



Department of Business and Management

Master's Degree in Strategic Management

Chair of Industry Dynamics

*Fostering Growth:
The Dynamics of Italian Innovation
Ecosystems in the Startup Landscape*

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I- Introduction

According to Google NGram Viewer, a service born from the collaboration between Alphabet and Harvard University and which measures the frequency of use of a word within all the books collected and digitized by Google (written between 1800 and 2012), the use of the term "*startup*" increased steadily in the 90s and peaked around the early 2000s, more specifically in 2002, or shortly after the explosion of the "dot-com bubble". The term 'startup' was used for the first time in Italy in 2008, in a launch of an Agency, more precisely the Italian Journalistic Agency: it was March 8, 2008. From that moment on, a growing evolution and prosperity of startups has affected Italy.

1.1 Background: the startup phenomenon in Italy.

Innovative startups are a driver of economic growth and productivity, as they bring new business models, innovative and high-tech products and services. Their presence had a meaningful impact on the global economic fabric, as it significantly contributed to employment and investments in R&D increase. In Italy, just to make an example, from 2012 to 2023 the innovative startups created over 63.500 new jobs, which account for 7.3% of the whole national employment increase in the same period and have achieved a total turnover of 12.8 billion in 2023¹, thus proving the growing importance of these companies within the Italian economy. One of the particularly interesting aspects that is worth being mentioned concerns their potential for growth: in the first five years of activity, the startups have created 126 of the new jobs and have recorded more than 117 of traditional new companies. An interesting example to make it clear that more than driving technological innovation, startups have a growth rate faster than the average of the companies and, as such, they can create positive externalities for the whole economic system.

Therefore, the attention on policies in support of innovative entrepreneurship is a strategic element to foster a country's competitiveness and to make it increasingly ready to face the processes of global transformation.

The presence of a large number of startups in an ecosystem is one of the crucial factors

¹ "Innovation, research and creativity Report", Istat, 2023

needed to foster economic growth and promote innovation within a production system. Indeed, startups are the ones who bring new business models, give a fresh impetus to competition and drive digital and technological transformation processes. As a result of this, a huge number of governments around

the world have begun to intervene in many ways over the years to encourage their birth and development, given their strategic nature in the contemporary economy. In Italy, the most significant example of intervention in this field is represented by the so-called “Startup Act”, which was introduced with the “Growth Decree 2.0” in 2012 and aimed at creating a regulatory framework that would favor the birth and development of innovative startups, inter alia, through a tax relief for investors, the possibility to issue equity investments and loans revolving around a series of simple and cheaper rules and the birth of ad hoc Investment vehicles.

1.2 The Italian Startup Act

The *Italian Startup Act*, introduced by Law Decree No. 179 of 18 October 2012, converted into Law No. 221 of 17 December 2012, represents a regulatory framework aimed at promoting the birth and development of innovative startups in the country. To qualify as such, the company must meet specific conditions: it must be active for no more than 60 months,² it must have its registered office in Italy or in another country that is a member of the European Union with a branch office in Italy, it must have a turnover of less than €5 Million, it must not have dividends for way of profit and it cannot derive from mergers, demergers or sales of a company. In addition, they must operate in the development, production or marketing of innovative products or services with high technological value, satisfying at least one of the following criteria: incur research and development expenses equal to at least 15% of the higher of the cost and total value of production; employ highly qualified personnel (at least one third PhDs or researchers, or two thirds with a master's degree); be the owner or custodian of registered patents or software. The benefits provided include bureaucratic simplifications, tax incentives for investors, facilitation of access to credit and the possibility of

² “The Italian Startup Act”, Italian Ministry of Economic Development, 2012

remunerating staff with capital participation instruments.

These measures are constantly evolving; in fact, in December 2024, with Law No. 193 of 16 December 2024, the Ministry of Economic Development updated the Startup Act by bringing changes. Among the main ones, there is the redefinition of the criteria for qualification as an innovative startup, aligning them with the European recommendations on micro, small and medium-sized enterprises, and the introduction of the category of "scaleups", i.e. companies that, after the initial phase, show significant growth. In addition, enhanced tax incentives for investors, simplifications in access to the capital market and measures to encourage the internationalization of Italian startups have been envisaged, such as a 50% tax deduction for investments in startups for the first five years with a threshold that has

risen to 65% in 2025, subject to limitations for qualified shareholdings above 25%. Some structural constraints that had been proposed in the previous draft are also abolished, such as the obligation of a minimum share capital of 20,000 euros, the hiring of at least one employee within two years and the possession of registered patents or software. On the other hand, any company that operates mainly as an agency or consultancy is excluded from the benefits. The incentive package also includes a tax credit dedicated to certified incubators and accelerators. Registration in the special register of startups will be valid for three years, with a possible extension to five for those that meet certain requirements, such as a 25% increase in R&D expenses or obtaining a patent. Further extensions are planned for startups that turn into scale-ups, demonstrating a capital increase of more than 1 million euros or the doubling of revenues. Financial coverage for these measures will initially be guaranteed through special funds from the Ministry of Enterprise and Made in Italy for 2025 and then continue with a mechanism to reduce the number of beneficiary startups and increase revenue.

Despite this progress, some critical issues remain, such as the complexity of Italian bureaucracy, with constraints such as mandatory payments to INPS, stamp duty and VAT, continues to represent an obstacle compared to international best practices. The comparison with the British SEIS/EIS model shows that the United Kingdom is now a

leader in Europe in supporting startups, thanks to more extensive incentives and more streamlined rules. However, the Italian system is trying to align itself, introducing some measures inspired by the British model, such as the 65% tax deduction, the maintenance of incentives in the event of the failure of the startup and the extension of the period of permanence in the special register up to nine years for those who achieve certain objectives.

According to the OECD report of 2018, from October 2012 until the first months of 2017, there was a marked and constant increase in the number of new companies adhering to the national policy dedicated to startups Innovative. As shown in Figure 1, growth was quite slow at the beginning and has recorded a surge since 2014, which shows how the number of monthly entries in the special section of the register of companies dedicated to innovative startups is constantly increasing. The relatively slow take-off may be partly due to a lack of knowledge of the policy among potentially eligible new businesses across the country. For example, according to the results of the MISE- ISTAT survey on startups, many companies have heard about the "Startup Act" for the first time from their accountants.

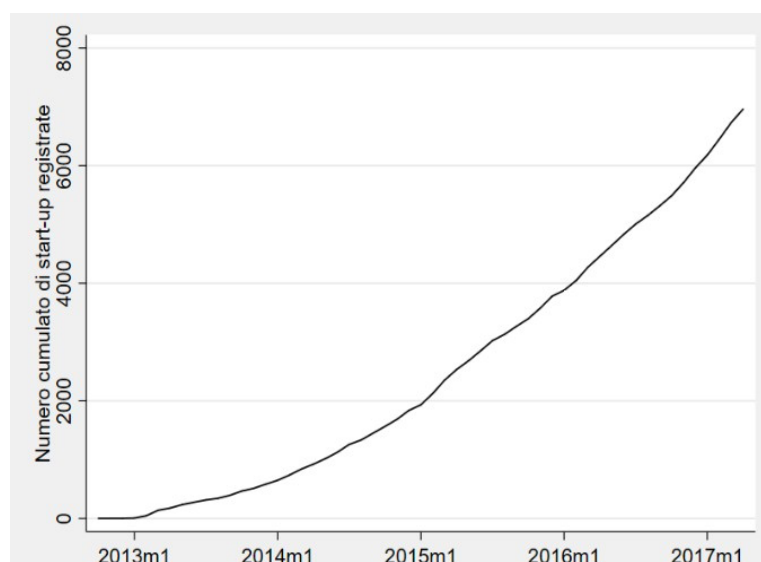


Figure 1

Total number of startups registered, 2013 – 2017

Note: The figure shows the growth in the total number of innovative startups over time since October 2012 to April 2017, net of companies that are no longer registered.

Source: Calculations made by the authors based on the commercial register, OECD publishing, "LA VALUTAZIONE DELLO "STARTUP ACT" ITALIANO" 2018.

1.2.1 Consequences and impact of the Startup Act.

According to evaluation of the OECD report of 2018, the impact of the "Startup Act" on the beneficiary companies has been positive overall, but that complementary actions are needed in other areas of policy to realize the full potential of innovative Italian startups.

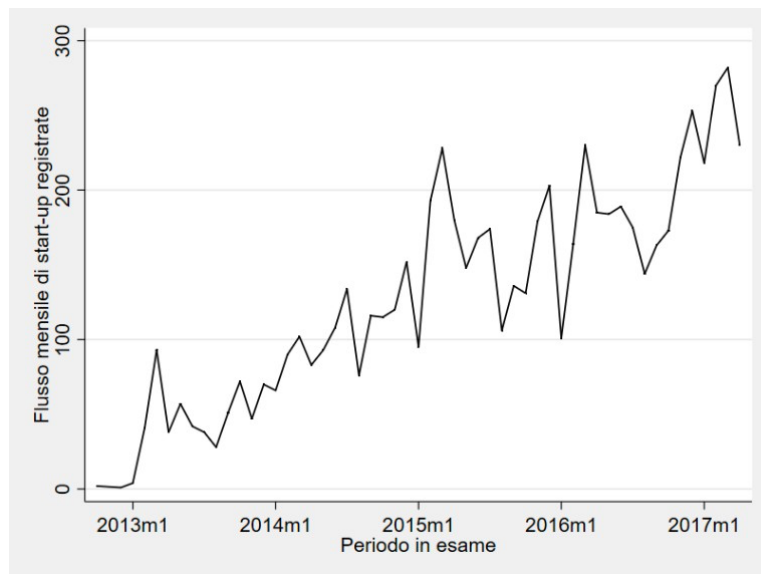


Figure 2

Total number of startups registered per month, 2013 – 2017

Source: Calculations made by the authors based on the commercial register, OECD publishing "The evaluation of the Italian Startup Act", 2018.

The graph extracted from the above-mentioned shows the trend in the number of startups registered each month in the *Startup Act* in Italy in the period between October 2012 and April 2017. The

growth in the number of new registrations shows a positive and constantly increasing trend, starting from initially very low values in 2013.

This growth appears to represent the successful impact of the measures introduced by the Growth Decree 2.0, which have developed an entrepreneurial ecosystem for innovation.

During the time period noted, there were some monthly variations but the overall trajectory was upward, with a maximum number recorded in 2017³ when the monthly

³ "The evaluation of Italian Startup Act", OECD, 2108

registered startups continuously exceeded 200. This data suggest that the system of facilitations, bureaucratic simplifications and tax incentives created with the Startup Act has extensively stimulated innovative entrepreneurship.

The surge in the distribution of startup registrations in the second half of the time period noted could mean that awareness of, and access to, opportunities created by the Startup Act are steadily increasing, too - and that the environment for activity has better consolidated a supportive ecosystem that includes associations, networks and other support for startups.

The Startup Act remains a significant regulatory instrument for the support of innovative startups in Italy as it creates tax incentives, bureaucratic simplifications and provide easier pathways to financial instruments. However, it is important to note that not all startups registered in the special section of the business register automatically benefit from the advantages of the Startup Act. Access to some benefits (e.g. exemption from chamber of commerce fees, contractual flexibility and no obligation to recapitalise for losses) is automatic with registration, while access to others requires additional obligations.

Similarly, not all Italian innovative startups are registered in the special register provided for by the legislation, as registration in this section is optional and is only used to access the benefits provided for by the Startup Act (Legislative Decree 179/2012). This can depend on several factors, such as failure to comply with the formal requirements, the strategic choice not to register, or the very nature of the entrepreneurial activity, which may not fall into the categories provided for by the *Startup Act*.

This thesis aims to analyze Italian innovative startups considering as such those registered in the special section of the Business Register, in order to provide a more precise and targeted view of the contribution of startups to the economic development and innovation of the country.

1.3 Italian innovative startups: an overview from 2014 to 2023

The development path of startups shows a trend that, although some fluctuations, is

confirmed to be growing.

According to the first annual report of innovative startups prepared by the Ministry of Enterprise and Made in Italy, reported in 2014, in the month of February 2014, there were 1,719 innovative startups that were registered in the special section of the Business Register of the Chambers of Commerce, with 934, corresponding to 54% of the total number, being established after the Law Decree 179/2012 came into effect (20 October 2012). In this figure, Lombardy, with 341 startups, and Emilia Romagna with 192 startups, immediately stood out as at the top of the rankings by region, followed by Lazio with 177 startups.

In 2019, 10,893 innovative startups were registered in the special section of the Business Register (Annual Report to Parliament, Ministry of Economic Development 2019). The constant increase in the number of innovative startups registered, but above all the results in terms of new jobs and economic performance, show that these realities have gradually acquired an ever-increasing relevance in the national industrial fabric.

The total workforce involved in innovative startups at the end of 2019 numbered about 62 thousand units: 16,701 employees and 44,828 members. Compared to 2018, innovative startups employ 3,403 more people as employees, recording an increase of 25.6% which confirms a solid strengthening in terms of the employment capacity of these companies.

The analysis of the economic performance of innovative startups also shows encouraging signs. In fact, there is an aggregate value of production of about 1.2 billion euros, calculated on the 6,913 innovative startups (63.5% of the total), showing a significant increase compared to those recorded in previous years. Considering among this audience, only the companies that had filed their financial statements also in 2017, it can be observed that over the two-year period the aggregate value of production increased by 72.5%.

Considering the entire period of the policy on innovative startups (since 2012) and analyzing the survival rate of innovative startups, at the end of 2019, 1,498 companies previously registered as innovative startups were found to have ceased operations. They

represent 9% of all companies that have passed through the special section of the Business Register since its establishment (first months of 2013).

The survival rate of innovative startups is therefore very high. Less than 5% of the startups established in 2017 appear to have ceased activity two years later. The mortality rate it grows to about 15% for startups established for at least five years, up to over 20% for startups established for at least five years. As a result, more than 80% of companies established before 2013, which have lost the status of innovative startup due to age limit at least two years ago, is still in a state of activity.

