Final Degree Project

The Spanish Startup ecosystem: Institutional context, main players and evolution

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Abstract - English

This following project examines the evolution of the startup ecosystem in Spain, which is vital for economic growth, innovation, investment, and policy decisions. The thriving venture capital industry has produced ten unicorns and has billions in assets under management, but there is room for improvement. Founders should focus on scaling their companies, seek mentorship, and reinvest in the ecosystem. Policymakers should reduce bureaucracy, introduce favorable fiscal policy, and easy regulatory processes. Universities should encourage technical degrees and talk more about startups as a career. Venture capital firms have done well, but they should lead large rounds. Accelerators and incubators should expand and help scaled companies. The project presents the evolution in four key periods and analyzes the most important variables of each period to draw useful conclusions. The main players of the ecosystem are introduced, including types of companies, financers, institutions, and culture. Understanding the factors that influence success or failure can help entrepreneurs develop strategies to improve their chances of success.

Abstract – Spanish

Este proyecto examina la evolución del ecosistema de startups en España, el cual es vital para el crecimiento económico, la innovación, la inversión y las decisiones políticas. La próspera industria de capital de riesgo ha producido diez unicornios y tiene miles de millones de euros en activos bajo gestión, pero aún hay margen para mejorar. Los fundadores deben centrarse en escalar sus empresas, buscar mentorres y reinvertir en el ecosistema. Los responsables políticos deberían reducir la burocracia, introducir políticas fiscales favorables y procesos regulatorios sencillos. Las universidades deberían fomentar las carreas técnicas y hablar más sobre las startups como carrera profesional. Las empresas de capital de riesgo han tenido éxito, pero deberían liderar rondas más grandes. Las aceleradores e incubadoras deberían expandirse y ayudar a las empresas escaladas. El proyecto presenta la evolución en cuatro períodos clave y analiza las variables más importantes de cada período para extraer conclusiones útiles. Se presentan los principales actores del ecosistema, incluidos los tipos de empresas, financiadores, instituciones y cultura. Comprender los factores que influyen en el éxito o el fracaso puede ayudar a los emprendedores a desarrollar estrategias para mejorar sus posibilidades de éxito y a los gobiernos a desarrollar el ecosistema startup español.

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1. Introduction

The startup ecosystem of a country comprises the startups that are founded in the country and all of the factors that help startups thrive: financing from different firms and investment professionals, the legal framework that the country provides, different kind of institutions that support startups, successful people that are well known in the ecosystem and the culture of the country.

Analysing its startup scene is key for a country due to the fact that it provides several benefits around economic growth (Ericson & Pakes, 1995), societal benefits and technological innovation; all of which are factors that contribute to the well being of society and which should be improved for improving the lives of a country’s inhabitants. Referring to economic growth, creating companies is vital for economic growth. In addition, creating startups, which aim to be leaders in markets, can be really beneficial for a country as it may achieve leadership positions in some industries across product life cycles (Klepper, 1996), which may turn into a positive trade balance, which is vital for the well-functioning of an economy. In addition, having successful startups will increase production and therefore GPD.

In addition, entrepreneurship can have a significant positive impact on society in several ways, although some of them are a positive consequence of economic growth. One of the positive impacts that the creation of companies offers is on job creation (OECD, 1998). Entrepreneurs often start small businesses that create jobs in their cities/countries. This typically involves creating skilled jobs, that if the company scales can turn into high paying jobs and if not they form a valuable experience for employees. To name a few, some of the biggest employers on Earth started as startups, for example Amazon or Meta. In the US, young startups account for almost all the twenty five million net jobs created since 1977 (Kupor, 2019).

Other problems that affect society that can be improved as a consequence of startup creation are poverty o health issues. Many entrepreneurs focus on social impact ventures, creating businesses that aim to address specific social or environmental problems. These ventures can make a significant positive impact on society by addressing critical issues like poverty, access to healthcare, education, and environmental sustainability. Innovation and technological advancements are also brought in by startups. They bring new ideas and solutions to market that can improve people's lives, solve problems, and create new opportunities. Fostering entrepreneurship through government support, education and training allows countries and therefore society to reap the rewards of R&D investments (Sampaio and de Pinho, 2019). In addition, data provided by Kupor (2019) in his book "Secrets of Sand Hill Road – Venture Capital and How to Get It" states that venture capital backed companies in the US since 1974 account for 85% of all R&D spending, apart from also accounting for 42% of all US company IPOs and 63% of all public companies capitalization (Kupor, 2019).

Finally we find community development: entrepreneurs can play a crucial role in community development by investing in local projects, supporting local businesses, and helping to revitalize neglected areas. They can also create a sense of pride and identity for their communities by bringing attention to unique local culture and resources.

In summary, entrepreneurship can have a significant positive impact on society by creating jobs, driving innovation, contributing to community development, addressing social and environmental problems, and promoting economic growth. Policymakers are one of the most influential actors in a startup ecosystem and should notice the benefits of promoting it, acknowledging that by listening to the necessities of entrepreneurs they can improve their country's ecosystem dramatically.

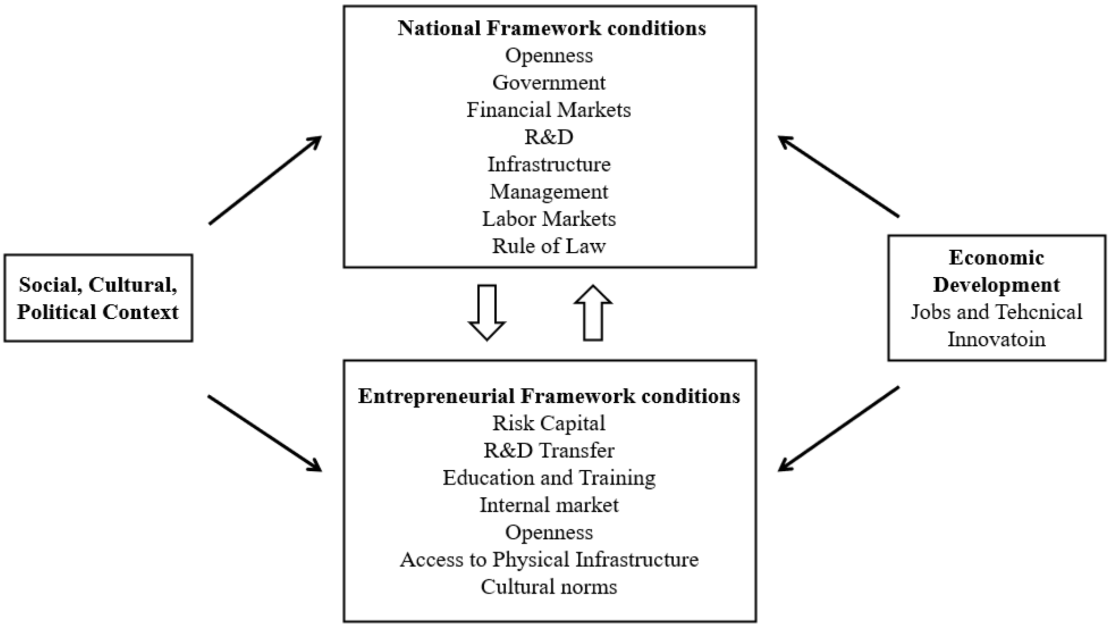
The objective of this report is to study how the startup ecosystem in Spain has evolved since the beginning of the XXI century, due to the benefits that it provides to Spain. To do so, we are going to first describe the most important actors of the ecosystem: players (meaning tangible institutions/businesses) and factors (which are intangible, such us the culture of the country). After doing so we will check how all of them have evolved during the 21st century, dividing the periods in four: from early 2000s to 2008 – growth era for the Spanish economy, from 2008 to 2014 – financial crisis, from 2014 to 2021 – recovery period until Covid and the year 2022 – post Covid era, characterized by an increase in interest rates by Central Banks. After doing so, conclusions and recommendations will be drawn from the report, which may be useful for policy makers in Spain.

2. Main players and factors of a startup ecosystem

2.1 Entrepreneurship Framework Conditions model

The Global Entrepreneurship Conceptual Model (Acs, 2006) defines the Entrepreneurship Framework Conditions as the conditions that comprise a country's capacity to encourage start-ups, combined with the skills and motivations of those who wish to go into business for themselves. The combination of both allows a country to increase startup creation and therefore increase innovation that turns into economic growth. The conditions mentioned by the model are depicted below, and some of the most important ones, such as government, financial markets, labor markets, risk capital or R&D transfer are being analysed in the following paragraphs.

Figure 2.1: Entrepreneurship Framework Conditions



2.2 Startups

Generally speaking, entrepreneurship is defined as establishing a new business with the aim of generating profit by solving a particular problem. Startups can be defined as businesses that have the same objective, but the core of the product that solves the problem is technology. In addition, there are several characteristics that startups have in common. **Startups** are usually focused on hypergrowth and high **scalability** (Thiel, 2014), which is often achievable due to the fact that they have been established on technology. They also try to offer a unique solution to a problem, which involves creating a product or service from scratch. As startups are newly formed companies, they have few workers, which allow them to have **lean operations** (Thiel, 2014) and use resources in a more efficient manner. Being innovative also has negative sides – startups have a high risk of failing, and more than 90% of them do so[1]. Funding is also an important part of these type of companies: startups **typically require external funding**, often from investors, to support their growth and development; but investors are most of the time Venture Capital firms or Business Angels that invest in equity instead of traditional banks lending money. As a consequence of having to operate with external funding without knowing if they will achieve a selling product (the so-called product-market fit), they have short runway, that is, startups have a **limited amount of time** to **achieve profitability** or secure additional funding before running out of resources. Regarding these firm's culture, they are usually comprised of dynamic teams (usually small, but highly skilled and passionate about the company's vision and goals) and an iterative development: startups often use an iterative development process to continuously improve their product or service based on customer feedback. It is common to feel a sense of urgency when working in one of these companies. The final goal is to disrupt a market.

