W. J. (2006): Structuring Deals and Governance after the IPO: Entrepreneurs and Venture Capitalists in High Tech Start-Ups. *Business Horizons*, 49, pp. 303–311.

Janeway, W. H., Nanda, R. and Rhodes-Kropf, M. (2021): Venture Capital Booms and Start-Up Financing. *Annual Review of Financial Economics*, pp. 111–127.

Kiorri, E. (2026): *Can the EU replicate Estonia's startup success?* Euronews.

Kovacs, A. (2022): *Factors affecting business valuations for IPO purposes: A case study of Airbnb*. Neapolis University

Krukowski, K. A., Flink, N. A. and Edwards, B. D. (2023): *Why Are You Selling Your Business? Understanding Signaling Effects of Seller Rationale at Time of Entrepreneurial Exit*. *Journal of Business Venturing Insights*, e00427.

Lee, Y. and Geum, Y. (2023): *Identifying Patterns of Mergers and Acquisitions in Startup: An Empirical Analysis Using Crunchbase Data. IEEE Access.*

Mathur, A. (2013): *Beyond bankruptcy: Does the US bankruptcy code provide a fresh start to entrepreneurs? Journal of Banking & Finance*, 37, pp. 4198–4216.

Masso, J., Karma, K. and Pavlenkova, I. (2022): The digital transformation of financial services markets and industrial relations, *Department of sociology and work science, University of Gothenburg* pp. 59–72.

Nasdaq (2026): *Initial Listing Guide.*

Odeyemi, O. et al. (2024): Entrepreneurial Ecosystems in the USA: A Comparative Review with European Models. *International Journal of Management & Entrepreneurship Research*, pp. 451–466.

Onetti, A. and Pisoni, A. (2018): When Startups Exit: Comparing Strategies in Europe and the USA, *Journal of Business Strategy*, pp. 26–33.

Paschen, J. (2017): Choose Wisely: Crowdfunding through the Stages of the Startup Life Cycle. *Business Horizons*, , pp. 179–188.

Pekevski, S. (2025): What Is a Startup? *Management Studies*, 13(2), pp. 68–78.

Pollman, E. (2023): Startup Failure. *Duke Law Journal*, pp. 327–386.

Prowse, S. (1998): Angel Investors and the Market for Angel Investments. *Journal of Banking & Finance*, 22, pp. 785–792.

Rajora, C. S. (n.a.): *Exiting Investments: Maximizing Returns and Opportunities*.
Jaipur, India.

Saxenian, A. (1994): *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*. Harvard University

Smilor, R.W., Gibson, D.V. and Kozmetsky, G. (1989) Creating the Technopolis: High-technology Development in Austin, Texas. *Journal of Business Venturing*, pp.49–67

Stayton, J. and Mangematin, V. (2016): Startup Time, Innovation and Organizational Emergence. *Springer*, pp. 373–409.

Tula, S. T. et al. (2024): Entrepreneurial Ecosystems in the USA: A Comparative Review with European Models. *International Journal of Management & Entrepreneurship Research*, pp. 451–466.

Wallsten, S. J. (2000): The Effects of Government-Industry R&D Programs on Private R&D: The Case of the Small Business Innovation Research Program. *RAND Journal of Economics*, 31(1), pp. 82–100.

White, M. J. (2005): *Economic Analysis of Corporate and Personal Bankruptcy Law*.

Williams, D. R., Duncan, W. J. and Ginter, P. M. (2006): Structuring Deals and Governance after the IPO: Entrepreneurs and Venture Capitalists in High Tech Start-Ups. *Business Horizons*, 49, pp. 303–311.

Zider, B. (1998): *How Venture Capital Works*. *Harvard Business Review*,
November–December.

Appendices

1. Introduction / Company Background

- Could you briefly introduce your startup and its founding story?