To mark even more the growth force of the startup ecosystem is the liveliness maintained in 2020 despite the Covid 19 pandemic. As of December 31, 2020⁴, there were 11,898 innovative startups, an increase of 10% compared to 2019. In 2020, production stood at just under 1.5 billion euros (2019 financial statements) with an increase - on an annual basis - of 25.2%.

The contribution of innovative startups to employment (+12.5%) is significant, mainly attributable to the increase in financing partners (+15.1%).

In 2020, Lombardy is still the leading region with 27.1% of new businesses out of the total, while the province of Milan is home to 2,300 innovative startups (19.2% of the national production fabric).

In response to Covid-19, there have been many strategies adopted by innovative startups to identify new market niches, create a new product/service, or to develop new technologies, Apps and, again, to develop research activities. The drive for digitization and innovation has also been high and growing.

As of December 31, 2023⁵, innovative startups regularly registered in the relevant special section of the Business Register amount to 13,394 (see figure 3). Because of the disruptions in global value chains and the significant increase in energy costs caused by changed geopolitical conditions, the startup ecosystem recorded a slight and

⁴ “Parliament’s Report on innovative start-ups”, MIMIT, 2020

⁵ “Parliament’s Report on innovative start-ups”, MIMIT, 2023

physiological decline in 2023 (-6.1% compared to 2022). If we look at the five-year period ending in 2023, the growth of the system has been very significant: between 2019 and 2023, innovative startups increased by almost 23%.

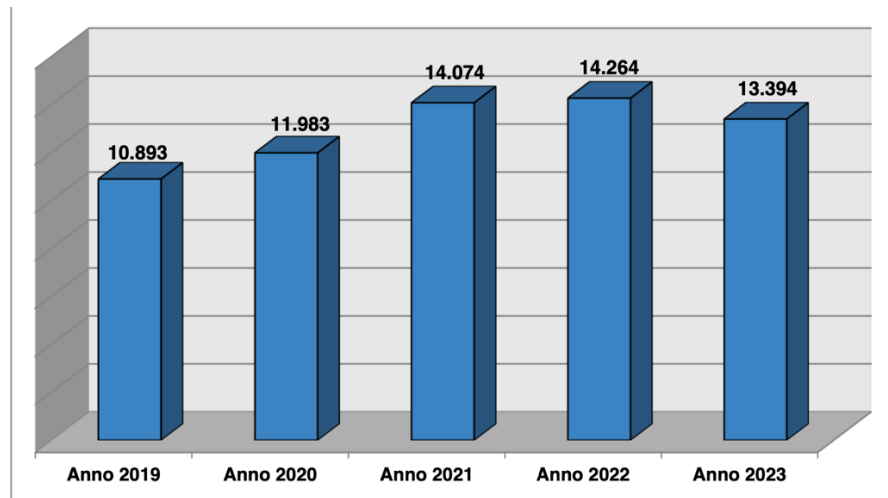
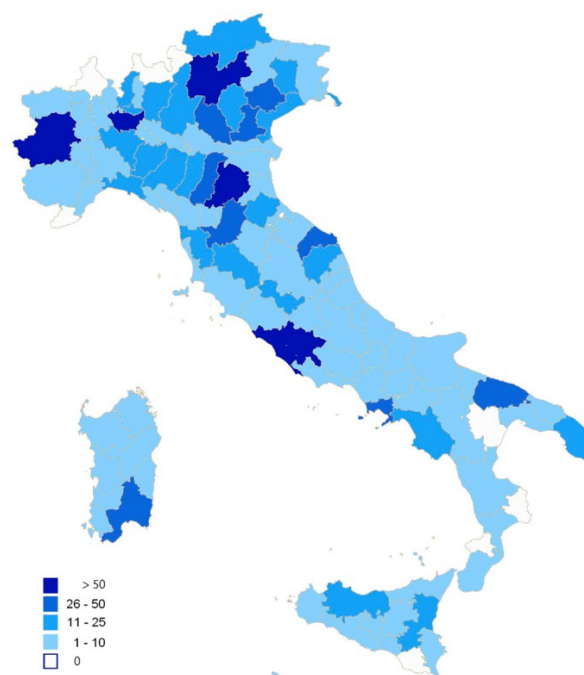


Figure 3
Trend in the number of innovative startups over the five-year period 2019-2023 Source: Infocamere calculations
Parliament's report on innovative start-ups, 2023

1.3.1 Territorial fragmentation

In the year 2014, there were 341 Startups in Lombardy, 192 in Emilia-Romagna and 177 in Lazio, the total number of startups in the North West are 506, in the North-East 478, in the Center 403 and in the South 332. As far as percentage is concerned, 58% of all Italian startups are geographical located in the North, 23% in the Center and, 19% in the South. Considering Italian regions, Lombardy is in the lead with 341, Emilia-Romagna 192 and Lazio 177; Campania is the first region in the South with, 83 (7th place). Milan (228), Rome (158) and Turin (113)⁶ are the provinces where the phenomenon is most significant in absolute terms; Naples with 50 innovative startups is the first province in the South as well as the sixth at national level (see Figure 4).

⁶ “Parliament’s Report on innovative start-ups”, MIMIT, 2014



Fonte: Elaborazioni Ministero dello Sviluppo Economico su dati Infocamere

Figure 4

Distribution of innovative startups by provinces (February 2014)

Source: Ministry of Economic Development based on Infocamere data Parliament's report on innovative start-ups, 2014

The number of innovative startup companies continues to rise year after year, with 55.8% of the startups located in the North of the country, 20% in the Central regions and 24.2% in the South, where it shows stronger growth in 2019 than in previous years (Annual Report of the Parliament, Ministry of Enterprise and Made in Italy, 2019). The regions that presented more innovative startups include Lombardy (2,927 companies, corresponding to 26.9% of the total national), Lazio (1,229 innovative startups, 11.3%) and Emilia-Romagna (931 innovative startups, 8.5%). The high concentration of companies in these areas is probably attributable to the presence of a multitude of enabling factors for the world of innovation and new entrepreneurship, including greater interconnection, developed banking and financial services and research centers, incubators and accelerators with extensive networks.

In 2020, 34.3% of innovative startups reside in North-Western Italy with Lombardy leading the way (27.1% of the national total). The presence of startups in the South of Italy is also significant: about one in four companies, in fact, operates in the South. In

particular, it is Campania that boasts, with over a thousand startups (the only southern region to exceed this threshold), the most significant number (Table 1). It should also be noted that about 2,500 companies are present both in the North- East (with Veneto as the leader) and in Central Italy. The latter territorial division is driven by Lazio which, with 1,397 startups, is the second Italian region in terms of consistency. In general, compared to 2019, 15 out of 20 regions increased the number of innovative startups; the most important improvement - in absolute terms - was achieved by Lombardy (+317), while, in relative terms, by Campania which achieved a considerable +17.9%. As for the provinces, Milan leads the ranking for the number of innovative startups present (19.2% of the total), followed by Rome (10.4%) and Naples (4.4%).

The year 2023 reconfirms the primacy in the North, in particular, more than 35% of innovative startups reside in North-Western Italy, with the Lombardy leads the way among all regions (27.7% of the national total). The presence of startups in the South, with an overall growth compared to last year: more than one in four companies, in fact, operates in the South. In particular, it is Campania that boasts the highest number of significant (almost 1,500), with an increase of 4.6%⁷ compared to 2022. Of note is the drop in startups present in the North-East, with Emilia-Romagna as the leader. Finally, the pool of startups resident in central Italy is also conspicuous, with Lazio leading the group with almost 13% of the national total (see figure 5).

From a provincial point of view, Milan leads the ranking for the number of innovative startups present with 2,711 units (about 20% of the total), followed by Rome with 1,503 companies (11.2%) and Naples with 786 startups (5.9%), the latest growth figure compared to 2022.

⁷ “Parliament’s Report on innovative start-up”, MIMIT, 2024

Ripartizioni territoriali e regioni	Anno 2022		Anno 2023	
	n°	peso %	n°	peso %
Piemonte	799	5,6%	734	5,5%
Valle d'Aosta	16	0,1%	17	0,1%
Lombardia	3.941	27,6%	3.710	27,7%
Liguria	219	1,5%	238	1,8%
Totale Nord-Ovest	4.975	34,9%	4.699	35,1%
Trentino-Alto Adige	287	2,0%	242	1,8%
Veneto	965	6,8%	842	6,3%
Friuli-Venezia Giulia	253	1,8%	224	1,7%
Emilia-Romagna	1.025	7,2%	917	6,8%
Totale Nord-Est	2.530	17,7%	2.225	16,6%
Toscana	649	4,5%	599	4,5%
Umbria	238	1,7%	213	1,6%
Marche	346	2,4%	296	2,2%
Lazio	1.824	12,8%	1.659	12,4%
Totale Centro	3.057	21,4%	2.767	20,7%
Abruzzo	285	2,0%	295	2,2%
Molise	81	0,6%	86	0,6%
Campania	1.413	9,9%	1.478	11,0%
Puglia	616	4,3%	570	4,3%
Basilicata	135	0,9%	116	0,9%
Calabria	256	1,8%	252	1,9%
Sicilia	714	5,0%	713	5,3%
Sardegna	202	1,4%	193	1,4%
Totale Mezzogiorno	3.702	26,0%	3.703	27,6%
Totale Italia	14.264	100,0%	13.394	100,0%

Fonte: elaborazioni su dati Infocamere

Figure 5

Innovative startups divided by territorial distribution and region

Source: Infocamere calculations

Parliament's report on innovative start-ups, 2023

1.3.2 Sectors of interest

The reference sectors in 2014 are services (78.1%), industry and crafts (17.7%), tourism (0.4%), trade (3.6%) and agriculture and fisheries (0.2%). (See figure 6)

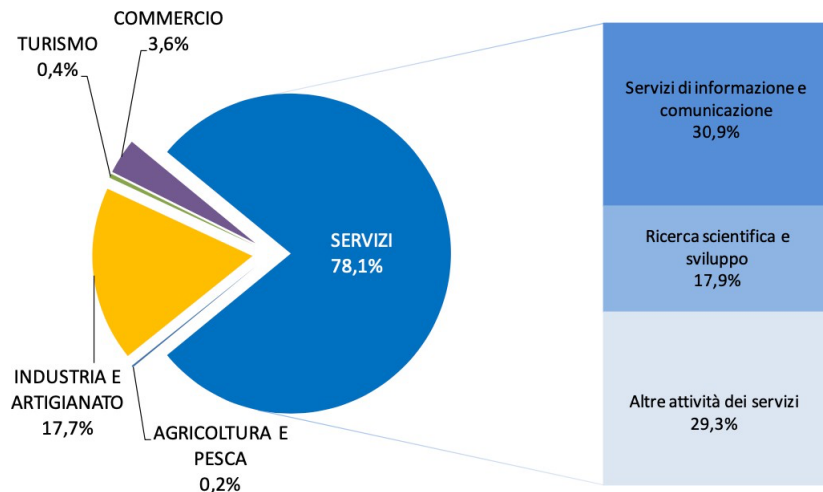


Figure 6

Distribution of innovative startups by economic sector (February 2014, percentages)

Source: Ministry of Economic Development calculations

Parliament's report on innovative start-ups, 2014

The predominant choice of companies in 2023 remains unchanged compared to 2022: more than half of the startups have an activity that falls under the Ateco section "J - Information and communication services" (see figure 7) for a total of 6,983 companies, including of which 5,575 deal with software production, IT consulting and related activities. Of particular note is the contribution of the approximately 3,127 innovative startups (23.3%) in the "M - Professional, scientific and technical activities", where almost 2,000 startups operate in the field of scientific research and development. The contribution of the manufacturing activities identified is also important by the Ateco C code, the latter driven by the divisions "C 28 - Manufacture of machinery and n.e.c. equipment", "C 26 - Manufacture of computers and electronic and optical products" and "C 27 Manufacture of electrical equipment and non-electrical household equipment".

Sezioni	Divisioni	Anno 2022		Anno 2023	
		n°	peso %	n°	peso %
A - Agricoltura, silvicoltura e pesca		108	0,8%	94	0,7%
C - Attività manifatturiere		2.008	14,1%	1.764	13,2%
D - Fornitura di energia elettrica, gas, vapore e aria condizionata		106	0,7%	94	0,7%
E - Fornitura di acqua; reti fognarie, attività di gestione dei rifiuti e risanamento		33	0,2%	25	0,2%
F - Costruzioni		139	1,0%	140	1,0%
G - Commercio all'ingrosso e al dettaglio; riparazione di autoveicoli e motocicli		422	3,0%	385	2,9%
H - Trasporto e magazzinaggio		33	0,2%	30	0,2%
I - Attività dei servizi di alloggio e di ristorazione		60	0,4%	54	0,4%
J - Servizi di informazione e comunicazione		7.283	51,1%	6.983	52,1%
K - Attività finanziarie e assicurative		37	0,3%	40	0,3%
L - Attività immobiliari		31	0,2%	24	0,2%
M - Attività professionali, scientifiche e tecniche		3.290	23,1%	3.127	23,3%
N - Noleggio, agenzie di viaggio, servizi di supporto alle imprese		337	2,4%	291	2,2%
P - Istruzione		144	1,0%	125	0,9%
Q - Sanità e assistenza sociale		69	0,5%	64	0,5%
R - Attività artistiche, sportive, di intrattenimento e divertimento		56	0,4%	54	0,4%
S - Altre attività di servizi		48	0,3%	41	0,3%
Non specificato		60	0,4%	59	0,4%
Totale Italia		14.264	100,0%	13.394	100,0%

Figure 7

Innovative startups by sectors of economic activity Ateco 2007

Source: Infocamere calculations

Parliament's report on innovative start-ups, 2023

1.4 The impact on the economic growth

To date, the startup ecosystem in Italy is represented by 13,394 startups and a total number of 16,500 companies, also considering innovative SMEs, i.e. all those startups that have passed the first round of funding, and which will sometimes be considered in the analysis below, separately from startups. Within this context, let's analyze the economic growth that has resulted, highlighting the consequences on the *market value and investment programs*, the *level of employment* and the *investments in R&D*.

Examining the value of the market, the Italian startup ecosystem had a total valuation of \$60 billion⁸ - clear evidence of impressive growth and potential.