One common way to classify startups is through the stage of funding in which they are. It is important to know that numbers are relative since the amount invested in each stage depends on the size of the market and the maturity of the startup ecosystem (e.g. seed rounds are higher in the US than in Spain because the US has much developed market). We can find the following stages of funding[2]:

Figure 2.2: Stages of funding in startups

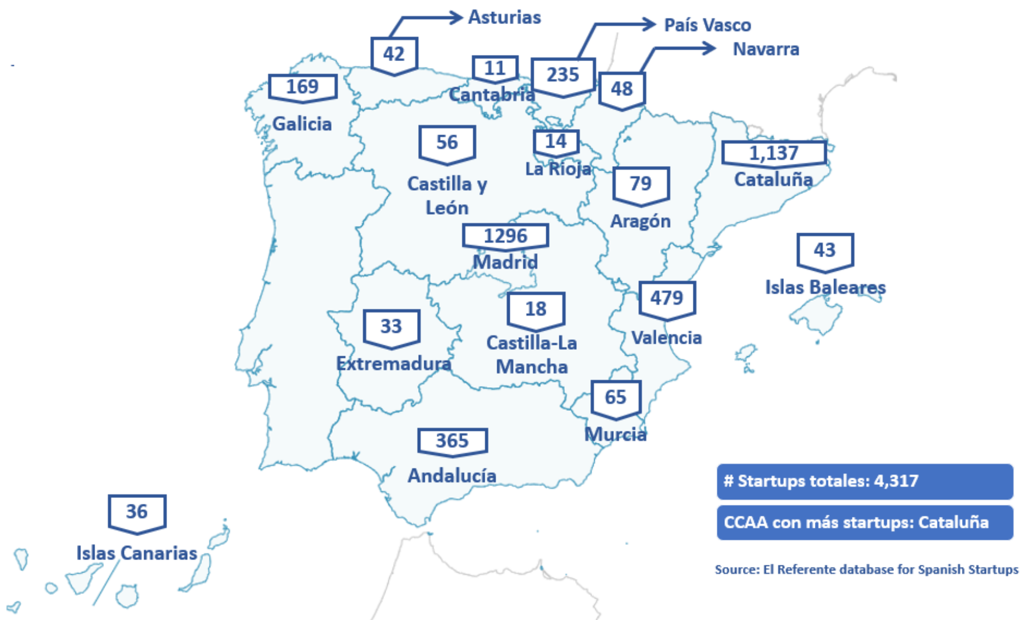
Stages of funding	Product stage	Objective	Money invested	Investors
Pre-seed stage	Minimum Viable Product (MVP)	Build MVP and test it	€10K-€200K	Friends, Family, Business Angels
Seed stage	Final product to be made.	Build final product and test it	€200K-€2M	Business Angels, Seed VCs, Accelerators
Series A	Final product launched.	Expand team and grow sales.	€2M-€15M	Seed VCs, Accelerators
Series B	Several products launched.	Expand countries, acquire competitors	€15M-€50M	Growth VCs.
Series C	Several products launched.	Support international expansion	€50M+	Growth VCs, Private Equity firms
Exit/IPO	Several products launched.	Consolidate business and profitability	-	Multinational companies, institutional investors

An IPO is a Initial Public Offering, which means that shares of the startup are offered to the public via stock exchange. Once the IPO is completed, the shares of the company will be traded in the stock market. Benefits includes access to more capital and the opportunity for founders and investors to sell their shares.

An important term which is used to refer to really successful startups is "unicorn", referring to startups valued over one billion euros, and which we will use during the report. Spain has 10 unicorns nowadays: Glovo, Cabify, Flywire, Wallbox, Devo, Travelperk, Idealista, eDreams, Jobandtalent and Factorial HR.

As a general overview of Spanish startups until 2023, there are more than 4,000 companies created, being Cataluña the most active source of creation with more than 1,300 startups founded there, mainly in Barcelona. Madrid and Barcelona account together for more than 50% of all the Spanish startups created.

Figure 2.3: Overview of Spanish Startups per CCAA - 2023



2.3 Capital providers

Companies are typically funded by banks or credit institutions, which give them loans charging an interest, and expect to receive the principal plus the interest payments along a determined period of time. Contrary, startups are funded by Venture Capital firms and Business Angels (individual investors), that invest in the company in exchange of a portion of the equity of the company. The reason why traditional banks don't fund startups is that the target company that they look for is a company that has some years of track record, and stable cash flows, so the risk of non-repayment is minimized – banks are risk averse investors. On the other hand, VCs and Business Angels are risk-lover investors, and they invest in the equity of many startups, expecting that most of them will die, some of them will return the money invested, and a few will be huge successes that return the money of the fund. In addition, VCs are more advantageous for startups because their members usually have experience building them and are knowledgeable in a sector, so startups can get valuable advice from VCs.

2.3.1 Venture capital

Venture capital is a type of private equity investment that is made in startups that have high growth potential. Venture capital firms provide funding to startups in exchange for an ownership stake in the company. The goal of a venture capital investment is to support the growth and development of the company, with the expectation of generating a significant return on the investment. The return is obtained when the company "exits", that is, it is either sold or goes public (which is often called IPO – Initial Public Offering).

Venture capital firms provide funding to help startups develop their products, build their teams, and scale their businesses. In addition to financial support, venture capital firms may also provide mentorship, networking opportunities, and other resources to help startups succeed.

Venture capital investments are considered high-risk, high-reward investments, as many early-stage startups fail to achieve their growth targets and generate a return on investment. Venture capital firms invest only in companies that they think they can return 10 times the investment, although only a small percentage of the total portfolio achieves those returns. However, those investments can generate significant gross returns for the investors, with some companies achieving valuations of billions of dollars.

Venture capital firms have investors – called Limited Partners, which include very large institutions such as pension funds, financial firms, insurance companies, and university endowments; and General Partners, which have contributed to the fund with a little of their money and are in charge of investing the fund. General Partners management fees to operate and pay salaries – management fees are typically 2% of the money invested in the fund. Funds have a life of around 10 years, where the 5 first years they invest and the rest of the years just wait until startups exit and invest in startups of the portfolio (follow-ons), but not in new startups. Once the fund starts getting money from exits, all the money invested has to be returned to investors. After all the money is returned, gains are typically split between General Partners and Limited Partners according to the carried interest, which is the percentage of money that GPs obtain, and it is typically 20% (so 80% will go to LPs). General Partners also have a mandate: the mandate states where they can invest (sectors and geography) and the range of the ticket size (amount invested).

Venture Capital firms are often classified by the amount of money they have to invest (Assets Under Management – AuM) and the stage of funding in which they invest (Feld and Mendelson, 2016):

Figure 2.4: Types of Venture capital firms

VC type	Size of the fund	Employees	Investment rounds
Micro-fund	<€15M	Few General Partners	Seed rounds
tage fund	€15M-€150M	General Partners, few principals	Seed and Series A
Mid-stage/Growth fund	€200M-€1B	General Partners, principals, few analysts	Seed to Sereis B+
Late-stage fund	>€1B	General Partners, principals, analysts	Last round until IPO/Exit

As it can be seen, the larger the size of the found, the latest the rounds in which they invest because the later rounds need more capital. What it is also remarkable about VCs is their employee structure. In a typical company, there are a few managers and a lot of analysts, and as the company grows, analysts grow more proportionally than managers. The contrary happens in Venture Capital companies: at first they just have "managers", which are the general partners, and as the fund size grows they start having more people below them: principals and analysts. This happens because General Partners are the ones that take the investment decisions, and not a lot of human capital is required to do so.

According to Comisión Nacional de Valores y Mercado (CNMV), in Spain there are more than 300 firms registered as Venture Capital[3]. Below there is a list of the most relevant and active Venture Capital firms in Spain:

Figure 2.5: Most relevant Spanish VCs

Company	Financing focus	Sector focus	AuM, M€	# Employees	Relevant Investments
All Iron Ventures	Seed/Series A	Agnostic	140	22	JobandTalent, Seedtag
Big Sur Ventures	Seed	SaaS	15	11	Paack, Lingokids, Reby
Bonsai Partners	Seed/Series A	Agnostic	225	10	Glovo, Wallapop, Tuenti
Encomenda	Seed	Agnostic	24	16	Cobee
Inveready	Seed/Growth	Agnostic	460	41	MásMovil, TopDoctors
K Fund	Seed/Series A	Agnostic	260	21	Factorial HR, Urbanitae
Samaipata	Seed/Series A	Agnostic	137	21	Deporvillage, Colvin
Adara	Seed/Series A	Agnostic	175	18	Seedtag, Scalefast
Kibo Ventures	Seed/Series A	Agnostic	215	12	Flywire, JobandTalent
JME Ventures	Seed	Agnostic	115	15	Flywire, Yaba
Nauta Capital	Seed/Series A	SaaS	550	19	Geoblink, PromoteIQ
Seaya	Series A/Growth	Sustainability	300	28	Wallbox, Clarity AI
Swanlaab	Seed/Series A	Saas, Agri-tech	40	14	IriusRisk, Unnax

Sources*:* El Referente - Database for Spanish Startups, LinkedIN

Overall, the sector manages more than 2.7 billion euros, and employs more than 250 people in Spain, which has improved though the years but is still lower than in other well delevoped ecosystems such as the French one, that manages more than 10 billion euros, or UK that manages more than 20 billion euros. Although the number of jobs created by VC firms themselves may be small, it is important to remark that they are highly qualified jobs, and that the real impact on job creation comes as a consequence of startups creation, whose potential is huge considering we currently have almost 3 billion euros to support it. As a consequence of startup creation, we have currently 100 billion euros of enterprise value in startups, meanwhile Italy, which as a similar GPD and GPD/per capita, has 50 billion euros – which means we are 3-4 years ahead. In addition, we have been able to produce 10 unicorns, meanwhile Italy has just produced one and Greece another one. However, France has 250 billion euros in enterprise value and 25 unicorns, and Sweden 300 billion euros in enterprise value and 35 unicorns; meaning we still have a long way to go until catching up with countries that are leading the European ecosystem.

As the size of the market in Spain and the maturity of the companies is relatively low (we only have 10 unicorns vs more than 100 in UK), fund size is not remarkable big – only Inveready and Nauta get to 500 million euros, and those are considered small funds in countries with a strong startup ecosystem, where it is common to see one billion euros' funds. As a consequence of this, most VCs in Spain are sector agnostic, which means they are not focused on investing in one sector, as they may lose great opportunities and Spain has too many opportunities to focus just in one sector and achieve great returns. Another consequence of having relatively small funds and a not fully developed ecosystem is that most firms focus on seed/series A financing, because (i) Most startups created need that type of financing, (ii) they do not have enough assets under management to do growth rounds (more than 50 million euros) and (iii) there is no need of growth rounds because do not have enough startups with more than 500 million euros valuation that need that amount of funding.

2.3.2 Business Angels

Business angels invest in startups for an equity stake in the company, but in this case as individuals. They are typically high net worth people that are involved in the startup ecosystem either because they founded a startup that was really successful, because they were top employees of a startup, or because they work for top companies but have a network in the industry (Cumming & Zhang, 2016).

As they are individuals, they have less money to invest, so their ticket size per investment is lower than that of a venture capital firm (it ranges from 5,000€ to 300,000€ for a BA in Spain); and as a consequence, they invest in the most early stages of funding (pre-seed and seed) and get out in subsequent rounds not to have their equity diluted.

They play an important role in an startup ecosystem, as they provide capital to startups that are sometimes too early in their operations (sometimes they do not have a product) to receive financing from a venture capital, and with business angel funding they can start building. They also have a key role in mentorship for entrepreneurs, as they have typically founded/worked for startups, they have been through similar processes although in different industries, and that experience is really valuable for new founders. This experience can be transformed into help with testing new products, making go to market strategies, technical help by former engineers, mentoring or connecting founders with other people that may satisfy better their necessities. Some of the most important Business Angels are Luis Martin Cabiedes, Iñaki Berenguer or Pablo Fernández.

2.4 Infrastructure

The availability of basic infrastructure is fundamental for a startup ecosystem to thrive. Under "basic infrastructure" we consider effective transportation systems, telecommunication systems and access to internet services at high speeds. There are some ecosystems in under-developed countries whose entrepreneurs have to deal with problems related to these services that draw them back and do not allow them to focus on the business. Infrastructure in Spain is good enough not be considered a problem by Spanish startup founders, as one of the main pillars of a good infrastructure is having serious institutions and legal security, which Spain has and it is even backed by the fact that Spain is a member of the European Union. In addition, it has great transport systems in terms of railway and airports, and it is strategically situated as the connection between LATAM and Europe, which can serve for European startups as an expansion pivot and viceversa.

