

UnicornQuest

*Designing, sharing and replicating
policy tools for Unicorn forests*



Forest Assessment

North-West Romania Start-up Ecosystem

embedded into National and European policy framework



*Evaluating Ecosystems with the Capacity to Attract and Retain Unicorns,
under EU Principles and Values, Focusing on Green and Technological Innovation*

**Interreg
Europe**



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Table of contents

1. Executive Summary.....	5
2. Abbreviations.....	7
3. Introduction and Logic of the Analysis	9
3.1. Introduction to the Topic	9
3.1.1. Introduction to Unicorns context	9
3.1.2. Introduction to main Unicorns key concepts	11
3.2. Background to the Unicorn Forest Assessment.....	13
3.2.1. Introduction To Unicorn Forest Assessment	13
3.2.2. Methodology applied in UnicornQuest project	14
4. Region under analysis: North-West Romania	16
4.1. Situation of the Start-Up Ecosystem in Romania	16
4.1.1. National context.....	16
4.1.2. National Start-Up Ecosystem status	19
4.1.3. Overview and Key Sectors	22
4.1.4. Main startup ecosystem enablers and programmes.....	23
4.1.5. Private Financing and Main Players.....	27
4.1.6. Challenges and Opportunities	32
4.2. Regional analysis of the Start-Up Ecosystem	35
4.2.2. Regional Start-Up Ecosystem	36
4.1.7. Start-Up Support Ecosystem in the North-West Region	38
4.1.8. Local Support Mechanisms	41
4.3. Startup-Support Policies in Romania	46
4.3.1. Key components of the National Support Policies.....	46
4.3.2. Startup Support Programmes at national level.....	49
4.3.3. Regional Support Policies and Programmes	52
4.4. Romanian Start-Ups and Unicorns.....	56
4.4.1. Examples of National Startup Success Stories	58
4.5. Conclusion	62
5. Unicorns Classification.....	64

5.1. Actors Involved in the System.....	66
5.1.1. Entrepreneurs and Founders.....	66
5.1.2. Venture Capital Firms (VCs).....	67
5.1.3. Angel Investors.....	67
5.1.4. Private Equity Firms	68
5.1.5. Incubators and Accelerators	69
5.1.6. Government and Policy Makers.....	69
5.1.7. Banks and Financial Institutions	70
5.1.8. Corporate Investors and Strategic Partners	70
5.1.9. Stock Markets and IPO Advisors	71
5.1.10. Employees	72
5.1.11. Customers and Users	72
5.1.12. Academic Institutions and Research Organizations	72
5.2. EU Start-Up Ecosystem.....	73
5.2.1. Incubators.....	75
5.2.2. Accelerators.....	76
5.3. KPIs Descriptions	77
5.3.1. Financial KPIs.....	77
5.3.2. Operational KPIs	78
5.3.3. Growth and Market KPIs.....	79
6. The Strategic and Policy Context	81
6.1. EU Unicorn Policies.....	81
6.2. The global unicorn ecosystem: EU's position and policy implications	82
6.3. Trade Policy: age of technological disruption for start-ups	84
6.4. European Union Level	85
6.4.1. EU-Wide Initiatives and Support	85
6.5. National Initiatives in Europe.....	87
6.5.1. Key Components of National Support	87
7. Best Samples of unicorns in Europe.....	88
7.1. Adyen (the Netherlands)	88

7.2. BlaBlaCar (France).....	90
7.3. Outsystems (Portugal).....	91
7.4. Intercom (Ireland)	92
7.5. Satispay (Italy)	93
7.6. Printful (Latvia).....	95
7.7. LogMeIn (Hungary)	96
7.8. Vestiaire Collective (France)	97
7.9. HelloFresh (Germany).....	98
7.10. Mollie (the Netherlands)	99
7.11. Cabify (Spain)	101
7.12. Back Market (France).....	102
8. Conclusion	104
Bibliography	105
Notes	112

1. Executive Summary

This Forest Assessment (FA) provides a comprehensive overview of the *unicorn phenomenon*, exploring its characteristics, drivers of growth, and the unique challenges and opportunities faced by these emerging giants. As the global economy continues to evolve, unicorns are poised to play an increasingly significant role in shaping the future of industries.

These exceptional start-ups, valued at over US\$1 billion, have transformed the landscape of innovation, demonstrating the power of technology to revolutionize industries and capture global markets.

This FA delves into the fascinating world of unicorns, exploring their unique characteristics and the driving forces behind their remarkable success. It highlights the diverse nature of these companies, extending beyond the confines of the traditional technology sector and encompassing a wide range of industries. Their common thread lies in their innovative use of technology to streamline processes, enhance customer experiences, and reach new audiences.

This FA charts the remarkable growth of unicorns over the years, showcasing their exponential rise. However, it also acknowledges the impact of the 2022 economic uncertainties, which have led to a shift in focus towards stability and sustainable growth among these emerging giants.

A key characteristic that unites unicorns is their private ownership status. Unlike publicly traded companies, unicorns remain privately held, allowing them to maintain greater control over their operations and pursue long-term strategies without the immediate pressures of public markets.

Another hallmark of unicorns is their embrace of technology, particularly social media. They leverage these platforms to connect with customers, build brand awareness, and foster a sense of community.

At the heart of every unicorn lies a team of young, passionate, and innovative individuals. These individuals possess a deep understanding of their respective industries and a relentless drive to push the boundaries of technology. Their collective expertise and entrepreneurial spirit are the driving forces behind the success of these extraordinary companies.

In the context of broader policy initiatives, the document discusses the efforts of the European Union (EU) and national governments to promote innovation and start-up growth. Initiatives such as the Digital Single Market and the European Innovation Council aim to foster a supportive environment for start-ups, providing access to funding, research opportunities, and cross-border collaboration.

The Romanian start-up ecosystem is characterized by significant potential, yet it faces critical challenges that must be addressed to nurture companies capable of achieving Unicorn status. Positioned as one of Eastern Europe's leading ecosystems, Romania benefits from strategic geographic access to the European Union market, a cost-effective talent pool, and an emerging reputation as a regional hub for technology and innovation. Key cities like Bucharest and Cluj-Napoca play pivotal roles, with Bucharest leading in AI innovation and Cluj-Napoca recognized as a dynamic hub for IT and entrepreneurial talent.

Romania's start-up ecosystem is marked by a strong focus on technology sectors such as *fintech*, *health tech*, and *green tech*. It has successfully produced notable Unicorns, such as UiPath, and hosts a growing number of promising start-ups such as FintechOS and FlowX AI. However, the ecosystem lags in creating a consistent pipeline of high-growth companies, with only 2–3% of start-ups achieving significant growth compared to an average of 10% in peer nations. A limited integration of research and development efforts, insufficient collaboration between SMEs, and a lack of robust start-up-specific policies contribute to these constraints.

The regulatory environment remains a significant barrier to growth. Start-ups are often categorized alongside SMEs, leading to generic policies that fail to address their unique needs. Tax complexities, labour regulations, and administrative inefficiencies further hinder entrepreneurial progress. Access to funding poses another major challenge, as venture capital availability and angel investment networks remain underdeveloped. Public funding sources, including European initiatives such as the European Investment Fund, have played a critical role in addressing this gap, but private investment remains limited.

Despite these challenges, the ecosystem displays immense potential. Romania's workforce is a key strength, with an abundance of skilled professionals in STEM fields and a growing entrepreneurial mindset among its younger population. Local and regional initiatives, such as the Digital Innovation Hubs in Cluj-Napoca, have contributed to creating a supportive infrastructure for start-ups. The government's efforts to incentivize IT sector growth through tax exemptions demonstrate an understanding of the ecosystem's importance, but further targeted policies are required to unlock its full potential.

While Romania's start-up ecosystem has demonstrated an ability to support high-potential ventures, achieving a consistent pipeline of Unicorn-status companies will require addressing regulatory inefficiencies, fostering stronger R&D integration, enhancing private investment opportunities, and cultivating a culture of innovation. By leveraging its existing strengths and implementing tailored policy tools, Romania can position itself as a key player in Europe's Unicorn landscape.

2. Abbreviations

AI – Artificial Intelligence

B2B – Business to Business

B2C – Business-To-Consumer

BP – Best Practices

CAC – Customer Acquisition Cost

CSAT – Customer Satisfaction

COGS – Cost of Goods Sold

DAU – Daily Active Users

DSM – Digital Single Market

EIB – European Investment Bank

EIC – European Innovation Council

EIT – European Institute of Innovation & Technology

EU – European Union

FA – Forest Assessment

GDP – Gross Domestic Product

ICT – Information and Communication Technology

IoT – Internet of Things

IPO – Initial Public Offering

KPIs – Key Performance Indicators

LDR – Less Developed Regions

LTV – Lifetime Value

MAU – Monthly Active Users

MDR – Most Developed Regions

NPS – Net Promoter Score

PNRR - National Recovery and Resilience Plan

RA – Regional Assessment

R&D – Research and Development

RDP – Regional Development Plan

REF - Romania Recovery Equity Fund of Funds

SaaS – Software as a Service

SAM – Serviceable Available Market

SERN – Start-Up Europe Regions Network

SMEs – Small and Medium-sized Enterprises

SOM – Serviceable Obtainable Market

STEM education – Science, Technology, Engineering, and Mathematics education

VC – Venture Capital

3. Introduction and Logic of the Analysis

3.1. Introduction to the Topic

3.1.1. Introduction to Unicorns context

In recent decades, the landscape of entrepreneurship has undergone a significant transformation, with increasing emphasis on high-growth firms. These companies, particularly those backed by venture capital, have emerged as pivotal drivers of economic growth, employment, and productivity (Du & Temouri, 2015; Haltiwanger et al., 2017; Henrekson & Johansson, 2010; Vogelaar & Stam, 2024). Within this context, unicorns — privately held start-ups valued at over US\$1 billion — have garnered substantial attention. The term "unicorn" was coined by venture capitalist Aileen Lee in 2013 to represent the rarity and exceptional nature of such companies (Lee, 2013).

Unicorns have become emblematic of the "Silicon Valley model for entrepreneurship," where a combination of high-risk investment, technological innovation, and rapid growth converge to create companies with significant market impact¹ (Audretsch, 2021; Herrmann, 2019; Vogelaar & Stam, 2024). These companies' disruptive and inventive essence propels them into unicorn territory, a trend that's gaining traction in China as well, positioning it closely behind the United States in terms of unicorn count. In the global unicorn landscape, the United States leads the pack, boasting over half of the world's unicorns, followed by China in second place and India securing the third spot, according to available data. Initial public offerings (IPOs) have become less attractive for start-ups on the cusp of achieving unicorn status. Factors contributing to this shift include increased availability of private funding and the rise of platform companies that leverage organizational capital and network effects to dominate markets (Parker et al., 2016; Srnicek, 2017; Davydova et al., 2022).

The global distribution of unicorns is notably uneven. The United States leads with over half of the world's unicorns, predominantly clustered in Silicon Valley and San Francisco (Vogelaar & Stam, 2024). China follows, with a focus on innovative entrepreneurship and a robust venture capital market, while India ranks third in unicorn count (Malkin, 2021; Poon et al., 2023). Europe is making significant strides, with increased investments and support from the [European Innovation Council \(EIC\)](#), fostering a new generation of tech giants through initiatives like the EIC Accelerator and Pathfinder programs (Vogelaar & Stam, 2024). The EIC plays a key role in identifying and nurturing these companies, characterized by their dominance in their markets, ability to scale rapidly, and impressive

¹ <https://europeanunicornmap.com/>

growth. This surge in European innovation is increasingly rivalling their US counterparts, fuelled by a growing pool of interested investors (The Clinton Courier, 2024).

The EIC acts as a launchpad for Europe's most groundbreaking and transformative technologies. Their EIC Accelerator program specifically targets "unicorn" and "centaur" companies – those with billion-dollar and hundred-million-dollar valuations, respectively. This vital platform provides support for small and medium-sized enterprises (SMEs) and start-ups that boast truly disruptive technologies with the potential for explosive growth.

The EIC's support system doesn't stop there. The EIC Pathfinder program complements the Accelerator by focusing on nurturing technologies in their very early stages. Think of it as a springboard for promising ideas. This program supports researchers from universities and technology hubs, helping them develop their ideas into nascent centaur or unicorn companies. Once established, the EIC Pathfinder then helps guide these fledgling companies towards the EIC Accelerator to supercharge their scaling efforts.

Thanks to this comprehensive support system, the European Innovation Council has fostered impressive results (European Commission: European Innovation Council and SMEs Executive Agency, 2023). In 2021 alone, the EIC helped nurture a total of 91 centaur companies and a remarkable four unicorn companies. Collectively, these European tech powerhouses boast a valuation of approximately €50 billion.

Looking at specific sectors, healthcare and biotechnology stand out among the four unicorns that emerged from the European Union in 2021. Leading examples include CELLINK (Sweden) in bioprinting, Sword Health (Portugal) in digital therapeutics, and Bioarctic (Sweden) in neurodegenerative diseases. INFARM (Netherlands) is another notable company, making waves in agriculture with their innovative vertical farming solutions.

On a global scale, the world of "unicorns" currently encompasses more than 1,200 companies valued over US\$3.888 billion (CBInsights, 2024). The United States and China have traditionally dominated this space, with household names like Facebook, Google, Uber, and Airbnb from the US, and Bytedance (the company behind TikTok) from China. However, European companies are making serious strides forward, with well-known entities like Spotify, BlaBlaCar, Skyscanner, Zalando, and Revolut gaining global recognition.

Despite the rising number of unicorns, their rarity persists. The term "black swans" has been used to describe unicorns due to their uncommon and impactful nature (Mahroum, 2016). From 2008 to 2021, California, New York, and Massachusetts accounted for 75% of all U.S. unicorns, emphasizing the concentration of these companies in specific regions (Vogelaar & Stam, 2024). Meanwhile, the European Union's ambition to double its unicorn count by 2030 highlights a strategic effort to secure technological leadership and support the green and digital transition (Mocanu & Thiemann, 2023; Vogelaar & Stam, 2024).

	2016	2018	2019	2020	2021	2022	2023	2024
Singapore	23.03	5.66	15.29	8.40	7.33	16.93	16.39	18.73
Israel	10.07	10.78	12.04	12.10	14.22	19.97	15.88	17.26
United States	13.32	11.33	8.30	11.29	11.68	12.19	12.89	13.01
Estonia	0.00	0.00	16.44	11.98	10.01	11.79	9.78	9.78
Ireland	0.00	0.00	0.00	3.19	2.65	7.75	7.72	9.01
European Union	0.97	0.79	0.97	1.14	1.16	1.49	1.47	1.53
China	1.15	1.59	1.84	1.34	1.31	0.94	0.80	0.79
Brazil	0.21	0.15	0.10	0.52	0.68	0.55	0.49	0.52
India	0.23	0.21	0.43	0.26	0.25	0.33	0.33	0.34
South Africa	0.00	1.11	0.00	0.54	0.45	0.27	0.22	0.11
Indonesia	0.00	0.24	0.49	0.29	0.24	0.17	0.17	0.17

Table 1: Unicorn location quotients of selected countries ranked from high to low, 2016-2023. Source: Vogelaar & Stam, 2024.

The industry distribution of unicorns reveals a significant concentration in fintech and internet software and services, driven by the scalability of software-based companies compared to hardware firms (De la Tour et al., 2017). North America's dominance in fintech significantly shapes the global unicorn landscape, while Asia presents a diverse distribution with substantial representation in e-commerce and hardware industries (Vogelaar & Stam, 2024).

3.1.2. Introduction to main Unicorns key concepts

Unicorns, characterized by their valuations exceeding US\$1 billion, represent a significant milestone in the entrepreneurial ecosystem. Achieving this status involves several key components, including groundbreaking innovation, a well-defined growth strategy, and a robust business plan. Effective communication with venture capitalists and private investors is crucial to securing the necessary resources for expansion (Lee, 2013).

Unicorns are distinguished by their strategic use of technology to optimize operations and reach their target audiences. While they are not confined to the technology sector, these companies leverage technological advancements to enhance efficiency and scale rapidly. For example, social media platforms provide a cost-effective means for customer acquisition, which is essential for growth (Audretsch, 2021).

Scalability and *internationalization* are core priorities for unicorns, enabling them to expand rapidly and capture global markets. This approach has resulted in a dramatic increase in the number of unicorns, from 39 in 2013 to over 1.200 by May 2024 (CBInsights, 2024). However, economic uncertainties can impact their growth trajectory, as seen in the temporary slowdown in 2022.

There are various *exit strategies* for unicorns, each with its own set of advantages and challenges:

Remaining private: some unicorn founders choose to stay private to retain control, though this may limit growth potential and require alternative ways to provide returns to investors.

Going public: an initial public offering (IPO) allows companies to access capital markets for expansion but can lead to concerns about ownership dilution.

Pursuing acquisition: selling to a larger company can provide immediate returns and resources for growth but may also mean loss of control over the company's direction.

The concept of unicorns has evolved to include terms like "decacorns" and "hecacorns," representing companies valued at US\$10 billion and US\$100 billion, respectively. This highlights the scalability and ambitious growth targets of these enterprises (Lee, 2013). Early examples of unicorns include Google (now Alphabet) and Facebook (now Meta), which have reached valuations far exceeding the US\$1 billion threshold (Lee, 2013; Testa et al. 2022).

Several traits are commonly associated with unicorns:

Recent Establishment: Unicorns are typically founded within the last decade.

Social Media Savvy: They utilize social media extensively for marketing and customer engagement.

Customer-Centric Focus: Unicorns prioritize customer satisfaction and build strong relationships with their audience.

Diverse Teams: Their teams are often multidisciplinary and multicultural, fostering innovation.

High-Growth, High-Risk Profile: Unicorns embrace a global mindset, aiming for rapid expansion while managing the inherent risks of entrepreneurship (Parker et al., 2016; Srnicek, 2017).

Reaching unicorn status — a valuation exceeding US\$1 billion — represents a significant milestone in the entrepreneurial world. This coveted achievement hinges on several key ingredients: a groundbreaking concept, a well-defined roadmap for growth, and a meticulously crafted business plan. Additionally, effective communication with venture capitalists and private investors is crucial to secure the resources needed to fuel their ambitions.

Airbnb, Epic Games, Robinhood, and SoFi are just a few prominent examples of American unicorns. It's important to note that investor perceptions of future growth, rather than current financial performance, heavily influence a company's valuation. Many unicorns operate at a loss initially, prioritizing expansion and development over immediate profits. This focus on future potential can pose challenges for investors and capitalists, especially when evaluating start-ups with unique business models lacking direct competitors.

Since Lee's groundbreaking article, "unicorn" has become synonymous with high-valuation start-ups in the tech, mobile, and information technology sectors. However, Bill Gurley, a partner at Benchmark Capital, highlights a broader trend – the surge in late-

stage private capital fundraising and IPOs exceeding US\$1 billion valuations since the 2010s (Tetzeli, 2022). This emphasis on acquiring stakes in potential unicorns has significantly altered traditional risk assessment methodologies.

Beyond their substantial valuations and emphasis on technology, *several additional traits* are frequently associated with unicorn start-ups:

Recent establishment: they are typically founded within the last decade.

Social media adept: they leverage social media platforms extensively for communication and marketing purposes. Platforms like Facebook, Twitter, and Instagram serve as powerful tools for unicorns to amplify their message and connect with their target audience. This cost-effective approach allows them to reach a wider base compared to traditional advertising methods.

Customer-centric focus: they prioritize customer satisfaction and cultivate strong customer relationships. Successful start-ups operate with a customer-first mentality. From ideation to post-sale support, unicorns prioritize fulfilling customer needs and delivering disruptive solutions. They understand that the buying experience matters just as much as the product itself.

Wide-ranging team / Young and innovative teams: Unicorn teams are often multidisciplinary and multicultural, boasting a rich blend of professional backgrounds. This diversity fosters innovation and allows them to develop disruptive concepts. Furthermore, being young companies, they prioritize attracting talent and fostering a culture of creativity.

High-growth, high-risk profile: they are considered ventures with inherent uncertainties and the potential for exponential growth. Unicorns embrace a global mindset, adopting a "get big fast" strategy to achieve rapid expansion and maximize returns while controlling costs. Internationalization and a scalable business model are fundamental to achieving these objectives. Operating in a fast-paced environment, unicorns acknowledge the inherent risks associated with entrepreneurship. Cultivating resilience is essential to navigate challenges and emerge victorious.

3.2. Background to the Unicorn Forest Assessment

3.2.1. Introduction To Unicorn Forest Assessment

The European Union's (EU) entrepreneurship action plan prioritizes fostering "deep tech innovation and start-ups." To achieve this goal, Managing Authorities are taking steps to implement effective national, regional, and local policies specifically geared towards nurturing these high-growth companies, often referred to as "unicorns".

The initial step involves a comprehensive assessment of the current unicorn landscape within the target geographic area. This analysis goes beyond simply identifying existing

unicorns. It compares the region's policies and overall unicorn ecosystem with surrounding areas, highlighting any discrepancies that could potentially create unfair advantages or disadvantages. A SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) is then conducted to create a well-rounded picture of the region's strengths and weaknesses in supporting unicorn growth.

Within the "UnicornQuest" project, this initial assessment phase is referred to as the "Forest Assessment," though it may have different names across various EU initiatives (regional assessment, state of the art, etc.). This phase delves into a detailed analysis of the region's unicorn landscape, including both prominent unicorn companies and relevant policies. It represents the third stage of the overall project.

Managing and nurturing a thriving ecosystem for unicorns is a complex undertaking. Local authorities face a multitude of challenges, from establishing the right organizational framework to implementing effective support systems. Technical, legal, economic, and educational considerations all play a crucial role in creating a successful environment. These regional and national nuances will undoubtedly influence the findings of the Forest Assessment and, consequently, the defined Key Performance Indicators (KPIs) used to measure progress.

The Forest Assessment serves as the foundation for the subsequent Action Plan. By providing an in-depth analysis of the existing unicorn landscape, it informs the creation of new policy tools and the design of concrete actions aimed at fostering unicorn growth within the target region. In essence, the Forest Assessment feeds directly into the Action Plan, ensuring data-driven strategies for cultivating Europe's next generation of tech titans.

3.2.2. Methodology applied in UnicornQuest project

The Market Analysis employed a meticulous, multi-phased methodology to ensure the final product – the Forest Assessment (FA) – meets the established benchmarks outlined in the Policy Instruments. This approach guarantees the technical soundness and stakeholder buy-in for the data used in the assessment.

- **Desk analysis**

The process began with a comprehensive desk analysis, focusing on macro-level data. Statistical sources such as national and European statistic agencies, along with industry and sector reports from both national and EU levels, served as the foundation for this initial phase. These reports provided valuable insights into economic trends, educational landscapes, and industry dynamics, often offering SWOT analyses to identify strengths, weaknesses, opportunities, and threats. Current policy information is gathered as well, outlining existing targets and the status of achievements for EU, national, and regional initiatives.

- **Unicorn start-ups data gathering**

For situations requiring a deeper dive, the analysis incorporates data from specialized sectoral research and, when necessary, on-site data collection efforts. Specific tools are employed to gather detailed information for key performance indicators (KPIs), which are further refined with additional data collected in subsequent phases. This multi-layered approach ensures a comprehensive and nuanced understanding of the European and regional landscape.

- **Key performance indicators practice structure definition.**

Following the initial desk research and preliminary data collection, the Forest Assessment (FA) identified a set of provisional KPIs (key performance indicators) for further analysis. These socio-economic indicators served to understand the ecosystem for unicorn start-ups and for evaluating their suitability.

- **Best examples of regional unicorn start-ups.**

Data from best examples of unicorn start-ups was collected and analysed to gather crucial data for the sectoral analysis and to have a global picture of the global ecosystem of the start-ups in the region.

- **Results**

The results and conclusions derived from the Forest Assessment, along with the best practices analysis, will form the foundation for the Action Plan structure. This plan will specifically address the sectoral needs of the region's unicorn start-up industry. Ultimately, the conclusions documented here aim to be seamlessly integrated within the Action Plan framework.

For the policy instruments, the anticipated results include the clear identification of:

- **Challenges:** The key obstacles hindering unicorn growth within the region.
- **Existing tools and actors:** Existing initiatives and entities already playing a role in supporting unicorns.
- **New paths and solutions:** Fresh approaches and solutions needed to foster a more robust unicorn ecosystem.

This outcome structure was presented, along with the general Forest Assessment content, during the project Workshop of Interregional Event 5 in Bratislava in 2024.

4. Region under analysis: North-West Romania

4.1. Situation of the Start-Up Ecosystem in Romania

Understanding the economic, social, and technological landscape of Romania, particularly in the North-West region, is crucial for analysing the country's start-up ecosystem. This section provides a concise overview of these contexts, highlighting key indicators and disparities that set the stage for a detailed examination of entrepreneurial dynamics and opportunities.

The start-up ecosystem in Romania has undergone significant transformation in recent years, with a surge in entrepreneurial activity and innovation. This report aims to provide a detailed analysis of the national start-up ecosystem and a focused examination of the North-West Region, which has emerged as a notable hub for start-up activity.

The report is based on data from the publicly available information, reports, statistical analyses, and case studies. The methodology includes a review of relevant literature, interviews with key stakeholders, and an examination of regional and national policies impacting the start-up ecosystem.

4.1.1. National context

Romania is categorized as an *Emerging Innovator* in the 2024 European Innovation Scoreboard, with a performance level of only 37,4% of the EU average, significantly below the average for countries with a similar emerging profile. The report highlights Romania's strengths, including a relatively robust export of high-tech goods, exports of knowledge-intensive services, and trademark applications. However, it also points out weaknesses, such as a lack of innovators in business processes, insufficient collaboration among SMEs and low employment rates in innovative businesses.

COUNTRY	Main PERFORMANCE structural differences against the EU average
ROMANIA <ul style="list-style-type: none">● emerging Innovator● performance at 37.4% of the EU average● ranked last place in EIS 2024● performance gap to the EU is becoming larger.	<ul style="list-style-type: none">● Romania has lower per capita income but a faster growing economy.● Manufacturing takes up a larger share of the economy, with SMEs accounting for a larger share of turnover.● Enterprise births, entrepreneurial activity and FDI net inflows add positively to the innovation climate● The absence of top R&D spenders add negatively.● Romania has a lower share of In-house product innovators with market novelties and a higher share of non-innovators with potential to innovate.● Ease of starting a business● Entrepreneurial training and government procurement are below the EU average

Figure 1: Romania's Performance against the EU average

Romania is divided in 4 macro-regions, respectively 8 regions (North-West, Centre, North-East, South-East, South-Muntenia, Bucharest-Ilfov, South-West Oltenia and West), and 42 counties.

Based on the 2022 GDP per capita in purchasing power standards (PPS), significant regional disparities are evident in Romania. Bucharest-Ilfov stands out with a remarkably high GDP per capita PPS at 177%, far surpassing the national average of 75%. The West region also performs above average with 78%, indicating a relatively strong economic position. In contrast, the North-East region lags significantly behind with a GDP per capita PPS of just 46%, highlighting substantial economic challenges. Other regions such as South-West Oltenia and South-Muntenia show lower values at 57%, while the Center and North-West regions are closer to the national average with 71% and 70%, respectively. The South-East region has a GDP per capita PPS of 60%, reflecting moderate economic performance.