⁸ P101, "State of Italian VC", 2024

Entitled 'State of Italian VC', the report draws the reader's attention to the undeniable growth of Italian venture capital ('VC') over the past ten years, which has not only supported the Italian innovation ecosystem, but also triggered its growth. Over this period, Italian VCs invested a total of €8 billion in start-ups, rising from €152.1 million in 2013 to €1.1 billion in 2023. This represents an impressive average growth of 644%, compared to Europe's average of 492.5%.

During this period, the number of completed transactions increased from 294 to 387, marking a 31% rise, compared to Europe's 80%. This suggests a notable increase in the average size of

Italian deals. Despite a dip in investments (-55% year on year) and the number of rounds (-30% year on year) in 2023, in line with European trends (-43% and -21% in France, and -37% and -19% in Spain), the overall growth trajectory of the Italian ecosystem remains robust, with an increase of 644% over the decade.

The burgeoning pace of investment has also contributed to the growth of over 13,000 start-ups and around 2,000 SMEs in Italy. In 2023 alone, these entities generated a turnover of over 9.3 billion euros and employed approximately 62,000 people. The valuation of the Italian startup ecosystem stands at around 67 billion euros (enterprise value) and has increased 25-fold over the past 10 years — more than double the European average — with accelerated growth in 2023, recording a 27% year-on-year increase (7% in Europe). This growth demonstrates the potential of scalable business models and the establishment of companies with further expansion opportunities, particularly within the technology sector.

The value of Italian start-ups has been shown to be comparable to that of Spanish start-ups in 2020, French start-ups in 2016, and German start-ups in 2015. This indicates a lag in the progress of development, but it is also true to say that there has been an increase in the number of venture capital-backed companies in Italy (726 in 2013 to 2,983 in 2023, a +271% increase), which will facilitate accelerated development. Recent data indicates that the average initial valuation of new business ventures in Italy in 2023 exceeded 22 million euros. Moreover, the most recent decade has exhibited an average compound annual growth rate of +19%, the highest of the decade. Germany and France, for instance,

continue to exhibit average valuations that are almost double those observed in Italy, a nation that is still in the nascent stages of development. Nevertheless, the data indicates an ongoing maturation process within the Italian ecosystem.

European venture capital (VC) funds have amassed approximately €109 billion, with 2023 witnessing a 32% diminution over the course of the preceding five years. Conversely, Italy has experienced a notable surge, with an approximate 88% escalation in novel VC funds year-on-year (equivalent to €3.6 billion) and a 71% augmentation in the mean fund size during 2023. The country's market is undergoing sustained growth, albeit from a relatively nascent stage when compared to more mature economic systems. The augmentation in the availability of new venture capital funds, from three in 2020 to 11 in 2023, along with the concomitant increase in the average fund size, are indicative of a deepening and diversifying lifecycle. This phenomenon is suggestive of an elevated level of confidence among investors, which in turn is likely to engender a plethora of opportunities for a diverse range of products within Italy.

The analysis of the employment levels of 2022 reveals that Italian innovative start-ups have contributed to the creation of 58,215 jobs, of which 12,384 can be attributed to "current" start-ups and 45,831 to ex-start-ups, that is to say, innovative SMEs. The data has been updated to 2023 for those companies for which the most recent financial statements are already available. The number of employees has increased to 63,519, with 14,500 jobs being created by current start-ups and 49,019 by ex-start-ups (figure 8). 58,215 employees can be considered almost entirely 6 as jobs created between 2012 and 2022 and are equal to 7.3% of the Italian employment increase (+795,000) in the same period, highlighting the importance of innovative startups as a driver of employment growth.

Historical analysis shows an increase from 481 employees in 2012 to 63,519 in 2023. Net of the high growth rates of the first years (influenced by the low initial number), the annual percentage changes show a constant and robust growth, which has stabilized between 20% and 30% since 2017. This growth has been supported by both the extensive margin, i.e. the increase in the number of startups, and the intensive margin, i.e. the internal expansion of startups.

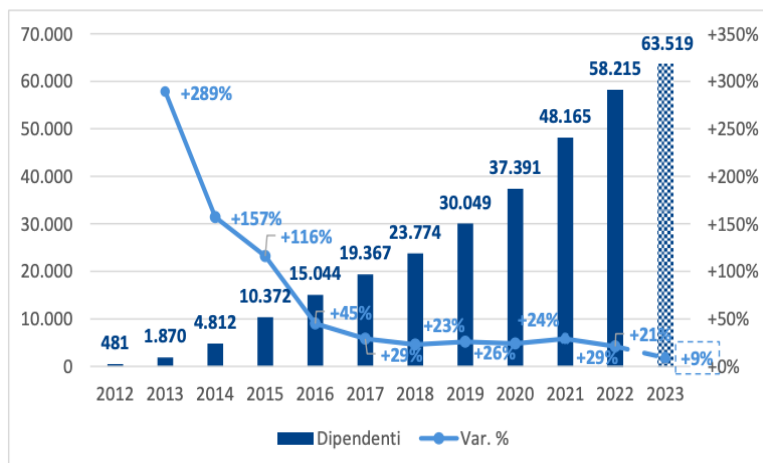


Figure 8
Total employees startups and ex.startups (by financial year)
Source: Centro studi Infocamere e Orbis, 2024 AssoLombardia and Confindustria Report, 2024

Considering innovative and non-innovative start-ups born between 2012 and 2017, there is an average higher employment increase for innovative startups and former startups, equal to +126% in the first 5 years of life (compared to +117% for the total number of new companies). Looking at the year-by-year detail (Figure 9), the employment growth rate for innovative startups varies between +75% (for those born in 2014) and +196% (in 2017); the growth in the first 5 years of life was lower than the total number of new businesses only for the 2014 and 2015 cohorts (figure 9).

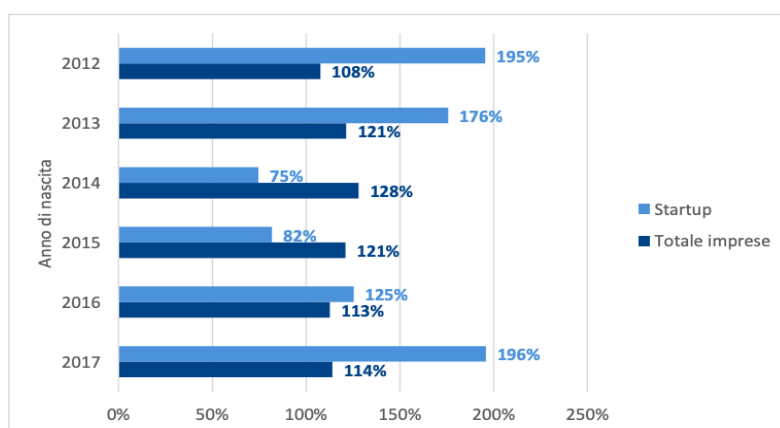


Figure 9
Employment increase in the first five years of life, only for companies still active at the end of the five years
Source: Centro studi Infocamere e Orbis, 2024 AssoLombardia and Confindustria Report, 2024

At the end, *the R&D investments evaluation* allows us to understand how much startups contribute to the economic, industrial and competitive development of the future in Italy. European Union companies are confirmed as protagonists in the global research and development (R&D) scenario, recording a significant increase in investments during 2023, with a growth of 9.8%⁹, surpassing the United States (+5.9%) and China (+9.6%) in terms of percentage increase.

This puts Europe in second place globally according to the share of private investment in R&D (18.7%) with the United States leading (42.3%) and China following (17.1%). Italy comes in as one of the highest contributors among European countries, tallying roughly 5,000 patent applications, out of the approximate 200,000 ranked in the Patent Index 2023 report published by the European Patent Office, with a +3.8% increase from the year before, surpassing the regional average of +1.4% growth.

In total, Italy ranked in fifth place among EU countries in patent applications, falling short only to Germany, France, the Netherlands, and Sweden. Startups, as catalysts for innovation, have the potential to develop new solutions and, moreover, the ownership of patents allows them to find initial funding at a rate five times higher than the national one, because they allow them to attract investors. Considering the European average, which sees 29% of start-ups file rights to registered IPs, Italy ranks above with 39%, together with Germany and Austria (40%), France and Finland (42%).

Within Italy, the sectors exhibiting the most pronounced growth in patent applications are: electrical machinery, equipment and energy (+15%), handling and packaging (+14.6%), transport (+13.5%).

The fastest growing sector, which includes numerous inventions related to clean energy, demonstrates the increasing focus on sustainability.

Lombardy continues to dominate the Italian region rankings in terms of patent applications, accounting for almost a third of the national total. Emilia-Romagna and

⁹ “Patent Index”, European Patent Office, 2023

Veneto have been positioned as the 20th and 21st most prolific EU regions in terms of the number of patent applications.

A considerable disparity persists between the northern and southern regions, with a significant proportion of patent applications, exceeding 70%, being submitted from northern Italy.

This gap represents a situation that is beyond the theme of innovation and not only in Italy's start up ecosystem, but in general Italian situation, representing a trend that characterize most Italian 'cases', that is territorial fragmentation, which will be address next.

1.5 Research questions

The uneven geographical distribution of startups has contributed to the development of entrepreneurial ecosystems concentrated mainly in specific geographical areas, which, as we will see in the next chapter, include dynamic urban hubs such as Milan and Turin, a phenomenon confirmed by the greater availability of resources, infrastructures and capital in the northern areas, has favored the birth and growth of startups within structured ecosystems, characterized by support networks, incubators and connections with research centers and investors.

In this context, the questions to answer in this research are the following:

- **What dynamics does a startup face when growing within Italy's innovation ecosystems?** If the areas of ecosystems are certainly more favored for the creation of new startups, on the other hand such a competitive environment can have the disadvantage of favoring those who work inside, although less competent than those who do not have this opportunity.
- **How, on the other hand, can a startup grow and develop outside these ecosystems?**

As a result, how do ideas develop in contexts that are less inclined to innovation and where knowledge of new and sustainable developments is a major obstacle to gaining credibility?

1.6 Research purpose

The motivations driving this research are diverse.

First and foremost, the primary aim is to concretely identify what are the factors that make startups more competitive within established ecosystems (e.g., access to capital, social and institutional connections, advanced infrastructure).

In addition, this analysis will allow us to analyze whether the geographical and resource concentration really favors the most deserving startups or whether, on the other hand, it mainly rewards those most integrated into local networks, regardless of their real innovative value.

Examining these contrasting trajectories allows for a deeper comprehension of how context influences innovation, growth potential, and the inclusivity of the entrepreneurial landscape in Italy.

II– Literature Review

2.1 Innovation systems

Startups ecosystems are dynamic environments made up of actors who interact to promote the birth, development and growth of innovative startups. The main components are actors, such as angel investors, venture capital and private equity funds, resources and infrastructures such as incubators and accelerators and access to digital and technological resources, institutions such as universities and research centers, institutions and entrepreneurial culture. These same ecosystems are a fundamental part of a broader concept that is the innovation system, which is based on the idea that innovation is the result of the interaction between multiple factors, which are once again the ones that are involved in startup ecosystems. Making a distinction, innovation systems focus on a wide range of actors and dynamics, while startup ecosystems focus specifically on the birth and development of new innovative companies.

A well-structured innovation system creates favorable conditions for the development of startups and, vice versa, startups introduce dynamism, innovation and competition, stimulating the continuous improvement of innovation systems.

The different types of innovation systems are divided into four groups:

1. *National Innovation Systems (NIS)*: these focus on the role of policies and institutions at national level.
2. *Regional Innovation Systems (RIS)*: they explore the importance of local clusters and territorial dynamics.
3. *Sectoral Innovation Systems (SIS)*: they analyze innovation in specific industrial sectors.
4. *Technological Innovation Systems (TIS)*: they focus on particular technologies and the networks that promote their diffusion.

As much as innovation systems contribute to economic and productive growth, to the knowledge generation and to the encouragement of the creation of partnerships between the actors, they also have challenges, like the lack of collaboration between

actors, the policy gaps, the resource limitations and, as it is for Italy, inequalities, cause they can lead to uneven development and access to innovation opportunities between regions or sectors.

Looking at the Italian case, innovation systems are very much linked to regions or industrial sectors.

2.2 Sectoral systems of innovation

Sectoral innovation systems are an approach to analyze the development of innovation by taking into account distinctive actors, processes, technologies, knowledge and institutions of each sector.

The interaction between these elements determines the ability of an industry to generate and adopt innovations.

Such systems are identified by certain characteristics: technological specialization, as each sector focuses on specific technologies; dynamics of knowledge, e.g. tacit or codified; higher or more accessible barriers to entry, heterogeneity of actors, as they involve both large companies and innovative startups, and interaction between actors, i.e. collaboration through industrial clusters or consortia.

To be successful, factors such as access to capital, the availability of skilled human capital, the adaptability of the sector to change and sectoral policies must play a positive role, in particular public policies that are crucial for incentivizing R&D, the promotion of collaborations, the creation of programmes to provide sectoral expertise and standards that protect consumers without stifling innovation.

The origin dates back to the late 1990s, with the triple-helix model, when Etzkowitz and Leydesdorff (2000)¹⁰ re-elaborated the concept of national and local innovation systems in the light of the development of information and communication technologies (ICTs), and the intensification of economic globalization. This model refers to the need for a strategic integration of the three drivers of development – research, government and

¹⁰ Etzkowitz e Leydesdorff “The dynamics of innovation: from National Systems and “Mode 2” to a Triple Helix of university–industry–government relations”, 2000

industry – that enable the activation of knowledge flows, thereby stimulating the innovation ability of the local system.

In this framework,¹¹ the rationale for public intervention has moved from market failures to system failures: public policies are justified in order to overcome imperfections in the innovation systems because some essential elements are missing, or the linkages within them are not working well. The goal of an innovation policy is thus to create and promote the favorable conditions that enhance the functioning of innovative systems.