2.5 Big corporations

Big corporations play a double role in a tech startup ecosystem. On the positive side, they can serve as a place where future founders/early employees can get valuable experience to then go to fund a startup, however they also pay higher salaries than those of startups so this can be a pain for startups when hiring top technical talent. In addition, another favourable point of having big corporations in the ecosystem is that they also invest in startups, either directly through an investment business unit they create; or indirectly via investing in Venture Capital funds as Limited Partners.

In Spain, Telefonica has its accelerator/venture capital firm, called Wayra/Telefonica Tech. Wayra was launched in 2011 and has since become one of the largest startup accelerators in the world, with a presence in over 10 countries across Europe and Latin America.

Wayra's operations as a venture capital firm includes providing early-stage funding to startups that are in their pre-seed or seed stages. In addition to financial support, Wayra offers its portfolio companies access to Telefonica's vast network and resources, which can help them scale their businesses more quickly and efficiently. As an accelerator, Wayra provides startups with access to funding, mentorship, office space, and other resources to help them grow and develop their businesses. In exchange, Wayra takes an equity stake in the companies it invests in.

Some startups with a strong presence have been founded by Wayra, for example Idoven, Genially or Voicemod.

2.6 Spanish Institutional context

Institutional theory helps understand several factors that affect the rate of entrepreneurial activity in a country, specifically the willingness to launch a new company. Scott (1995) identified three pillars of institutions: normative, regulative and cultural-cognitive, which are defined as follows:

Normative dimension consists of both the societal values (i.e., what is generally viewed as favored or attractive) and societal norms (i.e., how society believes matters should be performed and accomplished and/or what behavior is socially acceptable).

Cultural-cognitive pillar refers to the collective understandings of the makeup of social reality that allows for the framing of meaning within a society (including organizational, individual, and other levels). This concept states that cultural contexts contribute to the formation of individual interpretations and beliefs.

The regulative pillar of institutions standardizes and limits actions. Vital to this pillar is the ability to set rules (either formal or informal) and establish rewards or punishments that influence future actions. This has an impact on economic activity, more specifically small firms (most of the startups) are more affected by administrative costs. Some of the regulations that most affect economic activity are tax rates, fiscal incentives, subsidies, labor market regulation and bankruptcy legislation.

Valdez and Richardson (2013) tested how this three dimensions of institutional context affect the chances of a person deciding to create a startup.

They proved that cultural institutional support for entrepreneurial activity is positively related with the level of opportunity-motivated entrepreneurial activity at national level. Data suggested that countries in which there is less fear about failing are more likely to have higher rates of entrepreneurship. They also demonstrated that normative institutional support for entrepreneurship is positively related with the level of necessity-motivated and opportunity-motivated entrepreneurial activity at national level. For both types of entrepreneurial activity, the hypothesis was supported by data. Lastly, they proved that regulative institutional support for entrepreneurship is positively related to the level of both necessity- and opportunity-motivated entrepreneurship activity at the national level. For the most part, data suggested that the regulative pillar did not significantly explain either opportunity- or necessity-motivated entrepreneurship. Therefore, regulations do not significantly influence the creation of startups.

2.6.1 Normative pillar

The normative pillar is concerned with what people consider to be legitimate, acceptable ways of gaining something that has broad societal approval.

Global Entrepreneurship monitor Spain (2020) studied the aforementioned conditions in Spain among individuals between 18 and 64 years old. Spanish population is asked about their opinion on the fairness of living conditions, whether being an entrepreneur is considered a good career option, whether they perceive the status of entrepreneurship as a good career choice whether entrepreneurship is considered a good career choice, whether the socioeconomic status of entrepreneurs is perceived as being high in the Spanish context and, finally, the role of the media in the in diffusion of entrepreneurship in Spain.

Results show that in Spain, 69% of the population thinks that fairness in living conditions in important and should be a matter of concern of the public authorities, 57% think that entrepreneurship is a great career choice, 57% considers that entrepreneurs have a good socio-economic status and prestige and, finally, 54% considers that there are frequent news about successful entrepreneurs.

To put these numbers in context, in figure 2.6 there is a table comparing Spain with other countries that have a well developed startup ecosystem.

Figure 2.6: Normative pillar survey

Countries	Spain	Germany	USA	Netherlands	UK	Sweden	Avg. EU28
Fairness on living standards	69%	66%	51%	62%	69%	70%	63%
Entrepreneuship considered a good career option	57%	53%	68%	85%	56%	63%	58%
Entrepreneurship considered to bring high status	57%	80%	80%	76%	76%	79%	63%
Entrepreneurship has good coverage in the news	54%	55%	77%	75%	71%	71%	57%
Average entrepreneurship consideration	56%	63%	75%	79%	68%	71%	59%

Source: GEM Spain report 2019-2020

Considering the average consideration of entrepreneurship, which considers the average of all the variables measured except fairness of living conditions, in Spain the consideration is lower than in leading entrepreneurial countries such as USA, UK or Netherlands. Spanish people see creating a company as less attractive than in Europe on average, as in Europe more people think that entrepreneurship brings high status and is a great career path. In the USA, the strongest startup ecosystem of the world, 80% of the respondents told entrepreneurship brings status versus 57% in Spain. In addition, 51% of the people answered that the government should take care of people for society to be equal, versus 69% in Spain, which is correlated with people pursuing their own projects to achieve financial rewards instead of working and waiting for the state to bring equality.

2.6.2 Cultural pillar

A useful method to measure the cultural pillar in a country is with Hofstede cultural national values framework. Hofstede calls cultural values "the collective programming of the mind that distinguishes the members of one human group from another and the interactive aggregate of common characteristics that influence a human group's response to its environment" (Hofstede, 1980). As time goes by, values become institutionalized and result in different ways of behaviour in different countries.

Hofstede carried out a huge study with more than 80,000 managers in which he found several cultural differences that were reduced to four dimensions: uncertainty avoidance, individualism, masculinity, and power distance.

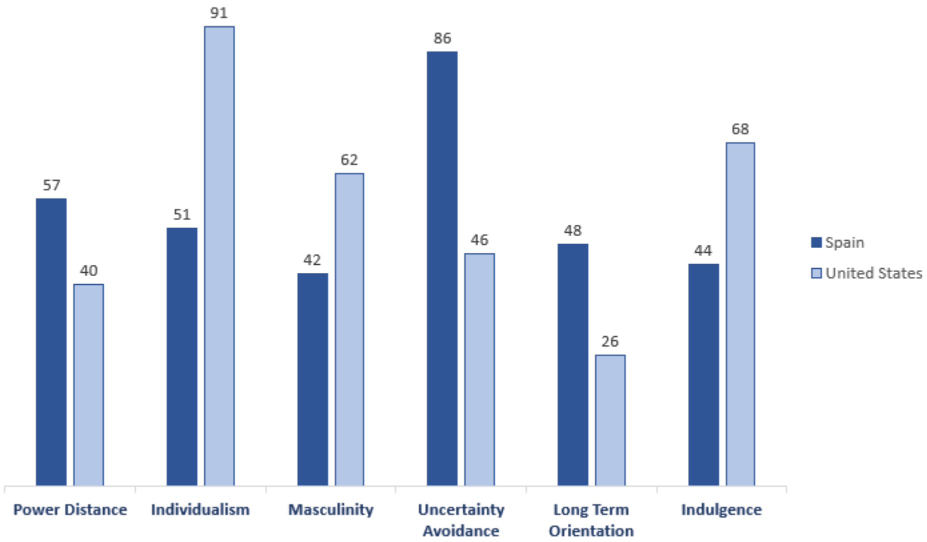
Uncertainty avoidance refers to the fear of not knowing the outcome of an action. Uncertainty acceptance is correlated with innovation. Startups are based on constant change, and on trying to challenge the current way of doing things in a certain industry.

Individualism represents three beliefs that are highly correlated with innovation: believing in freedom, orientation to the exterior and the belief on having a good relationship with senior management.

Masculinity was proved by Hofstede to be related to recognition for performance and training of individual, two values that are relevant for startups to attract the best talent and thrive.

Power distance represents beliefs that counter innovation, such as giving importance to hierarchies, vertical communication systems, centralized power, control over subordinates, and resistance to change the distribution of hierarchy.

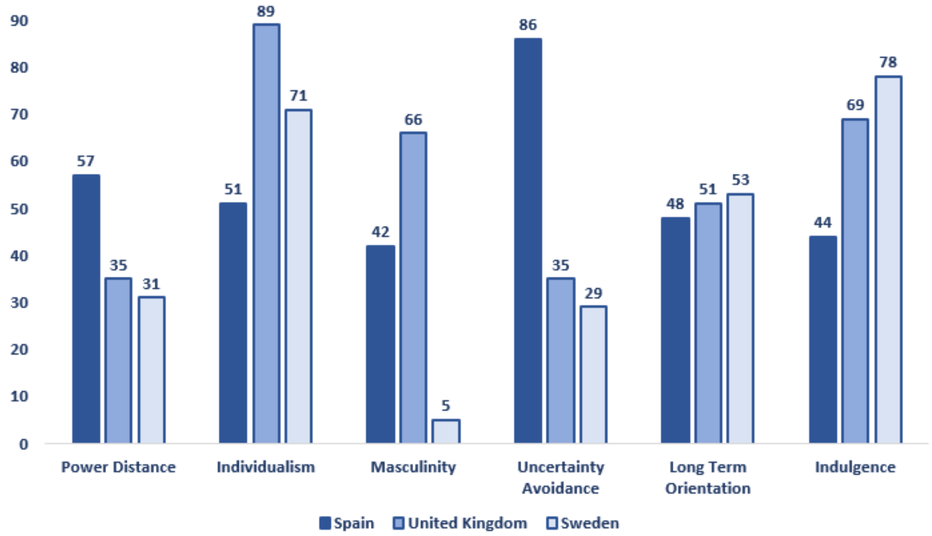
Figure 2.7: Hofstede cultural values comparison: Spain vs USA



Source: Hofstede Insights

USA has a better performance relative to the cultural characteristics that matter for promoting entrepreneurship: on average, americans have less fear to distance in status or hierarchy and are much more individualists (91 score vs 51 for Spain). In addition, American society is more masculine and much less risk-averse, as their uncertainty avoidance score is almost half of the Spanish one, so they are more prone to choose riskier career paths, such as entrepreneurship. It is also insightful to compare the Spanish culture with that of leading countries in the European ecosystem, such as the UK and Sweden:

Figure 2.8: Hofstede cultural values comparison: Spain vs UK vs Sweden



Source: Hofstede Insights

The reason for choosing the UK and Sweden is because they are the countries wit the most successful startup ecosystems in Europe, as the UK has over a trillion in startup value and 130 unicorns, and Sweden has more than 220 billion in startup value and 35 unicorns. Differences are similar to the ones that we find with the United States: in the UK and Sweden people is less fearful of hierarchical distance in society (even less than in the US) and they are more individualists. It is specially striking the low score for masculinity in Sweden, although overall it does not seem to have a negative impact on their entrepreneurial activity. Again, people in the UK and Sweden have much less fear of uncertainty.