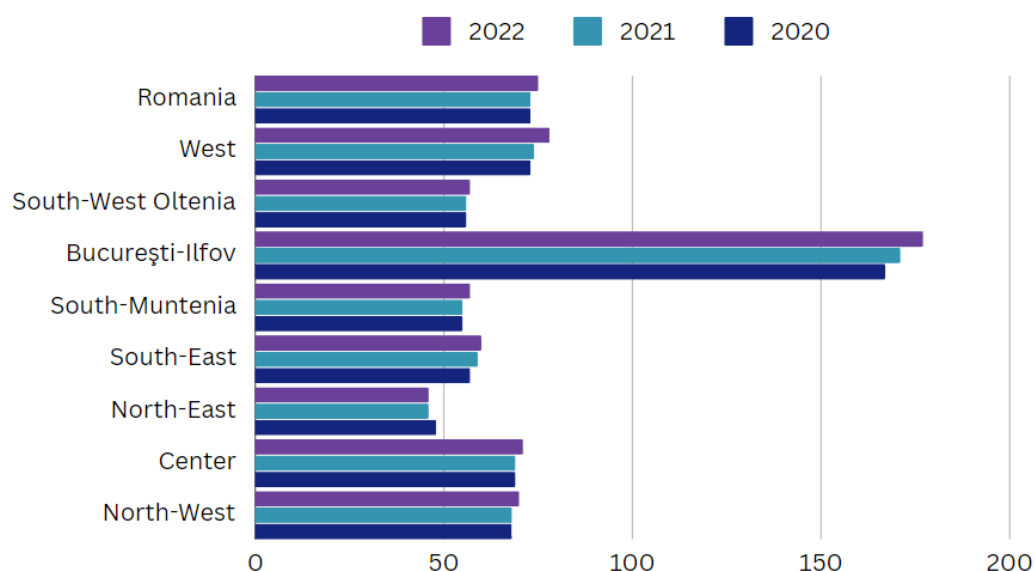


Figure 2: % GDP per capita (PPS in percent of the EU-27 average). Source: Eurostat

According to the World Bank Group report '*Starting Up Romania*' – *Entrepreneurship Ecosystem Diagnostic*, there is a high entrepreneurial and technological disparity between Romania's regions as well (Cruz, et al., 2022). As highlighted in the report, the geographic distribution of firms in Romania reflects significant regional disparities, with a large concentration of firms in the Bucharest-Ilfov region, which as we can see is also the richest in terms of GDP per capita.

Concentration of Firms (%)				
Region	Firms	Young Firms	High-Growth Firms	5+ employees
Bucharest-Ilfov	23.95	24.60	25.86	22.13
Center	11.59	11.09	12.13	12.68
North-East	10.60	10.56	11.56	11.56
North-West	1.20	14.99	14.39	15.05
South-East	11.26	10.91	10.69	11.06
South-Muntenia	11.19	11.38	11.29	11.64
South-West Oltenia	7.28	7.43	5.87	6.80
West	8.89	9.01	8.19	9.04
Total	100.00	100.00	100.00	100.00

Figure 3: MSME Characteristics across Economic Regions in 2019. Source: World Bank Group report 'Starting Up Romania' – Entrepreneurship Ecosystem Diagnostic

The *concentration of firms* across Romania's regions reveals marked disparities. Bucharest-Ilfov stands out with 23,95% of all firms, 24,60% of young firms, and 25.86% of high-growth firms, further highlighting its dominant economic and entrepreneurial role. The Centre region shows a firm concentration of 11,59%, with slightly lower percentages of young (11.09%) and high-growth firms (12.13%). The North-East region follows closely with 10,60% of all firms, maintaining similar levels for young firms (10.56%) and high-growth firms (11,56%).

In the North-West, 15,20% of firms are concentrated, with a slightly lower percentage of young (14,99%) and high-growth firms (14,39%). The South-East region has an 11,26% firm concentration, with young and high-growth firms slightly below this level at 10,91% and 10,69%, respectively. South-Muntenia displays 11,19% of firms, with young firms at 11,38% and high-growth firms at 11,29%.

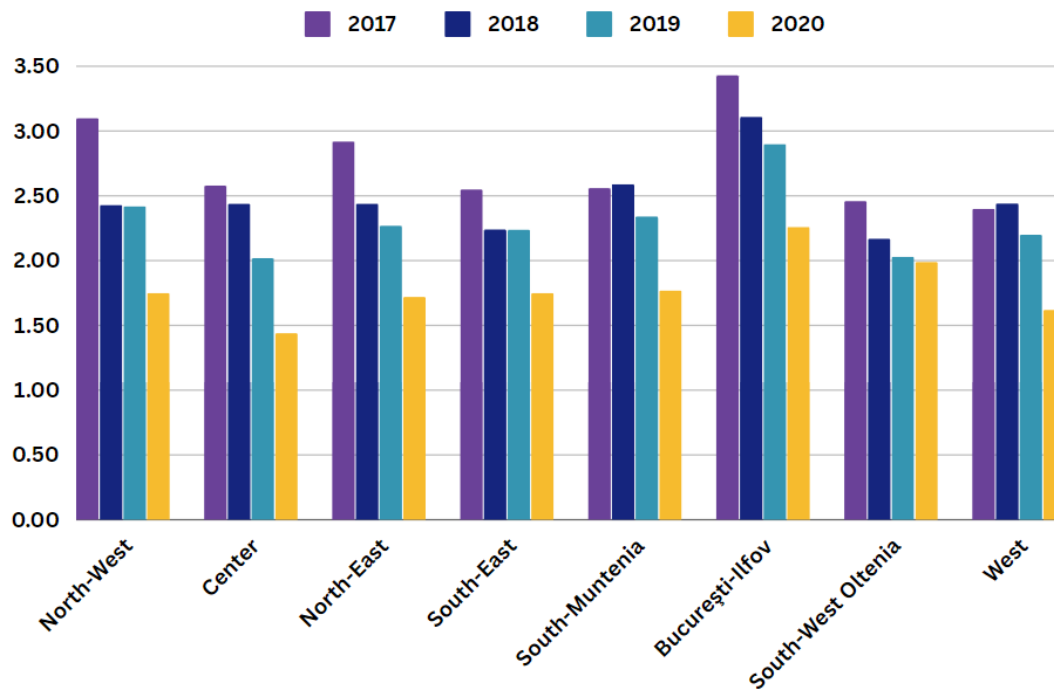


Figure 4: Share of high growth firms across Romania. Source: Eurostat 2020. Based on OECD-Eurostat definition of high-growth firms.

The share of high-quality firms, i.e., those achieving high growth and innovating, is smaller in Romania than in peer countries. The *entry rate of new firms* in Romania is not the main constraint on entrepreneurship. As compared to other countries with similar per capita income, Romania has a high entry rate. However, there are few high-growth firms. The share of high-growth firms in Romania has decreased during 2017–2020, hovering between 2–3%. This share is well below that in peer countries, which averages 10,53%.

4.1.2. National Start-Up Ecosystem status

According to the *start-up.ro*'s documentary, '*Romanian Start-Ups – Roaring Tigers of Europe Documentary*', there were **2.500 start-ups** in 2024, actively operating across diverse industries, ranging from education and healthcare to fintech. As per the most recent data provided by Start-Up Blink (StartUpBlink, 2024), Romania is one of Eastern Europe's best countries for setting up a start-up. In 2024, Romania lost 2 spots in the Global Start-Up Ecosystem Index compared to 2023, having now positioned itself as 44th worldwide and 25th in the European context. Romania is among the top 10 countries in Eastern Europe, ranking in the 8th position for four consecutive years, and the 2nd one in the Balkans but the score gap between Bulgaria, the leader of Balkans, and Romania increased from 9% in 2022 to over 20% in 2024.



Figure 5: Romania's start-up ecosystem rank. Source: Global Start-Up Ecosystem Index 2024.

Romania hosts a thriving start-up ecosystem in Eastern Europe, offering entrepreneurs cost-effective access to highly skilled professionals and a gateway to the European market. Although Romania is not the leader in the EE region, its growth in recent years has been visible.

The country is home to one of the most well-known IPOs in the region (*UiPath*), three successful unicorns (*UiPath* - exited in 2017, *eMAG*, *Elrond*), and a wave of new start-ups awaiting to take off (*Fintech OS*, *Soleadify*, *Flowx AI*).

The country's primary focus is on IT and outsourcing, with major hubs in Bucharest, Cluj-Napoca, Oradea, Timișoara and Iași. According to Statista (Statista Research Department, 2024) in 2023 in Romania over 240.000 people were active in the IT&C sector (Lesniak, 2024), working for international companies as employees, freelancers, and remote workers. The Romanian government offers *income tax exemptions* for employees in the IT sector up to a specific limit. This incentive supports the growth of the tech industry by reducing employment costs for companies.



National Rank & Change	City	Global Rank & Rank Change (from 2023)	Total Score	Top Industry Global Rank
1 -	Bucharest	109 ⁺¹	7.08	Artificial Intelligence 
2 -	Cluj-Napoca	390 ⁻⁴⁰	0.88	Web Development 
3 -	Timisoara	643 ⁻³⁷	0.29	
4 -	Oradea	744 ⁻¹²⁴	0.21	
5 -	Iași	823 ⁻⁸⁵	0.17	
6 -	Brasov	854 ⁻⁶⁴	0.16	
7 -	Sibiu	1033 ⁻⁵⁶	0.11	
8 ^{new}	Craiova	1216 ^{new}	0.06	
9 ^{new}	Constanta	1221 ^{new}	0.06	
10 ^{new}	Targu-Mures	1236 ^{new}	0.06	

Figure 6: Top best cities for start-ups in Romania. Source: Global Start-Up Ecosystem Index 2024.

According to *The Global Start-Up Ecosystem Index Report 2024* (StartUpBlink, 2024), Romania has **six cities in the global top 1.000**. Bucharest stands out as the most dominant start-up city, with a score eight times higher than Cluj-Napoca. The city is particularly strong in the Artificial Intelligence industry, where it ranks first in Eastern Europe. Despite Cluj-Napoca's decline from a global top 250 city in 2020 to 390th in 2024, it still holds a notable position, ranking 9th in Eastern Europe's Web Development industry. This, combined with Bucharest's second place in the same category, makes Romania the only country with two cities in Eastern Europe's top 10 for Web Development, highlighting the country's significant contributions to the tech sector.

The World Bank Group report, utilizing data from the Romanian Business Registry, highlights the distribution of digital services firms and knowledge-intensive service enterprises across Romania (Cruz, et al., 2022). As per their analysis, these firms are predominantly concentrated in key metropolitan areas, highlighting the country's regional technological and knowledge-driven ecosystems.

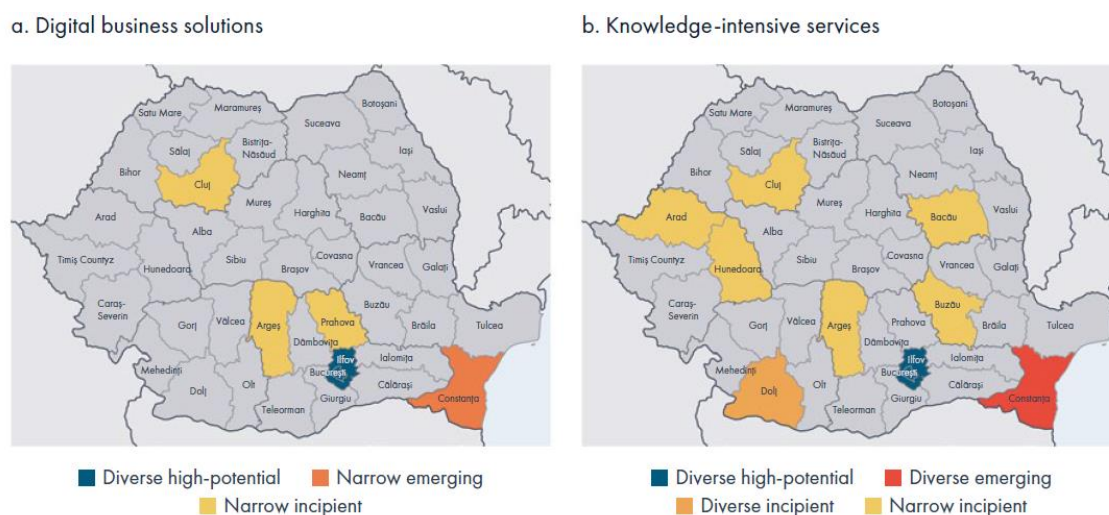


Figure 7: Digital and Knowledge-Intensive Services. Source: 'Starting Up Romania' – Entrepreneurship Ecosystem Diagnostic, World Bank Group

Bucharest stands out as a high-potential local ecosystem—both for digital business and for knowledge-intensive services—characterized by relevant agglomeration in terms of the diversity and quality of firms. High-potential ecosystems in terms of diversity and quality in digital services and knowledge-intensive services are disproportionately concentrated around Bucharest-Ilfov. The counties of Constanta and Craiova have relevant emerging ecosystems in terms of diversity of firms in this area as well.

Other counties, including Cluj and Argeş (for both digital businesses and knowledge-intensive services), Prahova (for digital); and Arad, Hunedoara, Bacau, and Buzau also demonstrate initial conditions of incipient ecosystems (for at least one activity within digital business and knowledge-intensive services).

In terms of the main industrial sectors for startup investments, in 2023 the most funded industries in Romania were media (€104 million), fintech (€43,7 million), marketing (€7,2 million) and jobs recruitment (€6,4 million). In 2022, investors were the most interested in gaming (€22,0 million), education (€3,9 million), travel (€2,5 million) and jobs recruitment (€4,1 million). Notably, the Information Technology and Communications (IT&C) sector is a shining star in Romania's economic landscape, contributing approximately 6,5% to the country's GDP.

4.1.3. Overview and Key Sectors

Romania's technology industry has been one of the fastest growing in Central and Eastern Europe. This made it a favoured software outsourcing location for worldwide companies seeking team extension and project development talent. The concentration of software engineering skill and strong English language knowledge has made Romania an attractive option for global tech giants with Amazon, Cognizant, Google, Intel, and Microsoft amongst others establishing in the country since 2006.

Notably, the Information Technology and Communications (IT&C) sector is a shining star in Romania's economic landscape, contributing approximately 6.5% to the country's GDP.

While the technology sector was the initial catalyst, the start-up scene in Romania diversified over time:

- **Fintech:** With the digitalization of banking and finance, several fintech start-ups have emerged, offering innovative solutions for payments, lending, and personal finance (Strat, et al., 2023).
- **Healthtech:** The healthcare sector has seen start-ups focusing on telemedicine, patient management, and health analytics (Activize, 2023).
- **Greentech:** Green start-ups in Romania have seen a significant surge in popularity since 2020, with the number of annual green initiatives doubling. This trend is fuelled by a growing awareness of sustainability and climate change concerns (Activize, 2023).
- **Agrifood:** Romania's agrifood tech landscape remains in its infancy, evidenced by factors such as a relatively small number of start-ups, modest funding, and a very limited number of specialized programs. This underdevelopment is starting to change due to growing awareness and the challenges faced by the agricultural sector. In recent years, an increasing interest in agrifood tech start-ups has attracted both entrepreneurs and investors, driving a bit more momentum in the sector (Activize, 2023).
- **Proptech:** The rapidly developing proptech ecosystem tops the list of verticals to watch – the March 2024 Romanian PropTech Report identified 129 start-ups active

in the sector in Romania led by Bright Spaces – within a broader growth trend around smart cities/sustainability.

4.1.4. Main startup ecosystem enablers and programmes

Romania's start-up ecosystem is flourishing, characterized by dynamic growth and an increasing number of supportive structures and initiatives aimed at fostering innovation and entrepreneurship. Key programs and initiatives, alongside a network of incubators, accelerators, and entrepreneurial communities, play pivotal roles in nurturing and scaling up companies.

❖ Main Start-up support initiatives

ROStartup Association, launched in 2024, is a major public-private effort aimed at developing the first strategy for the national start-up ecosystem. ROStart-Up seeks to position Romania as a leading European start-up hub by providing capacity-building programs, advocating for start-up-friendly policies, promoting internationalization, and offering financial support mechanisms. A cohesive approach between the public and private sectors is necessary to cultivate an entrepreneurial culture within Romania and foster a climate supportive of risk-taking ventures rather than relying on outsourcing to other countries.

ROTSA - Romanian Tech Start-Ups Association, based in Cluj and Bucharest, an umbrella organization that aims to promote, support and represent the interests of tech start-ups in Romania.

Cluj Startups founded in 2012 in Cluj-Napoca and supports and facilitates the growth of the start-up ecosystem in Cluj/Romania — investors, mentors, start-up founders, event organisers. The group grew from a few members to 3000 people and hundreds of events/meetups organised, supported or promoted.

Rubik HUB located in Piatra-Neamț, created since 2017 by the North-East Regional Development Agency as a co-working space running incubation and acceleration programmes for startups.



Impact Hub located in Bucharest, co-working space running incubation and acceleration programmes and hosting startup community events.

Timisoara CoWork with two co-working spaces running acceleration programmes and hosting startup community events.

Cluj Hub is the biggest hub in Cluj-Napoca and in Transylvania, placed at the 3rd floor of the main shopping building in the heart of the city. It has established a community around, including businesspeople, entrepreneurs and freelancers from the digital and creative area. Cluj-Hub provides all the necessary infrastructure (open and closed offices, conference rooms, exhibition space, dining, terrace) and a range of extensive support services.

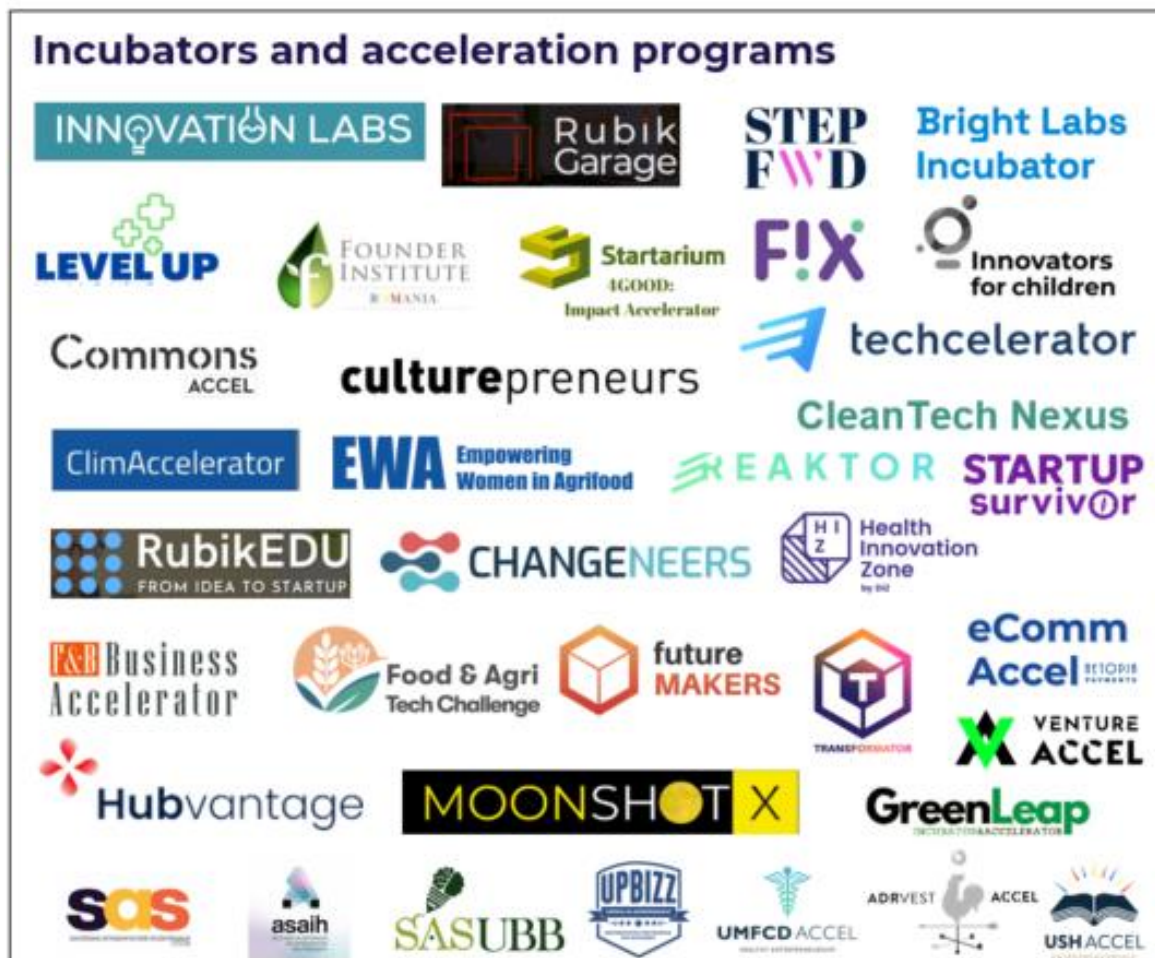
Make IT in Oradea established in 2020 as a partnership between the private and public sectors was established with the aim of enhancing the local technology sector, supporting start-ups, and retaining IT and entrepreneurial talent. Today, the non-profit is funded by the municipality through the Local Development Agency and five companies that joined the coalition. Make IT in Oradea's mission is to accelerate the development of the local start-up ecosystem to drive economic growth and transform Oradea into a business destination for start-up founders.

ABC Incubator in Cluj-Napoca is run by Arobs Business Center SRL and provides a complex support system for early-stage technology companies in the IT industry. Opened in 2021 with ERDF funding, ABC Incubator is a complex, 360-degree concept that offer facilities, services and benefits to the most valuable technology start-ups. Start-Up residents in its first 3 years of existence are offered co-working spaces with state-of-the-art equipment, benefit from assistance in accessing non-reimbursable funds, mentoring from specialists with considerable expertise in technology and entrepreneurship, are invited to networking events and training courses.

Activize TECH is based in Cluj-Napoca and since 2012 focuses on acceleration programs, fundraising support, reports about the start-up ecosystem and start-up scouting in Romania and Eastern Europe. Works closely with 100+ organizations and had an impact on over 1000 start-ups. Organizing hackathons, connecting start-ups with angel investors and VCs, providing mentorship on fundraising and creating yearly reports.

FreshBlood located in Cluj-Napoca is dedicated to health tech start-ups, offering sector-specific support and resources to help them develop and scale their innovations in the healthcare sector.

❖ Acceleration and other support programmes



Endeavor Scale Up: Endeavor Romania launched in July 2024 the first edition of the Scale Up by Endeavor program in Romania, a 6-month cohort-based initiative designed to provide high-growth entrepreneurs with the resources, mentorship, and international exposure necessary to scale their businesses globally.

StepFWD is a pre-accelerator program targeting early-stage tech start-ups, emphasizing diversity and inclusion. It provides training, mentorship, and resources to help start-ups prepare for further acceleration and investment.

Commons Accel / idEA accelerates start-ups through intensive mentorship programs, funding opportunities, and networking events, facilitating their growth and integration into the market.

Innovation Labs provides a comprehensive program that includes pre-acceleration support, mentoring, and access to industry experts, helping start-ups turn their ideas into viable businesses.

Rubik Garage Scale to USA is an acceleration program for start-ups run by RUBIK that have a scalable and innovative product/service, paying clients, and founder-market-fit within a country in Europe and plan to scale to the US market.

Spherik Accelerator was the first accelerator launched in Romania (Cluj-Napoca) in 2013 and runs vertical-specific programs funded by entities like EIT Climate-KIC and EIT Urban Mobility, focusing on sustainability and urban mobility, offering start-ups in these sectors the resources and expertise needed to scale their innovations effectively. Synergist EIC Accelerator provides funding and support for high-impact, innovative start-ups with strong growth potential, helping them navigate the challenges of scaling their businesses in the competitive European market. For 3 years in a row (2016, 2017 & 2018) Spherik has been awarded the *Best Accelerator and Incubation Program in Romania* title, by the Central European Start-Up Awards. In January 2018, Spherik Accelerator joined the Start-Up Europe Club and became the Romanian Start-Up Europe Ambassador.

Start-Up Reaktor run by ROTSA provides a platform (a mix between the acceleration, incubation and investment processes) for start-ups to validate their business models and access mentorship, helping them refine their strategies and scale their operations. Start-Up Reaktor is supporting start-ups to get traction in new markets in order to be able to really accelerate globally and to be competitive and attractive for investors.

Techcelerator: run by Cluj-Napoca team, offers intensive acceleration programs, providing start-ups with funding, mentorship, and access to a network of investors and industry experts, focusing on scaling innovative companies by offering tailored support to meet their specific needs.

LevelUP Accelerator is the First Health & Life Sciences Accelerator in Romania, launched in 2023 by INNO Department of North-West Regional Development Agency through the EIT Health Drive project. It consists of an intensive 6-month program specifically designed to accelerate early-stage start-ups (under 3 years) who offer a solution in the life sciences field. During the accelerator, teams will receive support from experts on topics such as: discovering and understanding customers, developing and validating solutions, attracting funding, marketing, or sales.

HIVE Public Health is an initiative that belongs to the Babes-Bolyai University. HIVE Innovation is a growing community of innovators that aims to improve the health and wellbeing of others, while developing innovative solutions to the biggest healthcare challenges. HIVE Public Health

Oradea Tech Hub is a non-profit organization founded in 2015 to develop a local tech ecosystem hub. It enjoys the support of most major technology and software companies in Oradea, Oradea City's Hall, and the city's academic environment in achieving its goals. OTH is interested in helping develop the new trend where small towns compete with big

cities as technological hubs, offering more than just similar opportunities, but a better quality of life as well.

Bright labs Incubator by [Make IT in Oradea](#), annual incubation programme providing mentorship, coaching, grants and investment exposure to startups.

[Enterprise Europe Network \(EEN\)](#) is a significant player in Romania's start-up ecosystem, embedded into the largest European Network supporting internationalization and innovation for SMEs. EEN provides essential support for SMEs, helping them scale by offering tailored services such as market insights, business matching, and innovation support. The network aids Romanian companies in accessing new markets and forging international partnerships, thereby enhancing their competitiveness on a global scale.

[EU Business Hub - Japan and South Korea](#) program, financed by the European Union. The program aims to connect innovative European companies with the dynamic markets of the two Asian countries, with which the European Union has partnership agreements. To achieve this goal, 20 business missions will be organized over four years, until 2027, in the two countries, with 1,000 European SMEs and start-ups expected to benefit from personalized assistance. Each business mission will include representatives of 50 European companies operating in the fields of green technologies/carbon emission reduction, digital solutions, and healthcare/medical equipment.

The synergy between the public and private sectors in Romania's scale-up ecosystem creates a conducive environment for start-ups to thrive. Collaborative programs, government-backed initiatives, and effective use of funding and resources collectively enhance the growth and global competitiveness of Romanian start-ups. This dynamic interaction positions Romania as an emerging hub for innovation and entrepreneurship, driving forward its presence in the international tech landscape.