In Italy, the technology district is the main evolution of sectoral innovation systems; in particular, it is defined as a region-oriented policy instrument, implemented in the early 2000s to foster innovation and firms' competitiveness, which is largely grounded on the theoretical framework of regional innovation

systems and the triple-helix model. The aim is to act as an instrument of governance and coordination of the processes in order to streamline learning mechanisms appropriate for innovation. Italy has a wide range of sectoral innovation systems: some examples are the mechatronics district of Reggio Emilia, the biotechnology district of Milan, the automotive district in Piedmont, fashion in Milan, the agri-food district of the north-east and the space district in Lombardy and Lazio.

At the national distribution level, TDs in the Italian southern regions are more numerous but include fewer firms than those located in the Centre–North, they are poorly diversified sectorally and more distant from the economic structure of the area (Bertamino, Bronzini, De Maggio & Revelli, 2016).^c These characteristics might limit the synergies among firms and hinder the economies of scale and scope that the policy would implicitly like to trigger.

Overall, firms that did join a district are larger and more innovative than other firms of the same sector located in the same region; moreover they also show higher investment rates and leverage. This shows that, on the whole, after the birth of a TD, district firms did not outperform similar non-district firms; only the profitability of larger district firms in the North-West turned out to be higher than that of the control group after the policy.

¹¹ Leydesdorff "The Triple Helix of University-Industry-Government Relations", 2012

Within the aforementioned innovation systems, innovation ecosystems are developed. It is good, in this context, to outline the differences between the two concepts: innovation systems are structured architectures composed of actors, institutions and relationships that influence the innovation process of a given geographical or sectoral context, focus on the analysis of policies and the institutional framework and have universities, companies, research institutions, technological infrastructures and economic incentives as a key element; indeed, innovation ecosystems are environments of organic and non-hierarchical interactions with the aim of developing or scaling innovations, emphasizing synergies and having startups, established companies, investors, incubators, accelerators, user communities as a key element.

2.3 Ecosystems of startups

In this framework, the entrepreneurial ecosystem, therefore the startup one, as a subset of innovation systems, is focused precisely on the growth and development of new startups. The term 'ecosystem' is generally understood to denote a biological community of interacting organisms, with the physical environment in which they interact constituting a real system.

The term “ecosystem” was adopted for the first time in the social sciences and economics by Moore (1993), who underlines how the environment external to the company and, therefore, to entrepreneurship—i.e., the “business ecosystem”—is important and affects performance. Consequently, the term "start-up ecosystem" has its origins in the biological sciences. Most of the management literature defines a startup ecosystem as an environment made of people who work there, start-ups in their various phases, and different types of organizations in one place physically or virtually, interacting as a system to create new start-up companies.

In the literature there are a lot of definitions connected with the evolution of the phenomenon, each of which highlights particular characteristics. In the early 1990s, the focus was on the interconnectedness of the various parts; then, after the first decade of 2000s, the center became the environment in which the company operates, called “business ecosystem”, made up by transversal concepts such as those of management and knowledge, resources, corporate culture, business networks (Moore, 1993; Cohen,

2013; Barney, 2006; Isenberg, 2011.)

The concept of the start-up ecosystem has formed gradually over time. Although there have been some hints during the past years, we will show that only after 2015 did it experience effective development. The term “start-up ecosystem” comes from the ground-breaking description of the “business ecosystem” offered by Chesbrough, which characterizes the environment that presents prospects for the launch of new businesses owing to an impressively motivating boost to entrepreneurship (Bala Subrahmanya, 2017).

The entrepreneurial ecosystem is defined as the development of contextual opportunities. It is posited that the greater the entrepreneurial approach within the ecosystem, the more significant the enhancement of resources usage in firms (Lush and Vargo, 2014). As segment of the entrepreneurial ecosystem, the startup ecosystem refers to the connections of the community’s entrepreneurial support network like those between entrepreneurs, formal support organizations, entrepreneurs and key support entities and with organizations (Motoyama & Watkins, 2014).

As a result, the idea of a start-up ecosystem reflects the tendency to blur the boundaries of firms while embracing the benefits of being part of a larger network. Indeed, ecosystems are characterized by their ability to absorb new influences from external sources, as their functioning relies on openness enabled by specific attributes and mechanisms (Yun et al., 2017)¹². Likewise, within a business environment, start-up ecosystems support the advancement of regional innovation and contribute to the broader economic landscape, leading to favorable outcomes in terms of national production and employment (Krajcik & Formanek, 2015). According to the authors, regional start-up ecosystems serve as an efficient approach for validating regional innovations and fostering economic development, while also promoting national economic growth and job creation in the relevant country. The theories on the main elements that form a startup ecosystem are based on three elements: resources, geographical variables and actors.

Resource theory starts from the definition of startups as an “organization with limited resources and experiences, influenced by factors such as investors, customers,

¹² “Ecosystem-based management and the wealth of ecosystems”, Yun et al, 2017

competitors and technological dynamics. In this context, knowledge and venture capital as resources that support the creation of a start-up ecosystem and start-ups and influence change to succeed” (Hemmert et al., 2016).¹³ Later the role of resources will become crucial as the performance of the startup itself depends on them; the resources will be understood both as related to all activities, such as resources, knowledge and skills, and as those specifically related to new initiatives such as courses, mentoring, simulations. All these resources must be integrated and exchanged mutually to stimulate entrepreneurs, as they give fluidity to startup ecosystems, fostering the permeability of new skills, additional actors and new ways of doing things.

The geographic variables are the main element of theories on startup ecosystems places. A start-up ecosystem is described by Cukier and Kon (2018) as “a specific location, within a 30-mile radius (or relatively an hour's travel), characterized by individuals, start-ups, and a set of support agencies engaged in the difficult dynamic, interdependent, and adaptive system to enable the creation of new start-ups and development and growth of existing start-ups.” The start-up's longevity is often dependant on the support of a vibrant entrepreneurial environment. These start-ups are commonly at a disadvantage competing against established firms in the same sector, with limited intellectual capital and financial backing. Ecosystems help explain why environmentally and geographically there are so many successful start-ups in a pro-academic and economic location like Singapore and Silicon Valley. In addition, Feld's contribution (2020), explains how a start-up ecosystem is formed in a community and the core principles of a vibrant start- up community.

The most advantaged theories on startup ecosystems are the ones on actors; Krajcik and Formanek (2015) describe the key role of actors in depicting a start-up ecosystem and its potentialities, talking about startups, policy agencies, accelerators, incubators, risk capital providers as structural components whose functionality is powered by openness. Similarly, Franco-Leal et al. (2019) outline distinct phases within a start-up ecosystem, emphasizing that each phase comes with specific tasks and resource needs.

- ¹³ “Entrepreneurial ecosystems for start-ups: A global perspective”, Hemmert et. Al, 2016

Consequently, engaging with various actors is essential to bridging gaps related to both required activities and resource acquisition.

Laužikas et al. (2015)¹⁴ present a slightly different perspective, still focused on key participants. They argue that a start-up ecosystem is shaped by collaborative efforts from both internal and external stakeholders, particularly those facilitating the growth of new ventures. Along the same lines, Sipola et al. (2016)¹⁵ conceptualize this ecosystem as a framework characterized by contextual variables, time-related aspects, and mechanisms for renewal. The main contextual drivers include regional stakeholders and business expertise, while economic background, policies, and start-up novelty define the temporal aspect. Meanwhile, institutions, adaptability, and the role of failure shape the renewal processes. Cukier and Kon (2018)¹⁶, building on Isenberg (2011)¹⁷, highlight regulations, market conditions, financial access, knowledge networks, entrepreneurial skills, and cultural attitudes toward entrepreneurship as determinants of an ecosystem's success. Thus, dynamic institutional structures within incubators and accelerators play a key role in fostering either the development or consolidation of start-ups (Joshi & Satyanarayana, 2014)¹⁸. Incubators and accelerators, in turn, serve as crucial facilitators within both the start-up landscape and the wider entrepreneurial ecosystem (Hernández & González, 2016).

The European Commission has defined incubators in the document "The smart guide of innovation". They are defined as places where all new entrepreneurs can find the facilities, services and knowledge necessary to develop their business ideas, suitable for their needs and useful for the creation of sustainable realities. Through real physical spaces to organize events and mentorship programs to support the initiatives launched by startups in the early stages of life.

According to the survey published by the Ministry of Enterprise and Made in Italy,

¹⁴ Laužikas, M., & Dailydaitė, S. (2015). Impacts of social capital on transformation from efficiency to innovation-driven business. *Journal of Business Economics and Management*, 16

¹⁵ A Start-Up Ecosystem as a Structure and Context for High Growth, Sipola et al, 2016

¹⁶ "A maturity model for software startup ecosystems. *Journal of Innovation and Entrepreneurship*", Cukier, D., & Kon, F., 2018.

¹⁷ "The Entrepreneurship Ecosystem Strategy as a New Paradigm for Economic Policy", Isenberg, 2011

Lombardy is in the lead with 12 certified incubators, followed by Campania, Lazio and Piedmont (see fig.1)



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I dati ufficiali delle Camere di Commercio

CAMERE DI COMMERCIO D'ITALIA

Riepilogo sulle società iscritte alla sezione degli incubatori

Regione	Numero società
ABRUZZO	1
BASILICATA	1
CALABRIA	1
CAMPANIA	9
EMILIA-ROMAGNA	2
FRIULI-VENEZIA GIULIA	3
LAZIO	6
LIGURIA	3
LOMBARDIA	12
MARCHE	4
PIEMONTE	5
PUGLIA	4
SARDEGNA	2
SICILIA	1
TOSCANA	3
TRENTINO-ALTO ADIGE	2
UMBRIA	1
VENETO	5
ITALIA	65

Riepilogo sulle società iscritte alla sezione degli incubatori Aggiornamento al 03 marzo 2025

Figure 1

Summary of companies registered in the incubators section
Data from Infocamere, Ministry of Enterprise and Made in Italy, 2025

Among the most important and active incubators in Italy there are:¹⁹

1. **INHUSE - Innovation Hub South Europe** in the Caserta office offers specialized assistance, coworking, orientation and logistics services for the growth of startups.
2. **FVB**: Located in Ancona, it is an incubator that provides support to innovative startups, with an overall score of 80,819 in the ranking of the main European hubs.

¹⁹Financial Times, Europe's Leading Start-up Hubs, 2025

3. **Dock Startup Lab:** Based in Rome, it is a program that supports entrepreneurship training for the development of ideas in startups.
4. **Bio4Dreams:** It has its headquarters in Milan, in the MIND - Milan Innovation District, and is a certified incubator dedicated to startups in Life Sciences.
5. **UNIMI Foundation:** Located in Milan, it focuses on innovation in Life Sciences and environmental sustainability, enhancing the knowledge of the University of Milan and its research partners
6. **Socialfare:** Based in Turin, it is a center for social innovation that supports projects and startups with social impact, with an overall score of 74,691 in the ranking of the main European hubs
7. **Polihub:** Located in Milan, it is the incubator of the Politecnico di Milano, which supports technological and innovative startups, with an overall score of 74,585 in the ranking of the main European hubs.
8. **Scientific:** Based in L'Aquila, it is an incubator that provides support to innovative startups, with an overall score of 72,598 in the ranking of the main European hubs.
9. **Tecnopolis Science and Technology Park:** Located in Valenzano (BA), it is a science and technology park that offers support to startups and innovative companies, with an overall score of 72,237 in the ranking of the main European hubs.

In this context, universities also play a crucial role²⁰: before the last 10 years, approximately 3000 businesses had been formed by professors, researchers, and students at Stratford University. Stratford University's technological prototypes were instrumental in the founding of businesses such as Sun Microsystems, Cisco Systems, HP (Hewlett Packard), and Google (Confindustria and Bank of Boston, 2009).

2.4 Italy's thrust in the international context

Internationally, Milan and Turin are the two ecosystems that stand out in Italy. The Global Startup Ecosystem Report 2024 by Startup Genome, a global research and

²⁰ "Startup Ecosystems, Components for an Interpretative model and International benchmarks", Fabio Greco, 2023

consulting organization that studies and intends to support the development of innovative ecosystems worldwide, ranks Turin as one of the Global Top 100 Emerging Ecosystems for startups. The report explains that the system made up by the startups based in Turin and the connected local companies produced \$2.9 billion of value from 2021-2023 and had an average annual growth of 122%. Numbers that place Turin among the Top 40 European Ecosystem in Performance, the index that analyzes the performance of numerous cities on the continent in terms of the growth of hosted startups, and among the Top 40 European Ecosystem in Funding, a ranking that measures the ability to attract capital for startups. In 2019, the Intesa Sanpaolo Innovation Center, the Fondazione Compagnia di San Paolo and the CRT Foundation launched an acceleration course for startups dedicated to smart mobility in Turin in collaboration with the American accelerator Techstar, later extending the program to new technologies for smart cities, bringing startups to the Italian territory from all over the world.

The Turin ecosystem, historically based on innovation, has benefited from this by growing further both in terms of technology and in terms of the number of companies and institutional players involved.

In 2021, Intesa Sanpaolo Innovation Center and Fondazione Compagnia di San Paolo started a collaboration with Startup Genome, contributing to the collection and collection of data on Italian startups and companies, with a particular focus on the Turin area. "The strategic collaboration with local and international partners, including Startup Genome, is helping to make Turin an increasingly attractive destination for startups, investors and institutions" – underlines Alberto Anfossi, Secretary General of the "Company of San Paolo" Foundation.

The partnership between these three entities, it has made it possible to analyze in depth the dynamics of the ecosystem, highlighting an accelerating development trend.

The GSER 2024 examines over 4.5 million companies distributed in over 300 innovation ecosystems worldwide. The Report provides a comprehensive analysis and extensive overview of contemporary startup trends, meticulously ranking the top 40 global and emerging ecosystems and offering a precise regional evaluation. In this context, Turin stood out, advancing more than 20 positions and earning a place in the top 100 best emerging ecosystems worldwide for the first time, thus marking a

significant milestone in its path of growth and innovation.

In fact, the Global Startup Ecosystem Report²¹ revealed that the Turin ecosystem generated a value of \$2.9 billion in a year and a half, marking an annual growth of 122%.

With its position in the Top 40 European ecosystems for Performance and Funding, Turin stands out for the size and performance of its technology startups, as well as for the innovation and activity of early-stage investors.