Overall, Spanish culture is not the most likely one to promote entrepreneurship: Spanish people respect other people's status and are more conformed with their own status than in leading entrepreneurial countries. Spanish people is also more risk averse and tries to avoid change and uncertainty; and are less masculine, meaning they are less assertive and that they strive less for leadership.

2.6.3 Regulative pillar

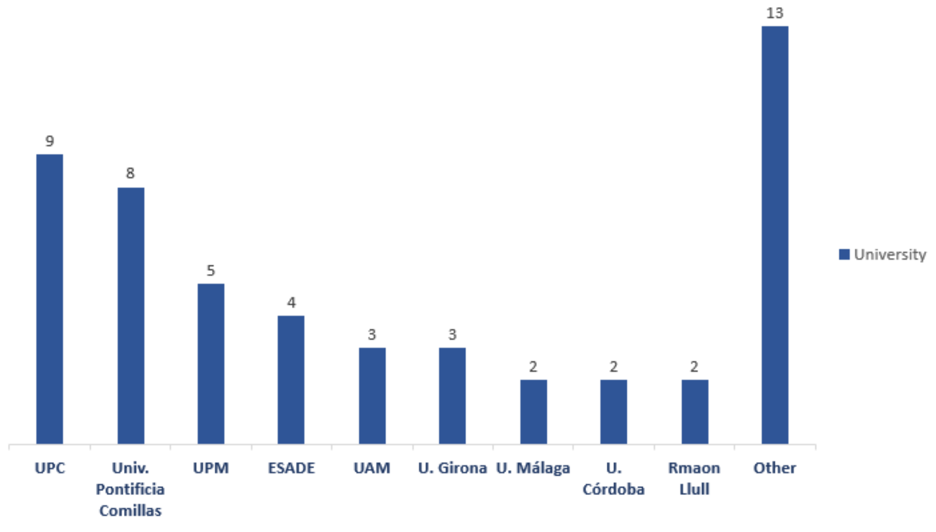
Regulative pillar should promote startup creation by easing the process of creating a new company, reducing bureaucracy, reducing capital requirements and speeding up the process, in addition to having a flexible labour market that allows to hire and fire people fast and at a low cost. Although Spain has been making advancements in legislation, releasing the so-called "Ley de Startups" in 2022, it is still lagging behind other European leaders in this aspect. Spain is still country with a long and painful bureaucratic process for creating a startup and organizing all the legal aspects about funding. In addition, up until the release of the aforementioned law, startups were regulated in the same manner that traditional companies, which discourages startup creation. In contrast, other countries such as Sweden and UK offer a friendly regulatory framework for startups, with tax incentives for investments. Spain also has a rigid labour market and high taxes, which increases the pain for startups. Lastly, until the "Ley de Startups" was created, stock options (the most used and lucrative form of employee payment in startups) was taxed as income tax, discouraging its use and making it difficult for startups to attract talent.

2.7 Universities

A top tier startup ecosystem should have access to top tier talent, specifically technical talent, which is the hardest to find according to Spanish entrepreneurs and the most needed to build technological companies. Two of the most successful startup hubs of the world are located near great universities: both Silicon Valley (Stanford, Caltech, University of California Los Angeles, University of California San Diego, Berkeley) and London (University College London, London School of Economics, Cambridge, Oxford, London Business School).

Spain has several top tier universities where talent is located. Doing research on where did the founders of the 10 aforementioned unicorns (and several soon-to-unicorns)[4] study their degree, we find the following data:

Figure 2.9: Universities where Spanish Unicorn/almost Unicorn founders studied their degree



Source: El Referente: Unicorns and soon-Unicorns in Spain

Spanish universities that produce the highest amount of unicorn founders are UPC, Pontificia Comillas University, UPM and ESADE. Other high ranked universities include IE Business School, Deusto, University of Navarra, UC3M and UPF.

2.8 Startup accelerators

A startup accelerator is a program designed to help early-stage startups grow and develop by providing them with mentorship, resources, funding, and access to a network of investors, industry experts, and other entrepreneurs.

Typically, startup accelerators accept applications from companies with innovative ideas or products, and then select a cohort of startups to participate in a several-month-long program. During this time, startups receive intensive support and guidance, including mentoring from experienced entrepreneurs, training and workshops on topics such as business strategy, fundraising, and marketing, and access to co-working spaces, legal and accounting services, and other resources.

The goal of a startup accelerator is to help startups accelerate their growth and increase their chances of success. Accelerators usually culminate in a "demo day," where the startups pitch their ideas to investors, potentially leading to further funding and growth opportunities.

Some of the most relevant startup accelerators in Spain are SeedRocket, Lanzadera, PlugandPlay and Wayra; which together have helped more than 350 startups accelerate their operations.

3. The evolution of the Spanish startup ecosystem

3.1 Spanish growth period (2000-2008)

From the early 90s until 2008, the Spanish economy went through an economic expansion that was almost uninterrupted, with the exception of the 1992-1993 crisis, which the government solved with a stabilization plan and the devaluation of the “peseta”. It was from the late 90s and early 2000s when the startup activity in Spain started to appear, in part as a consequence of the dot.com bubble created in the USA – although there has always been entrepreneurship, this is the beginning of technological entrepreneurship, and therefore startup creation. The overview of this period is mainly qualitative, as the lack of literature for this early days in the Spanish ecosystem does not allow to do a quantitative analysis. Therefore, we are going to analyse the most important startups created, their impact, and who founded and funded them, which were mainly business angels as there were not proper venture capital firms created. As during this time there is lack of aggregate data, the analysis is focused on paradigmatic cases.

The **startup activity** in Spain starts in dot.com businesses in 1994. Since then, online commerce begins and the first Internet startups are created. In fact, the first e-commerce startup was created by Carlos Barrabés, who opened Barrabes.com, the first online store in Spanish history. Barrabes.com started as an online store dedicated to selling mountain accessories and clothes, and now has reached more than 40 countries. Carlos Barrabés founded its own startup accelerator and technology consulting firm after the success of Barrabes.com[5].

In 1997, Tomás Diago, a computer science student by that time, created Softonic, a web to download internet software in Spain, which was created under the internet provider Intercom. Softonic offered 140,000 software programs to download, which were compatible with the most relevant operative systems and were available in 10 languages[6]. Softonic earned money via ads and payments per download, and on its peak reached 52 million revenues and more than 400 employees. In 2014, Softonic success came to an end when they lost their contract with Youtube, which accounted for 70% of their earnings. Nowadays they have around 100 employees and more than 20 million euros revenues.

In the year 2000, eDreams was founded in Silicon Valley by Javier Pérez-Tenessa de Block, James Hare and Mauricio Prieto, with capital from American and European investors. The company is an online travel agency that operates as a place to book your holidays online, and was the fastest growing company in Europe between 2004 and 2007. After two merges, the name was changed to eDreams ODIGEO, and the travel agency became the #1 player en Europe. In 2014, the company completed its IPO in the Madrid Stock Exchange with a valuation of 1.5 billion euros, becoming the first ever IPO of an startup in Spain. The company currently has more than 400 million euros in revenues and more than 1,700 employees[7].

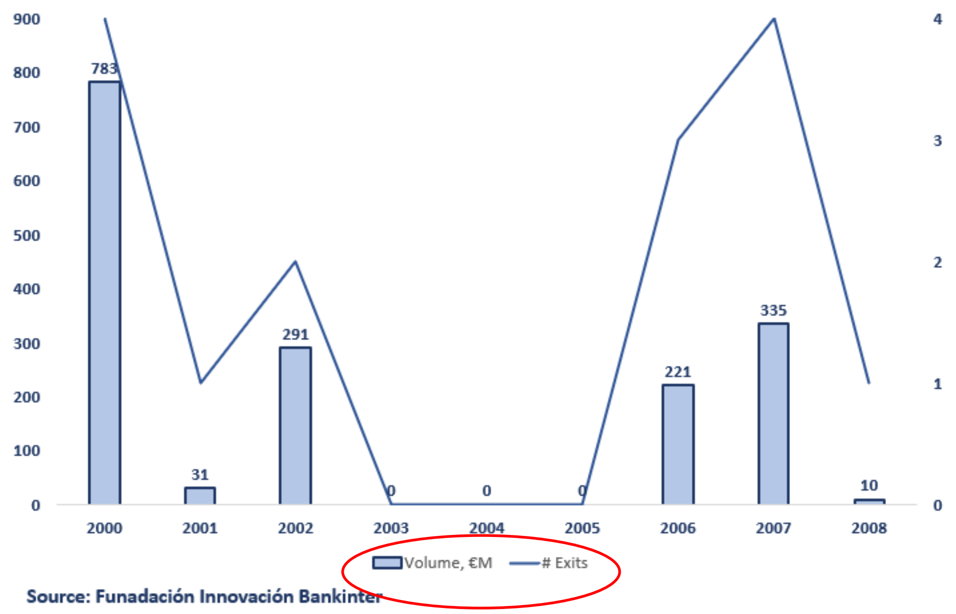
It was also the year 2000 when César Oteiza founded together with brothers Jesús Encinar and Fernando Encinar the company Idealista. Idealista is an online platform for people to both look for housing and post their houses for rent/sale. In their first full year of operations, 2001, they achieved 80,000 monthly active users and 54,000 postings. The business model has been based on free postings for users and payments from housing agencies and ads, and has been profitable since then. The first venture capital to invest was Bonsai Partners in 2003, and then the American fund Tiger Global, which marked the beginning on venture capital investments in Spain[8]. The company followed its development until 2015, where the fund Apax Partners acquired a majority stake in Idealista for around 220 million euros. Five years later, EQT Partners bought the company for 1.3 billion euros, making it one of the most successful exists in Spain. Encinar brothers also founded Privalia, and invested in TopRural, two relevant companies of the Spanish ecosystem.

Coches.com was founded in 2003 by Iñaki Arrola and Ignacio Pinedo. They created a marketplace where users where matched to concessionaires in exchange of a commission for finding the best prices, getting a 1% commission for finding good prices and a 7% commission of the vehicles price, but the webpage was poor, and that together with the poor online positioning made the company lack traffic and as a consequence it almost went bankrupt. However, in 2008, Marek Fodor (which was one of the founders of Atrapalo) invested in the company. This marked a turning point in the history of the startup, as the new capital allowed them to buy the domain “coches.com”, which allowed them to gain a lot of organic traffic and start competing in the used-cars market, that is much more profitable[9]. By 2016, there were cars sold for half a billion euros in value at the company’s portal, and the coches.com was sold to Santander Bank Consumer Finance group for an undisclosed amount. Arrola joined the startup accelerator SeedRocket in 2011 and together with Rafael Garrido and Marek Fodor started one of the first venture capital firms in Spain, Vitamina K, which then evolved to K Fund.

Tuenti was founded in 2006 by Zaryn Dentzel, Adeyemi Ajao and Felix Ruiz; and was the first social media company in Spain. Tuenti tried to imitate the success of Facebook and in 2010 it has more traffic than the mentioned competitor. It was sold to Telefónica in 2010 for 70 million euros. Tuenti has to be considered one of the most influential companies of the startup ecosystem in Spain, as all the founders contributed significantly to the startup scene from an early stage. Adeyemi Ajao and Felix Ruiz were mentors to many entrepreneurs in Spain, and Zaryn Dentzel invested in Glovo. Some of the founders also worked for companies such as Google or Facebook, and Felipe Navío worked in Tuenti before founding Jobandtalent, one of the most successful unicorns in Spain (with Adeyemi Ajao investing in it and former Tuenti employees working there)[10].