4.1.5. Private Financing and Main Players

The transaction volume in Romanian start-ups has continued to grow in the global tech scene in 2022. As per the *Dealroom report* on start-ups and venture capital in SEE, the region itself has exhibited remarkable promise (Dealroom.co, 2022). Since 2012, start-ups from there have witnessed a staggering 49.9x growth in combined enterprise value, outpacing their neighbors in CEE (9.1x) and the European average (12.1x). Furthermore, venture capital funding in SEE reached an all-time high, surging by 5.9x since 2017 and reaching US\$1,3 billion in 2022. Notably, as Dealroom reports, Romania, Greece, and Bulgaria collectively account for over 70% of the SEE ecosystem's enterprise value.

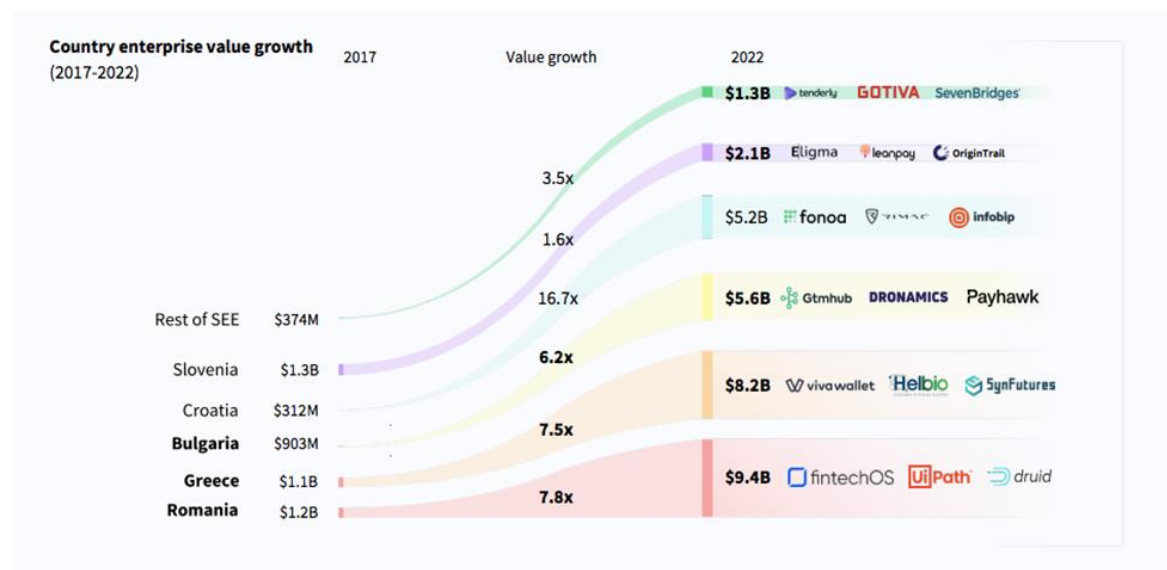
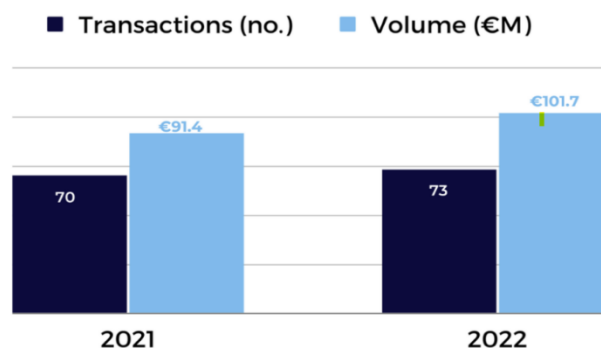


Figure 8: SEE enterprise value growth 2017-2020. Source: Start-Ups & Venture Capital in South Eastern Europe 2022, dealroom.co.

According to the *Romanian Venture Report 2022* the total number of transactions increased on average by 3,5% from the 71 transactions recorded in 2021 to the 73 transactions in 2022 and the total volume of deals rose near the level of 2021's volume – €101,7M compared with €116,9M in 2021 (Romanian Venture Report 2022, 2023). It's worth mentioning that 2021's transaction volume accounts for FintechOS €51M series B (Gillet, 2021).

Figure 9: Transactions & volume in Romania 2021-2022 (€M). Source: Romanian Venture Report 2022.



2022 also marked an impressive 12.3x increase in the transactions volume compared to the industry's early beginnings of Romanian VC deals, back in 2017. Thus, the yearly volume of venture deals involving Romanian start-ups went from a modest €8,2M in 2017 to a promising €101,7M in 2022.

As highlighted in the report, the volume of series A transactions almost tripled compared with 2021, going from €15,3M to €42,6M in 2022. The number of series A transactions doubled, going from 3 in 2021 to 6 in 2022. The first 3 transactions of 2022, Druid, Digitail, and Bware Labs, account for 30% of the total transaction volume of 2022. The average deal size for pre-seed transactions decreased by 11,5%, from €163K in 2021 to €144,3K in 2022.

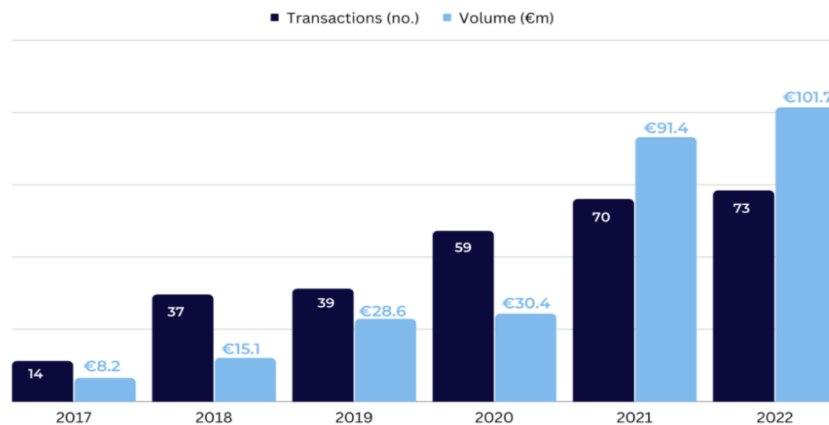


Figure 10: Evolution of Transactions and Volumes of venture deals in Romania (2017-2022). Source: Romanian Venture Report 2022.

It is essential to notice that in the years 2017-2022, most of PE and VC funds have been raised from government agencies based in Europe. In the CEE region, government sources accounted for around 38-39% of all fundraising between 2018-2021, a number much smaller than in Romania. According to a study by Deloitte, the reliance on government agencies in the country was at 85% in 2017 and decreased to 59% in 2021 (Deloitte, 2023).

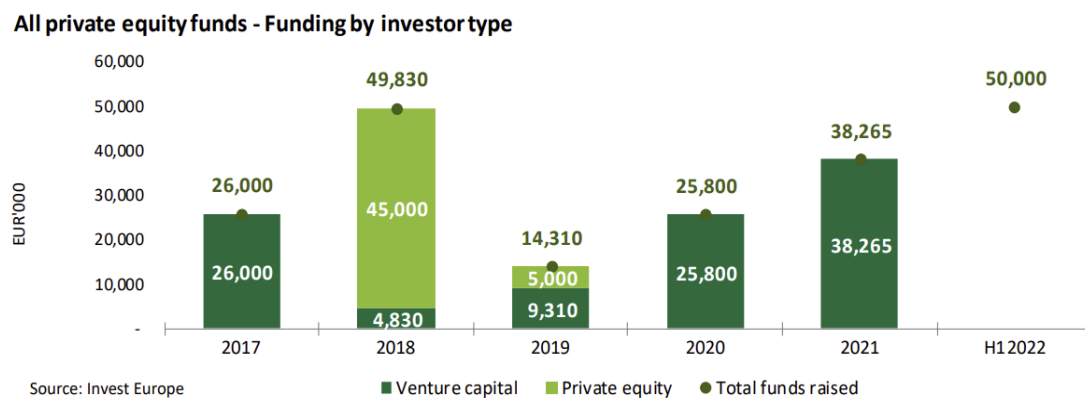


Figure 11: All private equity funds by investor type.

When it comes to sources of public funding — as per OECD data, most of it (69% during 2007-2019) comes from international financial institutions including the European Bank for Development and Reconstruction (EBRD), International Finance Corporation (IFC), and the European Investment Fund (EIF). EIF has a special significance in the country, as it has provided capital for several Romanian VC funds, including Catalyst 1, Catalyst 2, GapMinder, Early Game, Black Sea Fund, Sarmis Capital, Morphosis, and Syntaxis, as Deloitte reports. In general, the agency provided funding for 137 Romanian companies in the years 2007-2022, funnelling around €840 million into the country.

Business angels, venture investment companies, venture funds, equity

Name	Type
<p><u>Gapminder VC</u></p> <p>GapMinder is a Venture Capital Fund, targeting IT Software and Services start-ups in Romania and Central Eastern Europe.</p> <p>Founded by Entrepreneurs for Entrepreneurs, GapMinder plans to invest and support the most disruptive and bold innovations pushing limits and creating positive impact for the community and the overall society.</p>	VC Fund
<p><u>Fortech Investments</u></p> <p>Provides resources and knowledge for start-ups – from capital to recruiting, development or consulting.</p> <p>For mature founders with a start-up that has achieved initial growth, they can offer one of the two rounds (Pre-Seed or Seed).</p>	VC
<p><u>Transilvania investments</u></p> <p>Transilvania Investments is one of the largest investment funds in Romania with a long and relevant experience on the Romanian capital market. The fund manages diversified assets, having in its portfolio companies from the financial, tourism, real estate, energy and IT sectors.</p>	Investment fund
<p><u>RebelVentures</u></p> <p>The investment branch of RebetDot, a digital product development company; RebelVentures operates as a corporate venture capital fund, reinvesting RebelDot's revenue into start-ups, as well as tapping into crowdfunding platforms and angel investment</p>	
<p><u>Transylvania Angels Network (T.A.N.)</u></p> <p>T.A.N. is not an investment fund, but it has the role to facilitate connections and investments, to support the growth of the local start-up ecosystem.</p> <p>Start-Ups need access to both funding and mentoring. Investors need to learn which start-ups are worth investing their time and money. Transylvania Angels Network fulfills these important needs for both parties.</p>	Angels network
<p><u>ROCA X</u></p> <p>ROCA Investments is a private equity company which contributes to amplifying companies' potential, supporting them in developing business strategies to accelerate their long-term growth.</p>	Private equity company Venture Capital fund

ROCA X is a Venture Capital fund investing in disruptive early-stage companies: young entrepreneurs with revolutionary ideas in the technology area, in the MVP or prototype stage, with the vision of having an impact in society and with the passion to turn this desire into reality.	
<p><u>Growceanu</u></p> <p>Growceanu is an angel investing platform.</p> <p>Their members use their expertise, network, and money to help promising entrepreneurs grow their high-tech start-ups.</p> <p>Their processes are designed to enable investors to collaborate and apply their expertise as a group, in order to make smart investment decisions.</p>	Angel investing platform
<p><u>Techangels</u></p> <p>TechAngels was created in 2013 to fill the need of having a common “meeting place” between early-stage technology start-ups and the investors looking for investment opportunities.</p>	Investors group
<p><u>Early Game</u></p> <p>Early Game Ventures (EGV) invests in start-ups that jumpstart new industries in the emerging markets of Europe, investing at the earliest stages in companies whose founders have vested interests, are coachable and address big markets. EGV is also running a concierge accelerator, taking in only 5 or 6 start-ups per year for a very intensive and tailor-made program.</p>	VC Fund
<p><u>Sparking Capital</u></p> <p>Sparking Capital is an early-stage fund backing entrepreneurs, focused on pre-seed & seed investments. They are industry agnostic but prefer investments in consumer internet, marketing-tech, supply chain-tech, fin-tech, property-tech, circular economy-tech start-ups with differentiating value propositions, disruptive business models which have the potential to become national champions and/or scale up fast internationally.</p>	VC Fund
<p><u>Catalyst Romania</u></p> <p>Catalyst Romania, one of the leading technology-focused venture capital firms in Romania, launched its first €15 million fund in 2012 as the first fund of its kind designed for Romania. The firm launched a second growth capital fund for technology start-ups, with an initial closing with institutional and private investors in November 2020, followed by a second closing in April 2021 and the final closing in February 2022.</p>	VC Fund

<p>SeedBlink</p> <p>SeedBlink mission is to build an efficient investment infrastructure for individuals and institutions working together to source, vet, finance and grow innovative European technology companies at all stages.</p> <p>They are innovating tech investing by breaking down barriers through lower minimums, a data-driven digital platform, a unique secondary market, and the ecosystem of co-investors such as venture capital firms and business angels.</p>	Crowdfunding platform
<p>Neogen Capital</p> <p>Neogen incubates and invests in marketplaces, providing entrepreneurs with operational support. Neogen was started in 2000 in the heart of Transylvania by 4 co-founders. The first successful product was Bestjobs, which quickly became the leading job board in Romania. Tiger Global became one of their shareholders in 2007. Since then, they are expanding both geographically and by launching complementary services (Zumzi, CeeVee).</p>	PR
<p>Something Big</p> <p>Something big is an angel investor that believes Romanian innovation needs active support to tackle worldwide challenges. Supporting bold & focused entrepreneurs and innovators is our mission.</p>	Angel investor

4.1.6. Challenges and Opportunities

Romania's start-up ecosystem faces several notable challenges. As reported by the *World Bank Group*, one significant issue perceived by entrepreneurs is the **lack of sufficient academic background and business experience**. This deficiency limits entrepreneurs' ability to develop scalable business models and effectively manage their ventures. Additionally, **limited international exposure** restricts their understanding of global markets and trends, hampering their potential for expansion and innovation.

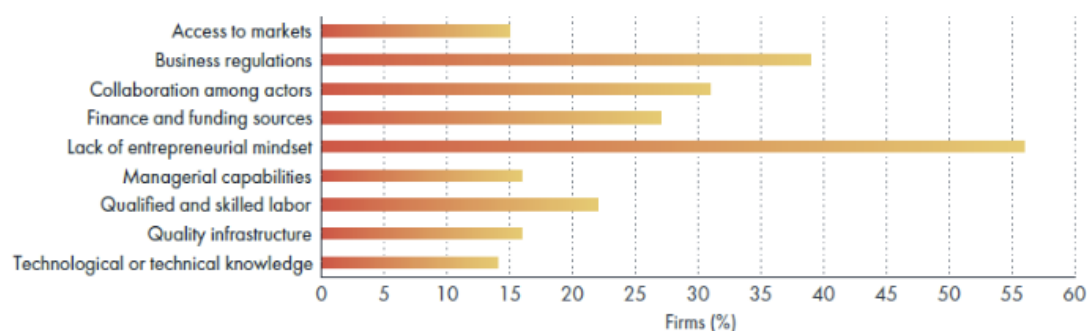


Figure 12: Obstacles to entrepreneurship in Romania as perceived by Tech start-ups. Source: World Bank Group report 'Starting Up Romania' – Entrepreneurship Ecosystem Diagnostic.

The **regulatory environment** in Romania also presents significant obstacles. The government's failure to clearly differentiate between start-ups and small and medium-sized enterprises (SMEs) results in start-ups being underserved by existing regulations. Additionally, issues with the tax system, permits, labour regulations, and administrative complexities further compound the challenges faced by start-ups. Streamlining regulations and creating start-up-specific policies could alleviate these issues.

Financial constraints remain a major challenge. Access to finance and funding opportunities is limited, with a scarcity of venture capital, angel investors, and other funding sources. This financial gap makes it difficult for start-ups to secure the necessary capital to grow and expand their operations.

Furthermore, the **limited use of digital technologies** by many start-ups affects their operational efficiency, market reach, and overall competitiveness. Encouraging the adoption of advanced digital technologies is essential for improving the growth and scalability of these start-ups.

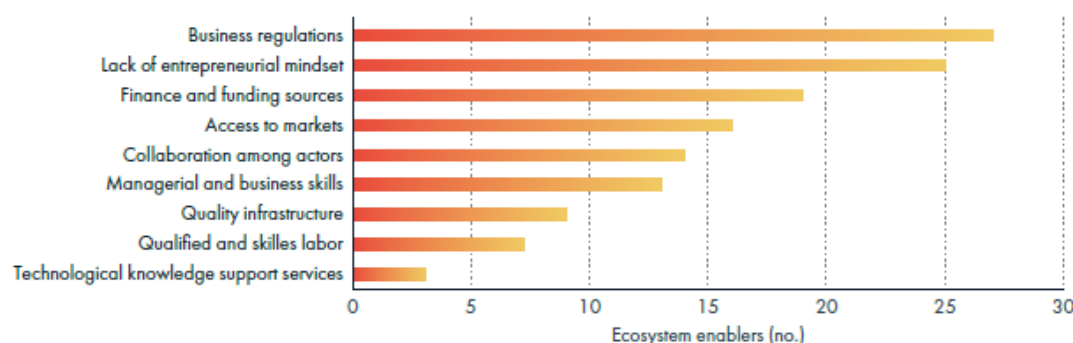


Figure 13: Barriers to entrepreneurship in Romania as perceived by ecosystem enablers. Source: World Bank Group report 'Starting Up Romania' – Entrepreneurship Ecosystem Diagnostic.

Like entrepreneurs, ecosystem enablers reported that **regulations** and a **lack of entrepreneurial mindset** were the major barriers to entrepreneurship. **Finance and funding opportunities** were also seen as poor. The World Bank has nonetheless recognized the immense potential of the Romanian start-up ecosystem, reflected in the availability of infrastructure, qualified and skilled labour, and technical knowledge support services in the country. Opinions were mixed as to whether Romania has a favourable environment in terms of collaboration between actors, market access, and managerial or business skills.

As it results from the results of the World Group Bank analysis, the ecosystem needs to strengthen the entrepreneurial mindset and the social capital within Romania. Many entrepreneurs lack the confidence and skills required to take risks and pursue innovative business ideas. Building a culture that encourages entrepreneurship and provides adequate support networks is crucial for the ecosystem's development.

The underutilization of research and development (R&D) capabilities is another critical challenge. Many start-ups fail to leverage available R&D resources, which stifles innovation and their ability to stay competitive in the tech industry. Increasing collaboration with academic institutions and investing more in R&D could significantly enhance innovation within the ecosystem.

While Romania's start-up ecosystem is developing networking capabilities and promoting entrepreneurship as a viable career choice, there remains a need to strengthen social capital and foster a more entrepreneurial spirit in the country. However, it must be sad that nonetheless, there are many positive signs of growth and development.

The World Bank has also recognized the immense potential of the Romanian start-up ecosystem. Despite these challenges highlighted above, Romania's start-up ecosystem presents numerous opportunities. The country boasts high-quality infrastructure and a skilled workforce, particularly in the Information Technology and Communications (IT&C) sector. This sector significantly contributes to the country's GDP and serves as a strong foundation for tech start-ups to build upon. Leveraging these assets can help start-ups thrive and scale their operations.

Supportive organizations play a vital role in nurturing and promoting start-ups within the Romanian ecosystem. These organizations provide essential support services, including mentoring, networking opportunities, and access to resources, which can help start-ups overcome initial challenges and achieve sustainable growth.

There are also positive signs of growth and development within the Romanian start-up ecosystem. Entrepreneurial activities are gaining momentum, and there is increasing recognition of entrepreneurship as a viable career choice. This positive trend can be further supported by targeted policies and initiatives aimed at fostering innovation and business development.

While opinions are mixed regarding the current state of collaboration between actors in the ecosystem, there is significant potential for improvement. Encouraging partnerships between start-ups, academia, the public sector, and private enterprises can lead to a more integrated and supportive environment. Such collaboration can enhance market access, managerial skills, and business acumen.

The World Bank's recognition of Romania's potential highlights the strengths of the ecosystem, such as the availability of physical infrastructure, skilled labour, and abundant knowledge resources. This international acknowledgment can attract more foreign investment and partnerships, further boosting the growth of the start-up ecosystem.

4.2. Regional analysis of the Start-Up Ecosystem

4.2.1. Regional context

The North-West Region, also known as Northern Transylvania, is composed of **6 counties** (Bihor, Bistrița-Năsăud, Cluj, Maramureș, Satu-Mare, and Sălaj) comprising **15 cities, 28 towns, 403 communes** and **1,800 villages**. It has a surface area of 34.160 km² (14,3% of the country) and in 2022 had a population of 2.523.143 inhabitants. The region is one of the most ethnically diverse in Romania.



Figure 14: Key facts for North-West Region of Romania

The North-West Region is one of the least developed regions in the European Union, with GDP per capita (PPS) which was equal to 70% of the EU27 average in 2022, placing the North-West Region in the category of **poorly developed regions** (GDP/capita <75% of the EU27 average). In 2014, the value of the GDP per capita (PPS) for the North-West Region was equal to 56% of the EU27 average, between 2014–2021 this indicator increased by 18%. According to the latest data provided by INSSE, in 2020 the value of GDP at the level of the North-West region was 132.190,5 million lei (€26.438,1), representing a percentage of approximately 12,4% of GDP at the national level.

The region features a low **unemployment rate** (INNO, n.d.). In 2023, the region had a rate of just 2,1%, significantly lower than Romania's national average of 5,6% and the broader European Union average of 6,1%. This robust employment landscape positions North-West Romania as an attractive destination for businesses and individuals seeking a thriving economic environment. From the counties of the region, the lowest unemployment rates are in the most developed ones, namely Cluj and Bihor, around 1%.



Figure 15: Unemployment rate by county in the North-West Region

Cluj-Napoca, crowned the **country's best student city**, attracts over 90k eager minds annually, transforming the region into a vibrant hub of knowledge and youthful energy. This magnetism extends far beyond national borders, drawing students from neighbouring regions, across the country, and even globally. This youthful energy fosters a dynamic exchange of ideas, perspectives, and cultures, creating a melting pot of

creativity and innovation. With 17 prestigious universities sprawling across the region, each with extensions reaching into various cities, North-West Romania is suitable for all academic aspirations.

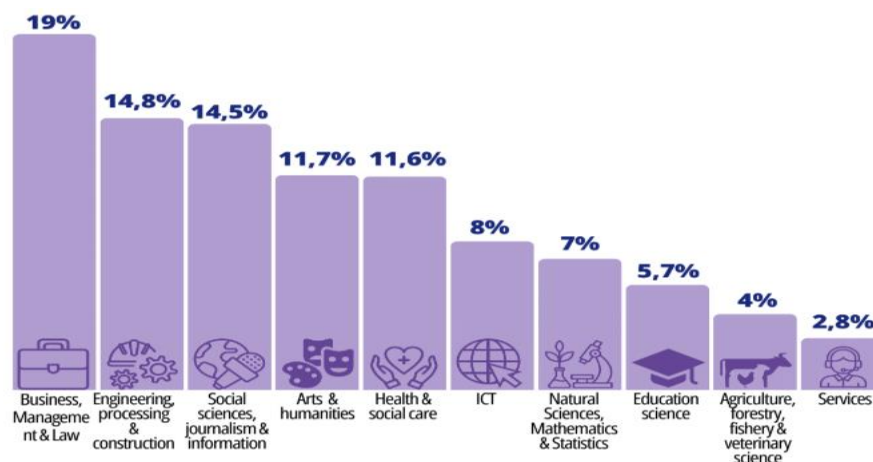


Figure 16: Distribution of graduates from North-West Universities by field of study. Source: National Statistics Institute, North-West Region University Graduates, 2021

4.2.2. Regional Start-Up Ecosystem

The North-West Region's start-up ecosystem is mainly represented by two cities: Cluj-Napoca and Oradea. According to *Recursive*, Cluj-Napoca is the second most promising start-up city in Romania after Bucharest and has emerged as a key tech and innovation hub in Romania over the past decade (Ionita, Mapping Romania's Most Innovative Cities: Who Is Shaping Tech, 2022). It is nicknamed as the "Silicon Valley of Romania" due to the development of the first IT clusters in the country. The city has witnessed a tremendous growth in the IT sector with 9% of the workforce employed in IT in 2020 as compared to 2% in 2008. At the beginning of 2019, the European Commission organized the Start-Up Europe Summit in the city in partnership with Cluj-Napoca Municipality, which was seen as a recognition for the local ecosystem.

Cluj-Napoca's local ecosystems welcome start-ups mostly from AI-IoT med Tech, under the [eHealth Area](#), and in 2020 has received recognition as a project leader in healthcare innovation and AI in Europe at the Global Start-Up Summit (Vrabie, 2021). This growth has been supported by a well-developed network of start-up community builders, tech events, accelerators, and local investors, leading to the birth of numerous start-ups and tech start-ups in the city.

Cluj-Napoca was named the leader in the "smart city development" category by [Emerging Europe](#) in 2021, based on its policies aimed at improving urban life. It is also the city with the most **clusters** in Romania: two in ITC, and one in each priority sector such as agrofood, furniture, new materials, energy, environment, space, thermal waters, creative industry, lifestyle, education.

There are two Digital Innovation Hubs in the North-West Region, both based in Cluj-Napoca, established in 2020 as collaborative partnerships between clusters, universities, research institutes, companies and public administration and concentrate on supporting companies towards digitalization. Both hubs are orchestrated by the 2 ITC clusters based in Cluj-Napoca. In 2021 both DIHs were approved at national level following the EU competition and in 2022 they were both recognized as European Digital Innovation Hubs (EDIHs), receiving multiannual European funding.

According to a study conducted by ARIES Transilvania in 2017) one out of 11 people living in Cluj were working in the IT sector, which was growing continuously, comprising 10% of the active companies in Romania. The city is known for its tech talent and the IT companies that thrive here, some of them reaching over 1,000 employees and more than €30-40 million in annual revenue. Showcasing the local tech talent are two of the most successful start-ups who were born in Cluj: LiveRail, a video advertising platform, which was acquired by Facebook for a reported US\$400–US\$500 million in 2014, and Skobbler, the map and navigation app-maker that was acquired by Telenav for about US\$24 million. Both had founders from Cluj and/or the initial engineering team based in Cluj.

Cluj-Napoca is also an **R&D hub**, attracting multinational companies in industries such as automotive and consumer electronics to set up R&D centres in the city, including Porsche Engineering and Bosch Engineering.

Oradea is the second education centre in the North-West Region in terms of the number of universities and the number of the population in schools, after Cluj-Napoca. In Oradea, the first real signs and discussion around IT companies and start-ups started between 2000-2005. This momentum motivated a few companies in Oradea to approach the municipality with a plan to develop the local tech scene, promote tech, start-ups, and retain IT and entrepreneurial talent.

Oradea's status as an emergent national tech hotspot is a story of local political leadership and effective use of EU funds. Home to *Make IT in Oradea* and *Oradea Tech Hub*, the city is the founding location of [UNCHAIN Fintech Festival](#), set to become one of Central and Eastern Europe's major showcases for fintech innovation.

In 2020, The Oradea Tech hub mapped the local start-up ecosystem for the first time and found (Oradea Tech Hub, 2020):

- 22 start-ups operating in 21 industries and 19 countries.
- +336 people employed by start-ups in Oradea.
- +11 million users.
- +US\$9 million invested in local start-ups.