Satoumi: The mission of the business venture includes converting biomass waste into something both environmentally and economically useful in order to ensure that resource utilization becomes more sustainable. Satoumi has come up with an interesting technology in which a process called carbon-negative pyrolysis converts organic waste into biochar, pyrolysis oil, and usable heat, along with carbon credits for removing carbon from the environment. One important characteristic of this technology lies in the fact that the system used in the process is containerized and mobile.

Puzzles Software: I'm building AI tools that help doctors with diagnostic imaging. Radiologists are overworked and diagnostic errors happen more than people think. The idea is to give them a second pair of eyes.

I moved from Turkey to Budapest at 18 on a scholarship. Within a year I'd started building medical AI products and won some competitions that validated the concept. Now I'm incorporating a company and working toward clinical deployment.

- In which industry do you operate, and what stage is your company currently in?

Satoumi: Innovation and licensing of sustainability technologies. We are currently in Pre-Founding stage.

Puzzles Software: Medical AI, focused on diagnostic imaging. We're early stage. We have working prototypes, some clinical validation, and doctor partnerships, but we haven't raised venture capital yet.

- What have been your most important milestones so far?

Satoumi: Inventing a mobile, self-sufficient energy, high throughput (several tons per day) Pyrolysis Reactor, validate it by calculations and got conferment of the patent attorney that it can be patented

Puzzles Software: Building a working detection model with strong accuracy on real clinical data. Winning a hackathon that gave us visibility and early funding. Getting accepted into a government health research grant program in Turkey. And having an academic paper under review.

2. Financing

- What sources of funding have you used so far to support your growth?

Satoumi: Currently lean bootstrapping

Puzzles Software: Mostly self-funded through freelance work and competition winnings. I also got accepted into a government grant program. No venture capital so far

- How difficult has it been to raise capital in Europe?

Satoumi: As a young startup before market validation, it is very hard to nearly impossible. I think it is doable when you get more traction, but it is still very bureaucratic according to my current research, and usually only small funds are available. But getting to actual traction is usually the hard part, where you cannot apply.

Puzzles Software: I haven't formally fundraised yet, but from what I've seen and heard from other founders: European investors generally want more traction before writing a check compared to US investors. They want to see regulatory progress and clinical proof, not just a vision.

- What has been your experience with venture capital investors?

Satoumi: Not too much experience yet. Not an option for Satoumi because VCs require an Exit strategy. Satoumi is supposed to be about impact not profit maximalization no matter what. So we will go rather with Angel Investors and Revenue share agreements.

Puzzles Software: Limited direct experience so far. From studying the space, health AI in Europe requires regulatory proof (CE marking) before most VCs engage seriously. In the US, companies seem to raise earlier in their journey.

- Have you used EU, governmental, or university funding? How accessible were these?

Satoumi: We are currently applying for the German “EXIST-Gründerstipendium” (Founding grant, German government). It is extremely hard to prepare everything because they want to see any detail just right and has cost Satoumi a lot of time and

effort. Also they have very conservative ideas about how a business should operate, so they apparently don't like real innovation or effective scaling. Everything has to be planned slow and highly predictable. If accepted, every Founder receives a monthly "salary" between 1000-3500€ pretax (you are not allowed to have another job in that time), depending on your education level and 30.000€ in usable funds. Those funds can only be used for specific things, for example securing patents with that fund is not allowed. While 30.000 is objectively a lot of money, to found a company it is certainly not sufficient (they say the grant is intended to prepare for founding, but they want to see everything in the application that is effectively a completely prepared startup, so I think it is completely wrong "advertised"). We don't have any requirements after the grant, except of some reporting, so that certainly an upside.

Puzzles Software: Yes, government grant funding. The process was competitive but manageable. EU-level funding like Horizon Europe exists but the application process is very heavy for small teams. It favors established research groups. National-level grants are more accessible for early-stage founders.

- Do you see any differences between European and US investors?

Satoumi: I can only tell from others, but what I see is that you can raise millions in Seed capital quickly and with sometimes questionable ideas. In Europe everything is way slower, you need to show more traction, it's economically more conservative and the tickets are way smaller than in the US.