Regarding exits (companies sold), the period from 2000 to 2008 had relatively low volume and number of exits, in fact due to the fact that the ecosystem was young and lacking the maturity that companies need to be sold:

Figure 3.1: Exits volume vs # Exits in Spain, 2000-2008



We see several years of no exits, however it is remarkable to see almost 800 million euros in exit volume in the year 2000 drove by ya.com (currently Orange) which was sold for 550 million euros. MartinVarsavsky, one of the co-founders, co-founded several other companies in the future such as Jazztel, Overture and Prelude.

Regarding business angels, Luis Marin Cabiedes has to be named as one of the first and most influential ones in Spain. Cabiedes became the executive president of Europa Press out university because it was his father’s business. In 1998, he invested in Olé (the biggest search engine in Spain) applying a Media for Equity model, and then selling it to Telefónica for around 20 million euros. After that, he stopped working in Europa Press and started his career as a business angel, which drove him to more than 100 investments and four big exits (Privalia, Blablacar, Trovit and Olé)[11].

Regarding venture capital companies, Bonsai Partners was one of the first ones to be established in Spain in the late 90s. It was founded by Javier Cebrián and started as a vehicle to diversity money for his family. Bonsai invested in aforementioned companies such as Softonic, Tuenti or Idealista, and later on participated in Glovo, Wallapop or Citibox. The company launched in 2022 two funds up to 165,000,000€ [12].

Regarding **startup enablers** in this period, it is important to mention the creation of one of the most influential organisations of the ecosystem: Seed Rocket. Seed Rocket is the first startup accelerator born in Spain, was created by Jesús Monleón and Vicente Arias in Spain in 2008 with the aim of replicating the idea of Y Combinator (the most successful accelerator of the US). Seed Rocket selects 10-12 projects each year and provides them mentorship, network and in some cases funding. It has invested more than 50 million euros in several projects including top Spanish startups such as Ulabox or Deporvillage[13].

Regarding the **regulative pillar** of the institutional activity, prior to the beginning of 2005, there was no regulatory body in the entire state responsible for overseeing the informal venture capital market, specifically investments made by business angels, nor was there a national network serving as a collective entity. In 2004, a group of business angel networks initiated the establishment of the Foundation for the Promotion of Business Angels Networks in Spain (ESBAN), which aimed to promote, unite, and represent the development and formation of local and regional business angel networks at a national level. The primary objective of the ESBAN Foundation is to raise awareness of the business angel concept as a suitable financing mechanism that caters to the needs of small and medium-sized enterprises (SMEs), unlock the considerable untapped potential that business angels offer the country, encourage investment by business angels to bolster the creation and growth of companies, and bring together the various business angel networks operating in Spain (ESBAN, 2008).

Regarding **the cultural activity,** Hofstede dimensions remain similar during all the startup period since the 2000s up until now. Culture is embedded in society, and influenced by the context in which people grew up, who they look up to, at-home education and many times even regulatory bodies can not influence it, which means that it takes generations to have a real change in a nation's culture.

Data from **normative pillar** questions also supports the aforementioned hypothesis:

Figure 3.2: Normative pillar questions to Spanish population aged 18-64

% With affimative response	2004	2005	2006	2007	2008	2004-08 avg.
Fairness on living standards	52%	51%	55%	56%	64%	56%
Entrepreneuship is a good career option	72%	65%	62%	60%	68%	65%
Entrepreneuship considered to bring high status	54%	55%	54%	53%	58%	55%
Entrepreneurship has good coverage in the news	39%	39%	43%	44%	44%	42%

Source: Global Entrepreneuship Monitor Spain 2008

In 2008, more people than before start thinking about entrepreneurship as a good career option and to bring high status than before.

3.2 Spanish financial crisis (2008-2014)

The Spanish financial crisis was one of the toughest moments in the history of the Spanish Economy. It started in 2008 with the housing bubble, and the banking crisis of 2010; and it had severe consequences for the Spanish population, specifically a huge rise in unemployment and a devaluation of salaries. However, this period was one of the most successful ones for the startup ecosystem, as it was when world class startups such as Glovo and Cabify were created, and the first and most relevant VCs were established.

This period starts in 2009 with Jobandtalent, which was founded by Felipe Navío, Juan Urdiales y Tabi Vicuña. Jobandtalent is a digital employment platform that has integrated online all the hiring process. The company is currently valued at 2 billion euros, being among the top five most valued startups of the Spanish ecosystem.

The period follows in 2011 with the first food delivery platform created in Spain: La Nevera Roja. It was founded by Íñigo Juantegui and José del Barrio, and started with a family investment of 200,000€[14]. After some legal affairs with Sindelantal, another food delivery company that demanded La Nevera Roja for copying their technology, they received another 2,000,000€ in funding led by Nicolás Luca de Tena. The company continued growing until 2015, when it was sold for 80 million euros. After that, Juantegui co-founded Ontruck – a successful transport startup, and del Barrio founded Samaipata, one the most active VCs in Spain.

It was also in 2011 when Cabify, was founded by Juan de Antonio. Juan's idea was to change how mobility inside cities worked by creating an app that matched car drivers with users. At first, Cabify raised a first round of 3,000,000€, which allowed them to launch the service in 3 LATAM countries 2012[15]. They continued with more rounds of financing to launch in as much countries as possible, but maintaining their focus in LATAM. Cabify currently has raised around half a billion euros in capital in 11 rounds, and it is considered a unicorn.

Glovo is the last startup that should be mentioned individually, as it is probably the most known one in Spain. It was founded in 2014 by Oscar Pierre and Sacha Michaud as an online platform where you could order whatever you want, and then transitioned to an online delivery service. The company has operated during the years having losses and constantly finding themselves raising funds to continue their operations, arriving in 2021 with 580,000,000€ in revenues and 473,000,000€ in net losses[16]. It was sold to Delivery Hero in 2022 at a valuation of more than two billion euros.

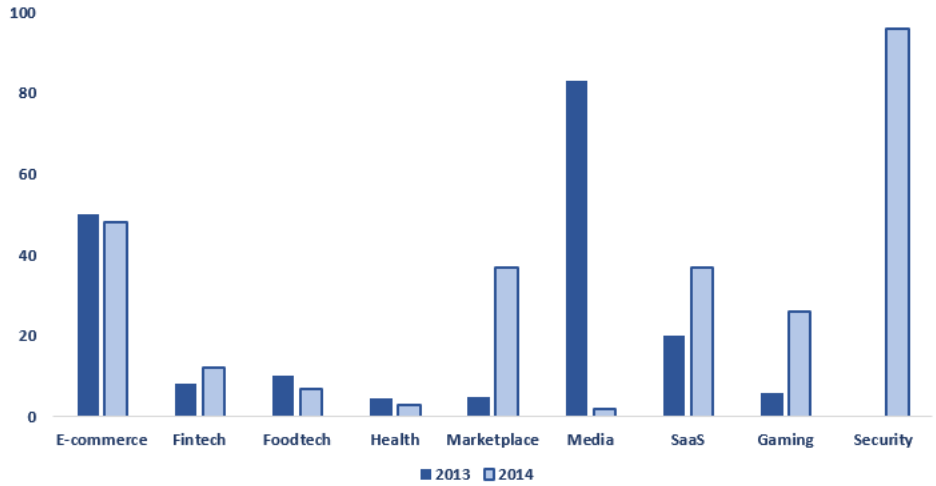
Regarding Venture Capital activity, this period was the one where the most active and successful Spanish VCs were set up. The first one of them is JME Ventures, which started operating under the name of Fundación José Manuel Entrecanales, which later changed its name to JME Ventures and raised a fund of 20 million euros in 2012. Two of the investments of this funds top successes in Spain: Flywire and Jobandtalent. The success of the fund made them raise two more: one of forty million euros in 2016 and a third one of sixty million euros in 2020[17].

K Fund was first named as Vitamina K and founded in 2012 by Iñaki Arrola together with Carina Szpilka (ex-CEO ING) and Rafael Garrido. Given the success of the first investments of Vitamina K, Arrola decided to set up K Fund with fifty million euros raised and a team of employees apart from the General Partners[18]. Nowadays the fund has invested in unicorns such as Factorial HR and is raising a growth fund called Leadwind with a target size of a quarter of a billion euros.

Kibo Ventures was founded by Aquilino Peña and Javier Torremocha, two university friends that had a successful career in the corporate and startup sector. Nowadays, Kibo Ventures is considered the most successful VC in Spain, having 300,000,000€ AuM, 5 unicorns in portfolio and 1 IPO.

Regarding gross numbers, the first data available about financing in Spain is from 2013 and 2014. There was a total of 220,000,000€ received by Spanish startups in 2013, and 300,000,000€ in 2014; distributed among the most relevant business models as it can be seen in Figure 3.3.

Figure 3.3: Business models by volume invested

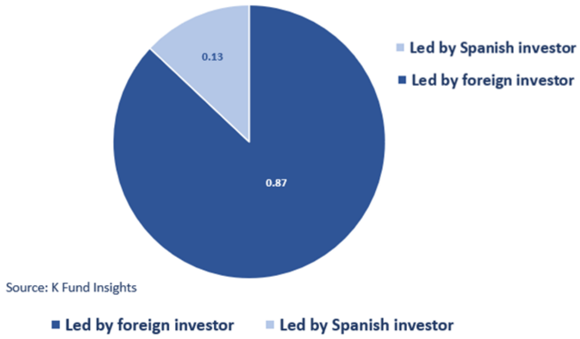


Source: K Fund Insights

E-commerce was a strong sector both years, with outliers in media in 2013 (driven by eighty million euros raised by Softonic) and security in 2014 (driven fully by two rounds of Scytl).

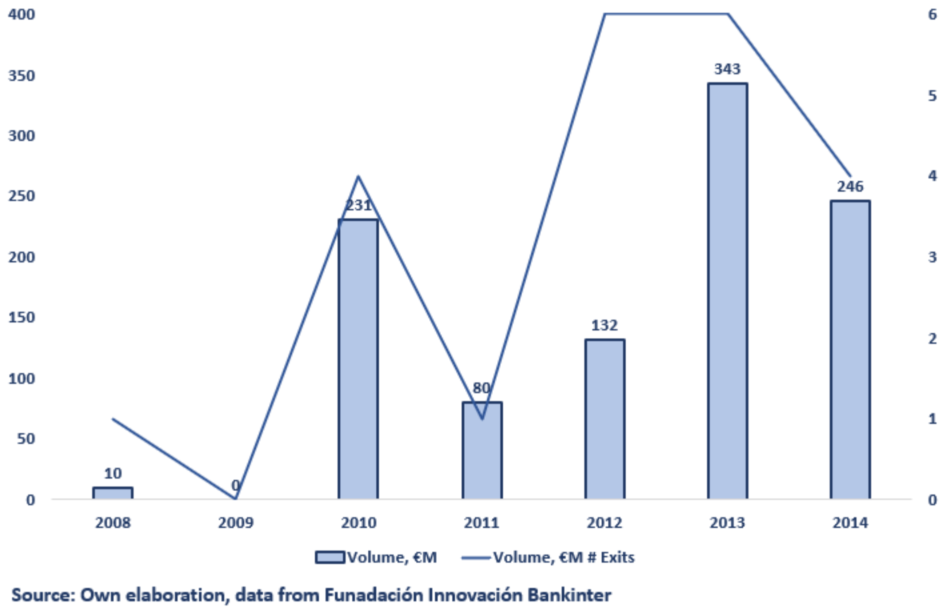
Another relevant metric to analyse is how many rounds were led by foreign investors. On the one hand, is it good for Spain to have foreign investors as it means that the country is attractive for them, but on the other hand it is bad as they will also get the returns that otherwise Spanish VCs could have got. During the years 2013 and 2014, 13% of the total rounds were led by foreign investors (see Figure 3.4). Although the number may look small, they led three of the biggest rounds of the period, those of Softonic, Scytil, and Privalia; which are also the most attractive ones from an economic perspective.