4.1.7. Start-Up Support Ecosystem in the North-West Region

In addition to national-level policies, Romania has implemented regional development initiatives aimed at addressing disparities and promoting entrepreneurship in underserved areas. These initiatives leverage local resources, strengths, and opportunities to stimulate economic growth and job creation at the regional level. Examples of regional development initiatives include the establishment of innovation hubs, business incubators, and entrepreneurship support centres in key regions across the country. Furthermore, targeted funding programs and investment incentives are directed towards regions with high potential for entrepreneurial development, contributing to a more balanced and inclusive economic landscape.

At a regional level, each of the eight regions (one MDR and 7 LDR) of Romania dedicated specific measures to support the entrepreneurial ecosystem, through their own Regional Programs 2020-2027.

The North-West Regional Development Agency, centred in Cluj-Napoca, leads efforts in the North-West Region of the country, partnering with local stakeholders to develop the local entrepreneurial ecosystem. Also, the Agency, together with the North-East Regional Development Agency and other 14 organizations, are working together under the **ROStart-Up Association**, set up in 2024 to foster the collaboration between the startup enables ecosystem.

In recent years, in terms of **business support structures**, at regional level, we can see the exponential increase in the number of new generation structures, such as **co-working offices** (Cluj Cowork, Chaos Cowork, Zain Studio, Coworking Oradea), various **business hubs** (Cluj Hub, Oradea Tech Hub, Bizz Creativ Hub, Creative Minds Hub Zalău), **accelerators** (Spherik Accelerator, Techcelerator, Risky Business, Hubcelerator), etc. This trend indicates a growing interest in collaboration by young entrepreneurs, especially in high tech sectors, thus contributing to the acceleration of spill-over effects and the exchange of information between innovative start-ups. Most of them are private initiatives, supporting the collaboration between new companies and start-ups and - even if they are not addressed to a specific sector - they have an important IT component.

However, recently, structures with an emphasis on specific fields have also begun to appear. Without pretending to give an exhaustive list, among the initiatives of this kind we can mention:

INNO is a department within the North-West Regional Development Agency. Founded in 2019, INNO's mission is to contribute to the regional development of the North-West region of Romania through offering reliable, high-quality and free of charge support services for potential investors and for the regional innovators and entrepreneurs.

Transylvania Angels Network (T.A.N) – a Cluj Start-Ups spin-off project, an NGO launched in 2012. They aim to support the local start-up ecosystem by facilitating communication between start-ups and investors.

Clusters: At the initiative of the North-West RDA, first clusters were generated in the fields of ICT, furniture and renewable energies starting from 2011. Currently there are 16 clusters operating in the region, most of them in- or around Cluj-Napoca, in fields such as: ITC, wood and furniture, agrifood, energy, thermal waters, space-technologies, life style, creative industries, tourism (Transylvania IT Cluster, Cluj IT Cluster, TREC TRANSYLVANIA Energy Cluster, Transylvania Furniture Cluster, Transylvania Creative Industries Cluster, AgroTransylvania Cluster, North-West Transylvania Balneary-Touristic Cluster, Transylvania Lifestyle and Transylvania Taste, The Geothermal Cluster, CLEMS, HOLZBOX, ADMATECH, Transylvania Tourism Cluster, Romanian New Materials Cluster, The Geothermal Water, Sulphur and Salt Water Resources Cluster, 3R Green Cluster). Some of the clusters in the region are among the most mature in the country, with a relatively large number of members, with well-structured development and innovation strategies, recognized at European level by the European Secretariat for Cluster Analysis (ESCA).

Digital Innovation Hubs (DIHs): After the launch in April 2016 of the first initiative of the European Commission regarding the Digitization of the Single Market (Digital Single Market), an important decision was taken to establish the Digital Innovation Hubs (DIH). Digital Innovation Centres are one of the key elements of the DEI strategy (Digitizing European Industry), formed by structures which aid companies, especially SMEs, towards digitalisation and new technologies.

There are two such Digital Innovation Hubs in the North-West Region, recognised also as European DIHs, following the European open call during 2021-2022. The DIHs capitalize the potential of IT&C companies and start-ups to offer digitization solutions for industry and public administration, and on the other hand, they contribute to the digitization of areas of regional strategic importance.

Industrial parks: The most visible business support structures are the industrial parks, which can be the result of public, private or even public-private initiatives. According to MDRAP data from 2022, from 106 such existing structures at national level that acquired the title of industrial park, 25 are located in the North-West Development Region. The title of industrial park is the administrative document issued by the specialized body of the central public administration that gives to the industrial park the legal regime provided by Law no. 186/2013 on the establishment and function of an industrial park, with subsequent amendments and additions.

The industrial parks are in the following localities: Bistrița, Carei, Câmpia Turzii, Cluj-Napoca, Dej, Feleacu, Jibou, Jucu, Oradea, Petrești, Săcuieni, Tileagd, Moldovenești and Turda. The biggest ones are in Cluj County - Tetarom 3 Industrial Park.

Currently, during this year, the RDA NW financed new specialization parks in the region - Aleșd, Beiuș, Marghita, Ștei (Bihar County), Târgu Lăpuș, Baia Sprie, Somcuța Mare (Maramureș County), opening new directions for local investments in the region.

Business incubators: One of the oldest incubators in the North-West operates within the TETAROM 1 industrial park in Cluj. The business incubator is intended to support start-up companies. The main objective is to attract students interested in promoting valuable business ideas and young people who want to develop an innovative business. TETAROM SA concluded a collaboration protocol with the academic environment in Cluj-Napoca with the aim of capitalizing on the important human resources generated by Cluj universities and support through scientific research, innovation and technological transfer.

Also, in the 2014-2020 programming period through the Regional Operational Program, Investment Priority 2.1, Call for projects 2.1B - "Business Incubators" 7 new similar structures were funded for construction: 4 in Cluj County, 3 in Bihar countryland, one in Maramureș (ABC Incubator, Creative Incubator Oradea, Pomezau Bio-Economy Incubator, Transylvania Furniture Incubator, ARC Park Dej Incubator, "Cresc Oradea Mare" Incubator, Techville by CBC). Three of these projects are to be implemented by public authorities, the rest being private initiatives.

- **Training and Mentorship Programs**

Industry Meets Academia: Collaborative Master's Program

Recognizing the need for industry-aligned skills, the Technical University of Cluj-Napoca took a bold step in 2017 by launching a joint Master's program with Bosch. The curriculum, co-developed by Bosch experts and university professors, goes beyond traditional theory. It delves into research-design topics, automotive software development, sensor technology, and engine control systems. To bridge the knowledge-to-practice gap, the program includes specialized internships directly at Bosch, equipping graduates with real-world skills sought after in the automotive engineering field.

- **Events**

Techsylvania is one of Eastern Europe's leading technology and innovation conferences, held annually in Cluj-Napoca, Romania. This event is renowned for bringing together technology visionaries, entrepreneurs, investors, and business leaders from around the world to explore the latest in tech and business innovations.

Cluj Innovation Days (CID) is a prominent annual event that aims to foster innovation, entrepreneurship, and cross-sector collaboration in Romania. Organized by the Cluj IT

Cluster, the event has been a significant platform for discussing digital innovations and sustainable development. In 2024, CID celebrated its 12th edition, with a focus on "Digital Innovations for a Sustainable and Secure Future." The Cluj Innovation Days are recognized for their role in positioning Cluj and Romania as hubs of innovation and smart communities. The event not only facilitates the sharing of knowledge and experiences from global experts but also serves as a launchpad for new initiatives aimed at promoting sustainable growth and technological advancements in the region.

Cluj Innovation Camp is an annual event focused on fostering cross-sectoral innovation in the Transylvania region. Organized by the Transylvania IT Cluster, it brings together experts from various economic sectors and countries to collaborate on innovative solutions for regional development. The event typically includes debates on key themes such as digital education, the creation of innovative ecosystems, and sustainability.

Transylvanian Clusters International Conference is an annual event organized by the Northern Transylvania Clusters Consortium (Transylvania Furniture Cluster, AgroTransylvania Cluster, Transylvania IT Cluster, TREC - Transylvania Energy Cluster, Transylvania Creative Industries Cluster). It serves as a platform for the international exchange of knowledge and best practices, fostering cross-sectoral collaboration to address global challenges. The event aims to support the economic environment and promote innovation within various industries.

4.1.8. Local Support Mechanisms

How Cluj supports companies and start-ups

Cluj-Napoca has a Digital Transformation Strategy since 2021. The key strategic factors of it are:

- Smart living – integrating digital technologies in the community's life
- Digital skills and digital inclusion
- Interconnected digitalisation

The operationalisation of **Cluj-Napoca Digital Transformation Strategy** is undertaken by multiple departments within public institutions, and public managers, in cooperation with other stakeholders (Faculty of Political Sciences and Administration, 2021). Access to data will help take the right decisions and generate coherent public policy projects. The digital transformation will use all available resources and will involve, through permanent partnerships, citizens, the public sector, academia, private companies, clusters, non-profit organizations and innovation centres. It is also planning to establish 'digital ambassadors' within the city hall departments to propose and support digital transformation projects.

Also, Cluj Napoca municipality has committed to several entrepreneurial support programmes and initiatives, such as C-EDU, FIX Program and Culturepreneurs.

C-EDU (Cluj Cluster of Education) represents the city of Cluj-Napoca in the first pan-European platform for collaboration and stimulation of start-ups in Europe - the world - [Start-UpCities Platform](#). The initiative brings together second tier-cities in the attempt to create a collaborative network of resources and infrastructure to serve the need of start-ups, from all over the world, to develop their products, ideas, processes from a stage to the other- using the support of any of the cities that are part of the network. It is a bottom-up response to the need of brain circulation and talent endorsement in as many places in Europe and the world as possible.

FIX Cluj is a community-driven incubation program designed to equip aspiring entrepreneurs with the knowledge, skills, resources, and networks necessary to navigate the start-up journey.

This 10-month hybrid program supported by Cluj-Napoca Municipality helps young innovators tackle some of the most pressing social challenges and create digital solutions with a positive impact on their communities. It acts as a hub for innovation, offering start-ups workspace, mentorship, and access to funding, supporting the local start-up community by providing a conducive environment for business growth.

Culturepreneurs program run by Cluj Cultural Centre offers support for the creation and development of new businesses by providing access to coworking spaces and labs, training, consulting, technology, and networking opportunities.

Innovated in Cluj is a platform for promoting real stories about innovators and innovation from Cluj. It aims to promote funding opportunities and create networking and resources for the innovators. The platform catalyzes the ideas and initiatives of the Cluj community and ecosystem and promotes them in a synergistic context with European initiatives in this field.

MANIFESTO Cluj for Accelerated Innovation is a non-formal startup support community strengthening the ecosystem and identifying synergies to better support the startup environment to grow.

Cluj-Napoca is home to 6 public universities, most of them encouraging students to pursue entrepreneurial path. Accelerators such as [i-Student Lab](#) from Babes Bolyai Universities or committing to public-private initiatives such as [Innovation Labs](#).

- **How Oradea supports companies and start-ups**

The local government has played a key role in the technological advancement of Oradea and the growth of its start-up ecosystem. In 2020, a partnership between the private and public sectors was established with the aim of enhancing the local technology sector, supporting start-ups, and retaining IT and entrepreneurial talent

In 2008, the Local Development Agency in Oradea (ADLO) together with the Oradea City Hall, started building the city's industrial parks. The city of Oradea **currently has four**

industrial parks employing more than 8,500 people in 2021. The 104 companies which had invested at the time contributed to a total pool of €410 million.

Another important project for ADLO is the launch of the city's first science and technology park to create an innovation and technology transfer infrastructure in Bihor. The technology park will pool an investment of €7 million and will be built in partnership with the Bihor County Council, the University of Oradea and the Bihor Science and Technology Park Society, on an area of around 5.200 square meters near the University of Oradea.

Incubation and acceleration infrastructures such as **Make IT in Oradea** and **CRESC Oradea Mare** are strongly supported by the local municipality.

❖ Acceleration programmes & start-up support initiatives

Spherik Accelerator was the first accelerator launched in Romania (Cluj-Napoca) in 2013 and runs vertical-specific programs funded by entities like EIT Climate-KIC and EIT Urban Mobility, focusing on sustainability and urban mobility, offering start-ups in these sectors the resources and expertise needed to scale their innovations effectively. Synergist EIC Accelerator provides funding and support for high-impact, innovative start-ups with strong growth potential, helping them navigate the challenges of scaling their businesses in the competitive European market. For 3 years in a row (2016, 2017 & 2018) Spherik has been awarded the *Best Accelerator and Incubation Program in Romania* title, by the Central European Start-Up Awards. In January 2018, Spherik Accelerator joined the Start-Up Europe Club and became the Romanian Start-Up Europe Ambassador.

FreshBlood is dedicated to health tech start-ups, offering sector-specific support and resources to help them develop and scale their innovations in the healthcare sector.

Innovation Labs, Cluj branch, provides a comprehensive program that includes pre-acceleration support, mentoring, and access to industry experts, helping start-ups turn their ideas into viable businesses.

Start-Up Reaktor provides a platform (a mix between the acceleration, incubation and investment processes) for start-ups to validate their business models and access mentorship, helping them refine their strategies and scale their operations. Start-Up Reaktor is supporting start-ups to get traction in new markets in order to be able to really accelerate globally and to be competitive and attractive for investors. The programme is run by **ROTSA - Romanian Tech Start-Ups Association**, an umbrella organization that aims to promote, support and represent the interests of tech start-ups in Romania. ROTSA brings together the main actors of the national ecosystem of tech start-ups, facilitating their communication and creating connections and partnerships between them.

Techcelerator: offers intensive acceleration programs, providing start-ups with funding, mentorship, and access to a network of investors and industry experts, focusing on scaling innovative companies by offering tailored support to meet their specific needs.

LevelUP Accelerator is the First Health & Life Sciences Accelerator in Romania, launched in 2023 by INNO Department of North-West Regional Development Agency through the EIT Health Drive project. It consists of an intensive 6-month program specifically designed to accelerate early-stage start-ups (under 3 years) who offer a solution in the life sciences field. During the accelerator, teams will receive support from experts on topics such as: discovering and understanding customers, developing and validating solutions, attracting funding, marketing, or sales.

GreanLeap Accelerator run by INNO Department of North-West RDA within a Horizon Europe Programme, provides incubation and acceleration services to green startups.

HIVE Public Health is an initiative that belongs to the Babes-Bolyai University. HIVE Innovation is a growing community of innovators that aims to improve the health and wellbeing of others, while developing innovative solutions to the biggest healthcare challenges. HIVE Public Health

Oradea Tech Hub is a non-profit organization founded in 2015 b to develop a local tech ecosystem hub. It enjoys the support of most major technology and software companies in Oradea, Oradea City's Hall, and the city's academic environment in achieving its goals. OTH is interested in helping develop the new trend where small towns compete with big cities as technological hubs, offering more than just similar opportunities, but a better quality of life as well.

Make IT in Oradea was established in 2020 as a partnership between the private and public sectors was established with the aim of enhancing the local technology sector, supporting start-ups, and retaining IT and entrepreneurial talent. Today, the non-profit is funded by the municipality through the Local Development Agency and five companies that joined the coalition. Make IT in Oradea's mission is to accelerate the development of the local start-up ecosystem to drive economic growth and transform Oradea into a business destination for start-up founders.

The **Bright Labs Incubation Program** runs annually by **Make IT in Oradea** since 2021, providing support to founders at the very early stages in their entrepreneurial journey. With a €300.000 yearly budget, over nine months, participants in the program benefit from mentorship, consultancy on specific start-up-related topics, networking, a dedicated co-working space, and a final pitch event, with funding opportunities. It reunites start-ups from a variety of fields, including SaaS, medtech, proptech, cybersecurity, and commerce.

CRESC Oradea Mare Incubator established in Oradea by the end of 2023, has dedicated spaces and programmes for the startups, which aims to support young companies in the creative sector with launching new products and services. As public initiative of Oradea

Municipality, was funded by a FEDR project which included the rehabilitation of a former hospital for incubation spaces. The building hosts 20 offices for start-ups, 30 open-space workspaces, 6 workshop and support spaces for incubator participants, and event and training rooms. €3.6 million were allocated for the project. Initiatives are built on three pillars, including providing mentoring and funding for tech entrepreneurs; providing scholarships to high school and university students following a tech curriculum, and offering tax incentives to office buildings that host IT&C companies

ABC Incubator in Cluj-Napoca is run by Arobs Business Center SRL and provides a complex support system for early-stage technology companies in the IT industry. Developed in Cluj-Napoca and opened in 2021, ABC Incubator is a complex, 360-degree concept that offers facilities, services and benefits to the most valuable technology start-ups. Start-Up residents in its first 3 years of existence are offered co-working spaces with state-of-the-art equipment, benefit from assistance in accessing non-reimbursable funds, mentoring from specialists with considerable expertise in technology and entrepreneurship, are invited to networking events and training courses.

Cluj Startups founded in 2012 in Cluj-Napoca and supports and facilitates the growth of the start-up ecosystem in Cluj/Romania — investors, mentors, start-up founders, event organisers. The group grew from a few members to 3000 people and hundreds of events/meetups organised, supported or promoted.

Activize TECH is based in Cluj-Napoca and since 2012 focuses on acceleration programs, fundraising support, reports about the start-up ecosystem and start-up scouting in Romania and Eastern Europe. Works closely with 100+ organizations and had an impact on over 1000 start-ups. Organizing hackathons, connecting start-ups with angel investors and VCs, providing mentorship on fundraising and creating yearly reports.

Cluj Hub is the biggest hub in Cluj-Napoca and in Transylvania, placed at the 3rd floor of the main shopping building in the heart of the city. It has established a community around, including businesspeople, entrepreneurs and freelancers from the digital and creative area. Cluj-Hub provides all the necessary infrastructure (open and closed offices, conference rooms, exhibition space, dining, terrace) and a range of extensive support services.

The synergy between the public and private sectors in Romania's scale-up ecosystem creates a conducive environment for start-ups to thrive. Collaborative programs, government-backed initiatives, and effective use of funding and resources collectively enhance the growth and global competitiveness of Romanian start-ups. This dynamic interaction positions Romania as an emerging hub for innovation and entrepreneurship, driving forward its presence in the international tech landscape.

4.3. Startup-Support Policies in Romania

In Romania, the policies related to the start-up ecosystem are applied at the national level, ensuring a cohesive and unified approach to fostering innovation and entrepreneurship across the country. These national policies provide a stable framework that supports start-ups regardless of their location within Romania, offering consistent fiscal incentives, tax reductions, and exemptions. This centralized approach ensures that all regions benefit equally from the government's initiatives aimed at promoting the tech industry. The Romanian government's support extends to creating a favourable business environment, which, combined with the country's strategic location, competitive labour costs, and well-educated workforce, enhances its attractiveness for tech entrepreneurs and investors.

4.3.1. Key components of the National Support Policies

Romania's policy initiatives in entrepreneurship offer valuable insights into the opportunities and challenges of fostering regional entrepreneurial ecosystems. Romania has pursued a range of policy interventions aimed at stimulating entrepreneurial activity, enhancing innovation, and promoting economic development. These initiatives encompass a diverse array of measures, including regulatory reforms, financial incentives, support programs for start-ups and SMEs, and efforts to improve access to markets and resources.

- **Strategic documents**

At national level, the main strategic document relevant in the field of innovation and entrepreneurship is represented by the **National Strategy for Research, Innovation and Smart Specialization 2022-2027**. The strategy, developed by the Ministry of Research, Innovation and Digitization, sets the vision for the Romanian research-innovation system in the horizon 2030 and expresses the firm option to recognize and support excellence, to reward performance, to stimulate the development of collaboration between the public and private environment. Science, innovation and innovation entrepreneurship will constitute successful models for the sustainable development of Romania in a local, national and international context.

The Strategy is structured on four general objectives:

- Development of the research, development and innovation system;
- Supporting innovation ecosystems associated with smart specializations;
- Mobilization towards innovation;
- Increasing European and international collaboration.

The main instrument for implementing the National Research Strategy, Innovation and Intelligent Specialization 2022-2027 (SNCISI) is the **National Research Development**

and Innovation Plan 2022-2027. PNCDI IV is multiannual, ensuring transparent and predictable financing of the national RDI system, with the aim of modernizing, consolidating excellence and increasing its relevance for the economy and society. One of PNCDI IV 10 financing programs is dedicated to the realization of joint research-innovation projects, aiming at, based on the partnership between the business environment and the public/private CDI environment, supporting economic actors access to RDI services, as well as supporting the development of innovation ecosystems through the "Partnerships for Innovation " program.

PNCDI IV aims to create the premises for ensuring the framework for investments in RDI, encouraging partnerships between public and private actors in order to transfer research results to the market, stimulating institutional performance and international collaborations.

One of its main tools dedicated to start-ups is represented by the Smart Growth, Digitization and Financial Instruments Program 2021-2027. A specific measure for Romania`s start-ups is "Support for innovative start-ups", launched in July 2024 and which has a total budget allocation of 46.698.235 EUR.

Romanian AI Strategy 2024-2027. issued in July 2024, leveraging expertise in science, technological innovation and investment through collaboration between academia, business, research, innovation and public administration. The transformation will be implemented through five strategic axes: digital public administration, digital economy, digital education, cybersecurity, digital communications, and future technologies, where AI is highlighted alongside 5G, IoT, quantum communications, robotics, blockchain, and smart cities.

The National Youth Strategy 2024-2027, is another strategic document relevant at national level, aiming to enhance youth development across multiple dimensions. Developed by the Ministry of Family, Youth, and Equal Opportunities, the strategy sets forth a vision for supporting young people through targeted policies and initiatives that align with both national priorities and broader European objectives.

The Strategy includes several actions to develop entrepreneurial skills and youth entrepreneurship, particularly in rural areas. Policy measures under this strategy aim to support young entrepreneurs through training, business incubators, and hubs, making entrepreneurship a viable alternative to traditional employment.

- **Financial Incentives**

The Romanian government has been supportive of the tech industry, providing fiscal incentives and creating a favourable business environment for start-ups. With its strategic location and competitive labour costs, Romania is increasingly becoming a preferred destination for tech entrepreneurs and investors.

The country offers a range of fiscal incentives, including a *standard corporate income tax rate* of 16%, with special provisions for sectors like IT, agriculture, construction, and the food industry that allow for tax exemptions and reductions (Invest Romania, n.d.). Microenterprises enjoy simplified taxation, benefiting from a 1% *tax rate on turnover* below RON 300,000 and 3% on higher turnovers.

Moreover, *reduced VAT* rates apply to certain products and services, further supporting the business environment. These incentives, coupled with Romania's low labor costs and well-educated workforce, make it an attractive hub for tech entrepreneurs.

- **Regulations**

The Romanian entrepreneurial system is supported also through specific laws, addressing the following matters:

- **SMEs Law** - [Law n. 346 - 14/07/2004](#): the law established the conditions for SMEs and it was constantly changed in order to adapt to the evolving market requirements, along with the communautaire acquis.
- **Business Angels Law** - [Law n. 120 - 29/05/2015](#): the law introduced the business angels category in the frame of national investments funding, defining them as people who will invest between 3,000 and 200,000 euros in micro-enterprises and small enterprises and will benefit from certain tax facilities.
- **Business Incubator's Law** - [Law n. 102 - 19/05/2016](#): the law established the conditions for granting the title of business incubator as business support structure, together with the various types of incubators allowed. It is a law proposed for revision by the Ministry of resort during 2018-2019, but so far, the only change was to incorporate a new type, the digital innovation business incubator.
- **Crowdfunding Law** - [Law n. 244 - 20/07/2022](#): the law introduces in the national landscape the concept of crowdfunding and it regulates crowdfunding activity, imposing the Financial Supervisory Authority (A.S.F.) as the competent authority responsible for fulfilling the functions and tasks set out in Regulation (EU) 2020/1.503, as well as the sanctioning regime applicable in case of non-compliance with its provisions, the deadlines for submitting documents for authorization as a European crowdfunding service provider, the conditions for withdrawal of authorization, the requirements regarding advertising communications and the language in which the key investment information sheet can be made available to potential investors, etc. Crowdfunding offers an alternative source of funding, including venture capital, but it can also provide other benefits for businesses: it can validate a business idea, give entrepreneurs access to a large number of people providing insights and information, while also being a marketing tool.

These are some important achievements for the public sector directions, aligning contemporary instruments to the national market landscape.

Despite these efforts, there is room for greater public sector engagement in establishing an investment-friendly regulatory framework and enhancing the global visibility of the start-up landscape. Improved entrepreneurial education at the secondary school level and the implementation of dedicated entrepreneurship programs would also be beneficial.

4.3.2. Startup Support Programmes at national level

During the period of 2014-2020, an extensive array of public programs was implemented in Romania to support entrepreneurship, as documented in the analysis conducted by the World Bank Group (Cruz, et al., 2022). These programs utilized public resources and included subnational (regional), national, and supra-national (European Commission) initiatives, provided they were at least partially administered within Romania and benefited Romanian recipients. The total budget allocation for entrepreneurship-related programs was over €949 million for the period, translating to an annual allocation of around €144 million. This amounted to roughly one-quarter of the annual budget for all programs. A significant portion of the budget was concentrated in a few large programs, with the three largest programs under the **State Aid Program for Financing Investment Projects** and the **Regional Operational Program** accounting for half of the annualized budget.

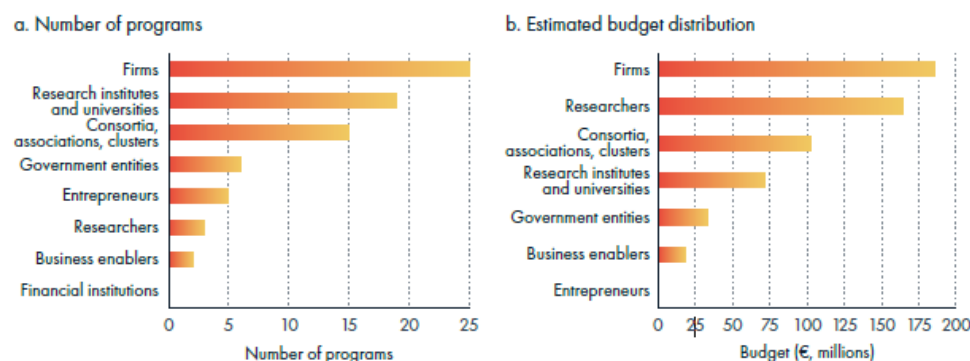


Figure 17: Public programmes implemented in Romania 2014-2020. Source: World Bank Group report 'Starting Up Romania' – Entrepreneurship Ecosystem Diagnostic.

According to their analysis, of the 50 programs reviewed, very few provided substantial pre-start-up support or adequately funded ecosystem enablers like accelerators and incubators. Most programs were generalized, lacking the necessary specialization to address the unique needs of start-ups at different stages, especially high-potential tech start-ups, and often excluded pre-revenue start-ups. Additionally, there was a notable

risk aversion in program design, favouring mature firms and market-ready technologies, which hindered the development of a robust innovation ecosystem.