Puzzles Software: US investors seem more comfortable betting on founders and potential. European investors want more proof and ask about regulatory pathways early.

The deal structures differ too, with US investors being more familiar with founder-friendly instruments like SAFE notes

- Have you ever felt at a disadvantage compared to US-based competitors in terms of funding?

Satoumi: Yes, absolutely. If not for the current political situation, I would have seriously considered starting in the US. Even if I like the EU a lot, solely for business, the US is unfortunately a better choice to start easy and grow fast (Which can also be over the top with their extreme shark-capitalism, but I think you get my point).

Puzzles Software: Yes. US medical AI companies raise larger rounds faster. But being capital-constrained forces you to be more efficient, which can be an advantage long-term.

3. Stock Market / Exit Strategy

- Do you consider going public (IPO) as part of your long-term strategy?

Satoumi: No, Satoumi is, as mentioned, intended for maximum positive impact and an abundant future, not for maximal profit. An IPO would put enormous pressure on Satoumi to do everything to make our numbers at the end of every quarter look good. I don't consider this healthy, sustainable company growth.

Puzzles Software: It's a possibility but not something I think about right now. The medical AI space will probably consolidate, so acquisition by a larger player is also a realistic path.

- If yes, would you prefer listing on a European or a US stock exchange? Why?

Satoumi: Just for answering this question: Europe is not innovative enough, the US too unstable now. I would rather consider Asian Stock-Markets.

Puzzles Software: US, probably NASDAQ. Health tech and AI valuations are significantly higher there. European exchanges don't reward high-growth health tech the same way.

- What conditions would need to be met for your company to go public?

Satoumi: Didn't answered

Puzzles Software: Regulatory approval in multiple markets, recurring revenue from hospital contracts, a full management team, and meaningful annual revenue. That's years away.

- What are the main obstacles preventing an IPO at this stage?

Satoumi: Didn't answered

Ai tool: We're early stage and the regulatory pathway alone takes 12-24 months. IPO isn't the current priority.

- How do you evaluate alternative exit options, such as acquisition?

Satoumi: Didn't answer

Puzzles Software: Acquisition is common in medical imaging AI. Large companies often prefer to buy technology rather than build it in-house. That's a natural path for companies at our stage.

4. Regulation and Legal Environment

- How would you describe the regulatory environment in your country / in the EU?

Satoumi: Slow and bureaucratic. I think we need strong regulations; we see what happens when they are too weak. But it must be done more efficiently.

Puzzles Software: Complex but clear. The EU Medical Device Regulation (EU MDR) lays out what you need for medical AI: quality management systems, clinical evaluation, CE marking. It's rigorous. The challenge is that it was designed for large companies with dedicated regulatory teams, not small startups.

- What kind of administrative or legal challenges have you faced?

Satoumi: Didn't answer

Puzzles Software: Operating across jurisdictions is the big one. When your team, your company, and your customers are in different countries, each one has different rules for company formation, taxes, and data handling. None of it is impossible, but it takes time away from building.

- How difficult is it to protect intellectual property (e.g., patents)?

Satoumi: Middle hard. It's easier if you have sufficient funding

Puzzles Software: I haven't filed patents yet. The cost is significant for an early-stage founder, and there's a tension between publishing research and filing patents. For AI specifically, trade secrets are often more practical protection than patents.

- Do you think regulation supports or hinders your company's growth?

Satoumi: Really depends on the regulation. CO2 Regulations will be very good for us, because we provide technology that reduce CO2 emissions.

Puzzles Software: Both. Short-term it's a barrier because of the cost and time required. Long-term it's a moat. Once you're through the regulatory process, it's hard for new competitors to follow quickly.

- How challenging is it to operate across multiple EU countries?

Satoumi: Comparatively easy because fortunately we have the EU, so no hard borders and free movement of people.

Puzzles Software: CE marking covers all EU member states, which helps. But healthcare is regulated nationally. Each country has its own procurement process and adoption culture. Selling to hospitals in different countries is very different even within the EU

5. Internationalization

- Are you planning to expand internationally?