Figure 3.4: Investment rounds led by foreign investors vs Spanish investors, 2013-2014



Regarding exits, there was still a long way to go, although the ecosystem started to gain consistency with respect to the previous period, with several years of 4-6 exits and a volume of 200 to 300 million euros (see Figure 3.4).

Figure 3.4: Exits volume vs #Exits in Spain, 2008-2014



Chamberi valley, one of the **most important startup enablers** of the ecosystem, was created in 2012 as an initiative to connect Spanish entrepreneurs and their startups, so they could share their ambitions and resources. Nowadays it is a network of Madrid-based entrepreneurs, but focused solely on scale-ups, so their members have startups with millions in revenues.

On the **regulatory side of the institutional activity of this period**, the labour reform of 2012 is to be mentioned as it affects the labour market and therefore startups operating in

Spain. In order to help firms preserve their employees instead of firing them, there was a reform of collective bargaining that gave priority to bargaining agreements at firm level. In terms of dismissal legislation, the reform introduced new terms of what it is considered to be a fair dismissal, allowing firms to do so if they had three quarters of falling revenues/income; and monetary compensation of an unfair dismissal was reduced (OECD, 2012). Finally, there was a new type of contract created for entrepreneurs with firms under 50 employees (*Contrato de apoyo a emprendedores*) that includes hiring and fiscal incentives. This last measure helped startups hire at less cost, and those who were in trouble could benefit from the first mentioned measures that dynamized the labour market.

Regarding normative situation in Spanish society, the following data is reported by GEM (see Figure 3.5).

Figure 3.5: Normative pillar questions to Spanish population aged 18-64

% With affimative response	2009	2010	2011	2012	2013	2014	2004-08 avg	2008-14 avg
Fairness on living standards	41%	30%	28%	28%	74%	72%	56%	46%
Entrepreneuship is a good career option	63%	65%	65%	64%	54%	54%	65%	61%
Entrepreneuship considered to bring high status	55%	63%	67%	64%	52%	49%	55%	58%
Entrepreneurship has good coverage in the news	37%	41%	45%	64%	46%	46%	42%	47%

Source: Global Entrepreneuship Monitor Spain 2014

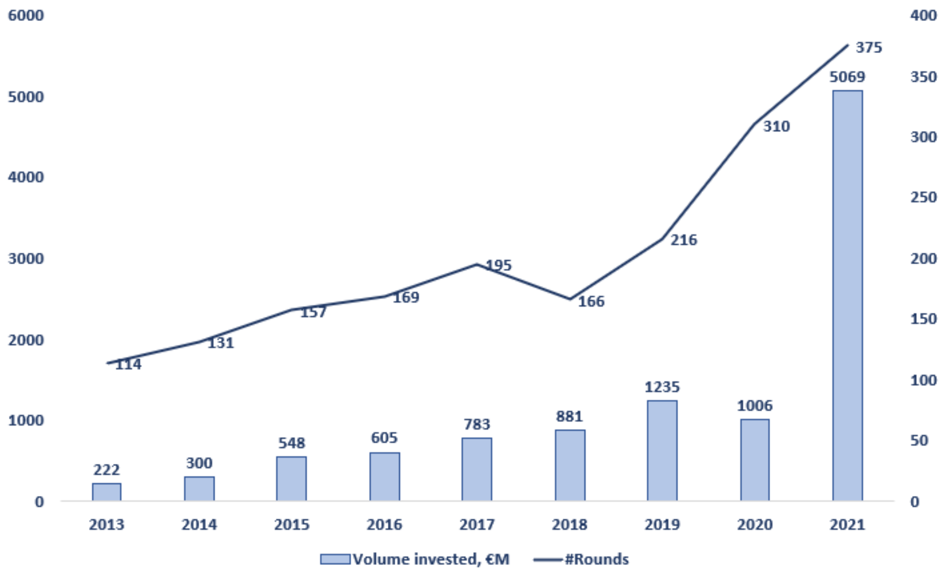
We can see that there is an decrease in the average score of people that believes in equality of living standards in comparison to the previous period, and also in the average of people that consider it a good career option. Contrary, more people consider it to bring high status on average. It is important to remark that these changes are not drastic and do not represent a change in Spanish society.

3.3 Spanish recovery until Covid-19 (2015-2021)

The recovery period from 2015 until Covid-19 is marked by an era of low but continued growth in terms of GDP and also by low interest rates, which reduced the cost of capital for companies and more specifically the cost of equity for statups, which made them easier to raise rounds and to do so at inflated valuations during the pandemic, and after that inflation came along with interest rates hikes that changed the easiness to raise funds from startups. That is the reason for including the Covid-19 in this phase.

Startup activity accelerated a lot during the period, and the number of rounds and volume of funding is significantly higher than in previous periods (see Figure 3.6).

Figure 3.6: Invested volume vs #Rounds, 2013-2021



Source: K Fund Insights

Invested volume increases 100 to 200 million euros each year until 2019 where it surpasses one billion euros, and then grows 5x in 2021, achieving 5 billion euros invested – highest ever achieved in Spain. From 2015 to 2021, the number of rounds increased 2x meanwhile the volume invested increased 10x, which is explained partly by the amount of liquidity in the market in 2021, and partly by the fact that Spain has by 2021 more scale-ups (businesses of >50 employees) and unicorns that raise mega-rounds (see Figure 3.7).

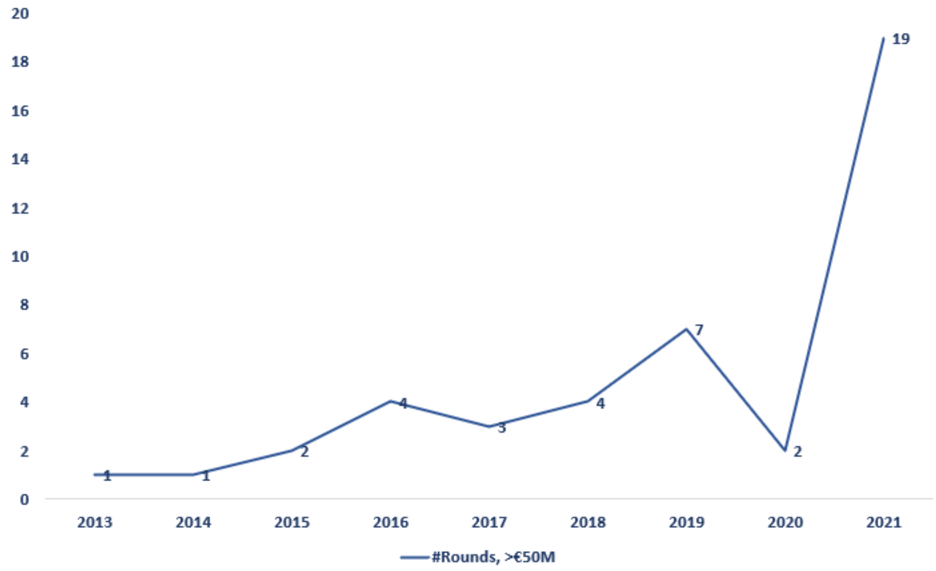
Figure 3.7: Funding rounds >€100M, Spain 2021

Company	City	Business Model	Period	Year	Sector	Round size, €
Jobandtalent	Madrid	Marketplace	Q3 2021	2021	Employment & HR	500,000,000
Glovo	Barcelona	Marketplace	Q2 2021	2021	Transportation/logistics,Foodtech/agritech	450,000,000
Clikalia	Madrid	Ecommerce,Fee-based	Q3 2021	2021	Real estate	450,000,000
Jobandtalent	Madrid	Marketplace	Q3 2021	2021	Employment & HR	440,000,000
Capchase	Madrid	SaaS	Q3 2021	2021	Fintech/insurtech	280,000,000
Devo	Madrid	SaaS	Q3 2021	2021	Security	215,000,000
factory14	Madrid	Ecommerce	Q2 2021	2021	Fintech/insurtech	165,000,000
Wallapop	Barcelona	Marketplace	Q1 2021	2021		157,000,000
Copado	Madrid	SaaS	Q3 2021	2021	Dev tools	140,000,000
TravelPerk	Barcelona	SaaS	Q2 2021	2021	Travel	132,000,000
Capchase	Madrid	SaaS	Q2 2021	2021	Fintech/insurtech	125,000,000

Source: K Fund Insights

These 10 mega-rounds account for 3 billion of the total 5 billion euros invested, and are led by Jobandtalent, Glovo and Clikalia. However, the number of rounds over 50 million euros has also increased during this period, meaning there is also an increase in the number of scaleups and healthy startup growth (see Figure 3.8).

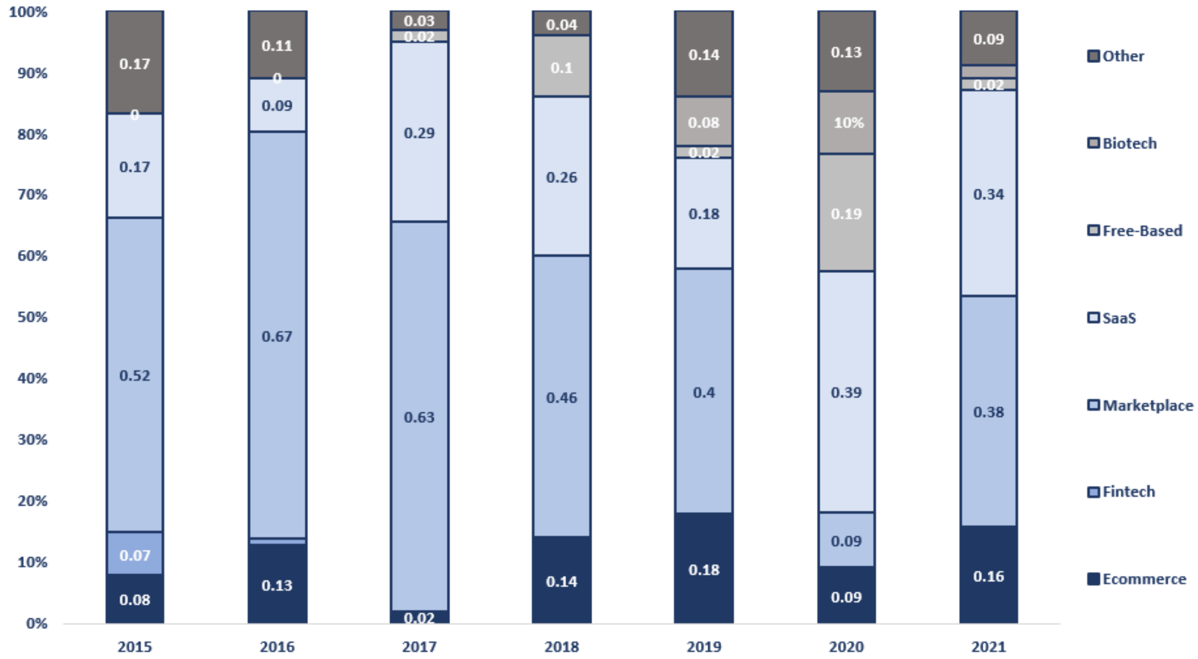
Figure 3.8: #Rounds, >€50M



Source: Own elaboration, data from K Fund Insights

Regarding in which business model the money is invested, the following data may is to be found (see Figure 3.9).