In 2020, the Ministry of European Investments and Projects launched a grant scheme, supported by the European Social Fund, encouraging students to become entrepreneurs. The fund — **Innotech Student** — awarded the first grants at the end of 2021. This is a significant initiative aimed at fostering entrepreneurship among Romanian students and seeks to provide financial and educational support to student entrepreneurs, encouraging them to start their own businesses by providing them access to finance and comprehensive business support. The program targets students in their last year of post-secondary or tertiary education, doctoral students, and post-doctoral researchers. Eligible projects can receive grants up to €100,000, based on the number of jobs the start-up is expected to create. As of 2021, the budget for the program increased to €65,2 million, with approximately €45,6 million reaching the students and the rest used by grant administrators for project-related expenses. By the end of 2023, the program had supported over 22,000 students in entrepreneurship courses, leading to the creation of more than 1,300 new businesses and over 3,300 new jobs.

Additionally, most of the EU funded projects aiming at supporting youth employment, funded under the [Youth Guarantee Action Plan by the Youth Employment Initiative](#) or the European Social Fund (within the Operational Programme Human Capital), also include entrepreneurial education for a selected group in their target group and supported a small number of new businesses set up by the young beneficiaries, according to the evaluation of the second Evaluation of the Operational Programme Human Capital, focused on specific objectives regarding employment, conducted and published in 2023.

To support educators (teachers and youth workers) in developing skills for entrepreneurship education, Romania is promoting the implementation granted by [Erasmus Plus programme](#). No systematic information is provided on the number of teachers or youth workers benefiting from training projects in the field of youth entrepreneurship within Erasmus Plus. After participation in trainings on entrepreneurship education, the multiplication phases depended on teachers' willingness and motivation to transfer the methods of non-formal learning in class and to promote entrepreneurship among young people. No other top-level national Romanian initiative has been launched for the educators' support in entrepreneurship education.

Among other public initiatives focusing on supporting the start-up ecosystem are [Start-Up Nation](#) and [Start-Up Plus](#); both promote entrepreneurship and aid start-ups.

- **Start-Up Nation:** Romania uses national budget funds to support start-ups with a maximum of 200,000 lei (about €43,000). The programme was launched in 2017, and other calls have been published in December 2018 and October 2019. In 2020 the programme focused on supporting the IT start-ups under the name: Star Tech

Innovation. In 2021 the budgetary allocations for entrepreneurship focused on curbing the effects of the COVID-19 pandemic. In 2022, Start-Up Nation Romania was relaunched under similar conditions to the ones in 2019.

- **Romania Start-Up Plus:** The programme supports start-ups for all ages entrepreneurs with up to €40.000, using European funds from the European Social Fund through the Operational Programme Human Capital. In 2018, the Managing Authority of the programme, at the Ministry of European Investments and Projects, selected 195 organisations and universities to manage grant schemes for projects. Part of the funding was directed to entrepreneurship training, but the most part of the funding was re-granted for small start-ups in very similar conditions with Start-Up Romania.

Another governmental aid to support the development of start-ups was through the **Woman Entrepreneur Programme**, aiming to address the challenges faced by women entrepreneurs. The program had an allocation of financial resources of €40.000 allocation for the 2022 edition. The eligible applicants were women having the role of main associate, shareholder, administrator of a company. To achieve its objectives, the program utilized diverse methods. Initially launched through workshops covering travel and accommodation costs, it has evolved into a comprehensive scheme. The current phase involves providing minimis grants of up to €40,000 to 1,000 women-led businesses.

Other programmes for entrepreneurship supported by the Romanian government have been:

- The programme for the development of marketing activities of products and market services (no longer opened after 2019).
- The programme for the development of the entrepreneurial culture among women managers in the SME sector (no longer opened after 2019).
- The national multi-annual micro-industrialization programme (available until 2018).
- The multi-annual national programme for supporting crafts and handicrafts (opened until 2016).

While pre-seed funding remains a challenge in the Romanian start-up ecosystem, significant strides are being made to address this issue through the **National Recovery and Resilience Plan** (PNRR). The government has directed resources from the PNRR towards bolstering private equity funds across various ecosystems, aiming to enhance the availability of equity financing for start-ups and SMEs.

A notable initiative under this plan is the establishment of the **Romania Recovery Equity Fund of Funds (REF)**, managed by the European Investment Fund (EIF). This fund-of-funds initiative is designed to support local businesses by providing access to equity

finance, leveraging resources from the EU. The REF, with an allocation of €400 million, focuses on investments in SMEs, mid-caps, and infrastructure projects, particularly those in renewable energy and energy efficiency sectors. The fund does not invest directly in businesses; instead, it channels investments through selected financial intermediaries, ensuring that the capital reaches businesses at various stages of growth, including start-ups.

By strategically allocating resources from the PNRR, the Romanian government is making substantial efforts to create a more supportive and robust funding environment for start-ups, thus addressing one of the critical gaps in the ecosystem and promoting long-term economic growth and innovation.

4.3.3. Regional Support Policies and Programmes

- **North-West Regional Development Plan (RDP)**

RDP is the main planning document developed at the regional level and reflects the relevant development policies at the European and national level in relation to the specific needs and challenges at the level of the region. The RDP represents the strategic basis for substantiating the projects initiated in the region and is a landmark both for the national authorities regarding the substantiation of the financing programs, as well as for the county / local authorities and potential public or private investors.

- **Smart Specialization Strategy of the North-West Region of Romania**

The Smart Specialization Strategy (S3) of the North-West Region of Romania is a strategic framework aimed at driving economic growth and innovation through targeted support for regional strengths. This strategy aligns with the European Union's Cohesion Policy, particularly Policy Objective 1: "A smarter Europe, by promoting innovative and intelligent economic transformation." The S3 is essential for fostering entrepreneurship, supporting start-ups, and ensuring sustainable development in the region.

The S3 is crucial for the North-West Region as it aligns regional capabilities with market opportunities to enhance competitiveness and innovation. By focusing on regional strengths, the strategy aims to create an environment conducive to entrepreneurial growth, attract investments, and support the development of new businesses. This targeted approach optimizes resource allocation and ensures sustainable economic development. According to the RIS3, the main specialization sectors are the following:

Pillars	Priorities/fields:	Objective:
I. Innovation for health and well-being	1.1 Agri-food 1.2 Cosmetics and food supplement 1.3 Health	To support innovation in areas with a tradition in the region to improve the health and wellbeing of a large number of inhabitants.
II. Development of emerging sectors	2.1 New materials 2.2 Advanced production technologies	To exploit the results of R&D based on advanced technologies for the development of emerging specific economic activities in line with global trends.
III. Digital transformation: regional digital agenda	3.1 Information and communications technology (ITC)	Digitize the economy and society, supported by the ICT sector's transition to innovation

The goals of the Smart Specialization Strategy in the North-West Region align with the broader EU objectives of sustainable and inclusive growth. Key goals include:

- **Enhancing Innovation and Research:** Strengthening the region's research and innovation capacity to support high-tech industries and a knowledge-based economy.
- **Boosting Entrepreneurial Activity:** Increasing the number of start-ups and entrepreneurial ventures through targeted support and funding.
- **Promoting Sustainable Development:** Encouraging the adoption of sustainable practices and technologies to ensure long-term economic and environmental sustainability.
- **Improving Competitiveness:** Enhancing the global competitiveness of the region's industries by leveraging local strengths and capabilities.
- **Fostering Collaboration:** Building strong networks and partnerships between businesses, academia, and research institutions to drive innovation and economic growth.

The project's portfolio of the S3 is the result of an extensive consultation process of key actors at the regional level, especially through Entrepreneurial Discovery Process (EDP) workshops, but also through other methods, especially open announcements, launched in this regard. The EDP workshops held from November 2019 to May 2023 have enabled the identification of existing needs in the regional innovation ecosystem across smart specialization areas and serve as a starting point for outlining future actions to be considered in the strategy implementation process. According to them the strategy identified priority sectors and models for specialized innovation to achieve structural transformation and increase global competitiveness:

Priority 1: The "tripod" of research-development-innovation adapted to market needs

- Increasing the research-development-innovation capacity and adapting technology transfer services to market needs through soft measures and intelligent infrastructure development.

Priority 2: An innovative and digitalized business environment

- Increasing the number of innovative enterprises by ensuring access to new technologies, aligning with Industry 4.0 standards and sustainable economy principles, mobilizing private capital, and developing human resources.

Priority 3: Supporting the creation of a connected innovation ecosystem

- Reducing the fragmentation of the innovation chain through effective cooperation among actors in the regional innovation ecosystem and supporting collaboration with national, European, and international entities.

As highlighted by the second priority, a significant focus of the S3 strategy is the development of a robust start-up ecosystem in the North-West Region. By enhancing digitalization and innovation across various sectors, the region aims to create a conducive environment for start-ups and SMEs to thrive.

The Smart Specialization Strategy is essential for driving regional development. By focusing on the region's strengths and fostering an environment that supports entrepreneurship and innovation, the S3 aims to create a competitive and sustainable economy. The ongoing implementation of various projects and initiatives highlights the region's commitment to achieving these goals. Continuous evaluation and adaptation of the strategy are necessary to address emerging challenges and ensure sustainable growth and development.

The Smart Specialization Strategy is a vital tool for the North-West Region of Romania, supporting the growth of start-ups and fostering a culture of innovation. By aligning regional strengths with market opportunities, the S3 ensures sustainable economic development and positions the region as a competitive player in the global economy. The

strategic focus on smart specialization, combined with robust financial support mechanisms and collaborative efforts, underscores the region's dedication to fostering a vibrant and dynamic entrepreneurial landscape.

- **Regional Programme for the North-West Region of Romania 2021-2027**

The North-West Regional Program 2021-2027 is the main ERDF co-funded programme at regional level. Managed by the North-West Regional Development Agency, it has dedicated specific financing lines to support both start-up and scale-up companies operating in the region. These measures include:

- ❖ Projects in areas of intelligent specialization (research) for enterprises: [PRNV/2023/111/1] - Budget allocation **23,811,306.00 EUR**.
- ❖ Support for newly established innovative enterprises: [PRNV/2023/112/1] - **21,764,706.00 EUR**
- ❖ Digitization of SMEs in the North-West Development Region: [PRNV/2023/121/1] - Budget allocation **16,764,706.00 EUR**.
- ❖ Productive investments for micro-enterprises in the North-West Development Region: [PRNV/2023/131.A/1] - Budget allocation **19,306,216.00 EUR**.
- ❖ Increasing the competitiveness of SMEs in the North-West Development Region:
 - General SMEs: [PRNV/2023/131.B/1] - Budget allocation **46,714,504.00 EUR**.
 - Robotics and nanotechnologies: [PRNV/2023/131.C/1] - Budget allocation **20,000,000.00 EUR**.
 - Tourism and Health: [PRNV/2023/131.D/1] - Budget allocation **15.000.000,00 EUR**.
 - Innovative productive investments for SMEs (financial instruments): [PRNV/2023/131.E/1] - Budget allocation **23,529,412.00 EUR**.
 - Internationalization of SMEs: [PRNV/2023/131.F/1] - Budget allocation **10,000,000.00 EUR**
 - Support for innovation ecosystem – Market Transfer for SMEs: [PRNV/2023/131.H/1] - Budget allocation **7,500,000.00 EUR**.
- ❖ Projects in fields of intelligent specialization (production component) for enterprises in the North-West Development Region: [PRNV/2023/131.G/1] - Budget allocation **14,117,647.10 Euro**.
- ❖ Supporting the development of smart specialization parks [PRNV/2023/132.A.1/1] - Budget allocation **32,983,385.90 EUR**.

- ❖ Supporting the development of initial investments of SMEs in smart specialization parks [PRNV/2024/132.A.2/1] - Budget allocation **49,507,054.00 EUR**.
- ❖ Supporting the development of business incubators [PRNV/2023/132.B.1/1] - Budget allocation **29,41,177.00 EUR**
- ❖ **Financial instrument** PRNV/2025 - Establishing an equity capital risk fund via a private fund administrator – budget allocation for startups **23,5 mil EUR**

These measures underscore the region's dedication to fostering a vibrant and dynamic entrepreneurial landscape, making the North-West Region a pivotal player in the national and European start-up ecosystem.

4.4. Romanian Start-Ups and Unicorns

Unicorns/Soonicorns	Sector/Industries	City/Region of origin	Website
UiPath	Software	Bucharest	https://www.uipath.com/
MultiversX	Software	Sibiu	https://multiversx.com/
eMAG	E-commerce	Bucharest	https://www.emag.ro/
FintechOS	Software	Bucharest	https://fintechos.com/
FLOWX.AI	Software	Bucharest	https://www.flowx.ai/
Druid	Software	Bucharest	https://www.druidai.com/
Veridion	AI, Software	Bucharest	https://veridion.com/
FlowX	Software	Bucharest	https://www.flowx.ai/
Digitail	Software, Vet Industry	Bucharest	https://digitail.com/
Sessions	Software	Bucharest	https://sessions.us/
Seedblink	Software	Bucharest	https://seedblink.com/
Alter Medico	Software, Medical Industry	Bucharest	https://altermedico.com/
EDNEOS	Software, Education Industry	Timișoara	https://edneos.com/
ESX	Software	Bucharest	https://www.abonamentesali.ro/

Undelucram	Software	Cluj Napoca	https://www.undelucram.ro/
Cortexhub.ai	Software	Bucharest	https://www.cortexhub.ai/
ZayaAI	Software, Medical Industry	Bucharest	https://www.zaya.ai/
Instant Factoring	Software	Bucharest	https://instantfactoring.com/
Agora Robotics	Software	Bucharest	https://www.agorarobotics.com/
Eyelet.io	Software	Oradea	https://www.eyelet.io/
UltronAR	Software	Warsaw	https://ultronar.com/
Kinderpedia	Software, Education Industry	Bucharest	https://www.kinderpedia.co.ro/
Ogre AI	Software, Energy Industry	Iasi	https://ogre.ai/
Profluo	Software	Bucharest	https://profluo.com/
Hound Bytes	Software	Bucharest	https://houndbytes.io/
Questo	Software	Bucharest	https://questoapp.com/ro
bonapp.eco	Software	Bucharest	https://bonapp.eco/
Hyperhuman	Software	Brasov	https://hyperhuman.cc/
AI.bility	Software	Bucharest	https://aibility.tech/
Bright Spaces	Software	Bucharest	https://brightspaces.tech/
Bware Labs	Software	Bucharest	https://bwarelabs.com/
Parent's Advisor	Software	Timisoara	https://parentsadvisor.app/
Bunnyshell	Software	Bucharest	https://www.bunnyshell.com/
FINQware	Software	Bucharest	https://fingware.com/
Yarooms	Software	Cluj-Napoca	https://www.yarooms.com/
evoMAG	E-commerce	Bucharest	https://www.evomag.ro/
Benefito Mobile	Software	Bucharest	https://www.benefito-mobile.ro/
Kubeark	Software	Bucharest	https://kubeark.com/

4.4.1. Examples of National Startup Success Stories

According to the data provided in the Dealroom report, the Romanian tech ecosystem has produced 3 billion-dollar companies (Döbereiner, 2022). Two of the companies became unicorns as a subsidiary²: eMAG (Dragan, eMAG becomes the second Romanian unicorn. Iulian Stanciu, CEO: “When I started I told my colleagues I wanted to reach a billion in sales”, 2018) and Elrond (Ionita, 2022).

- **UiPath**

[UiPath](#), is an AI-powered business automation platform, traces its origins to 2005. However, it became the globally recognized entity it is today in 2015. UiPath earned its unicorn status in March 2018 following an Accel-led US\$153 million Series B funding round, marking a significant milestone for Romanian start-ups.

In April 2021, UiPath went public on the New York Stock Exchange (NYSE) with an initial valuation close to US\$20 billion, which later peaked at over US\$40 billion. This IPO not only set a record but also spotlighted Romania's emerging tech scene, attracting substantial international investment and inspiring a new generation of entrepreneurs. The success of UiPath has underscored Romania's potential as a burgeoning hub for technology and innovation.

UiPath alumni have also founded several successful ventures, further enriching the Romanian start-up landscape. For instance, Kubeark, a Seedcamp investment, was founded by six former UiPath employees. Additionally, Goodlegal, created by UiPath's former general counsel, and Traction Keys, a venture builder and incubator founded by a former SVP of Sales, are advising and investing in Romanian start-ups like Bright Spaces, DRUID AI, and Vatis Tech. Marius Istrate, UiPath's Chief People Officer from 2017 to 2020, now serves as the president of TechAngels Romania and a Venture Partner at 3VC, as well as an investor and advisor at Crew Capital, the New York-based VC firm established by UiPath co-founder Daniel Dines.

UiPath's influence extends beyond its financial achievements. The company is fostering a robust entrepreneurial ecosystem in Romania. Many former and current UiPath executives are investing in local start-ups and providing mentorship to upcoming founders. The "flywheel effect" generated by UiPath's success has elevated other Romanian SaaS start-ups, such as FintechOS, which saw increased valuations due to their association with the same ecosystem. Despite global economic challenges, investments in Romanian Enterprise SaaS companies remain strong.

² When a start-up becomes a unicorn as a subsidiary, it means that the start-up has achieved a valuation of over \$1 billion while being part of a larger parent company.

- **FintechOS**

[FintechOS](#) is widely regarded as a "unicorn in waiting." The company, founded in 2017 provides technology that enables financial institutions to deliver personalized digital experiences. FintechOS's innovative platform combines low-code development tools with pre-built apps, allowing banks and insurers to accelerate their digital transformation efforts.

The Romanian Fintech Association, known for its effective advocacy and influence on fintech-friendly legislation, has been instrumental in supporting the sector's growth. FintechOS has raised significant funding from international investors, positioning itself as a key player in the global fintech landscape. The association has also been a driving force behind comprehensive surveys of Romania's fintech sector and the creation of Oradea's UNCHAIN Festival, a major event promoting fintech innovation.

Through these successes, FintechOS exemplifies the potential of Romania's fintech sector, demonstrating how innovative technology can drive growth and transformation in traditional industries.

- **eMAG**

The second Romanian company to reach a billion-dollar valuation was eMAG, the largest e-commerce platform in the country. Founded in 2001 by Radu Apostolescu, Dan Teodosescu, and Bogdan Vlad, eMAG started as a distributor of IT products and office equipment. The company faced financial difficulties in 2009, leading to the acquisition of 51% of its shares by Asesoft Distribution. Under the management of Iulian Stanciu, eMAG quickly grew to become Eastern Europe's largest online shop by 2012.

In 2012, the Dutch-South African multinational conglomerate Prosus-Naspers acquired 70% of eMAG's shares, marking a new phase of international expansion. eMAG entered the Bulgarian market in 2012 and quickly captured 60% of the e-commerce market share. The company expanded to Hungary in 2013 and acquired its largest competitor, Extreme Digital, in 2020, creating a dominant e-commerce presence in the region.

eMAG has continuously invested in technology and infrastructure, including significant investments in logistics hubs to handle increasing order volumes. The company operates two of the largest warehouses in Central and Eastern Europe, enhancing its capacity to process up to 500,000 packages daily. eMAG's digital innovations include the development of the eMAG app, which now handles more than half of the orders, and the launch of the Genius service in 2020, offering flexible and rapid delivery options.

Furthermore, eMAG has played a pivotal role in promoting online entrepreneurship in Romania through its Marketplace platform, which supports thousands of local businesses and facilitates cross-border sales in Bulgaria and Hungary. In 2020, eMAG launched the Open Romania initiative to enrol small business owners and NGOs, fostering a more

inclusive digital economy (Dragan, eMag's Open Romania program attracted over 1,300 small entrepreneurs and NGOs, generated RON 11 million in sales in 2 years, 2018).

- **Bitdefender**

[Bitdefender](#), a global leader in cybersecurity, was founded in 2001 by Florin and Mariuca Talpes. Bitdefender provides advanced threat protection for both businesses and consumers, securing millions of endpoints and devices worldwide. The company's innovation in cybersecurity has earned it numerous accolades, including AV-TEST Best Protection and AV-Comparatives Product of the Year.

Bitdefender's products are renowned for their effectiveness and efficiency, protecting users from a wide range of cyber threats. The company's global footprint includes significant market presence in the United States, Europe, and Asia, further solidifying its status as a leader in cybersecurity. Bitdefender continues to innovate with new products and services, maintaining its competitive edge in a rapidly evolving industry.

Bitdefender has developed more than 540 patents for core technologies, including machine learning algorithms and anomaly-based detection techniques, crucial for identifying and preventing new and unknown threats. The company has over 1,800 employees, with more than half dedicated to research and development. Bitdefender's technology is licensed by over 180 of the world's most recognized technology brands and is distributed through more than 37,000 qualified partners in 170 countries.

In recent years, Bitdefender has expanded its global presence, establishing offices and Security Operations Centers in strategic locations worldwide, including San Antonio, Texas, and Melbourne, Australia. The company has also made strategic acquisitions, such as the French partner Profil Technology and the Singapore-based Horangi Cyber Security, to enhance its capabilities and market reach.

- **Elrond**

[Elrond - MultiversX](#), founded in 2017 aims to address blockchain scalability issues with its highly scalable, fast, and secure platform for distributed applications. Elrond employs Adaptive State Sharding and a Secure Proof-of-Stake (SPoS) consensus mechanism to ensure high throughput and low transaction fees. The network can currently handle up to 15,000 transactions per second and aims to scale this further as blockchain technology evolves.

Elrond's native token, EGLD (Elrond eGold), plays a key role in maintaining its network. It is used for transactions, smart contracts, staking, and governance. The tokenomics of EGLD include a capped supply of 31,415,927 tokens, with staking rewards and transaction fees designed to incentivize network participation and security.

Elrond has also made significant strides in sustainability, becoming the first carbon-negative European blockchain (Mincu, 2021). This achievement reflects its commitment

to energy efficiency and environmental responsibility. In 2021, Elrond rebranded to MultiversX to focus on metaverse exploration, highlighting its adaptability and forward-thinking approach to blockchain technology

These start-ups not only contribute to the growth of the ecosystem in Romania but also inspire other entrepreneurs to pursue their ideas and dreams. Through their success, they demonstrate that Romania has the potential to become a hub for innovation and entrepreneurship.

- **DRUID**

[DRUIDAI](#) is a leading Romanian start-up specializing in AI-driven conversational business applications. Founded in 2018 by Liviu Dragan, DRUID provides a no-code platform enabling enterprises to automate customer and employee communications through intelligent virtual assistants. The company's platform integrates with leading RPA technologies, notably UiPath, enhancing business process automation.

DRUID has experienced rapid growth, being recognized as the technology company with the fastest natural growth in Central Europe by Deloitte in 2021. The company's growth is driven by continuous investments in product functionalities, a robust partner ecosystem, and international expansion. DRUID has established strong partnerships with global giants like Microsoft, EY, PwC, Deloitte, KPMG, and Capgemini, which have facilitated its market penetration and growth ([Endeavor Romania](#)) ([Deloitte United States](#)) ([DRUID AI](#)) ([Deloitte United States](#)) ([start-up.ro](#)) ([Emerging Europe](#)).

In recent years, DRUID has secured significant funding to fuel its expansion. In 2021, the company raised US\$15 million in a Series A financing round, followed by a US\$30 million Series B round in 2022. These investments have enabled DRUID to expand its global team, with new hires in strategic regions such as the US, UK, France, Germany, and India. The company's innovative platform has earned recognition from industry analysts, with IDC naming DRUID a Conversational AI Innovator and Everest Group and Aragon Research highlighting its competitive edge ([start-up.ro](#)) ([DRUID AI](#)).

- **TeleportHQ**

[TeleportHQ](#) is a startup founded in 2018 in Cluj-Napoca, emerged as a potential transformative force in the web development industry, inserting machine learning in their platform. TeleportHQ's low-code platform eliminates these inefficiencies by generating production-ready code directly from visual designs, empowering teams to work collaboratively and iteratively. The company provides a collaborative front-end development platform that integrates AI-driven features and headless content management system (CMS) capabilities. Born in 2018 through an ERDF funding of 800.000 €, in 2021 raised \$2.5 million seed investment from One Capital in 2021, a venture fund based in Japan and the US.

- **DotLumen**

[DotLumen](#) is a disruptive startup from Cluj-Napoca manufacturing glasses that empower the blind to live a better life. First Romanian startup financed by EIC Accelerator in 2022, it has received funding from the European Union's Horizon Europe research and innovation programme, from the European Institute of Innovation and Technology (EIT) and it is selected participant of the Scale-up programme 2024. The EU funding attracted raised up to 10 mil €, complemented by seed rounds in crowdfunding Seed blink platform in 2024.

4.5. Conclusion

The Romanian startup ecosystem thrives amidst a blend of challenges and advantages. While it faces significant hurdles in raising startup funding, particularly when compared to neighbouring countries like Bulgaria, which attract more venture capitalists and investors, Romania still holds substantial potential. As an EU member, it offers a robust domestic market and serves as an affordable gateway to the expansive EU market. Its strategic location bordering the Black Sea enables swift access to neighbouring markets like Turkey, the Balkans, and the Middle East. Success stories such as the ones highlighted above show Romania's potential for fostering globally competitive startups.

Romania's complex regulations and bureaucratic procedures are currently daunting and tend to slow the growth of startups. Simplification of these regulations and adaptation of laws to meet the specific needs of digital and technological startups are crucial. This could include granting startups a different status from SMEs, reducing or eliminating taxes for startups, and providing support for business internationalization through government programs and partnerships.

To enhance the ecosystem, it is recommended to increase direct support for early-stage entrepreneurs, enhance funding for ecosystem enablers, and design specialized programs for different business lifecycles. Including high-potential pre-revenue startups and adopting a balanced risk management approach would better support innovation across various stages of technology readiness, fostering a more dynamic entrepreneurial environment in Romania.

Public sector initiatives such as *Start-Up Nation* and *Startup Plus* have fostered entrepreneurship and provided support for startups. However, more can be done in terms of public sector involvement in creating a legislative framework conducive to investment and promoting the startup ecosystem globally. Increasing entrepreneurial education via secondary schools and entrepreneurship programs would also be beneficial.

Looking ahead, the Romanian tech ecosystem is ready for a transformative decade. With strategic investments, supportive policies, and a concerted effort to nurture talent, Romania is well-positioned to become a leading tech hub in Eastern Europe. By fostering a culture where successful entrepreneurs mentor, invest in, and inspire new founders, the ecosystem can harness the multiplier effect to drive exponential growth and innovation.

In conclusion, Romania's startup ecosystem, despite its challenges, is on a promising path. By addressing regulatory issues, increasing funding opportunities, enhancing collaboration, and promoting a culture of mentorship and innovation, Romania can leverage its strategic advantages and transform into a vibrant tech hub in Eastern Europe. The progress already made and the vast opportunities ahead provide a solid foundation for optimism and growth.