Satoumi: Yes, that is in Satoumis DNA.

Puzzles Software: I'm already international by default. Turkish founder, based in Budapest, building for the European market. Expansion beyond that is on the roadmap.

- Which markets do you consider the most attractive (EU vs US)?

Satoumi: Both are important, at the moment Asia is the most attractive market for us. I would prefer the EU right now for starting. If the US can recover, it will be another important market.

Puzzles Software: Within the EU, the larger markets like Germany and France are the most interesting because of their healthcare spend. The US is where the biggest exits

happen. I think most European health AI founders eventually have to think about the US market at some point.

- What challenges do you face when expanding internationally?

Satoumi: Very different legal systems and repercussion from the local economy that don't think in "what is best for the company" but "what is best for the region"

Puzzles Software: Regulatory fragmentation (even within the EU, hospital procurement is national), building clinical trust in each new market, and the cost of expanding as a small company.

- Have you considered entering the US market?

Satoumi: Yes, but Trump and his administration are single handedly repelling me. It is now very unpredictably, and I just don't want to support what's going on there.

Puzzles Software: Yes, it's something I think about. The US market is where medical AI companies achieve the largest scale. But you need to have your product validated before making that jump.

6. Scaling and Growth Challenges

- What has been the biggest challenge in scaling your business so far?

Satoumi: Getting funding.

Puzzles Software: Bandwidth. When you're a small team, you're handling everything: engineering, business, regulatory research, fundraising. Finding people who understand both machine learning and medicine is also genuinely difficult.

- How easy or difficult is it to scale a startup in Europe?

Satoumi: Compared to every country in the middle ground, more on the easy side. Compared to countries that are known for having business friendly environments (Singapore, US, U.A.E, under certain circumstances China, Hong Kong, Japan, South Korea, Indonesia, Malaysia) its quite hard, because Europe dose not really follow scaling strategies but thinks more locally.

Puzzles Software: Harder than in the US for health tech. The market is fragmented across 27 countries with different healthcare systems. Talent density for health AI is lower than in the Bay Area. And the funding available at early stages is smaller.

- Do you perceive any structural disadvantages compared to the US ecosystem?

Satoumi: Yes, unfortunately. Applying for any kind of funding or investment is very hard and you don't get a lot. In the US it is easier and you can receive considerable funding. I heard German Investor often say: We give tickets up to 50.000€ (for extremely good ideas and a lot of traction), while in the US 1-5 million are apparently

not out of the norm. There will be exceptions of course, and this is not the full picture, but that's what I know from my own experience.

Puzzles Software: The fragmented market is the biggest one. A US startup deals with one FDA and one market. A European startup navigates EU-wide regulation plus national-level differences in procurement and reimbursement. That said, Europe has advantages too. Lower operating costs, universal healthcare systems with large standardized datasets, and GDPR compliance builds trust with hospitals.

7. Closing Question

- If you could change one thing in the European startup ecosystem to make growth or going public easier, what would it be?

Satoumi: Less bureaucracy. We certainly need regulation, but they must be done more efficiently. We filed our first patent in Singapore because we have the best use case for Satoumi there. We provide licenses for sustainable technologies. Singapore is specialized in trading technology licenses globally, with a very strong focus on sustainability. It was just the perfect fit. We will bring the technology to Europe with a later PCT (Patent Treaty Cooperation) reservation and national filling in European countries. For doing so we need funding. In case we don't get it, filling in the best suited market Singapore (patent only in one single country) is part of our risk mitigation strategy because we could still do some good business with only Singapore (compared to for example Germany, where we know we have only a handful potential costumers).

Puzzles Software: A dedicated regulatory fast-track for AI medical software. The current EU MDR was designed for hardware devices like implants and imaging

machines. Applying that same framework to software that updates regularly doesn't fit. A purpose-built pathway for medical AI would cut timelines and costs, which would improve funding outcomes, which would keep more founders building in Europe instead of relocating to the US.