Figure 3.9: Volume invested per business model, percentage

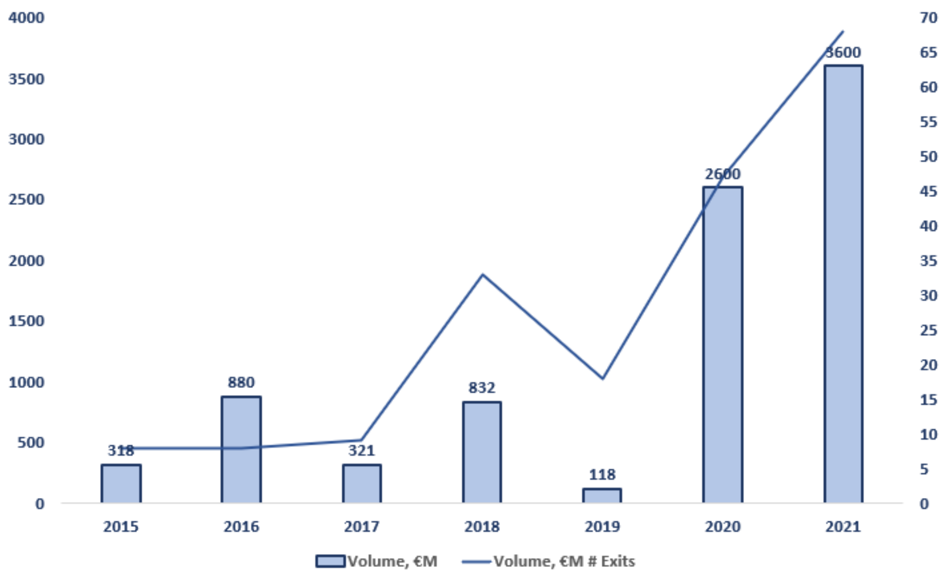


Source: Own elaboration based on K Fund Insights

Marketplace business models are the ones that have been getting the most funding during the years, a total of more than 4 billion euros, with even more than 50% of the total funding received in the first three years of the period. The reason is that the companies that have raised the most funding and rounds in Spain fall under the marketplace business model: Jobandtalent, Glovo, Cabify and Wallpop. SaaS (Software as a Service) models are the second most funded type of business, also having several Spanish unicorns that have fall into this category: Capchase, Devo, Copado, Travelperk and Factorial. It is also striking to see that funding for fintech, one of the most important business models in the VC world, has been irrelevant in the Spanish ecosystem. Spain has produced any remarkable fintech, contrary to what happened with marketplace or SaaS, meanwhile in Europe there are neobanks such as N26 or other fintech's such as Klarna that achieved more than 10 billion euros in valuation.

Finally, another good news for the ecosystem is that exit volume and number of exits increased significantly (see Figure 3.10).

Figure 3.10: Exits volume vs #Exits in Spain, 2015-2021



Source: Own elaboration, data from Funadación Innovación Bankinter

There is more than 5 billion euros in exit volume in Spain during the years 2020 and 2021, which can be considered a huge success. This is important because it proves Spain has top startups and a lot of the money generated is re-invested in the ecosystem – for example Oscar Pierre created a 50 million euros fund after selling Glovo - and this re-investements create a positive flywheel.

Google for startups Spain was born in 2015 as a way to help startups with expertise and resources, but it does not hold any investment in the startups that participate in its campus. What Google looks with this investment is feedback on the technological advancements in the country and developing the technological ecosystem, which as a consequence will benefit Google in the future. Google also helps the startups giving them access to their network of employees, which can help startups with technical assistance, and also gives them insights into how several industries are performing internationally[19].

On the **regulatory side**, there are two important institutions that have been helping startups with funding. One of those is **ENISA**, which is an initiative of the ministry of industry and tourism, and has funded more than 6,000 businesses with more than one billion euros in total valuation, and with more than 7,000 loans with favourable conditions[20]. As a consequence, of Covid-19 crisis, **ICO – Instituto de Credito Oficial**, started to fund technological projects, also with loans with favourable conditions.

Even though the Spanish government tries to promote entrepreneurship, there is no Entrepreneurship also gains popularity among people, and there is a significant increase in the number of them that consider it high status/a good career. Spain has typically had a high percentage of people that attack businessmen and the private sector, and that needs generations of new people for changing (see Figure 3.11).

Figure 3.11: Normative pillar questions to Spanish population aged 18-64

% With affimative response	2015	2016	2017	2018	2019	2020	2004-08 avg.	2008-14 avg.	2015-21 avg.
Fairness on living standards	72%	71%	71%	72%	69%	68%	56%	46%	71%
Entrepreneuship is a good career option	53%	54%	54%	53%	57%	57%	65%	61%	55%
Entrepreneurship considered to bring high status	48%	51%	48%	50%	58%	61%	55%	58%	53%
Entrepreneurship has good coverage in the news	47%	50%	51%	49%	54%	50%	42%	47%	50%

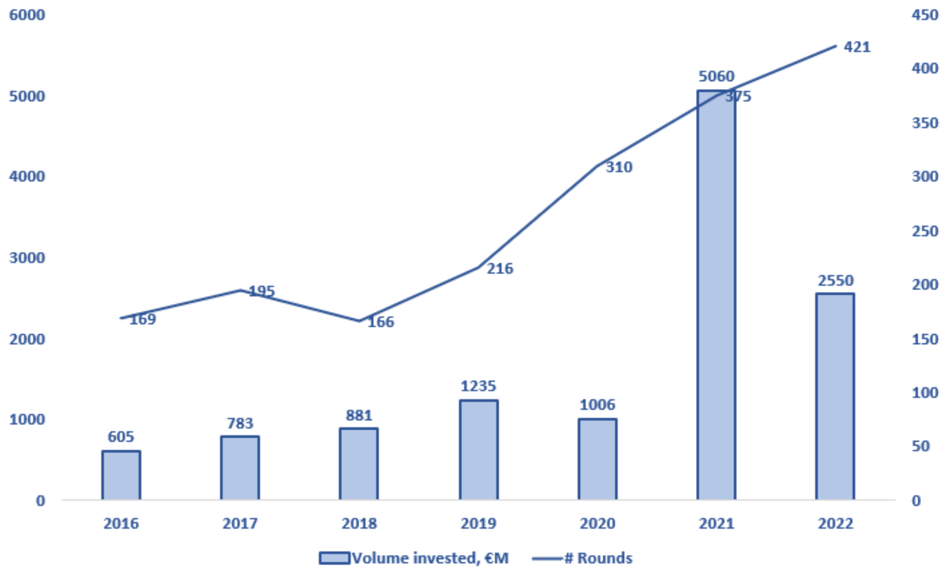
Source: Global Entrepreneuship Monitor Spain 2021

3.4 Post covid crisis (2022)

The post covid-19 crisis, which starts on 2022 until now, is characterized by an increase in inflation that started when all the Covid-19 limitations were gone and all the businesses re-opened. The increase in inflation had several causes: a huge increase in demand derived from the savings that businesses had from the lockdown period that was not matched with the supply, which was limited by the fact that Chinese industry did not re-open and caused supply shortages; and also by the fact that the Russian-Ukrainian war caused limited the supply of energy to Europe, increasing the price of energy. In addition, an expansionary monetary policy needed for people and businesses to survive the Covid-19 lockdown also contributed to inflation. To bring down this inflation, central banks starting rising rates, and as a consequence the increase in rates increased the cost of capital for companies, which together with a fear of recession made it much more difficult to receive funding, and even more to do so at favourable conditions.

The fact that **the conditions that startups were obtaining for funding** (high valuations) came to an end can be observed in the following graph, which reflects an increase in the number of investing rounds but a 50% reduction in invested volume, which is a consequence of raising money at lower valuations, that is, poorer conditions for entrepreneurs (see Figure 3.12).

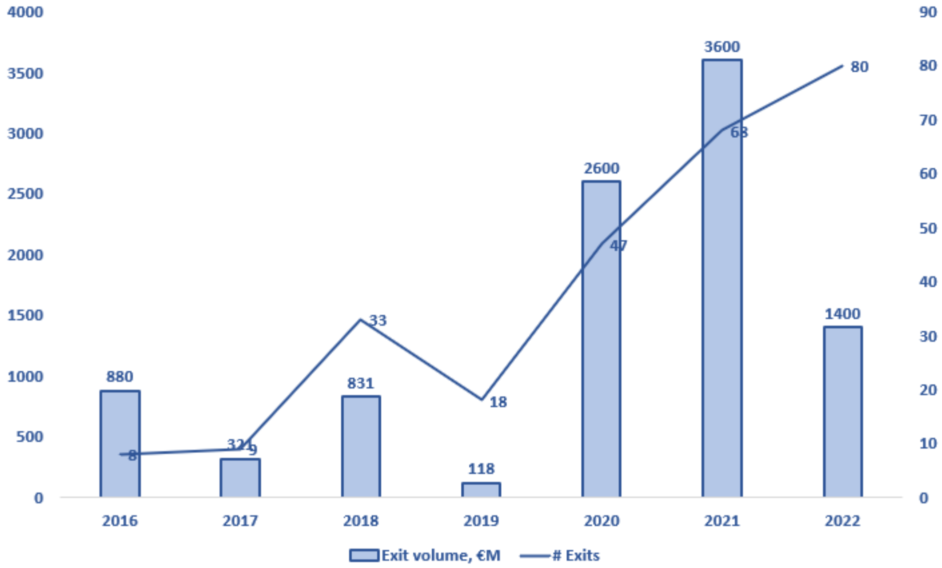
Figure 3.12: Volume invested vs #Rounds, 2016-2022



Source: Own elaboration with data from Funadación Innovación Bankinter and K Fund Insights

The fact that the funding conditions are worse is not only reflected in investments, but also in exits, as it can be seen below, although the number of startups sold in 2022 has increased, the money obtained from them is almost half of the one obtained in 2021, which means that they are being sold for much less price (see Figure 3.13).