The sectors of Artificial Intelligence, Big Data & Analytics, Smart Cities and Spacetechn were particularly highlighted for their density of talent and support resources. In addition, initiatives such as Techstars Transformative World Torino, ESCP Business School's Blue Factory, Torino Tech Map and CTE Next have been recognized as key factors that make the Turin ecosystem an ideal place for startups looking to grow and thrive.

And as Turin is becoming an increasingly attractive city, Milan ranks 14th in the ranking of emerging startup ecosystems²², advancing 14 positions compared to 2023, with a value of \$15.88 billion out of a world average of \$29.4 billion, exit value of \$2.55 billion out of an average of \$8.9 billion and \$898 million of total early stage funding out of an average of \$655 million. (see figure 2).

The report, entitled "Milan Ecosystem Report 2024", was compiled by Dealroom, with additional support from YesMilano, the Municipality of Milan, the Chamber of Commerce of Milan and Milano&Partners. The report provides an analysis of the Milanese ecosystem from 2019 to 2024, and its findings are as follows: the value of the Milanese startup ecosystem has grown fifteen-fold over the last # 10 years, in 2024 the total value exceeds 29 billion euros and the trend is up from 25 billion euros in 2023, 24 billion euros in 2022, 20 billion euros in 2021. Considering Milan-based startups to be Milan-founded startups based outside Milan, the report recognizes fintech and payments as leading sectors in terms of VC investments since 2019. In particular, in 2024 the ecosystem produced series A investments with an average investment value of 14 million euros, higher than the Italian and European averages, and series B investments of 16 million euros in line with the Italian average, while the

²¹ "Global Startup Ecosystem Report", Startup Genome, 2024

²² Content acquired by StartUp Genome

average value of the seed investment is lower than both the Italian and European averages, which stands at 1.7 million euros. Also according to the Dealroom report, as of 2021, the number of unique investors in Milan has remained consistently above 200, the value for 2024 is 212, half of the 10 most active Italian investors are based in Milan, the report identifies them as Italian Angels for Growth, United Ventures, Indaco Venture Partners, Primo Ventures is P101 Ventures and mentions CDP Venture Capital, LVenture Group (in Rome), 360 Capital (in Paris), Investors' Club and LIFTT (in Turin) as the other assets which, however, do not have their headquarters in Milan. In recent years, Milan has become increasingly attractive to foreign investors with significant growth between 2023 and 2024 in those of European origin, although those from the USA and Asia are also growing. Since 2023, local VC investors have raised over €900 million in new VC funds, and as of 2019, it is noted that 51% of Italian VC funds are based in Milan.

When the broader picture is considered, Europe is the most represented region in the emerging ecosystems ranking, with a 42% share in the top 100 emerging ecosystems, followed by North America with a 27% share.

Madrid has moved up 12 places, taking first place, thanks to big exits and unicorns. Barcelona has moved up two places from last year, reaching second place. Barcelona is home to three unicorns, with the top-rated unicorn, TravelPerk, valued at \$1.6 billion. Jakarta and the Rhein-Ruhr metropolitan area in Germany both made it into the top 10 emerging ecosystems, ranking 6th and 9th, respectively. The Lausanne region has moved up 16 places to number 11.

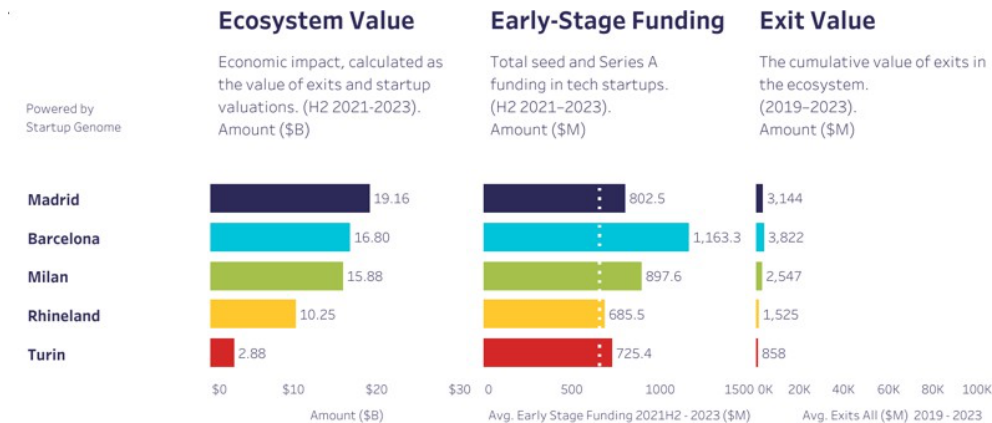


Figure 2
Comparison of the emerging ecosystems of Milan and Turin and their European equivalents Startup Genome, 2024

In terms of established ecosystems, London remains the best performing in Europe, ranking first in Europe and second globally (tied with New York City). The Netherlands has moved up one place, both regionally and globally, to second place in Europe and thirteenth in the global ranking. The ecosystem created \$96 billion in value from July 1, 2021 to December 31, 2023. Paris has risen to third place in Europe, it is the rare ecosystem that has not had a sharp drop in the number of exits since 2021, its 289 total exits from 2022 to 2023 are 5th place globally. Zurich has moved up five places to 31st place in the GSER 2024. Munich has moved up four places, rising to 33rd place with seven major exits, to 5th place among European ecosystems. In 2023, Copenhagen-based fintech startups secured the third VC funding per capita among Europe's top 10 ecosystems.

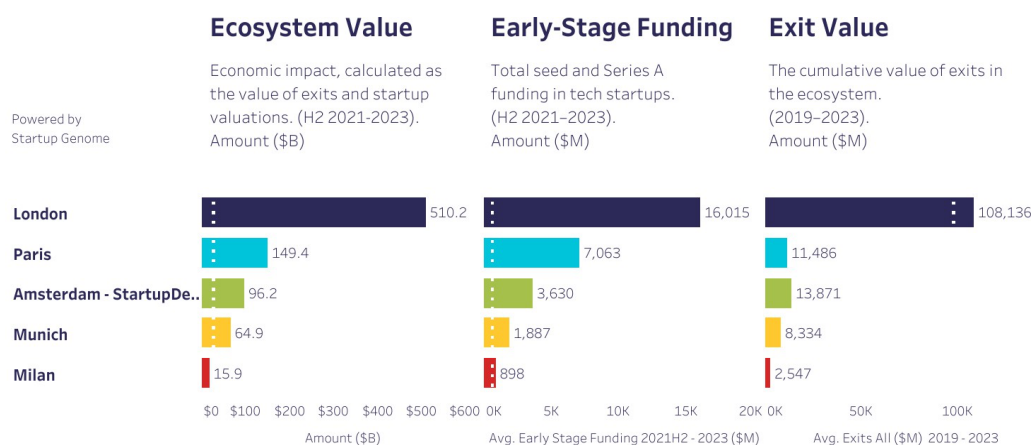


Figure 3

Comparison of consolidated EU ecosystems with Milan ecosystem StartupGenome Report, 2024

Globally, eighteen of the top 40 ecosystems are based in North America, including three in Canada and the rest in the United States. North America is the second most represented region in the ranking of emerging ecosystems, with a 27% share. It is evident that Toronto-Waterloo maintains its position as Canada's foremost ecosystem, though it experiences a marginal decline to 18th position. Vancouver experienced a decline of four positions, reaching 34th, while Montreal ascended by one, securing the 39th rank. Consequently, Vancouver and Montreal maintain their positions as the second and third largest ecosystems in Canada, respectively. The United States has the highest number of new unicorns in 2023, with 57% of the global share. In 2023, there was a 27% increase in the number of US-based generative AI startups. In 2023, the

proportion of venture capital deals secured by US-based generative artificial intelligence (genAI) startups increased to 65%, representing an increase from the 57% recorded in 2022. It is evident that Silicon Valley accounts for 59% of the total ecosystem value within the top five global ecosystems, representing an increase of 3% from the previous year. A significant factor in Silicon Valley's success has been late-stage funding (Series B+). New York City is positioned as the second most popular destination globally, with London ranking in a similar position. The ecosystem generated \$694 billion in ecosystem value from 1 July to 31 December.

New York City was the only top-five ecosystem to experience a marginal increase in the value of its large exits (exceeding \$50 million) in 2023 compared to 2022, despite a decline in the number of such exits. It is evident that the city of Los Angeles continues to occupy the fourth position in the global ranking of startup ecosystems. The value of its significant exits (exceeding \$50 million) experienced a 36% decline in 2023 compared to 2022, a decrease that was less pronounced than that observed in London and Silicon Valley (refer to Figure 4.a). The city of Boston recorded 11 major exits, equaling the number recorded in Tokyo (see figure 4.b) and ranking behind only Silicon Valley among the 10 global ecosystems for the highest number of exits. Following an increase of 10 places from 2022 to 2023, Miami has ascended by a further seven places, transitioning from 23rd position in the previous year to 16th in the current year. A total of 49 late-stage deals (Series B+) were secured by Seattle-based start-ups, placing them fifth among U.S. ecosystems. Seattle experienced the most precipitous decline among the top 40 ecosystems, descending 10 places to attain 20th position. Its 10 major exits in the 30 months leading up to the end of 2023 were ranked 26th globally. Philadelphia has ascended to 25th position in the global ranking of startup ecosystems, marking a significant advancement. The financial period under consideration was from 1 July 2021 to 31 December 2023. The total value of the ecosystem created during this period was \$92 billion, representing a compound annual value of 40%.

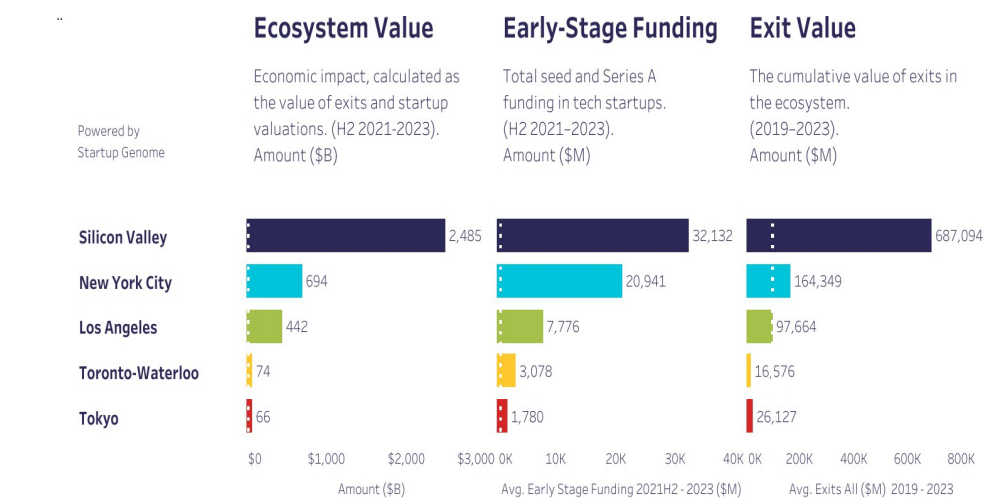


Figure 4.b
Comparison of global startup ecosystems (considering Silicon Valley)
StartupGenome Report, 2024

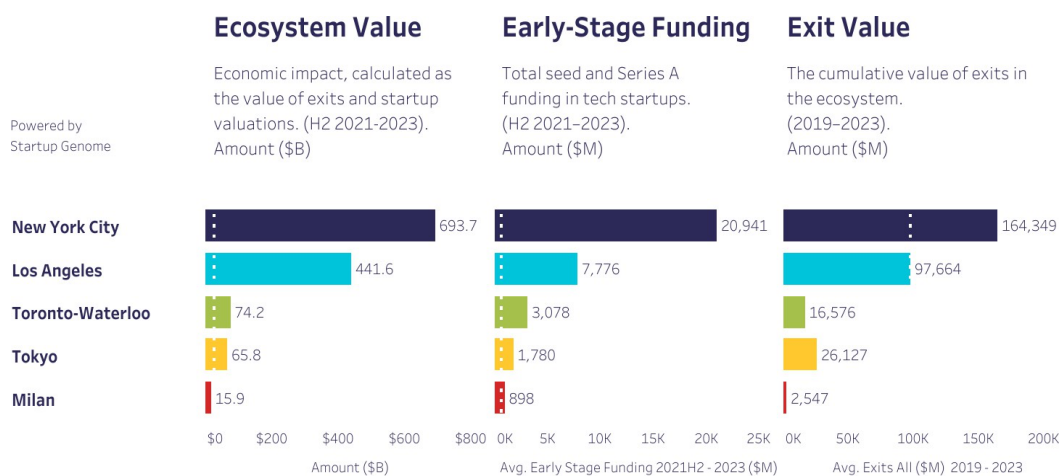


Figure 4.b
Comparison of global startup ecosystems (without considering Silicon Valley)
StartupGenome Report, 2024

2.5 Incentives for startups for Italy

Despite showing strong growth in the last few years, the startup ecosystem in Italy is still far behind at least 3 - 5 years behind the bigger global hotspots (Silicon Valley in the US, London in the UK or Berlin in Germany). When we look at the densities of

startups versus population and venture capital investments in a country, it is lower than other European countries, where we find more established marketplaces and quicker access to private capital and organized public financing. The differences in economic conditions between North and South and urban and peripheral areas, are part of the reasons for the gap between Italy and the European equivalents, and this makes it fundamental to consider measures that will allow innovative talents and ideas to emerge irrespective of their geographic location. In this sense, incentives for startups in Italy become not only economic growth drivers, but also an initiative to diminish territorial inequalities and promote equal opportunities for entrepreneurial development for the whole territory. Therefore, through fiscal incentives, simplified access to finance and specific programs of support for less developed regions, government will hopefully try to reinstate the national entrepreneurial fabric, helping create a fairer and more competitive landscape for entrepreneurial start-ups.