5. Unicorns Classification

In the realm of business and investment, the term "unicorn" takes on a special meaning. It refers to a privately held start-up company that has achieved a coveted status: a valuation exceeding US\$1 billion. Unlike formal classifications, this designation serves as a popular way to acknowledge the rarity and success of such companies, mirroring the mythical creature they're named after. Below is an analysis of the primary traits associated with unicorn classification:

- **Valuation as the Benchmark:** The primary criterion for a start-up to join the unicorn club is its valuation. This figure, often determined during funding rounds, reflects the company's potential in the eyes of investors, rather than its current financial performance. These valuations consider various factors, including market size, growth trajectory, revenue streams, profitability, and even intangible aspects like brand recognition and technological innovation.
- **Privately held status:** Unicorns remain private companies, which means that they haven't yet undertaken an initial public offering (IPO) to sell shares on public stock exchanges. The unicorn status often precedes an IPO, after which the company becomes publicly traded and its valuation is then dictated by the stock market.
- **Growth and disruption:** Beyond their hefty valuations, unicorns are typically characterized by rapid growth and the potential to disrupt existing markets or forge new ones altogether. Often, they leverage technology to achieve rapid and efficient scaling across diverse markets.
- **Sectoral landscape:** While the concept of unicorns originated in the tech industry, it has transcended its boundaries to encompass start-ups across a broad spectrum of sectors. These include, but are not limited to, fintech, healthcare, e-commerce, artificial intelligence, and clean energy.
- **Global phenomenon:** While the unicorn concept was born in Silicon Valley, it has transformed into a global trend. Numerous countries around the world, particularly in Europe, Asia, and Latin America, now host their own unicorn companies.
- **Market impact and criticism:** Unicorn status is widely recognized as a symbol of innovation and success, yet it has also been criticized for possibly encouraging overvaluation and speculative investments. Critics suggest that the drive for high valuations might divert start-ups from focusing on building sustainable business models.
- **Sub-categories:** As the start-up landscape evolves, new categories have emerged to describe companies surpassing the US\$1 billion valuation threshold.

"Decacorns" refer to companies valued at over US\$10 billion, and "hectocorns" are those valued at over US\$100 billion, indicating the growing scale and significance of some start-ups.

Within the start-up and venture capital ecosystem, several valuation-based classifications exist for start-ups:

1. **Unicorn:** A unicorn start-up refers to a private company with a valuation exceeding US\$1 billion, a term coined by venture capitalist Aileen Lee in 2013. While unicorns were once considered rare, their numbers have surged in recent years, propelled by increased venture capital and rapid technological sector growth.
2. **Decacorn:** Companies exceeding the US\$1 billion unicorn valuation threshold and reaching a valuation of over US\$10 billion are categorized as Decacorns. These represent a smaller group compared to unicorns and signify start-ups achieving substantial growth and market leadership.
3. **Hectacorn:** The rarest and most prestigious category, Hectacorns, encompass start-ups with valuations surpassing US\$100 billion. These giants have not only disrupted their respective markets but have also achieved widespread brand recognition.
4. **Minicorn:** This less prevalent and less standardized term generally refers to start-ups with valuations below US\$1 billion. These companies are considered to be on the path to potentially becoming unicorns but haven't yet attained that milestone.
5. **Soonicorn:** This term identifies start-ups exhibiting rapid growth and attracting significant investor interest, suggesting a high likelihood of achieving unicorn status in the near future.

Within the venture capital community, these terms function as symbolic shorthand, efficiently communicating a start-up's valuation and perceived success. The actual valuation is influenced by a confluence of factors, including market conditions, investor enthusiasm, revenue generation, potential for growth, and the broader economic landscape.

These classifications are primarily rooted in the private, technology-driven nature of the companies involved. These entities have not yet gone public but have received significant financial backing from venture capitalists, corporate venture capitalists, and national banks. The distinction between the various terms is purely economic.

Attaining unicorn status in Europe, as in other regions, serves not only as a marker of a start-up's financial worth but also reflects its innovative capabilities, scalability, and the effectiveness of its business model. European unicorns exhibit a remarkable diversity, encompassing a wide range of sectors such as technology, fintech, biotechnology, and

renewable energy, among others. This variety underscores the richness of the European entrepreneurial landscape and its capacity to nurture innovation across various industries.

Furthermore, the rise of European unicorns signifies a maturing ecosystem that provides start-ups with crucial support through access to funding, mentorship, and a network of entrepreneurial peers. Venture capital firms, government initiatives, and accelerator programs all contribute to this ecosystem by furnishing the necessary resources and fostering an environment conducive to the development of high-potential start-ups.

The path to becoming a unicorn in Europe, however, presents its own unique challenges. Start-Ups must navigate a complex regulatory environment, market fragmentation due to the multitude of languages and cultures, and fierce competition on both local and global fronts. Consequently, success necessitates not only a groundbreaking product or service but also strategic international expansion, cultural adaptability, and a deep understanding of local market dynamics.

In recent years, the European Union has implemented measures to streamline regulations and cultivate a more unified market, thereby aiding start-ups in scaling more effectively across borders. Initiatives aimed at enhancing digital infrastructure, promoting innovation, and facilitating access to finance are progressively shaping a more cohesive and supportive environment for start-ups aspiring to unicorn status.

The emergence of European unicorns also plays a pivotal role in propelling economic growth, job creation, and technological advancement. By continuously pushing the boundaries of innovation, these companies contribute significantly to Europe's competitiveness on the global stage. While the allure of attaining unicorn status is undeniable, the broader impact of these start-ups extends far beyond their billion-dollar valuations. They serve as a testament to Europe's entrepreneurial spirit, its resilience in the face of adversity, and its ongoing commitment to fostering innovation and economic diversification.

5.1. Actors Involved in the System

The world of billion-dollar start-ups, or unicorns as they're known, thrives on a dynamic interplay between various stakeholders. Each group plays a crucial role in nurturing, financing, and guiding these fast-growing ventures. Let's delve deeper into the collaborative efforts that fuel the unicorn landscape:

5.1.1. Entrepreneurs and Founders

The cornerstone of any unicorn start-up is the entrepreneur or founder. These visionary individuals identify untapped market opportunities, translate them into groundbreaking products or services, and set the strategic course for growth and innovation. Their

unwavering resilience, creative spark, and strong leadership are instrumental in transforming initial ideas into industry-leading powerhouses.

5.1.2. Venture Capital Firms (VCs)

Venture capital firms (VCs) act as catalysts for growth, going beyond simply providing capital. They forge partnerships with start-ups, actively engaging in strategic decision-making, offering invaluable mentorship to founders, and leveraging their extensive networks to unlock new business development opportunities. VCs possess a keen eye for identifying high-growth potential in start-ups, and their investment serves as a critical validation of a start-up's value proposition and market viability.

The partnership extends beyond financial support. VCs equip start-ups with a comprehensive toolkit for accelerating growth. This includes operational expertise, guidance on navigating complex market dynamics, and crucial assistance with scaling their operations. They often play a key role in refining business models, optimizing product-market fit, and formulating strategic plans for international expansion. Their involvement can significantly accelerate a start-up's growth trajectory, enabling rapid scaling that would be difficult to achieve through bootstrapping or other financing methods.

Furthermore, VCs play a vital role in preparing start-ups for future funding rounds, helping them establish and achieve key milestones that enhance their valuation and attractiveness to a wider pool of investors. By taking calculated risks on promising early-stage companies, VCs not only aim for substantial returns on their investments but also contribute significantly to the overall innovation ecosystem. They foster the development of cutting-edge technologies and disruptive business models with the potential to revolutionize entire industries. In doing so, VCs become key drivers of economic growth, job creation, and technological advancement.

5.1.3. Angel Investors

Within the start-up ecosystem, angel investors play a vital role, particularly in nurturing start-ups during their nascent stages when traditional financing avenues are scarce or unavailable. These individuals, often accomplished entrepreneurs or retired industry executives, offer more than just financial backing. They bring a treasure trove of experience, mentorship, and access to a vast network encompassing potential partners, customers, and future investors. By investing their own funds, angel investors demonstrate a strong belief in the start-up's vision, which can be incredibly validating for new entrepreneurs.

The contributions of angel investors extend beyond providing seed capital. They are known for their proactive approach, offering guidance on business strategy, product development, market positioning, and even navigating the intricacies of scaling a

business. This mentorship proves invaluable for founders with innovative ideas but limited experience in executing business plans or managing rapid growth.

Moreover, the strategic connections provided by angel investors act as a bridge, opening doors that would otherwise remain closed. Whether it's facilitating introductions to potential customers, negotiating partnerships, or attracting additional funding from venture capital firms, the well-connected angel investor leverages their network to significantly accelerate a start-up's progress.

Angel investments typically occur at a critical juncture, bridging the gap between bootstrapping and a company's first formal venture capital round. This early-stage funding allows start-ups to refine their product or service, achieve market validation, and reach milestones that make them more attractive to larger investors.

5.1.4. Private Equity Firms

Private equity (PE) firms play a critical role as strategic partners for unicorn start-ups at key moments in their growth trajectory. These firms typically focus on companies in later stages of development, providing significant capital injections that can be instrumental in scaling operations, pursuing ambitious market expansion, or facilitating the path towards an initial public offering (IPO). The involvement of a PE firm goes beyond mere financial investment; it extends into strategic areas where the firm's deep well of experience and industry connections can be leveraged for maximum impact.

PE firms are known for their rigorous due diligence processes, seeking out companies with strong leadership teams, established business models, and clear paths to achieving significant revenue growth and profitability. Once invested, they collaborate closely with the company's leadership to refine business strategies, enhance operational efficiency, and identify new revenue opportunities. This collaborative effort can encompass a wide range of initiatives, from optimizing supply chain operations to expanding into new geographic markets or customer segments.

Furthermore, PE firms provide access to extensive networks of industry experts, potential customers, and strategic partners, opening doors that might otherwise remain closed to growing start-ups. They also often assist in strengthening the company's executive team by recruiting seasoned professionals who possess the expertise to manage the challenges associated with rapid growth.

For start-ups preparing for an IPO, PE firms can provide invaluable expertise in navigating the complexities of going public. This includes preparing for the intense financial scrutiny of public markets, developing effective investor relations strategies, and ensuring compliance with regulatory requirements. Their experience in structuring deals, managing stakeholder expectations, and executing successful exits can significantly

enhance the outcome of an IPO, ensuring the company achieves a favourable valuation and a strong market debut.

5.1.5. Incubators and Accelerators

Incubators and accelerators act as catalysts for early-stage start-ups, offering a comprehensive support system that fuels their growth. These entities provide essential resources such as seed funding, office space, mentorship from experienced professionals, and access to valuable training programs. Through this holistic approach, incubators and accelerators empower start-ups to refine their business models, accelerate their growth trajectory, and ultimately increase their chances of success in a competitive marketplace. (A detailed explanation of business models and growth will be provided later in this chapter).

5.1.6. Government and Policy Makers

Government bodies and policymakers wield significant influence over the start-up ecosystem by shaping the regulatory and economic landscape. By enacting supportive policies, they can create an environment that fosters innovation, encourages entrepreneurship, and attracts both domestic and international investment. These policies can encompass a diverse range of measures, including direct financial support through innovation grants and subsidies, as well as indirect incentives such as tax breaks for early-stage companies and their investors. For instance, research and development (R&D) tax credits can significantly alleviate the financial burden on start-ups investing in innovation, empowering them to compete more aggressively on a global scale.

Furthermore, governments can actively promote a start-up-friendly ecosystem by streamlining the bureaucratic processes involved in starting and running a business. This could include simplifying business registration procedures to reduce time and cost burdens, offering expedited patent and trademark registrations, and providing clear and accessible regulatory compliance guidelines. By streamlining these processes, governments remove barriers to entry for new ventures, allowing founders to dedicate more resources to core activities like product development and market expansion.

Beyond regulatory and financial support, governments can play a critical role in fostering collaboration between start-ups, academic institutions, and established industries. Initiatives such as public-private partnerships and innovation hubs can connect start-ups with the expertise, funding, and networks that might otherwise be out of reach. Moreover, by investing in infrastructure, education, and digital connectivity, governments lay the groundwork for a thriving innovation ecosystem. Policies aimed at enhancing digital literacy, promoting STEM education (Science, Technology, Engineering, and Mathematics), and investing in next-generation internet and mobile technologies ensure

a steady pipeline of skilled talent and facilitate the adoption of new technologies across the entire economy.

5.1.7. Banks and Financial Institutions

Banks and financial institutions, while not operating in the same innovative way as venture capital or angel investors, remain a cornerstone of the start-up ecosystem. They offer a more traditional form of support through debt financing, lines of credit, and a comprehensive suite of financial services. These services are essential for start-ups at various stages of growth, particularly those grappling with cash flow management, funding capital expenditures, or bridging gaps between funding rounds.

Unlike equity financing, which necessitates surrendering a portion of ownership, debt financing allows start-ups to maintain full control while accessing the capital needed for expansion. Lines of credit offered by banks prove particularly beneficial for start-ups experiencing seasonal sales fluctuations or requiring readily available funds for unexpected opportunities or expenses. This financial flexibility enables start-ups to operate with greater confidence, knowing they have a safety net in place when unforeseen circumstances arise.

Furthermore, banks and financial institutions provide a variety of services crucial for the day-to-day operations of a start-up. These services encompass payment processing, foreign exchange services, and wealth management. They not only support routine financial activities but also help start-ups manage risks associated with foreign currency transactions and investment management.

Building a strong relationship with a bank can provide start-ups with invaluable financial advice and insights into industry trends. This access to knowledge empowers founders to make informed decisions regarding their business strategies. As start-ups scale and their financial needs become more complex, having a reliable banking partner can facilitate smoother transitions into new markets and business areas.

5.1.8. Corporate Investors and Strategic Partners

The relationship between start-ups and large corporations extends far beyond mere financial transactions. When corporations invest in or partner with start-ups, a synergistic relationship emerges, providing both parties with a wealth of resources and expertise that can be transformative. These partnerships often equip start-ups with critical market insights, cutting-edge technological knowledge, and access to established distribution channels, significantly enhancing their ability to scale and compete in a crowded marketplace.

Strategic partnerships can serve a multitude of purposes. For start-ups, the endorsement and backing of a reputable corporate partner provide crucial credibility and can unlock new business opportunities. This can facilitate easier access to additional investors,

partners, and potential customers, fuelling their growth trajectory. Corporations, on the other hand, benefit from these partnerships by gaining access to innovative technologies and disruptive business models. This allows them to stay ahead of industry trends and potentially disrupt established markets before new entrants become significant competitors.

Furthermore, corporate partners can offer invaluable mentorship and operational support to start-ups. This can encompass assistance with complex areas like supply chain management, manufacturing processes, and navigating the intricacies of global market expansion. This support proves particularly beneficial for start-ups venturing into unfamiliar territory with complex global markets and regulatory environments.

Strategic partnerships can evolve into various forms, including joint ventures, licensing agreements, or even acquisitions. These options provide start-ups with pathways to significantly scale their operations and achieve sustainable growth.

The relationship between start-ups and corporate investors or partners is essentially a symbiotic one, built on mutual benefits. Start-Ups gain access to essential resources and legitimacy, while corporations inject innovation and agility into their operations. These partnerships exemplify the dynamic and interconnected nature of the modern business landscape, where collaboration between entities of varying sizes and strengths can lead to substantial mutual gains and drive advancements across the market.

5.1.9. Stock Markets and IPO Advisors

Stock markets and Initial Public Offering (IPO) advisors play a critical role in a start-up's transformation into a publicly traded company. Achieving this milestone marks a significant achievement, often leading to a substantial capital infusion and increased public visibility. IPO advisors, encompassing investment banks, legal firms, and accounting experts, provide essential services throughout this intricate process.

Their expertise proves invaluable in evaluating a company's market value, preparing it for the intense scrutiny of public markets, and ensuring compliance with regulatory requirements across various jurisdictions. These advisors work with start-ups to craft a compelling narrative for potential investors, highlighting the company's growth potential, competitive advantages, and long-term vision. This effective storytelling is crucial for building investor confidence and securing a successful market debut. Additionally, they guide start-ups in setting the right IPO price, a delicate balancing act that aims to attract investors while maximizing the funds raised.

The role of IPO advisors extends beyond the IPO process itself. They often prepare companies for the ongoing demands of public reporting, adherence to corporate governance standards, and the continuous scrutiny of analysts and investors. This

preparation involves strategic planning for financial reporting, investor relations, and corporate governance practices that meet or exceed market expectations.

Furthermore, entering public markets opens doors to new avenues of capital raising for start-ups. These opportunities include secondary offerings and access to debt markets. This access to capital allows companies to fund ambitious expansion plans, invest in research and development, and pursue strategic acquisitions, ultimately driving further growth and innovation.

5.1.10. Employees

The talent and dedication of a start-up's employees are fundamental to its innovation and operational excellence. From engineers and product designers shaping the future of the company's offerings to skilled sales and marketing professionals driving growth, it is the collective effort of these individuals that propels the company forward. Employees are the engine that powers a start-up, and in a dynamic environment, their passion, creativity, and hard work are essential for success.

5.1.11. Customers and Users

Customer engagement and feedback are vital for the iterative development and refinement of a start-up's offerings. By actively engaging with customers and users, start-ups can gain valuable insights into their needs and concerns. This ongoing feedback loop allows companies to ensure their products and services are meeting market expectations and evolving to address user demands. Customer loyalty and user growth serve as key indicators of a start-up's market fit and potential for long-term success. A strong and engaged customer base is a testament to the value proposition of a start-up and a critical factor for sustainable growth.

5.1.12. Academic Institutions and Research Organizations

Academic institutions and research organizations are a cornerstone of the start-up ecosystem, particularly for innovation-driven and technology-focused ventures. Their contributions extend far beyond basic research and development, encompassing a wide range of activities that nurture the growth and success of start-ups.

These institutions serve as a wellspring of cutting-edge research and advancements in various fields, including biotechnology, information technology, renewable energy, and more. Start-Ups often forge partnerships with these organizations to gain access to ground-breaking scientific discoveries and technologies that can be commercialized into viable products and services. Such collaborations can significantly reduce R&D costs for start-ups while accelerating their innovation processes.

Furthermore, academic institutions play a critical role in cultivating the next generation of entrepreneurs. Through dedicated initiatives like entrepreneurship programs,

incubators, and accelerators, universities and research organizations equip students and researchers with the necessary skills to launch and manage successful start-ups. These programs often provide valuable mentorship, networking opportunities, access to funding, and practical experiences in developing business plans and pitching to investors.

Academic institutions further contribute to the start-up ecosystem by fostering a culture of innovation and collaboration. They provide platforms for knowledge exchange, where start-ups, researchers, and experienced entrepreneurs can share insights, explore new ideas, and collaborate on multidisciplinary projects. This environment stimulates creativity and encourages the development of innovative solutions to complex problems.

Finally, academic and research organizations often boast extensive networks that include alumni, industry leaders, and government agencies. Start-Ups can leverage these networks for mentorship, collaboration, and potential investment opportunities. This support is invaluable for start-ups looking to scale their operations, enter new markets, or navigate complex regulatory landscapes.

These various actors form a dynamic and interdependent ecosystem that underpins the growth and success of unicorn start-ups. Their collaborative efforts ensure that the region remains at the forefront of technological innovation and entrepreneurial spirit.

5.2. EU Start-Up Ecosystem

The European start-up scene has emerged as a powerful force on the global stage. This dynamism stems from a unique combination of factors: a network of innovative hubs, supportive government initiatives, and a thriving investment landscape. Let's delve into the key features that define this ecosystem:

- **Diverse Innovation Hubs**

Europe isn't a one-size-fits-all environment. It boasts a network of diverse innovation hubs, each specializing in specific areas. London reigns supreme in fintech, leveraging its well-established position as a global financial centre. Berlin thrives on its vibrant tech scene and creative culture, attracting entrepreneurs with a lower cost of living. Paris, with initiatives like Station F, is a beacon for tech start-ups and digital innovation. Other notable hubs include Stockholm (gaming and tech), Amsterdam (sustainability and tech), and Barcelona (digital health).

- **Supportive Policies and Funding Opportunities**

European governments actively cultivate the start-up ecosystem through supportive policies. These include funding programs, tax incentives, and favourable regulations. The European Union offers funding mechanisms like the European Innovation Council (EIC) and Horizon Europe to propel research and innovation. National governments further bolster growth through grants, loans, and incentives designed to attract talent and investors.

- Active Venture Capital Scene

Europe's venture capital (VC) scene is robust and constantly evolving. Numerous VC firms actively invest in start-ups across various stages and sectors. This translates to significant funding rounds for European start-ups, enabling them to scale on a global scale. Notable VC firms like Balderton Capital, Index Ventures, and Atomico have played a crucial role in backing successful start-ups and propelling the ecosystem's maturity.

- Strong Talent Pool

The European Union boasts a highly educated workforce, with prestigious universities and research institutions serving as a steady pipeline for skilled graduates. This talent pool encompasses diverse fields such as engineering, computer science, and business. Furthermore, the EU's favorable visa policies for entrepreneurs and skilled professionals contribute to the influx of global talent within its start-up hubs.

- Challenges and Opportunities

While the EU start-up ecosystem enjoys numerous strengths, it also faces certain challenges. Fragmented markets arising from language and regulatory variations can impede growth. Additionally, access to later-stage funding has historically been more limited compared to the US landscape. However, this trend is experiencing a positive shift with a growing number of start-ups achieving unicorn status and successfully completing initial public offerings (IPOs).

The EU's focus on sustainability, digital innovation, and deep tech presents unique opportunities for its start-up ecosystem. This focus fosters increased attention and funding for start-ups engaged in areas like clean energy, biotechnology, and artificial intelligence. Moreover, the EU's commitment to digital sovereignty and data privacy regulations like GDPR is shaping a start-up environment that prioritizes ethical technology and innovative practices.

- Cross-Border Collaboration and Networks.

A defining characteristic of the European start-up ecosystem is the high degree of cross-border collaboration facilitated by EU policies and initiatives promoting the creation of a single digital market. Networks and events such as Slush in Helsinki, The Next Web Conference in Amsterdam, and Web Summit in Lisbon serve as platforms for knowledge exchange, networking, and the establishment of partnerships across the entire continent.

The European start-up ecosystem is distinguished by its multifaceted nature, encompassing diversity, robust support structures, and a burgeoning capacity to cultivate successful companies that compete on a global scale. This ecosystem thrives due to a

unique blend of factors, including a network of innovative hubs with distinct specializations, supportive government policies, and a strong emphasis on sustainability and ethical technology. As a result, Europe is well-positioned to maintain its trajectory of growth and influence within the global landscape of start-ups.

Integral components of the aforementioned ecosystem are incubators and accelerators. These programs are designed to nurture early-stage companies during their formative stages by providing a comprehensive suite of resources, mentorship, and even funding. While both incubators and accelerators share the objective of fostering start-up growth, they differ in terms of structure, focus, and the specific type of support they offer. A more detailed exploration of their roles and functions will be presented in the following section:

5.2.1. Incubators

In the European start-up landscape, incubators act as vital seedbeds for fledgling ventures. These organizations are specifically designed to nurture start-ups in their earliest stages, helping them transform ideas into commercially viable business models. Unlike accelerators, which operate within a more structured and time-bound framework, incubators offer a more open-ended environment with extended periods of support. They often cater to specific industry sectors, such as technology, healthcare, or clean energy, providing targeted resources and guidance tailored to the needs of start-ups within those fields.

- **Services Provided:** Incubators offer a valuable suite of services that are critical for young start-ups. This includes providing essential resources like office space, administrative support, and high-speed internet access. Even more significant is the access they offer to a network of mentors, industry experts, and potential investors. This mentorship can encompass a broad spectrum of business fundamentals, from product development and market strategy to financial management and legal frameworks.
- **Funding and Equity:** In contrast to accelerators, incubators typically do not provide direct funding in exchange for equity in the start-up. Their primary function is to assist start-ups in securing external funding sources, such as angel investors, venture capitalists, or government grants.
- **Admission and Duration:** Start-Ups can apply to join an incubator program at various stages of development, and there is no predetermined duration for their involvement. The incubation period itself can vary from a few months to several years, depending on the unique growth trajectory and specific needs of each start-up. This flexibility allows incubators to adapt their support to the specific requirements of each venture they nurture.

A prime example of a renowned European incubator is Station F, located in Paris, France. Holding the title of the world's largest start-up incubator, Station F provides a sprawling ecosystem designed to cultivate and accelerate the growth of innovative ventures. Launched in 2017, this impressive 34,000 square meter campus houses over 1,000 start-ups. What truly sets Station F apart is not only its vast size but also its extensive range of services. This includes providing office space, access to in-depth mentoring programs, and connections to a vast network of potential investors and corporate partners. Station F caters to a diverse range of sectors by offering specialized programs to support a variety of entrepreneurial endeavors. Its affiliation with leading global companies and its unwavering commitment to fostering innovation have solidified Station F's position as a pivotal player within the European start-up ecosystem.

5.2.2. Accelerators

In the European start-up ecosystem, accelerators play a crucial role in propelling growth-stage start-ups. Unlike incubators, which offer a more open-ended and flexible approach, accelerators operate within a more structured and time-bound framework. These intensive programs typically have a fixed duration, ranging from three to six months, during which start-ups undergo a rigorous process designed to refine their business models, accelerate product development, and optimize market strategies. The overarching objective is to fast-track a start-up's path to market readiness and secure investment opportunities.

- **Services Provided:** Accelerators employ a cohort-based model, where multiple start-ups progress through the program simultaneously. This fosters a unique environment that is both competitive and collaborative, encouraging learning and facilitating valuable networking opportunities amongst participating ventures. Start-Ups receive intensive support, including hands-on mentorship, training sessions, and workshops led by experienced entrepreneurs, industry experts, and investors. The program culminates in a pivotal "Demo Day," where start-ups pitch their businesses to a select group of potential investors and key industry stakeholders.
- **Funding and Equity:** In exchange for participation in the program, accelerators typically provide seed investment to participating start-ups. This investment, typically representing 5% to 10% equity ownership in the start-up, is designed to fuel the venture's growth not only during the acceleration period but also beyond.
- **Admission and Duration:** Admission to accelerator programs is highly competitive. Programs meticulously select only a handful of start-ups from a large pool of applicants, prioritizing those with a well-defined product or service and demonstrable potential for rapid growth. The fixed-term nature of accelerator programs, often condensed into a few months, demands dedication and agility

from participating ventures. This intense program structure requires start-ups to achieve significant milestones within a very short timeframe.

A leading example of a renowned European accelerator is Seedcamp, headquartered in London. Since its inception in 2007, Seedcamp has established itself as a powerhouse within the European start-up scene. They offer early-stage start-ups a compelling combination of seed capital, access to a meticulously curated network of mentors, and a rigorous program designed to drive rapid growth. Seedcamp invests in technology-based start-ups across Europe, providing access to over 100 mentors, including successful entrepreneurs, industry experts, and venture capitalists. With a portfolio that includes high-profile successes such as TransferWise (now Wise) and Revolut, Seedcamp's impact on the European start-up scene is undeniable. Its hands-on approach and dedication to nurturing the next generation of tech entrepreneurs have set a high standard for accelerators worldwide.

Within the European start-up landscape, both incubators and accelerators serve as essential support structures. Incubators provide a nurturing environment for fledgling ventures in their early stages, while accelerators offer a more intensive program designed to propel growth-stage start-ups towards market readiness and securing investment opportunities. By aligning with either an incubator or accelerator, start-ups can significantly increase their chances of success by leveraging the expertise, networks, and funding opportunities these programs offer.

5.3. KPIs Descriptions

Key Performance Indicators (KPIs) serve as essential metrics, providing valuable insights into a start-up's performance, growth trajectory, and alignment with strategic goals. Selecting the right KPIs is crucial for European start-ups, particularly those aiming to become or already identified as unicorns. Effective KPIs empower these ventures to efficiently track progress, attract potential investors, and inform critical decision-making.