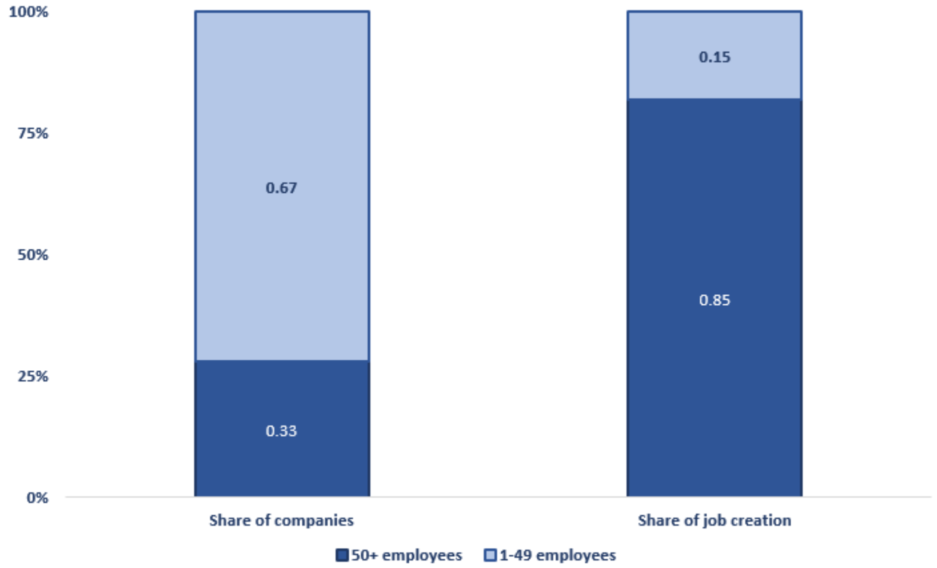
Figure 3.13: Exit volume vs number of exits Spain, 2015-2022



Source: Own elaboration with data from Funadación Innovación Bankinter

Analysing from the perspective of 2022 also allows us to focus on a more general evolution of the companies that have been operating in the ecosystem – which is starting to mature after 20 years – and that may help us obtain relevant insights. For example, one important aspect to note is how startups have affected employment (see Figure 3.14).

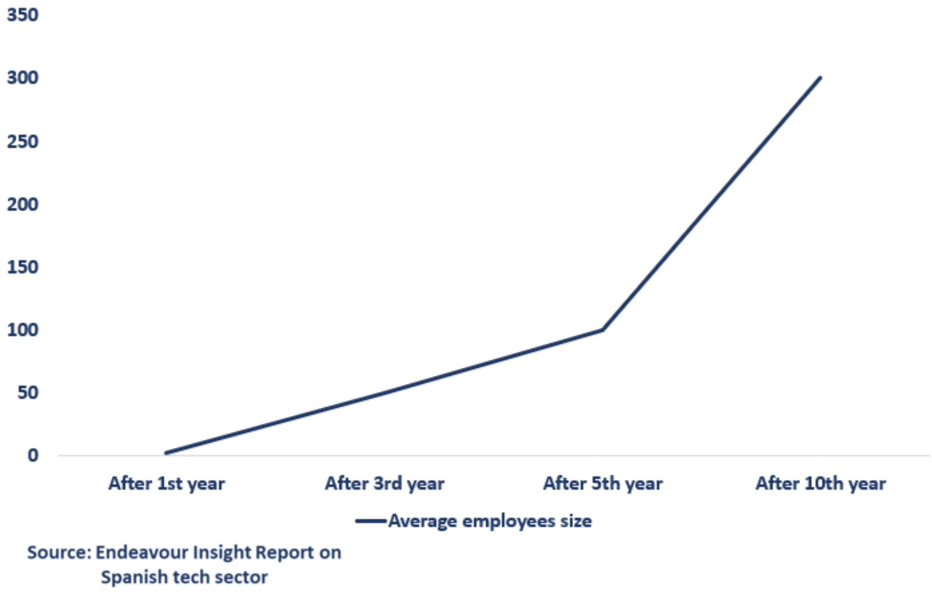
Figure 3.14: Job creation by company size in Spain's Tech sector



Source: Endeavour Insight Report on Spanish tech sector

It turns out that 33% of the companies (those that have more than 50 workers) are creating almost 70% of the jobs, data which can help policy makers on choosing where to focus their efforts, but how many time do Spanish companies need to reach that scale?

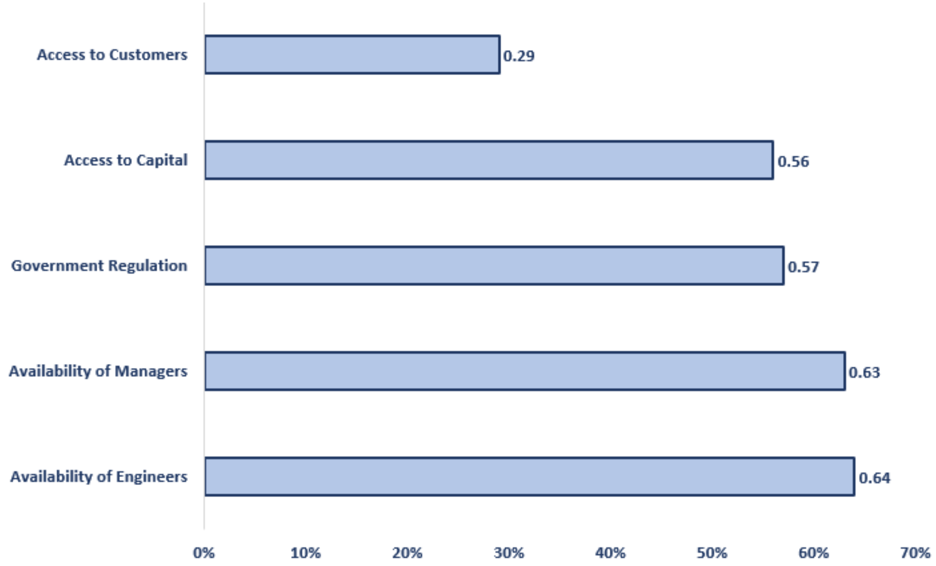
Figure 3.15: Average growth trajectory among Spain's tech companies



On average, startups that survive (which is already a low percentage of them), tend to reach 50 employees in the 3rd year, and 100 employees[21] in the 5th year (see Figure 3.15).

Evaluating the whole period we can also see that there are "Mafias" (a term used in Silicon Valley to refer to ex-employees and workers of a successful startup that end up founding another one). In Spain, Glovo's Mafia founded 26 startups, and Cabify's Mafia founded 45 startups. Finally, availability of technical and managerial talent remains a key problem in the ecosystem, as Endeavour surveyed more than one hundred founders asking them their main obstacles when running a startup, receiving the following answers (Figure 3.16):

Figure 3.16: Obstacles when running a startup in Spain



Source: Endeavour Insight Report on Spanish tech sector

Startups in Spain have not had a proper law covering their activity until 2022, when the “Ley de startups Española” was approved. The main points regulated were that it qualifies the so-called "carried interest" as earned income in the IRPF by integrating it in 50% of its amount under certain requirements and that it makes the regime for treasury stock of emerging companies more flexible and allows them not to incur in dissolution due to losses until three years have elapsed since their incorporation. Moreover, it incorporates tax benefits in the taxation of stock options, the deduction for investment or in the taxation of the emerging company itself. Another interesting point is that it introduces modifications to the tax regime for newcomers so that more taxpayers can benefit and in migratory matters to encourage international teleworking.

4 Conclusions and recommendations

Alongside the previous work we have gone through the key players of the ecosystem and how that ecosystem has evolved during the four key mentioned stages. The startup ecosystem in Spain has notably matured since 2000s until now, with a venture capital industry that manages almost 3 billion euros, thousands of startups and ten unicorns created, and billions invested into the ecosystem in de latest years; figures that outperform peer countries that are comparable to Spain such as Greece or Italy. Below there are some recommendations that can help Spain catch up with leading countries in Europe.

At startup level, **founders** should focus on reaching scale, as their odds of survival and success are higher for companies with more than 50 employees, and those are the companies that make an impact on the ecosystem. They should also receive the help of **policymakers**, which are more focused on new-created startups or companies that are having financial problems instead of companies that already have significant traction. Founders should also seek mentorship from other startup founders or business people having success on **big companies** that help them, as they have had really similar experiences and therefore have transferable knowledge. This can be made in the form of simple advisory, it is not necessary for the mentor to be an angel investor as it has typically occurred, and some **universities** such as IESE (University of Navarra) that are really connected to the system may help by organizing these mentorship programs. Successful startup founders/employees would help a lot by reinvesting in the ecosystem, either as **business angels** or as founders of a startup. They have really valuable experience which is key to be successful again, and this creates a positive loop of success and reinvestment for the Spanish Ecosystem.

Policymakers and **regulatory bodies** in Spain should be aware of the difficulties that entrepreneurs have in creating an startup here and address them: making it a less bureaucratic process to start a business is key, as well as making it faster and cheaper. Policy makers should listen carefully to entrepreneurs and act in accordance with what they require to success. Spain has a competitive advantage in terms of quality of life, great talent and lower salaries that other startup hubs in Europe, and it should take advantage of that by introducing a favourable fiscal policy and easy regulatory processes. Regarding the "Ley the Startups" ruled out in 2022, it is a valid first step, but it needs to go much further to really make an impact. First of all, it does not apply to companies with more than 5 million euros in revenue or more than 5 years old, and we have seen that the focus should be precisely on these type of companies. In addition, 60% of the employees must be working from Spain, which therefore will make it harder for startups that are becoming international to get advantage of the benefits of this law, so the law misses the point of retaining international companies that end up creating hubs in other countries and boosting their economy instead of ours. Finally, the last relevant point that the law regulates is **stock-options**, which is one of the most common types of compensation in the startup industry and was not available until now in Spain (which obligued founders to use phantom shares), but again stock options are only allowed for early startups instead of all of them. Regarding other public institutions, such as universities, they should focus their efforts on increasing the supply of technical degrees to students and encouraging students since school to take that path. Universities should also talk more about startups as a career and start offering them in their job fairs, inviting founders to give speeches, doing contests for people to get the feeling of working in a startup, etc. Universities that have a network of entrepreneurs and business angels, such as IESE or ESADE, can also set up an endowment fund to invest in some of their projects, which is typical in American universities.

Venture capital firms have been doing a great job during these years, doing great investments and exits and therefore improve the amount of money they manage. However, they still miss a key point that can make a difference on the national ecosystem: the capacity to lead large rounds. We have seen that when Spanish companies go for rounds above 100 million euros, foreign VCs come into play because Spanish VCs do not have enough money. This has several negative consequences: Spanish VCs are diluted in their participation on that company, Spanish startups typically get poorer conditions because foreign VCs have more power and finally part of the company is owned by foreign investors. When the company exists (and these big companies typically exit because they are the most successful ones), there is money that goes to those foreign investors instead of going to Spanish entrepreneurs and VCs that can re-invest it in the national ecosystem, a key point to develop it. K Fund has taken the lead in this matter by raising a 250 million fund called Leadwind, and for this to happen VCs need help of institutional investors, such as the 4 billion Next Generation Fund, that has been a great initiative and should be replicated.

Other startup enablers such as **accelerators and incubators** have also been doing a good job providing mentoring and access to capital and network, and should continue expanding these areas of work. They can also begin working on other areas that entrepreneurs identify as an issue for them, such as availability of engineers. They can start by giving engineering introductory programs in schools and speeches about the startup path in universities, as well as bringing students to their mentoring work with entrepreneurs or presentations of projects so that students can get to know that world. In addition, their focus has been solely on early stage projects, and they could start giving help to scaled companies, as over the years they have seen startups of their portfolios grow and exit.

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