2.5.1 Smart&Start Italia

A recent example is Smart&Start Italia, a facilitative instrument established by decree of 24 September 2014 to promote, throughout the country, the conditions for the dissemination of new entrepreneurship and support technology transfer policies and economic exploitation of the results of the public and private research system. The facilitative measure is reserved for innovative startups, located throughout the country, registered in the special section of the business register and in possession of the requirements referred to in Article 25 of Decree-Law no. 179/2012.²³

Startups must be established no more than 60 months ago on the date of submission of the application and must be classifiable as small. Foreign companies that undertake to establish at least one operational office in Italy or even individuals who intend to set up an innovative startup can also obtain Smart&Start Italia benefits.

The business plans in question must have technological and innovative content, development of products, services or solutions in the field of digital economy, artificial intelligence, blockchain and the internet of things, economic exploitation of the results

²³ Ministero delle Imprese e del Made in Italy, 2012

of the public and private research system, and must have an amount ranging between 100,000 euros and 1.5 million euros divided into:

- tangible assets such as plants, machinery and technological equipment, intangible assets necessary for the activity covered by the facilitated initiative, such as patents, trademarks and licenses, certifications, know-how and technical knowledge, including non-patented, related to the production and management needs of the company;
- services functional to the implementation of the business plan, directly related to the production needs of the company (design, development, customization and testing of IT architectural solutions and technological production systems, specialized technological consultancy, services provided by business incubators and accelerators and those related to marketing and web-marketing, costs related to collaborations established with research organizations for the purpose of implementing the of the business plan);
- employees and collaborators in any capacity who meet the requirements indicated in Article 25, paragraph 2, letter h), number 2) of Decree-Law no. 179/2012, to the extent that they are functionally employed in the implementation of the business plan.

Within the limits of 20% of the aforementioned expenses, an amount to cover working capital needs related to the incurrence of expenses for raw materials, services necessary for the performance of the company's activities (including hosting and housing) and the use of third-party assets is also eligible for contribution. Business plans must be launched after the submission of the application and must be concluded within 24 months from the date of signing the loan agreement; the subsidies concern the ones financing equal to 80% of eligible expenses, tutoring services and conversion of a portion of the subsidized loan obtained into a non-repayable grant.

Startups can access a series of financial facilities and management support to promote their growth and development.

- **Subsidized financing:** startups can obtain an interest-free loan equal to 80%

of eligible expenses. This percentage rises to 90% if the company is entirely composed of women, young people under 35 or includes a PhD with academic experience abroad. The repayment period for the loan is 10 years. Innovative startup companies located in the southern regions of Abruzzo, Basilicata, Calabria, Campania, Molise, Puglia, Sardinia and Sicily are required to repay a minimum of 70% of the funded amount.

- **Tutoring services:** innovative startups that have been active for less than 12 months can benefit from personalized technical-management support. The services are valued at 15,000 euros for companies located in the South and at 7,500 euros for companies located in the rest of Italy.
- **Conversion of the loan into a non-repayable grant:** the startup may be able to convert a portion of the subsidized loan into a non repayable grant if the startup has obtained financing from third parties or from shareholders who are classed as individuals. The convertible amount can reach up to 50% of the amount invested by third parties and, in any case, up to 50% of the total benefits received.

It can thus be seen that Smart&Start Italia supports companies in the South in particular by offering subsidized loans with a return reduced to 70%, technical-managerial tutoring services of greater value and the possibility of converting part of the loan into a non-repayable grant, thus encouraging the birth and growth of innovative startups in less developed regions.

Now all that remains is to analyze the point of view of those who are part of the startup market in Italy, to understand what are the obstacles to achieving a more competitive position than their European equivalents.

III – Metodology

3.1 Research design

The chapter describes the methodologies used to conduct research on the differences in the development of Italian startups within and outside an ecosystem, in order to answer research questions regarding the dynamics that affect their development within or outside these ecosystems. The research aims to investigate the difficulties and facilitations of developing a startup within environments such as Milan and Turin, the largest Italian startup ecosystems, and the differences with those outside them.

To do this, we proceeded by analyzing the case study of Vision Studio srl, a young startup from Central Italy, through a semi-structured interview submitted to the CEO and, from the results separated from this analysis, the main themes were highlighted and categorized, expanding the research on a larger scale through the mixed methodology based on a quantitative questionnaire and a structured interview.

The case of Vision Studio srl was fundamental in highlighting what the main gaps of developing a startup are, which dynamics make it difficult to carry out a project and which ones have developed to cushion these difficulties.

The focus of the research was thus outlined, which aims to investigate the problems related to the structure of Italian ecosystems highlighted above, divided into three categories, which are the finding of funding, the weight of the relational network and the availability of specific infrastructures.

Given the complexity of the objective set, in order to investigate more deeply the issues that emerged from the analysis of the case study, it was decided to adopt a mixed methodology, combining the quantitative approach with the qualitative one.

This choice responds to the need to collect differentiated and complete data, capable of providing an articulated view of the phenomenon under examination.

The quantitative approach allows to collect a large number of standardized data, facilitating statistical analysis and the identification of common and generalizable trends within the sample, in this case, the ease or difficulty of raising funds, finding a functional and credible network and the availability of infrastructures.

On the contrary, in order to investigate in depth the considerations to the detriment of

the existing conditions of each interviewee, a qualitative approach was preferred, more suitable for grasping the complexity of individual opinions and exploring their perceptions and reflections in depth.

This method makes it possible to investigate in greater detail the dynamics that influence the decisions and opinions of start-uppers during the development of their project, allowing you to collect valuable and nuanced insights that could be lost with a simple quantitative survey.

This methodological combination therefore allows to obtain a holistic and balanced view of perceptions, appropriate to the multidimensional nature of the topic studied.

To concretely carry out this methodology, the following procedure was followed:

1. a questionnaire consisting of 12 closed-ended questions, divided between multiple choice and Likert scale questions, was administered online through the Qualtrics platform, of which the questions and answer options are reported in detail in **Table 1**, to a sample of 132 startups CEOs, allowing quantitative data to be collected and greater standardization of answers.
2. a structured interview, consisting of the questions shown in **Table 2**, was then administered to a sample of 22 CEOs and Founders of Italian startups distributed throughout the country, to explore different dimensions of CEOs' personal perceptions.

Table 1 - Quantitative questionnaire questions

	QUESTION	ANSWERS
Question n°1	In which geographical area does your startup mainly operate?	○ Northern Italy ○ Central Italy ○ Southern Italy and Islands
Question n°2	How many years ago the startup was founded?	○ Less than 1 year ○ 1-3 years ○ 4-6 years ○ More than 6 years

Question n°3	What is the startup's main reference sector?	○ Digital and ICT ○ Health and Biotechnology ○ Environment and sustainability ○ Manufacturing and Industry 4.0 ○ Tourism and Services ○ Other (specify) _____
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Question n°4	How easy was it to access financing and capital in your area?	<i>(Scale 1-5, where 1=very difficult, 5=very easy)</i>
Question n°5	Evaluate how much specific infrastructures for startups (e.g. incubators, coworking spaces, laboratories) are available in your area	<i>(Scale 1-5, where 1=very scarce, 5=very present)</i>
Question n°6	How important do you consider the support of incubators/accelerators in the growth of your startup?	<i>(Scale 1-5, where 1=irrelevant, 5=fundamental)</i>
Question n°7	How easy was it to get in touch with investors and business angels?	<i>(Scale 1-5, where 1=no impact, 5=large impact)</i>

Question n°8	To what extent has the presence of informal networks of entrepreneurs facilitated the development of your startup?	<i>(Scale 1-5, where 1=very difficult, 5=very easy)</i>
Question n°9	In your opinion, does operating in a consolidated ecosystem sometimes favor startups that are less innovative but more integrated into local networks?	<i>(Scale 1-5, where 1=completely disagree, 5=completely agree)</i>
Question n° 10	Do you think that startups located outside of major ecosystems have a harder time being recognized as credible?	<i>(Scale 1-5, where 1=completely disagree, 5=completely agree)</i>
Question n°11	How open is your region to innovation and the introduction of new ideas?	<i>(Scale 1-5, where 1=not open at all, 5=very open)</i>

Question n°12	What is, in your opinion, the main obstacle for a startup that is outside the main entrepreneurial ecosystems?	○ Lack of funding and capital ○ Scarcity of professional networks and relationships ○ Lack of specific infrastructure (incubators, coworking) ○ Lack of cultural openness towards innovation ○ Cultural scarcity of all operators ○ Other (specify) _____
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Table 2 – Structured Interview Questions

Question n°1	Have you found accelerator programs, incubators, or support networks in your region? If so, how useful were they?
Question n°2	How difficult was it to get funding for your startup in your territory? Was it easy to obtain them at regional level or was it necessary to turn to national programmes?

Question n°3	If you could move your startup to any other part of Italy, which one would you choose and why?
Question n°4	Are you planning to stay in your region or move in the future?

3.2 Selection of Vision Studio as Case Study

Yin (2009)²⁴ characterizes a case study as an empirical investigation focusing on a phenomenon within its real-world context, ideal for examining intricate issues that are not easily quantifiable. This approach preserves the comprehensive nature of real-life occurrences, such as organizational behaviors and social dynamics (Yin, 2018)²⁵. One of the key strengths of this method is its ability to incorporate various data sources, including interviews, observations, and document analysis, thereby enhancing the credibility and validity of the research (Stake, 1995). The selection of cases is a critical component, chosen for their potential to yield significant insights. Flyvbjerg (2006) argues that strategic case selection can enhance the generalizability of the findings. Single case studies are justified when dealing with unique, hypothesis-testing, or exemplary cases (Yin, 2018). As Priya (2021) points out, the interplay between theory and case study research is vital, as case studies play a significant role in testing existing theories.

Vision Studio srl was selected as a case study for this research, both for personal and academic reasons.

Vision Studio srl is an innovative startup that has as its core business the design and production of intelligent physical frames that allow artists and collectors to exhibit digital works in an elegant and tangible way, transforming a digital product into an immersive visual experience, with the aim of enhancing digital art and NFTs.

The startup, founded by three guys from Central Italy, after the first phase of finding funding, has consolidated the product and is currently in the growth phase. Through a semi-structured interview conducted with CEO Edoardo Maria Bisignani, a former

²⁴ “Case Study Research: Design and Methods. 4th Edition”, Yin (2009),

²⁵ “Case Study Research and Applications: Design and Methods, 16th edition”, Yin (2018),

LUISS student, it was possible to deepen the main critical issues faced since the foundation of the startup, with particular attention to the search for funding and the involvement of business angels. In addition, the interview made it possible to explore the general business environment, identifying the elements that proved to be most favorable and

supportive. Edoardo Maria Bisignani also provided an exhaustive picture of the typical dynamics the startup development environment, highlighting the challenges and recurring problems within this context, and what are, from his experience, the differences related to development in a startup-friendly environment, such as Milan, compared to less favorable environments, as he claims to have been.

At the end of this interview, three macro-themes were outlined, "*availability of funding*", "*availability of dedicated infrastructures*" and "*importance of informal relational networks*", which influence the development of a startup project to a greater extent, and which follow different dynamics based on whether or not the startup is located within an ecosystem.

3.3 Data collection

After the categorization of the macro-themes, data collection was conducted through questionnaire and interviews. This approach allows for rich and detailed quantitative and qualitative data, providing a in-depth understanding of participants' experiences and perceptions. The questions were designed with the aim of helping to answer the research question with clarity and depth, ensuring that they are consistent with the theoretical frameworks, the substantive problem under investigation, and the main objective of the research (Chidiac, 2018).²⁶

The first block of question within the questionnaire aims to understand the location of the startup, the age and the reference sector; the second refers to the availability of infrastructure and ease of finding finance, while the third block focuses on the importance and presence of entrepreneurial networks and contacts outside and within ecosystems.

The questions of the structured interview, on the other hand, focus on two variables: the

²⁶ "Relational Organisational Gestalt: An Emergent Approach to Organizational", Chidiac (2018)

availability of funding available at the regional level compared to the national level, and the availability of infrastructures such as incubators and accelerators. In order to investigate the existence of preferences at the territorial level and to highlight the inequalities respectively to the variables "funding" and "infrastructure", an opinion was asked on the possible relocation of one's startups from the current reference location. This methodological approach made it possible to collect comprehensive and comparable data, ensuring an in-depth understanding of the internal and external dynamics of the startup success process.

3.4 Population

The case study of Vision Studio srl was selected thanks to the personal contact with the CEO, Edoardo Bisignani, which allowed me to conduct a semi-structured interview in order to deepen and discover the issues through a specific case.

The quantitative interviews, on the other hand, were administered to a sample of 132 CEOs of Italian startups, collected through the online platform Qualtrics; this made it possible to outline what the reference trends were with respect to the topic covered.

Qualitative interviews conducted involved 22 personalities belonging to the context of startups, distinguished between CEOs and Founders.

To find this sample, I used a dataset extracted from the Startup Network Italy Directory, a network event of the Italian startup world, containing the names of some CEOs and Founders of startups with different locations throughout Italy, but also outside the country.

From the dataset, I excluded profiles operating outside Italy and, through their LinkedIn contact, I submitted the interview to them. This methodological choice has made it possible to integrate the interpretative depth typical of qualitative methodologies with the validity and generalizability of quantitative approaches, thus strengthening the overall robustness of the research.

3.5 Data Analysis

The data collected through the questionnaire and interviews were analyzed through different processes.

The analysis of the interview data was conducted using a three-stage coding process: open coding, axial coding, and selective coding.

In the open coding phase, interview transcripts were analyzed to identify key concepts and ideas. Each unit of meaning was coded, making it possible to recognize recurring themes such as "bureaucratic barriers", "relational network" and "private funding".

This initial process generated a wide range of codes that reflected both the personal experience of the participant and the dynamics that Vision Studio srl has had to face in its development of birth and growth.

In the axial coding phase, the codes that emerged were organized into broader categories based on similarities and relationships between concepts. For example, the concepts of "private funding" was grouped under the broader category of "Availability of financing". Similarly, concepts related to the drive created by network networks and the comparison with the various human resources in the sector fall into the category of "Importance of informal relational networks". This step made it possible to structure the information and highlight the links between the main themes.

In the final stage, known as selective coding, the main themes of the analysis were selected and defined. These themes summarize the identified categories into key concepts representing the synthesis of the collected data.

The following chart illustrates the main themes that emerged from the analysis of the interviews conducted, summarized through the process of open coding, axial coding and selective coding.