The following sections explore some essential KPIs that European start-ups typically monitor, categorized into three key areas: Financial, Operational, and Growth & Market KPIs.

5.3.1. Financial KPIs

Financial KPIs, while undeniably essential, serve as only the first movement in a strategic symphony for European unicorns. To achieve a well-rounded understanding of their performance and propel their growth trajectory, these ventures must also meticulously monitor two additional categories of metrics: Operational KPIs and Growth & Market KPIs. These metrics, akin to distinct instruments within an orchestra, collectively paint a 360-degree picture of a start-up's health. By analyzing this comprehensive data set,

European unicorns gain valuable insights that empower them to make data-driven decisions and ultimately achieve unicorn status, and beyond:

- **Revenue Growth Rate:** This metric measures the rate at which a start-up's revenue increases over a specific period. A healthy and consistent revenue growth rate signals strong market acceptance and the effectiveness of the business model.
- **Burn Rate:** This metric represents the rate at which a start-up consumes its cash reserves before generating positive cash flow. Understanding their burn rate empowers European start-ups to effectively manage their runway (the amount of time they can operate with their current resources) and plan strategically for future fundraising endeavors.
- **Gross Margin:** This metric calculates the difference between a start-up's revenue and the cost of goods sold (COGS), expressed as a percentage of revenue. A strong gross margin indicates the profitability of a start-up's core products or services.
- **Customer Acquisition Cost (CAC):** This metric represents the total cost associated with acquiring a new customer, encompassing marketing and sales expenses. Monitoring CAC is vital for European start-ups to evaluate the efficiency of their marketing strategies and ensure long-term financial sustainability.
- **Lifetime Value (LTV):** This metric represents the total revenue a company can expect from a single customer account throughout the business relationship. A key metric for European start-ups is the LTV/CAC ratio, which indicates the return on investment for customer acquisition efforts. A healthy LTV/CAC ratio suggests that a start-up's customer acquisition strategies are generating a positive return, ensuring long-term profitability.

Financial, Operational, and Growth & Market KPIs work in concert to create a comprehensive performance dashboard for European unicorns. By meticulously monitoring and analyzing these metrics, start-ups gain a holistic understanding of their strengths, weaknesses, and opportunities. This data-driven approach empowers European start-ups to make informed decisions, optimize their strategies, and navigate the challenging yet rewarding path towards achieving unicorn status and beyond.

5.3.2. Operational KPIs

Financial KPIs provide a valuable roadmap, but for European unicorns to truly thrive, they need to delve deeper into the engine room of their operations. Operational KPIs serve as the vital signs of a start-up's health and efficiency, offering founders and management teams a clear lens through which to scrutinize their strategies. These metrics go beyond mere numbers; they illuminate the effectiveness of operational processes, ensuring everything from product development to customer engagement aligns with overarching goals.

By meticulously monitoring Operational KPIs, European unicorns gain a clear picture of their strengths and weaknesses. These metrics pinpoint areas of excellence and reveal opportunities for improvement. This empowers data-driven decision-making, optimizes resource allocation, and streamlines workflows. Furthermore, Operational KPIs offer invaluable insights into the intricate dynamics of a start-up, revealing how various elements interact to drive growth and innovation.

Operational KPIs are more than just performance measures; they are catalysts for transformation. By leveraging these metrics, European unicorns can cultivate a culture of continuous improvement and foster strategic agility within the fast-paced start-up environment. This section delves into some of the most critical Operational KPIs for European unicorns:

- **Monthly Active Users (MAU) / Daily Active Users (DAU):** These key metrics gauge user engagement for products or services heavily reliant on user interaction. They indicate the number of unique users who interact with the product within a month (MAU) or a day (DAU).
- **Churn Rate:** This metric, particularly crucial for subscription-based models, represents the percentage of customers who cancel or do not renew their subscriptions within a specific period. A low churn rate indicates high customer satisfaction and retention.
- **Customer Satisfaction (CSAT) and Net Promoter Score (NPS):** While CSAT measures short-term customer satisfaction, NPS assesses the likelihood of customers recommending the product to others. Both are critical for understanding customer loyalty and the overall quality of a product or service.
- **Employee Satisfaction and Turnover Rates:** These metrics provide valuable insights into the health and culture of an organization. High employee satisfaction and low turnover rates are often associated with increased productivity and innovation within a start-up.

5.3.3. Growth and Market KPIs

Financial and Operational KPIs provide a strong foundation, but to truly flourish in the competitive European start-up landscape, European unicorns require a deeper understanding of their external environment. This necessitates exploring Growth & Market KPIs, which act as the engine powering a start-up's growth trajectory. Unlike Operational KPIs, Growth & Market KPIs extend the view outward, meticulously assessing a start-up's position and momentum within the broader market context.

These KPIs are fundamental to understanding a European unicorn's success in scaling its operations, penetrating new markets, and cultivating a loyal customer base. They measure not just the speed of a start-up's expansion but also the depth of its market

influence and brand recognition. By meticulously monitoring Growth & Market KPIs, European unicorns gain a clear picture of their growth trajectory, the efficiency of market penetration strategies, and their competitive advantages relative to other players in the market.

This understanding is crucial in today's dynamic and competitive environment. Growth & Market KPIs empower European unicorns to adapt their strategies to align with evolving market demands and capitalize on emerging trends. By leveraging these valuable insights, European unicorns can make informed decisions that propel them towards achieving a perfect market fit and securing a dominant position within their respective industries. Here's a closer look at some key Growth & Market KPIs critical for European unicorns:

- **Market Share:** This metric represents the percentage of total sales in an industry captured by a particular company. A high market share indicates a strong position relative to competitors.
- **Total Addressable Market (TAM), Serviceable Available Market (SAM), and Serviceable Obtainable Market (SOM):** These metrics help European unicorns assess market size and growth potential, from the broadest perspective (TAM) to the most realistically attainable segment (SOM).
- **Product Development Lifecycle:** This metric measures the time it takes for a product to journey from conception to market launch. Optimizing the product development lifecycle is crucial for European unicorns to maintain their competitive edge through innovation.
- **Expansion Rate:** This metric, particularly important for growth-focused companies, measures the increase in revenue generated from existing customers through upsells, cross-sells, and additional services or products.

Choosing the most relevant KPIs is critical for European unicorns. This empowers them to not only monitor their health but also make data-driven decisions that propel them towards sustainable growth and market leadership. By regularly reviewing and analysing these metrics, European unicorns gain the insights necessary to optimize strategies and solidify their competitive advantage.

6. The Strategic and Policy Context

6.1. EU Unicorn Policies

Across Europe, “unicorns” symbolize the continent's vibrant entrepreneurial landscape. These powerhouses act as catalysts for technological innovation, economic growth, and job creation. But how does Europe cultivate these mythical creatures? The answer lies in fostering a robust ecosystem that encourages entrepreneurial spirit, groundbreaking ideas, and scalable ventures. European policy emphasizes the creation of a support structure specifically designed to nurture unicorns and start-ups alike. This structure encompasses these key pillars:

- **Funding and Investment Support:** The European Union (EU) and its member states collaborate to provide a comprehensive toolbox of financial instruments tailored to start-ups and scale-ups (rapidly growing start-ups). This toolbox includes grants, loans, and equity financing options, facilitated through initiatives like the European Innovation Council (EIC) and the European Investment Bank (EIB), alongside various national programs. These mechanisms bridge the critical funding gap that many start-ups face, empowering them to innovate and scale their operations.
- **Regulatory Framework:** A supportive regulatory landscape is essential, particularly for digital and tech start-ups. The EU actively works towards refining its regulatory frameworks to encourage the growth of these enterprises. This includes streamlining administrative procedures, reducing regulatory burdens, and fostering the development of a Digital Single Market. This last initiative allows start-ups to operate seamlessly across the diverse markets within EU member states.
- **Innovation Ecosystems:** Strengthening collaborative environments is central to European policy. This involves fostering synergy between businesses, universities, and research institutions through incubators, accelerators, and innovation hubs. These collaborative spaces are critical for stimulating innovation and transforming research into viable commercial ventures, ultimately fuelling the creation of successful start-ups.
- **Digital and Technology Policies:** Recognizing the digital revolution's transformative power, the EU prioritizes digital innovation. Initiatives focus on boosting digital competencies, stimulating both public and private investments in digital technologies, and maintaining fair competition within the digital market. These efforts empower European start-ups to become leaders in the digital frontier.
- **Tax Incentives:** Several European countries offer enticing tax benefits to stimulate investment in start-ups. These incentives can range from reduced taxation on

venture capital investments to R&D tax credits. These measures aim to remove barriers and attract investment in innovative ventures.

- **Internationalization Support:** Recognizing the importance of global market access, European policy actively supports internationalization efforts. This is achieved through trade agreements, international collaborations, and networks that ease entry into markets outside the EU. These initiatives empower European start-ups to scale their operations and establish a global presence.
- **Sustainability and Social Responsibility:** Aligning with the European Green Deal and promoting sustainable finance, there is a shift towards backing start-ups that prioritize environmental sustainability and social responsibility. This reflects a growing recognition of the role businesses play in addressing global challenges, paving the way for a more sustainable and equitable future.

Europe's support for start-ups isn't a one-size-fits-all approach. Instead, a rich tapestry of policies unfolds across the continent, reflecting the unique economic realities and priorities of each nation. This diversity fosters innovation and allows countries to tailor their approach to cultivate a thriving start-up ecosystem.

This dynamic policy environment underscores Europe's ambition to become a magnet for innovative businesses, especially those with the potential to become unicorns. By fostering an environment conducive to growth and scalability, Europe aims to fuel the continent's future prosperity and technological leadership. Details on the specific EU-wide initiatives and support programs are explored in VI.II.I EU-Wide Initiatives and Support.

6.2. The global unicorn ecosystem: EU's position and policy implications

While Europe boasts a diverse array of policies supporting start-ups, it's not a one-size-fits-all approach. Each nation tailors its strategies to its unique economic realities and priorities, fostering innovation through this rich tapestry. This diversity strengthens Europe's position as a magnet for innovative businesses, particularly those with unicorn potential. By nurturing a growth-friendly environment, Europe aims to fuel future prosperity and technological leadership across the continent. Details on specific EU-wide initiatives and support programs are explored in VI.II.I EU-Wide Initiatives and Support.

The EU in the global context

Globally, unicorns are predominantly concentrated in technology-driven sectors, symbolizing the forefront of innovation in areas such as the Internet of Things (IoT), artificial intelligence (AI), and digital services. This trend underlines the strategic importance of such sectors for future global competitiveness and market leadership. The emergence of unicorns in these fields not only heralds a shift towards a more innovation-

centric economy but also sets new standards for industry practices and consumer expectations.

Despite the critical role unicorns assume in shaping the future economic landscape, the European Union finds its representation somewhat modest compared to global counterparts. Accounting for approximately 8% of the world's unicorns, the EU trails behind the United States, China, and even India in both the number of unicorns and their aggregate market valuation. This disparity is not merely numerical but reflects broader challenges related to policy frameworks, investment climates, and entrepreneurial ecosystems within Europe.

Policy and strategic adaptations

On the global stage, unicorns are largely concentrated in tech-driven sectors like the Internet of Things (IoT), artificial intelligence (AI), and digital services. This trend highlights the strategic importance of these areas for future global competitiveness and market leadership. The rise of unicorns in these fields signifies not only a shift towards a more innovation-centric economy but also sets new benchmarks for industry practices and consumer expectations.

However, despite the crucial role unicorns play in shaping the future economic landscape, the European Union's representation in this arena remains somewhat modest compared to its global counterparts. With roughly 8% of the world's unicorns, the EU falls behind the United States, China, and even India in both the number of unicorns and their overall market valuation. This gap isn't just a matter of numbers; it reflects deeper challenges related to policy frameworks, investment climates, and the overall entrepreneurial ecosystem within Europe.

Towards a cohesive policy framework

The European Union's response to the evolving unicorn landscape is multi-pronged and aims to streamline regulations, enhance cross-border collaboration, and increase start-up funding. Initiatives like the Digital Single Market and a unified approach to digital regulation remove operational barriers, allowing start-ups to leverage the full potential of the single market. Additionally, programs like the European Innovation Council (EIC) and Horizon Europe demonstrate the EU's commitment to early-stage and scaling start-ups by providing crucial financial support.

These policy adaptations reflect the EU's understanding of the critical role high-growth start-ups play in the European economy. By fostering a supportive ecosystem that encourages innovation, facilitates access to capital, and removes regulatory burdens, the EU aims to solidify its position in the global unicorn landscape, becoming a leading hub for technology and innovation.

6.3. Trade Policy: age of technological disruption for start-ups

The rise of unicorns emphasizes the transformative power of technology across all industries. In this context, the European Union's trade policy plays a crucial role in shaping the environment for these companies. It ensures they not only thrive but also contribute to broader goals of economic growth, innovation, and global competitiveness.

Regulatory cooperation and the digital single market

The digital age and the rise of digital unicorns highlight the importance of regulatory coherence across borders. The EU aims to minimize regulatory divergence that hinders international business operations. A key element of this strategy is the Digital Single Market. This allows start-ups to scale seamlessly across the EU, facing uniform regulations that encourage, rather than stifle, innovation.

The "Brussels Effect" refers to the influence of EU regulations that often become global norms due to the market's size and reach. By shaping regulations that prioritize consumer safety, data protection, and fair competition, the EU not only creates a conducive environment for its unicorns but also positions them competitively on the world stage.

Supporting SMEs in a technologically disruptive landscape

- Recognizing the burden trade costs place on small and medium-sized enterprises (SMEs) in a technologically disruptive landscape, the EU is leveraging technology to ease their challenges. Take the #Access2Markets Portal – this online resource exemplifies the EU's commitment to assisting SMEs in navigating international trade regulations and standards. By reducing administrative burdens, the portal facilitates smoother market access for SMEs, boosting global competitiveness.
- The EU's forward-thinking approach extends to exploring blockchain technology's potential to streamline trade processes. By improving trade facilitation and compliance efficiency, the EU aims to lower trade costs for SMEs, enhancing their competitiveness in the global marketplace.

Quantum computing as a strategic focus area

The EU's strategic focus on quantum computing highlights its long-term vision for leadership in deep technology sectors. This transformative technology necessitates a comprehensive strategy encompassing investment, innovation support, and a conducive regulatory framework.

The ambitious European Quantum Flagship Initiative exemplifies the EU's commitment to advancing quantum technologies. Recognizing the sector's potential to revolutionize industries and secure EU technological sovereignty, the initiative prioritizes significant investment in research and development.

Strategic investments in quantum computing and other deep technologies aim to catalyse breakthroughs that propel European unicorns to global leadership positions. Supporting start-ups in these sectors through funding, regulatory guidance, and fostering innovation ecosystems is crucial for unlocking the full potential of European innovation.

As the EU navigates the challenges and opportunities of technological disruption, its trade policy continues to evolve. By focusing on regulatory cooperation, leveraging technology to empower SMEs, and investing strategically in deep technology, the EU aims to create a robust ecosystem where unicorns and high-growth start-ups can flourish. These efforts underline the EU's commitment to maintaining its competitive edge in the global economy and ensuring that European businesses lead the way in shaping the future.

6.4. European Union Level

The European Union's ambitions to become a global hub for innovation and economic growth are fuelled by a cohesive strategy. This strategy aims to unify and amplify the efforts of individual member states and regions, fostering an ecosystem that empowers start-ups to thrive not only locally but also on the global stage.

The EU has developed a comprehensive framework of policies and programs specifically designed to support the growth and scalability of start-ups and unicorns. These initiatives address various challenges faced by start-ups, ranging from funding and regulations to innovation and market access. Here's a closer look at some key EU-wide initiatives:

6.4.1. EU-Wide Initiatives and Support

- **Digital Single Market (DSM):** This strategic initiative represents a pivotal move towards eliminating online barriers and creating a unified digital space for the free flow of digital goods and services. For start-ups, the DSM translates into an unparalleled opportunity – the ability to scale operations across all 27 EU member states without the hindrance of inconsistent regulations. By simplifying digital transactions, standardizing e-commerce rules, and ensuring digital accessibility, the DSM fosters an environment where start-ups can easily reach a wider European audience. With the potential to access a market of over 500 million people, the DSM acts as a powerful catalyst for start-up growth and scalability.
- **Horizon Europe:** As the EU's flagship research and innovation program, Horizon Europe boasts a budget of around €95.5 billion for the period 2021-2027. Its objective? To secure the EU's global technological leadership by supporting research and innovation projects across diverse sectors, including digital, health, and climate. Embedded within Horizon Europe is the European Innovation Council (EIC). The EIC specifically targets high-potential start-ups and SMEs with the potential to scale up and achieve significant market success. Through funding,

mentorship, and networking opportunities, the EIC empowers innovative start-ups to focus on breakthrough, market-creating innovations.

- Digital Europe Programme: The Digital Europe Programme is a new funding program aimed at ensuring Europe's competitiveness in the digital age. With a budget of €7.5 billion for 2021-2027, the program focuses on building the essential tech infrastructure for business success. It supports investments in high-performance computing, artificial intelligence, cybersecurity, and advanced digital skills training. This program helps businesses of all sizes undergo digital transformation and leverage cutting-edge technologies for growth.
- Start-Up Europe: Fostering collaboration is key to a thriving start-up ecosystem. Start-Up Europe connects diverse stakeholders, including start-ups, investors, accelerators, and universities, to create a vibrant network. This initiative facilitates cross-border connections, helps start-ups access new markets, and provides visibility for emerging companies. Additionally, Start-Up Europe Regions Network (SERN) empowers regional ecosystem development.
- European Institute of Innovation & Technology (EIT): This EU body bridges the gap between education, research, and entrepreneurship to foster innovation across Europe. Through its Knowledge and Innovation Communities (KICs), the EIT tackles societal challenges in areas like climate change, digitalization, and health. Start-Ups benefit from incubation, acceleration programs, and funding opportunities facilitated by the EIT.
- European Innovation Council Fund (EIC Fund): This fund specifically targets high-potential start-ups and SMEs poised for significant growth. The EIC Fund provides equity financing, enabling them to scale their operations and achieve market dominance with their breakthrough innovations.
- Policies for Enhancing Digital Skills: Recognizing the importance of a skilled workforce, the EU prioritizes digital literacy through the Digital Education Action Plan and the New Skills Agenda for Europe. These initiatives ensure a future-proof workforce with the skills needed for start-ups to thrive in the digital age.
- Cross-Border Collaboration: In today's globally connected landscape, innovation and growth increasingly hinge on cross-border partnerships and knowledge exchange. The European Union actively promotes and facilitates collaboration across its member states. This encourages start-ups, research institutions, and established companies to engage in joint ventures, collaborative projects, and knowledge-sharing activities. Such initiatives not only enhance the innovation capacity of European start-ups by exposing them to diverse perspectives and expertise, but also open doors to international market access and global competitiveness. The EU's commitment to fostering cross-border collaboration

extends beyond national borders. It actively creates networks and platforms that connect European start-ups with global investors, partners, and markets. This significantly amplifies their growth potential and international visibility.

The EU recognizes the vital role start-ups play in driving innovation and economic growth. It fosters a comprehensive ecosystem for their success by strategically integrating national, regional, and EU-wide initiatives. This layered approach ensures that start-ups receive well-rounded support through their development journey, across various sectors.

By addressing the specific needs of start-ups at each stage, the EU not only enriches its own innovation landscape but also strengthens its position as a global leader in technological advancement and economic prosperity. Initiatives like the Digital Single Market, Horizon Europe, and the European Innovation Council exemplify the EU's commitment to fostering innovation. Coupled with a strong emphasis on cross-border collaboration, these programs equip European start-ups to compete effectively on the global stage. Ultimately, the EU's strategic approach paves the way for a united, innovative, and economically robust Europe, fuelled by the success of its thriving start-up ecosystem.

6.5. National Initiatives in Europe

6.5.1. Key Components of National Support

The European Union's strength lies in its diversity. Recognizing this, member states have developed a rich tapestry of national support strategies for start-ups. These strategies complement the EU's overarching innovation and economic development goals while acknowledging the unique strengths and challenges of each country.

- **Innovation funding and incentives:** EU countries understand the crucial role of funding in a start-up's early stages. They offer a variety of mechanisms, from direct research and development grants to tax breaks that incentivize investment in innovation. Equity financing is also encouraged, ensuring start-ups have access to the capital needed to grow and innovate.
- **Ecosystem development:** Collaboration between academia, industry, and government is vital for a healthy start-up ecosystem. National strategies prioritize fostering these connections. Innovation hubs and tech parks provide physical spaces for collaboration, attracting talent and investment. Sector-specific clusters, where start-ups mingle with research institutions and corporations, facilitate knowledge exchange, market access, and innovation in targeted areas.

Regulatory and administrative simplification: a supportive regulatory environment is essential for fostering entrepreneurial spirit. Many EU member states are streamlining legal and administrative processes for start-ups. This includes simplifying company registration, offering clear compliance guidelines, and reducing bureaucratic hurdles. These measures pave the way for a more agile and start-up-friendly environment.

7. Best Samples of unicorns in Europe

7.1. Adyen (the Netherlands)

Introduction

Adyen is a Dutch payment company with the status of an acquiring bank that allows businesses to accept e-commerce, mobile, and point of sale (POS) payments. Adyen offers merchants online services to accept electronic payments using payment methods including credit cards, debit cards, wire transfers and real-time bank transfers based on online banking. It connects merchants to different payment methods, including international credit cards, local cash-based methods and mobile payment methods. The technology platform acts as a payment gateway and a payment service provider.

Key Differentiating Factors

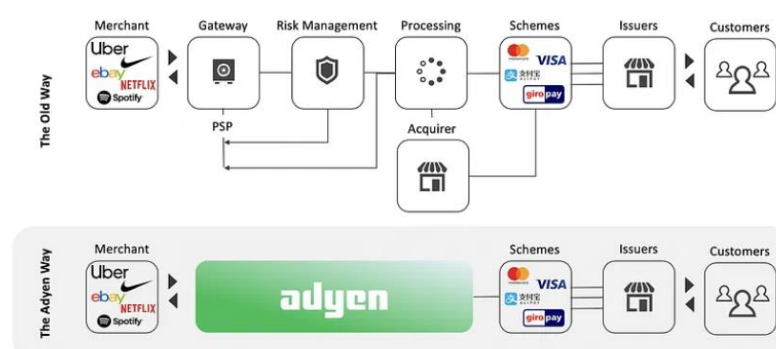
Adyen's key differentiator is that they are an acquiring bank with top quality technology. This combination allows them to provide one platform for managing 100+ types of payments in over 60 countries, which yield higher margins than those of competitors.

Having all core elements in one place reduced the need for 3rd party vendors and makes for a more efficient and secure platform, especially for fraud prevention. These key benefits reduce the per transaction costs for merchants.

Adyen also became strong in helping merchants become global brands by expanding to new geographies, especially companies from Europe entering US or Asia. As a company, over half of its revenue (56%) still comes from Europe, while 25% of it comes from North America and 11% from Asia Pacific countries.

Adyen also sets out to add value for its customers. One component of that approach was a focus on customer data — in particular, the kind of data analysis that would allow merchants to detect potential fraudster. Adyen claims a smart analytics system that not only helps merchants to reject potential frauds but also validate genuine customers who might — on other platforms — find their cards are not being accepted. In addition, the system provides insights into shoppers and their spending habits.

Competence



Adyen's primary competitors include the likes of PayPal, Worldpay and Stripe. One of Adyen's biggest advantages is that it acts as a global platform with direct connections to international cars, enabling a 'plug and play' expansion to new regions. Moreover, Adyen is equipped with local payment methods and expertise as preferred payment methods are different around the world,

Moreover, most of the competitors were focused on lowering their prices, effectively commoditizing the industry. By defining new metrics, that the industry and especially merchants had not focused on before, Adyen was able to beat out other competitors. The one metric that allowed Adyen to change any merchant conversation was the Authorization Rate. By defining the relationship between processing performance and the value it creates, the "return on improve performance", Adyen shifted the focus away from price by showing that getting more authorizations, far outweighed the costs associated with the transactions. Just by being able to outperform their competitors by 1%, with enterprise clients processing millions of transactions per month, led to more settle's transaction, which far outweigh the pennies competitors offered by reducing the processing costs.

Tools Used To Grow

The company has been profitable since 2011. Its earnings grew from US\$46 million in 2015 to US\$87 million in 2016. Its gross revenue grew 99% in 2016 to US\$727 million. It also saw transaction volume increase to US\$90 billion up from US\$50 billion in 2015. In 2017, Adyen surpassed US\$100 billion in processed volume.

In 2020, Adyen had a net revenue of US\$684 million, a 28% increase year-on-year. In 2021, their net revenue hit US\$1 billion and in 2022, the company exceeded US\$1,3 billion.

Within 5 years of inception, the payments company was already showing robust growth and profitability. A year later, Adyen started its expansion outside of Amsterdam – opening offices in London, Paris and San Fransisco.

A US\$250 million funding round came at the end of 2015, which was led by General Atlantic and early investors (Index Ventures, Felicis Ventures and Temasek Holdings). A US\$2,3 billion valuation came the following year for Adyen, ranking the paytech as a top 10 unicorn in Europe.

In May 2018, Adyen announces its intention to go public in Amsterdam. The initial public offering would take place on June 13, 2018. This IPO led to the increase in valuation to US\$7,1 billion and an investment round that amounted to US\$950 million.

Nowadays, Adyen has made several changes to deal with its continuous growth. Having built technology that is still years in front of their competition, Adyen nowadays spends most of its time on catching bigger and bigger merchants. Leveraging their success with MasterCard and Visa, they continue to expand their Acquiring footprint by adding new

licenses across the world. Having secured a banking license in 2017, Adyen had needed to shift more of its data endeavours on managing risk and securing its data, as with all businesses, once the dominant players stop innovating, it creates opportunities for newcomers to challenge the status quo.

7.2. BlaBlaCar (France)

Introduction

BlaBlaCar is an online marketplace for carpooling headquartered in Paris. Its website and mobile apps connect drivers and passengers willing to travel together between cities and share the cost of the journey, in exchange for a commission of between 10% to 12%. The platform has 26 million active members and is available in Europe and Latin America.

Key Differentiating Factors

With a unique “Fun & Serious” attitude, the crowd at BlaBlaCar take their job seriously, yet at the same time, they know how to bring the fun. The “Fun & Serious” value can be likened to that of Yin and Yang. Two halves with complementary forces that are independent upon each other, the fun and serious mentalities complete each other. Each person becomes motivated by combining the pride of delivering quality with the happiness of achieving things in an optimistic and fun way.

As a name, BlaBlaCar catches one’s attention immediately. People often have a reaction when they first hear it and tend to remember it. In a nutshell, the name BlaBlaCar stems from a profile feature whereby member can display how talkative they will be in the car.

Competence

There are several companies that offer a similar service to BlaBlaCar, including Hitch, Amovens and Carpooling. These companies allow users to find other people travelling in the same direction in order to share the cost of petrol/gas and tolls.

BlaBlaCar’s competitive advantage is its large networks of users and its trustworthiness. Car members have a high level of trust because they have never met and share only information about their locations and destinations.