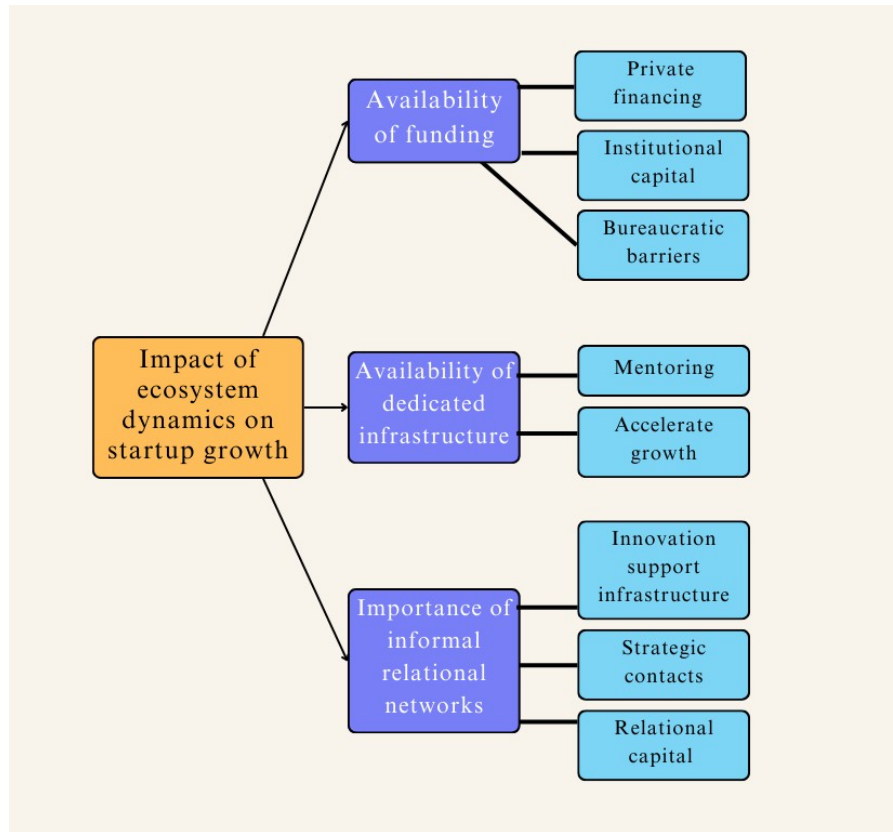


Figure 1
Qualitative analysis of the case study through open coding, axial coding and selective coding

The categories identified reflect the dynamics that characterize the development of Vision Studio srl, highlighting the impact of the availability of funding, dedicated infrastructures and the importance of informal relational networks on the individual case.

Each of these codes was investigated on a large scale through the questionnaire and the structured interview, making each code a reference point for the questions submitted to both the sample of 132 CEOs and that of 22 CEOs and Founders.

For the quantitative part, i.e. for the analysis of the closed-ended questionnaire, after the data collection, we proceeded with the verification of accuracy and, subsequently, with the analysis of the frequency distribution and averages of the results obtained from each question.

The following results were then analyzed separately taking as a reference the variables corresponding to the three areas of macro-themes, i.e. "availability of funding", "availability of dedicated infrastructures" and "importance of informal relational

networks".

Finally, the structured interviews were transcribed and analyzed through the qualitative approach based on thematic analysis (Braun and Clarke, 2006). This method makes it possible to collect, organize and analyze the data collected through structured interviews and to identify recurring themes and interpretative categories. After the segmentation of the data and their codification, the recurring themes were identified, subsequently structured and reported through the narrative description.

Through the combination of these approaches, the results were interpreted and contextualized in relation to the research topic and the theoretical framework.

IV – Research results

4.1 Case study analysis

This section presents the findings emerged from the interview conducted with Edoardo Maria Bisignani, the CEO of Vision Studio Srl.

As already mentioned, this is a very young startup, which aims to improve digital art and NFTs through the integration of technology and design, designing smart physical frames for digital works, and which has already passed the first round of funding.

One of the key points that emerged from the discussion with him was the dynamics caused by the Italian mentality, described as "conservative with respect to business risk and innovation, especially in emerging sectors such as NFTs."

This element influences every aspect of the Italian startup environment, and it is considered one of the first causes of the difference between Italy and its European counterparts, affecting both the legislative and bureaucratic system and all the actors in this environment.

Another crucial aspect is the lack of a structured network between investors and start uppers, which makes raising capital a long and often opaque process. "Sometimes," reports Edoardo Maria Bisignani, "funding is available, but the conditions for accessing it are not very favorable or bureaucratically complex."

Deepening this point, there is a particular focus on the role of Italian bureaucracy, which is seen as a "considerable obstacle" in the time and costs that starting and managing a startup entail.

The third point concerns the territory, in particular the one where his startup operates, and highlights how, despite the fact that Lazio is trying to create a favorable ecosystem for startups, territories such as Milan or Turin are more open.

The reason for the delay of the central Italy Region is attributed to the confusing and not very useful methods for the founders.

To the detriment of this, the presence of dedicated funds favors the regions of Southern Italy, which, however, do not attract those who are already resident there due to a lack of infrastructure, and at the same time does not encourage those who work in the North to relocate, for an operational disincentive to the detriment of the tax one.

The same incentives are sometimes ineffective as they provide "reimbursement" formulas, assuming that the Founders have the means to advance the amount

requested.

In this context, a fundamental role is attributed to the network which, "in the absence of a consolidated network, acts as a support structure for innovation", almost always opening "better doors than capital would open".

At the end of the interview of the case of Vision Studio srl we understand that there are therefore gaps in the innovation network concerning Italian startups, and this concern in particular:

- the search for funding;
- search for people and therefore for a system interested in innovation and willing to take risks;
- the slowness of the bureaucracy throughout the process.

Analyzing the considerations concerning the country system, there is a lack of homogeneity, both between the cities within the ecosystems and the territories outside them, and in terms of incentives, which pay a lot of attention to Southern Italy, but which very often prove to be ineffective or inadequate.

In the light of these considerations, the three fundamental macro-themes, "Availability of financing", "Availability of dedicated infrastructure" and "Importance of informal relational networks", were explored through the questionnaires and interviews, the results of which are reported.

4.2 Questionnaire and interviews results

4.2.1 Comparative analysis by location

The first discrepancies are mainly evident from the geographical differences regarding the headquarters and place of activity of startups.

An important observation to be made concerns a figure that precedes the results of the questionnaire itself. From the analysis of the data regarding the participants in the questionnaire, in fact, only 4.5% represent individuals with a startup in Southern Italy (see fig. 1). Going even deeper, it is also noted that the aforementioned startups are located between Campania and Puglia, with zero presences in the other regions of the South.

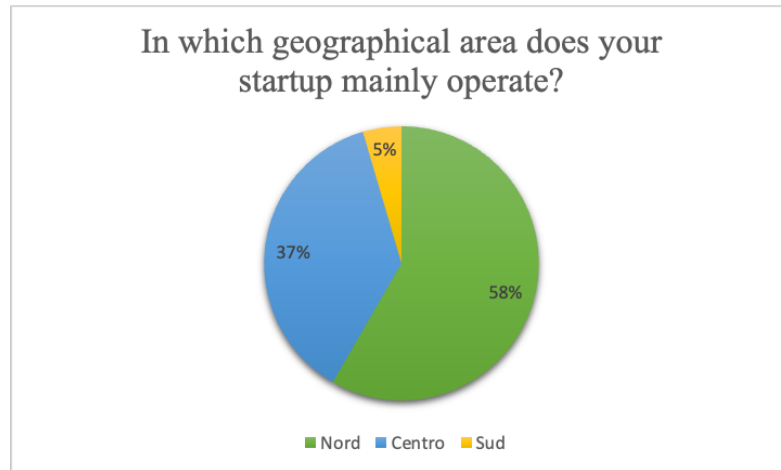


Figure 1: Question 1: Localization of the startup

This figure is already a representation of the uneven distribution of startups in Italy. Already from this graph, it can be seen a greater presence in Northern Italy (59.1%) than in the South, but also in Central Italy (36.4%).

After the three questions of introduction and identification, the results of the closed-ended questions are analyzed.

Therefore, considering question 4, the ease of access to finance in one's region is examined.

From the graph (see fig. 2) we can see that the highest frequency is in the value 3, with about 36 responses. This suggests that many consider access to finance to be "neutral" or moderately easy. A good number of people (about $30 + 30 = 60$) answered 1 or 2, so over half of the sample finds access difficult or very difficult.

Only a minority (12 people) answered 5, so consider access very easy.

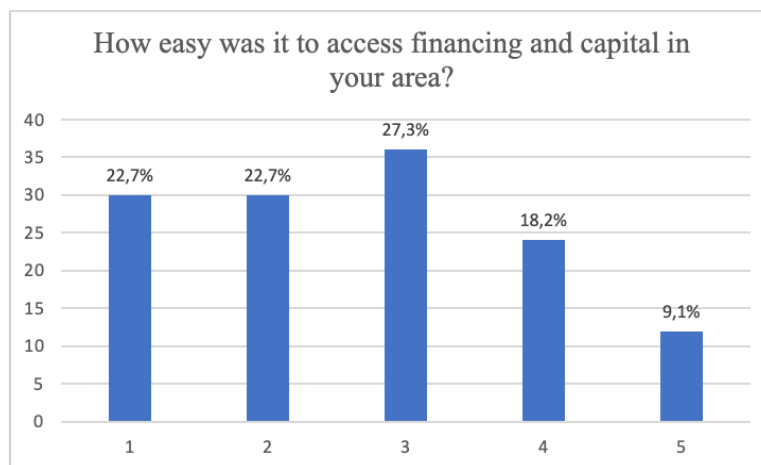


Figure 2: Question 4: Financing access

A good number of people (about $30 + 30 = 60$) answered 1 or 2, so over half of the sample finds access difficult or very difficult.

Only a minority (12 people) who answered 5, consider access very easy.

Considering the following variables based on the location of the startups, participants from the South respond with a participation of 62% at value 1 (very difficult) and 38% at value 2 (difficult), concentrating exclusively between values 1 and 2. On the opposite side, 100% of those who answered with the value 5 (very easy) operate in the North, at the same time, 75% of those who answered "easy" to the value 4 are also from the North, while the remaining 25% from the Center.

Moving on to the fifth question, which analyzes how many specific infrastructures are available in your area, we see that, overall, the perception tends to be positive: adding scores 4 and 5 we arrive at 54.6% (see fig. 3).

Only 22.7% believe that the offer is insufficient (adding up the grades 1 and 2).

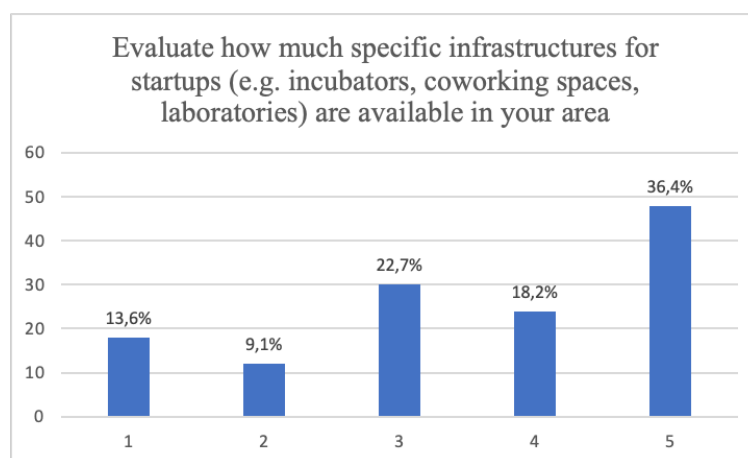


Figure 3: Question 5: Availability of specific infrastructures

The significant presence of high marks could reflect a territorial context already active in supporting startups, or a widespread awareness of existing resources.

Analyzing the votes by location, it is clear that the total of those who responded with "absent" and "poor" (value 1 and 2), are all from Central Italy. Southern Italy remains in the range between 3 and 4, while, if the components of central Italy decrease as we approach the value 5, those of the North increase.

Question number six, which asks how important incubators and accelerators are in

the growth process, shows that the most frequent value is 3 (40.9%), indicating that the majority attributes moderate importance to the support of incubators and accelerators (see fig.4).

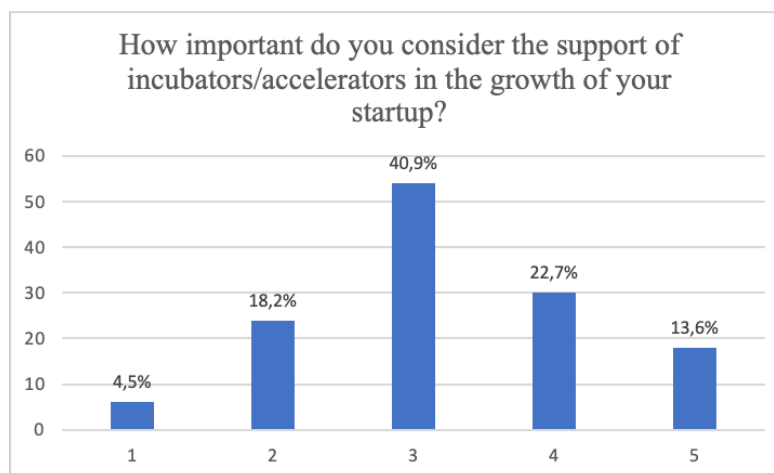


Figure 4: Question 6: Role of incubators/accelerators

22.7% chose 4, and 13.6% chose 5, bringing to 36.3% the share of those who recognize a high or very high importance to the role of these actors.

18.2% indicated 2, while only 4.5% gave a minimum score (1).

The distribution suggests a more nuanced perception of infrastructure availability: even if many recognize the value of incubators/accelerators, there is a tendency to consider them not decisive but useful.

40.9% of central responses (3) could reflect limited experience or partial awareness of their real impact.

All those who voted for "irrelevant" are from northern Italy, while central Italy is concentrated around 5, and the south between 3 and 4.