Tools Used To Grow

In 2015, their revenue reached an approximate amount of €80 million. In 2022, the ridership had grown their revenues to €197 million, up from €102 million in 2021 and €130 million in 2019. This demonstrates a return to growth, as the carpooling giant had suffered from travel restrictions due to the pandemic, which had halted its operations.

Date of funding	Funding Amount	Round Name	Post money valuation	Revenue multiple	Investors
Jun 15, 2022	\$15M	Conventional Debt	–	–	IFC
Apr 20, 2021	\$115M	Series E	\$2B	–	VNV Global, Otiva
Nov 12, 2018	\$114M	Series D	–	–	SNCF
Sep 06, 2016	\$23.8M	Series D	–	–	Baring Vostok
Sep 16, 2015	\$200M	Series D	\$1.6B	–	Insight Partners, VNV Global, Lead Edge Capital
Jul 01, 2014	\$100M	Series C	–	–	Index Ventures, Accel, ISAI Gestion, Lead Edge Capital
Jun 01, 2014	Undisclosed	Series B	–	–	FJ Labs
Jan 16, 2012	\$10M	Series A	–	–	Accel, ISAI Gestion, Cabiedes & Partners
Jun 14, 2010	\$1.78M	Seed	–	–	ISAI Gestion, Luis Martin Cabiedes
Dec 01, 2009	Undisclosed	Seed	–	–	Omnes Capital

In 2009, the company raised €600.000 from the founders, families and friends. In June 2010, Comuto raised €1,25 million from ISAI. In January 2012, Comuto raised €7,5 million from Accel Partners, ISAI and Cabiedes & Partners to develop its activities in Europe. In July 2014, BlaBlaCar raised US\$100 million from Index Ventures. In September 2015, the company raised US\$200 million, primarily from Insight Venture Partners, in a round that valued the company at US\$1,6 billion. In April 2021, BlaBlaCar raised US\$115 million.

7.3. Outsystems (Portugal)

Introduction

OutSystems is a low-code development platform which provides tools for companies to develop, deploy and manage omnichannel enterprise applications. They allow the development of mobile and web enterprise applications, which are in the cloud, on-premises or in hybrid environments.

Key Differentiating Factors

OutSystems, often hailed as a leading platform in the application development space, combines the best of both worlds by providing robust low-code development capabilities. It offers an intuitive visual development environment, allowing developers to visually create application logic, UI components, and data models.

With OutSystems, developers can leverage pre-built templates, widgets, and reusable components, significantly reducing the time and effort required to build applications from scratch. The platform supports seamless integration with various systems, databases, and APIs, enabling developers to create complex and interconnected applications.

Competence

OutSystems Platform is an AI-driven, high-productivity toolset that automates and simplifies the software development process while enabling organizations to embark on their digital initiatives successfully. OutSystems offers several benefits that make it a preferred choice for businesses and developers alike. Some key advantages include accelerated development, improved collaboration, scalability and performance, code reusability and robust security.

Some of OutSystem's competitors include Mendix, Bubble, Retool, Unqork and Salesforce.

Tools Used To Grow

OutSystem's estimated annual revenue is currently at US\$502,7 million per year with a valuation of US\$9,5 billion. They have raised a total funding of US\$572 million over 6 funding rounds where their first funding was on Oct 1, 2001. Its latest funding round was a Series D round in February 2021 for US\$150 million.

7.4. Intercom (Ireland)

Introduction

Intercom is a software company that specializes in business messaging, providing businesses with a way to chat with their customers. Intercom's platform is used to send over 500 million messages per month and enables interactions with over 600 million monthly active end users. They recently launched a new service that will allow other companies to develop and integrate apps on Intercom's messaging platform.

Key Differentiating Factors

The company mostly focuses on three key aspects: lead generation, customer engagement and customer support. Intercom also offers a robust live chat. It allows users to be able to style the widget in accordance with their brand colours, choose which support options customers will see and insert apps to create a self-serve experience. In addition to Intercom's customers service capabilities, its Product Tours add on offers support to new users during the onboarding and adoption phases. Features include a no-code builder, audience targeting, analytics reporting and more. User can also expand its native functionality using third-party integrations.

Competence

One of the main insights of the Intercom founders was that products need to get out of the way of building relationships. Products are hired to get a specific job done. And they should be built towards this purpose in the most efficient and focused way possible. Many companies focus their thinking on customer personas. The Intercom team says: personas are cool, but they don't tell the whole story. They are for empathy, not for fresh product thinking.

Some of Intercom's competition include Drift, Ada, Zendesk, LiveChat and HubSpot.

Tools Used To Grow

Intercom generated US\$250 million in estimated revenue in 2022, up 25% from 2021 when they generated about US\$200 million. More than 25.000 organizations utilize the platform, and over 600 million users send an average of 500 million messages a month. Intercom has raised US\$240,8 million from notable investors such as Kleiner Perkins, Social Capital, Bessemer Venture Partners, and ICONIQ Capital. It was last valued at US\$1,3 billion, placing its present-day valuation/revenue multiple at about 4.3x.

7.5. Satispay (Italy)

Introduction

Satispay develops and manages the mobile application of the same name for a digital payment and money transfer via their internet. The application allows users to make payments without the need for a credit or debit card, it will be sufficient to establish a weekly spending budget and combine the Satispay account with your own bank account.

Key Differentiating Factors

Satispay is completely free for consumers, there are no sign-up costs, top up fees or commissions for money transfers. It therefore allows to easily and safely exchange money with friends or to be used for everyday payments. In addition to the system's clear economic advantages, Satispay also improves the customer's purchase experience by reducing waiting time with a faster and more efficient payment process.

Satispay have developed a proprietary technological platform, directly connected to EBA CH, cutting off all the steps that are typically part of a payment process and that boost the costs of paying by cards. Ownership and total control over the platform together with our independence from the traditional players of the payments industry allow them to be extremely efficient and this efficiency is transferred to clients, lowering significantly commissions to merchants and allowing them to offer the service to customers for free. The safe and easy user experience aims at leading cultural change in people daily payments habits.

Competence

Satispay has the advantage of providing merchants with a cheaper solution than traditional card payments. It also offers many easy-to-use services such as money transfer, payment affiliated commercial establishments, phone recharge, donation, payment of car license, payment of money orders, cashback and government cashback. Furthermore, with the Italian payment app, you can save money by creating piggy banks within the app, where the Cashback will be credited or where a periodic amount set by us will be transferred.

Some of Satispay's competitors include PayPal, Revolut, Pin Payments and BluePay Holding.

Tools Used To Grow

As of September 2022, Satispay is valued at US\$1,1 billion. It is estimated that their annual revenue is currently US\$101,2 million with an estimate revenue per employees of US\$165.100.

DATE	INVESTORS	AMOUNT	ROUND
-	Banca Etica, 3LB Seed Capital, Nick Carbonari, Ray Iglesias, Anil D. Aggarwal, Club degli Investitori, Proximity Capital, The LHoFT, Milano Investment Partners	N/A	- Not yet verified
Sep 2017*	Ray Iglesias III, Giuseppe Donagemma, Jonathan Weiner, Iccrea Banca, Boost Heroes, Banca Sella Holding	€18.3m Valuation: €66.0m	Series B
Jul 2018*	Gruppo Bertoldi, Endeavor Catalyst, Greyhound Capital, Iccrea Banca, Copper Street Capital	€10.0m Valuation: €100m	Series B
Nov 2020*	Ad4Ventures	N/A	Media For Equity
Nov 2020*	Square, Tencent, TIM Ventures, Lightrock	€93.0m Valuation: €248m	Series C
Oct 2021	Growth Engine	N/A	Secondary Not yet verified
Sep 2022*	Square, Tencent, Coatue Management, Greyhound Capital, Banca Mediolanum, Lightrock, Addition VC	€320m Valuation: €1.0b	Series D
Total Funding		\$511m	

Satispay closed noteworthy capital increases, making millionaire funding rounds with major Italian and international investors. The Italian Fintech Satispay already began to take its very first steps in the world of fundraising in 2013, closing an Angel Round of €420.000 in the seed phase. In 2014 it closed a new round with 3LB Seed Capital Srl, for €700.000. In 2015 Satispay began to raise millions, closing two Serie A rounds: the first in January, for a total of €5,5 million; the second in September, for a total of €3 million with Iccrea Banca and some executives and entrepreneurs operating in finance, internet, and telecommunications. The Series B rounds obtained by Satispay brought the total fundraising up to €42 million and increased the value of the company to over €100 million.

Phases:

- April 2017: Satispay closed an €18,3 million round. The names involved in the transaction were Banca Etica, Banca Sella Holding through Sella Ventures, Shar Bites Venture Capital and Iccrea Banca.
- July 2018: the company obtained €10 million investing round from Copper Street Capital, Endeavor Catalyst, Greyhound Capital, Banca Valsabbina, Sparkasse and Club degli Investitori, Turin.
- September 2018: Satispay closed the last Serie B round, for a total of €5,2 million with Iccrea Banca and Banca di Piacenza.

In 2019 the negotiations for a Serie C round began, which, initially, was supposed to be €50 million. In 2020 Satispay closed the round with a total of €9 million: €25 million from the purchase of shares held by past investors, and €68 million capital increase by Tim Ventures (Tim's Venture Capital fund), Jack Dorsey (founder of Twitter) through Fintech Square, Tencent (the holding company that owns, among many other things, WeChat) founded by the billionaire Ma Hueteng, and by Igt Lightstone (part of Lgt Capital Partners, the largest family private banking group). This multimillion-dollar transaction brought the company's valuation to €248 million.

In 2020, Satispay started the negotiations for a new investing round of €50 million, not yet concluded due to the impact of COVID 19. Among the various names that could participate in the transaction, we also find Mediaset, with a Media for Equity agreement through its Corporate Venture Capital Ad4Ventures. Now, however, it seems that Mediaset entered the Satispay capital only with a small stake through RTI (Italian Television Networks).

7.6. Printful (Latvia)

Introduction

Printful is an on-demand printing and fulfillment company. It prints, packages, and ships products like custom clothing, accessories, and home & living items directly to customers on the behalf of online business owners. Printful uses printing technology from Kornit Digital and has partnered with Coloreel in embroidery techniques.

Key Differentiating Factors

Printful is one of the very best print-on-demand services available. It doesn't charge monthly fees, its products are high-quality, its design tool is extremely user friendly, and the company takes an ethical approach to workers' rights. Printful doesn't just print your products for their customers. It also provides a complete range of 'fulfillment services' — in other words, the company also packages their customers products and ships them to their customer for them.

With Printful, you don't need to pre-order any products and there are no order minimum quantities. This means customers don't have to invest in warehousing or storage for products that may or may not sell when they list them on your store. Furthermore, the company only charges their customers when a customer completes an order on the customers store — so technically, the full cost of printing and delivering a product to a customer can be covered by the customer's payment for that product at time of purchase.

Competence

Printful is a print-on-demand (POD) service that lets you design, print and sell custom merchandise through your own online store or via an ecommerce marketplace like

Amazon, eBay or Etsy. It also provides a complete range of ‘fulfillment services’ — in other words, the company also packages your products and ships them to your customer for you.

Tools Used To Grow

Printful, Inc. revenues in 2021 exceeded US\$289 million. This was a 39% increase compared to 2020, when the company’s revenue was US\$208 million. Meanwhile, Printful, Inc. subsidiary Printful Latvia’s turnover in 2021 reached almost €72 million. In 2022, the turnover of Printful Latvia reached €78,89 million, a 11,79% increase year-on-year. This is only part of the company’s global turnover, which Printful does not disclose.

USD	2017	2018	2019	2020	2021	2022	2023
Revenues	46.0m	77.4m	116m	208m	289m	289m	296m
% growth	119 %	68 %	50 %	79 %	39 %	-	2 %

Source: Dealroom estimates

In terms of funding, they have done 1 funding round which valued their business at US\$1 billion. This funding round came up with US\$130 million led by Growth Equity VC.

7.7. LogMeIn (Hungary)

Introduction

LogMeIn Inc., is a flexible-work provider of software as a service (SaaS) and cloud-based remote work tools for collaboration and IT management. The company's products are focused on three business areas, including Unified Communications and Collaboration services, Identity and Access Management services, and Customer engagement and support services.

Key Differentiating Factors

LogMeIn’s design creates a secure link between two computers, even when the user accesses the data over an untrusted network. The host computer that the client accesses stays connected to the LogMeIn servers over a secure connection, and the client requests access to the host computer’s data directly through the LogMeIn servers. This allows users and hosts to operate behind firewalls and does not require additional IT services to configure that firewall. LogMeIn’s products give you control over all devices, but the ability to share that data to other users and admins gets more advanced with each access level.

Competence

LogMeIn’s supports their client’s success through different strategies like acquisitions and new product offerings. They also offer a partner program where they offer effective strategy for both the organizations and their clients. The benefits to this program include

authenticity, continuous improvement, different perspectives and support and resources.

Tools Used To Grow

According to LogMeIn's latest financial reports the company's current revenue (TTM) is US\$1,31 billion. In 2019 the company made a revenue of US\$1,26 billion an increase over the years 2018 revenue that were of US\$1,20 billion. The revenue is the total amount of income that a company generates by the sale of goods or services.

Annual revenue		
Year	Revenue	Change
2020 (TTM)	\$1.31 B	4.15%
2019	\$1.26 B	4.68%
2018	\$1.20 B	21.64%
2017	\$0.98 B	194.52%
2016	\$0.33 B	23.74%
2015	\$0.27 B	22.37%
2014	\$0.22 B	33.5%
2013	\$0.16 B	19.75%
2012	\$0.13 B	16.22%
2011	\$0.11 B	18.21%
2010	\$0.10 B	35.81%
2009	\$74.4 M	43.86%
2008	\$51.72 M	91.58%
2007	\$26.99 M	

LogMeIn has raised a total funding of US\$20 million over 2 rounds. Each funding resulted in US\$10 million, the last funding being a Series B round in the end of 2005.

7.8. Vestiaire Collective (France)

Introduction

Vestiaire Collective is a French online second-hand fashion platform, founded in 2009. The company specializes in the sale of second-hand clothing and accessories. Its clientele is mainly female. Vestiaire Collective offers a platform where users can buy and sell second-hand mainly branded fashion items.

Key Differentiating Factors

Vestiaire is taking a stand against overproduction and overconsumption by banning fast fashion brands from their marketplace. Vestiaire Collective is a global favorite, as their authentication process, quality control standards, and buyer experience are unparalleled on other peer-to-peer marketplaces. They provide consumers with full transparency on the key impacts of their items, and to be able to track every step of the journey (production, sale, resale, end-of-life).

Competence

Vestiaire Collective is a global community platform with over 9 million members in over 50 countries. Their members love that they can interact with each other on the app to buy and sell from like-minded fashion lovers.

Vestiaire Collective's competitors include, eBay, Depop, Tradesy, and Poshmark.

Tools Used To Grow

Vestiaire Collective is currently valued at US\$1,7 billion with an estimated annual revenue of US\$262,1 million. In September 2013, Vestiaire Collective raises US\$20 million from its third investor: Condé Nast Publications. In January 2017, it raises nearly US\$62 million in a Series-E led by Vitruvian Partners. In June 2019, Vestiaire Collective announces that it has raised €40 million as part of its international development. In April 2020, the company announced that it had raised €59 million, bringing Korelya Capital, Vaultier and Cuir Invest into its capital. In 2021, Vestiaire Collective raised €178 million raised in March from funds such as Kering and Tiger Global, then the same amount raised in September from Softbank and Generation Investment Management, Al Gore 's fund, granting unicorn status for the company.

7.9. HelloFresh (Germany)

Introduction

HelloFresh is a publicly traded meal-kit company based in Berlin, Germany. It is the largest meal-kit provider in the United States, and also has operations in Australia, Canada, New Zealand and Europe (Germany, Austria, Switzerland, Belgium, Netherlands, Luxembourg, France, Italy, Ireland, Spain, Scandinavia and United Kingdom). They first started delivering meal kits to paying customers in early 2012, and expanded to the Netherlands, UK, US and Australia the same year. By 2014, the company claimed to be delivering 1 million meals per month.

Key Differentiating Factors

It is 75% cheaper to use HelloFresh than traditional grocery stores. This is because the middleman is cut out. HelloFresh sources directly from suppliers and they do not mark

up the price of ingredients. Recipes are kept seasonal and ingredients are prepared in the appropriate portions so there is no food waste. On top of that, all of the ingredients that HelloFresh uses are responsibly sourced to minimize negative impact on the environment.

Competence

Data-driven platform that collects all of HelloFresh's subscriber preferences. These customer insights allow the company to constantly improve their value proposition. By leveraging the power of data, HelloFresh is in a great position to optimize their own supply chain. The company is also able to directly improve customer experience by being able to make accurate predictions of what recipes customers want next.

By making the jump from a simple delivery to a well thought through recurring meal plan, HelloFresh is a clear example of the Services shift. By creating additional value out of food delivery through food and recipe preparation, customers are willing to pay a premium. Consumers are empowered to take ownership of their diet with none of the stress of cooking.

Tools Used To Grow

HelloFresh has been growing at a rapid pace in the last decade. In 2013, the company generated a revenue of €14 million. Nine years later, in 2022, the global revenue was €7,6 billion. This staggering growth was not only achieved in the early years. In fact, as recent as 2020, the company more than doubled in size within the year. With these growth figures, it comes as no surprise that the meal kits market has increased in recent years, and there is much more to come. With a global market valuation of over US\$15 billion in 2021, the meal kits market is forecast to grow to a value of US\$25,6 billion by 2027.

They raised US\$50 million in a 2014 funding round, after having raised US\$10 million in 2012, and US\$7 million in 2013. By March 2015, the company had 250.000 subscribers, although it was still not profitable. In September of that year, it was valued at €2.6 billion in a funding round where it raised €75 million, making it a unicorn company. The company was still majority-owned by Rocket Internet at that time.

7.10. Mollie (the Netherlands)

Introduction

Mollie is a finance industry pioneer and one of Europe's fastest growing FinTech's. We believe that every business has the right to grow, and that drives us to create products that simplify financial services: effortless payments, flexible financing, powerful integrations, and more.

Key Differentiating Factors

Mollie aims to be the world's most loved payment service provider. They want to simplify financial services so that all businesses can grow. They offer transparent fees, fast onboarding and EU coverage, no lock-in contract, bank-level security standards, API, fraud monitoring, multilingual in-house support, daily payouts, capital for fast and flexible financing and quick, easy to use and optimized checkout.

Competence

Mollie offers a comprehensive suite of payment services that cater to the diverse needs of businesses of all sizes. Whether it's e-commerce platforms, marketplaces, or individual entrepreneurs, Mollie provides a user-friendly and secure platform to accept payments from customers worldwide. Mollie's success lies in its commitment to innovation, customer-centric approach, and emphasis on seamless integration. The company understands the challenges faced by businesses in the complex world of online payments and has developed solutions that empower merchants to accept a wide range of payment methods effortlessly.

Mollie's competitors include Stripe, Adyen and PayPal.

Tools Used To Grow

Mollie's estimates annual revenue is US\$159,3 million with a current valuation of US\$6,5 billion.

Series ↕	Round Size ↕	Date ↕
Series A	\$26M	07/2019
Series B	\$106M	09/2020
Series C	\$693.4M	06/2021

From a development perspective, in 18 years, Mollie was growing slowly. The team allowed the product to do the thing without pursuing complex sales or having any marketing. The product was on itself. So, the sales team and marketing team started to form only 6 years ago. The first influential investment Mollie had in 2020 enabled them to kick things off quickly and significantly boost their growth. Since then, Mollie has attracted much interest from the world's leading fintech investors, who can help in their next growth phase.

7.11. Cabify (Spain)

Introduction

Cabify is a multi-mobility platform for people and objects that offers various alternatives to reduce urban travel in private cars. The company operates in Spain and Latin America (Mexico, Colombia, Peru, Argentina and Uruguay). Between 2016 and 2019, it also operated in Portugal (in Lisbon and Porto) and between 2016 and 2021 in Brazil.

Cabify operates as the contact point between customers and private drivers by means of its mobile app for Android and iPhone, as well as its web page. Users pay for the service via their credit card or PayPal account, with cash payments introduced in 2016. The app shows the location of drivers to the customer, calls the closest driver, directs the driver, and plays the role of intermediary for payments, taking a commission of around 20%. Once the ride is over, Cabify sends a summary to the customer's mobile phone, including information such as the distance, duration and cost of the ride. The customer can evaluate the ride and the driver.

Key Differentiating Factors

Cabify aims to make cities more habitable by offering a safe, reliable and efficient alternative to private vehicles. To spread the positive effect of technology beyond mobility by leveraging engagement, analysis and innovation.

Cabify bridges the gap between comfort and affordable public transport. It is a ridesharing company that allows you to book cabs with the help of their mobile app. These cabs are owned by self-employed drivers who work as per their schedule. It is one of the biggest ridesharing companies in the Spanish and Portuguese-speaking countries.

Competence

Cabify have taken several measures to satisfy customer requirements and promote customer loyalty. Their revenue streams are also well aligned with their customer segment. With a wide customer segment, Cabify has made sure that they cater to more customers and generate more revenue. Over the years Cabify has been able to raise significant capital and have implemented them skillfully to expand and grow their business. Similar strategies can be followed to promote your own business. The digital experience in a business-like Cabify plays a major role in the user experience.

Tools Used To Grow

In September 2012, the company raised a US\$4 million Series Seed investment round from Black Vine, Belgian fund Emerge, angel investors sourced via AngelList (including the Winklevoss twins), and a series of Latin American investors. A second US\$8 million investment was round up in April 2014 and led by Seaya Ventures.

The company's biggest investor, Japanese e-commerce giant Rakuten, which is also a lead investor in taxi-app player Lyft, made its first investment in Cabify in October 2015, when it provided capital for a further push into Latin America. Cabify's revenues had risen to US\$40 million, from US\$10 million in 2014 and US\$1 million in 2013. In April 2016, Rakuten invested US\$92 million more in Cabify. Rakuten's investment was a part of a round of funding in which Cabify raised US\$120 million. After the 2016 financing, Cabify was valued at around US\$320 million.

In January 2018, Cabify raised an additional US\$160 million, valuing the company at US\$1.4 billion. The company cut down 10% of its workforce and reorganized its top management.

7.12. Back Market (France)

Introduction

Back Market, or Jung SAS, is a French e-commerce company, created in 2014, which serves as an intermediary between individuals and professionals in the reconditioning of electrical and electronic devices.

Back Market functions as a marketplace, offering end customers used equipment recycled by professional reconditioners, second-hand stores, cash converters or from returns from hypermarkets. Products from top-rated recyclers are highlighted on the site. The company indicates that the rate of defective products sold fell from 10% to 5% in 2019.

Key Differentiating Factors

Back Market “aggregates most of the complaints” received regarding customer satisfaction. If its position as leader can explain the number of complaints, its operation is nevertheless problematic. In addition, the warranty period offered compared to its competitors, namely 1 year minimum, and the impossibility of changing the battery for a new one as an option (some competitors offer it) is also pointed out by backmarket customers.

Competence

Back Market's mission is to make it easy and sustainable to buy refurbished electronics. The company believes that refurbished electronics are a great way to save money, reduce waste, and extend the life of electronics. Back Market offers a wide variety of refurbished electronics, including smartphones, laptops, tablets, TVs, and appliances. The company also offers a variety of services, such as free shipping, a 1-year warranty, and a 30-day money-back guarantee. Back Market has been praised for its commitment to sustainability. The company has several initiatives in place to reduce its environmental impact, such as using recycled packaging and donating refurbished electronics to charity.

ACES Direct, Talus, Evocomputers, and Deane Computer Solutions are just some of Back Market's competitors in the the used electronics market.

Tools Used To Grow

BackMarket's annual revenue is US\$53 million in 2022. They are valued at US\$5,7 billion.

In 2015, the start-up raised €300.000 from private investors. In 2017, a second fundraising of €7 million is carried out. At that time, 30% of the activity was carried out in Spain, Germany, Belgium, Italy and the company said it achieved €96 million in business volume. In 2018, a third fundraising of €41 million from Daphni, the Arnault group, Thierry Petit, and Eurazeo takes place.

In 2020, the confinement due to the Covid-19 pandemic allowed the company to double its sales compared to the previous period. It then claims 1.200 reconditioning partners. A fourth round of fundraising raised €110 million from previous partners and Goldman Sachs Growth. In May 2021, the start-up announces a fundraising of €276 million which places it in the category of French "unicorns" 4. In January 2022, the group present in seventeen countries raised €450 million on a valuation amounting to €5,1 billion.

Series ↕	Round Size ↕	Date ↕
Series A	\$7.3M	05/2017
Series B	\$42.8M	06/2018
Series C	\$120M	05/2020
Series D	\$335M	05/2021
Series E	\$510M	01/2022

8. Conclusion

The European Union recognizes the vital role start-ups play in driving innovation and economic growth. To create a thriving ecosystem for these young companies, the EU has adopted a multi-layered support structure. This comprehensive approach, with initiatives and policies at EU, national, regional, and local levels, works together seamlessly to nurture start-ups from their early stages all the way to becoming globally competitive giants.

The EU's strategy hinges on the understanding that fostering successful start-ups isn't a solo act. By bringing together the strengths of various governance levels, the EU creates a well-rounded support system. Flagship programs like Horizon Europe and the Digital Europe Programme offer crucial funding and technological infrastructure, laying the groundwork for start-ups to innovate and scale quickly. These continent-wide initiatives act as the foundation, while national policies tailor the support to the unique economic needs and strengths of each member state, further accelerating start-up growth.

Beyond the broader national and EU-wide initiatives, regional and local efforts play a crucial role in directly impacting a start-up's day-to-day operations. These localized efforts often take the form of innovation hubs, industry-specific accelerators, and regulatory sandboxes. These resources provide start-ups with the necessary financial backing, mentorship, and a regulatory environment that allows them to experiment and grow. Additionally, building a strong local support network with valuable connections fosters a collaborative culture and ensures start-ups are embedded within a community that thrives on shared success.

The start-up world is constantly evolving, with new challenges and opportunities emerging all the time. The EU's multi-layered support framework is designed to be flexible, allowing for adjustments in policies to reflect market needs, technological advancements, and global economic shifts. This agility is crucial for maintaining the relevance and effectiveness of support mechanisms, ensuring start-ups can navigate changes and seize new opportunities as they arise.

This multi-layered approach not only supports the development of individual start-ups but also positions the European Union as a fertile ground for innovation and entrepreneurship on a global scale. By addressing the diverse needs of start-ups at various stages and across sectors, the EU becomes more attractive to entrepreneurs and investors worldwide. This comprehensive support system showcases Europe's commitment to being at the forefront of technological advancement, economic growth, and societal progress.

The continued success of the European start-up ecosystem hinges on the EU's ability to foster innovation, facilitate collaboration across all levels, and adapt policies to meet the ever-changing needs of start-ups. The multi-layered support structure, with its combination of funding, resources, and regulatory guidance, serves as a solid foundation upon which start-ups can build their success stories. By embracing continuous innovation, encouraging cross-level collaboration, and remaining adaptable in policymaking, the European Union reaffirms its commitment to nurturing an environment where start-ups can thrive, innovate, and compete on the global stage.

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