Question number seven concerns the ease of getting in touch with business angels and investors, and score 2 is the most frequent with 31.8%, followed by 3 (22.7%) and 1 (18.2%).

The highest scores (4 and 5) total 18.2% and 9.1%, respectively, for a total of 27.3%. Adding 1 and 2, we get 50% of respondents who have encountered difficulties in getting in touch with investors and business angels. (see fig. 5)

The most relevant finding is that only a minority found the process easy or very easy, while half of the respondents had difficult or very difficult experiences.

The most common score (2) suggests a generalized, though not extreme, difficulty in finding investment.

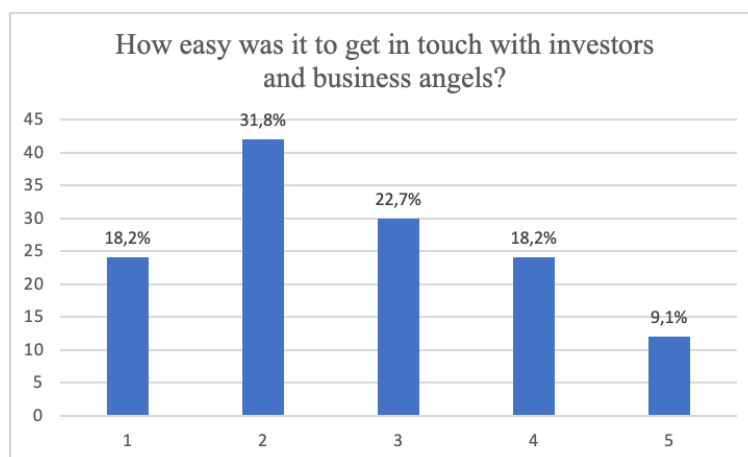


Figure 5: Question 7: Investors and business angels

In this case, the largest component for Northern Italy responds with the value 5 (very easy); the South is concentrated between values 1 and 2, as well as for Central Italy.

Question number eight shifts the focus to the role of informal relationships. The relative majority of respondents (40.9%) chose 4, indicating that informal networks of entrepreneurs are perceived as an important factor in the development of their startup (see fig.6).

13.6% gave the maximum score (5), further reinforcing this positive perception. Only 9.1% indicated 3, a neutral position.

Scores 1 and 2 are both at 18.2%, indicating that a significant portion of respondents did not find these informal networks useful, or could not benefit from them.

More than half of the respondents (54.5%) evaluate positively (scores 4 or 5) the impact of informal networks, confirming their importance in mutual support between entrepreneurs, exchange of knowledge and opportunities.

However, the presence of more than a third of low or moderate responses (scores 1, 2 and 3) suggests that access to these networks is not uniform and may depend on territorial or sectoral factors.

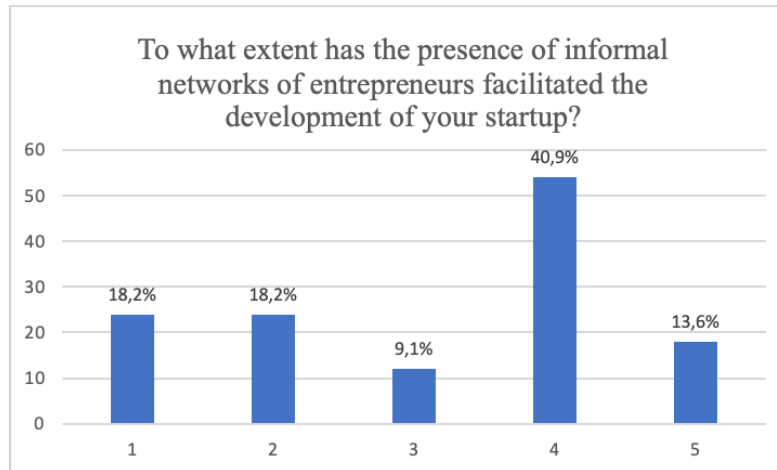


Figure 6: Question 8: Role of informal networks

In fact, going to analyze the territorial component, it is clear that the South is more concentrated between values 4 and 5, while it is the North that is the component that is both between values 1 and 2, but still in greater quantity, together with the Center and, as mentioned in the South, between values 4 and 5, signaling a strong agreement regarding the contribution that relational networks have in facilitating the development of their startups.

Question number nine concerns ecosystems directly and asks how much a startup integrated into an established ecosystem can be favored compared to more innovative but less integrated startups.

The highest score, 5, was selected by 40.9% of respondents (see fig 7). 31.8% answered 4, while 22.7% gave a neutral score (3).

Only 4.5% answered 2, and no one selected 1.

More than 70% of respondents (72.7%) agree (scores 4 and 5) that a consolidated ecosystem can favor startups that are less innovative but well integrated in the local context.

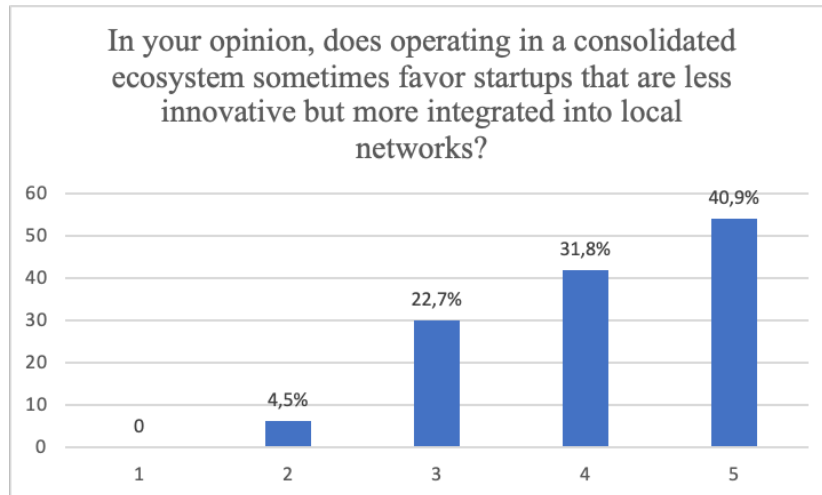


Figure 7: Question 9: Startup ecosystem dynamics

This question represents the pivot of the research, because it strongly demonstrates how being within an ecosystem greatly influences the activity of a startup. In fact, only 4.5% respond with the value two, and it is a percentage linked to Northern Italy; the majority, without territorial distinction, is concentrated between values 3 and 5, with a concentration of the South on the value 5 greater than the opinions of the Center and the North which also fluctuate on the values of 3 and 4.

Another question that investigates the dynamics within ecosystems is the next, which asks whether there is a difficulty for startups outside of ecosystems to be recognized as credible (see fig. 8).

The most frequent answer is 5 (36.4%), followed by 2 and 4 (both at 22.7%). Scores 1 and 3 are in the minority, each with 9.1%.

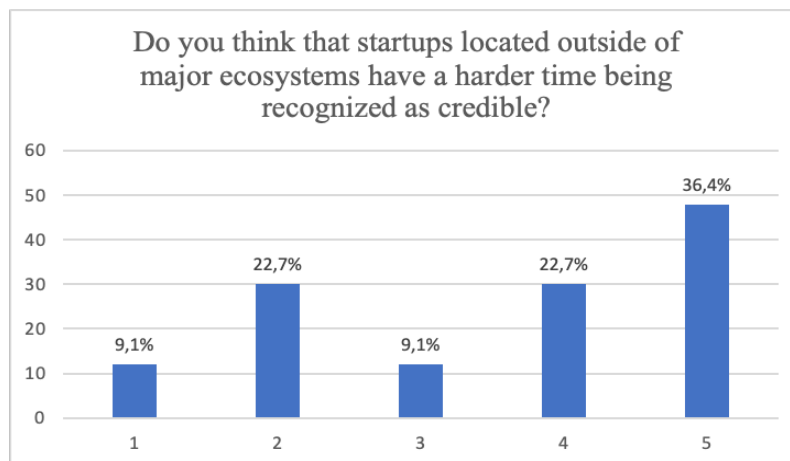


Figure 8: Question 10: Startups outside the ecosystem

Here too we see an alignment between North, Center and South that converges towards values 4 and 5. For values 1 and 2, we find the presence of participants purely from the North and a small portion from the Center.

Going to ask purely about the openness of one's region towards innovation, we find that the most chosen value is 5 (45.4%), indicating a strongly positive perception with respect to the openness of one's territory towards innovation (see fig. 9).

Scores 2 and 4 follow (both at 18.2%), while scores 1 and 3 are less frequent (both at 9.1%).

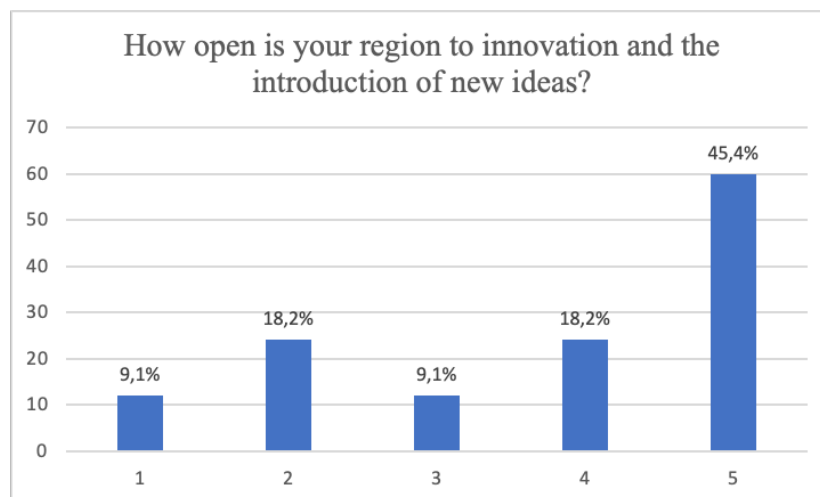


Figure 9: Question 11: Openness to innovation

The majority (63.6%), which assigned a value equal to or greater than 4, concern the North for about 80%, and the Centre for the remainder, while a considerable slice (27.3%) that is in the range between 1 and 3 represents Southern and Central Italy.

Finally, the last closed-ended question, of a more general nature, asks what are the biggest obstacles for a startup outside of an entrepreneurial ecosystem.

The main obstacle identified is the "Scarcity of networks and professional relationships" (72.2%), which is confirmed as a key factor in penalizing peripheral startups. This is strongly linked to previous findings on the value of informal networks and difficulties in accessing investors.

This is followed by the "Lack of funding and capital" (50%), which highlights the

difficulty of finding financial resources (see fig. 10).

In third place, the "Lack of specific infrastructure" (36.4%) — such as incubators and coworking — underlines a structural weakness of the territory that can hinder growth.

The "Lack of cultural openness towards innovation" (31.8%) indicates a mentality barrier that is still present, but less critical than relational and financial factors.

Finally, the "Cultural scarcity of all operators" (4.5%) is considered irrelevant by almost all interviewees, a sign that a generalized cultural problem is not perceived, but rather specific local or sectoral closures.

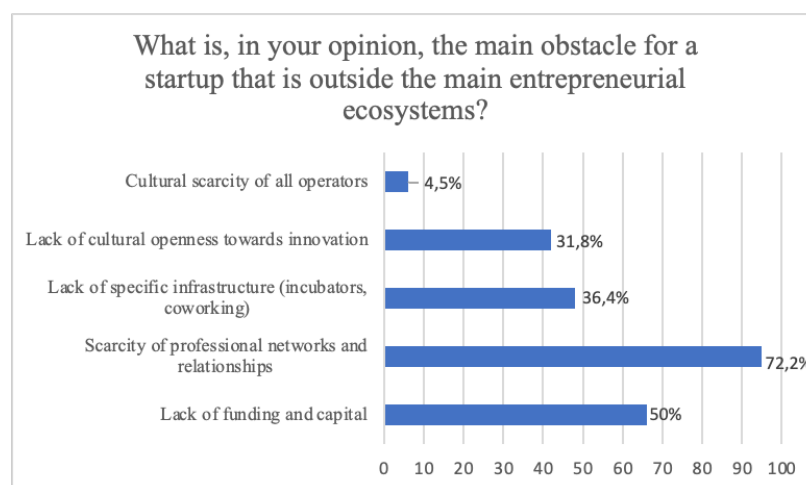


Figure 10: Question 12: Obstacles to entrepreneurial ecosystem

The values regarding the lack of professional networks and funding are highlighted by both the North and the Centre and the South, while the center also considers the lack of infrastructure significant. The value highlighted by Northern and Central Italy for the lack of culture towards innovation is also remarkable.

Examining the results reported by the interviews with the 22 CEOs of startups, trends are found that confirm those already explained by the questionnaire.

Most of the people operating in Northern Italy confirmed that they have found support through regional incubation programs, as reported by the CEOs of startups in Southern Italy, while the Center remains divided.

When asked whether it is difficult to find funding in one's own territory, most of the answers agree that it is easier to find it at the national level rather than at the regional level; Many also cite private funding as a better option, which is easier to find than both

national and regional funding.

Focusing the research further on the territory, he also asked where he would like to move the headquarters if he had the opportunity to do so.

The answers obtained in this case converge in two different directions: the first, towards Northern Italy, with various specifications with respect to Milan and Turin and, the second, towards the

South, specifically towards Puglia, indicated by both entrepreneurs from the South and from the Centre and the North.

The presence of dedicated funding would encourage the move to the South, but costs remain a significant obstacle.

The North, on the other hand, is favored for its very favorable environment for innovation; Rome, although present, is indicated only by one interviewee out of the total. The interviewees, responding to their possible future actual move, answered for the most part that they want to keep their current location, while 20% said they will move abroad, to the South or North of Italy.

4.2.2 Comparative analysis by sectors

Analyzing the sector variable, the results that are found do not appear as significant as those highlighted by analyzing the location variable, however we still consider the results, in order to have a more complete picture.

The sectors taken into reference and indicated by the interviews are: *Tech and ITC* with 45.5% of responses, the *Tourism* sector with 9.1%, *Environment and Sustainability* with 13.6% and with the same score *Health and Health Tech, HR Tech, Deeptech in biotech and Incubator/Accelerator* with 4.5%.

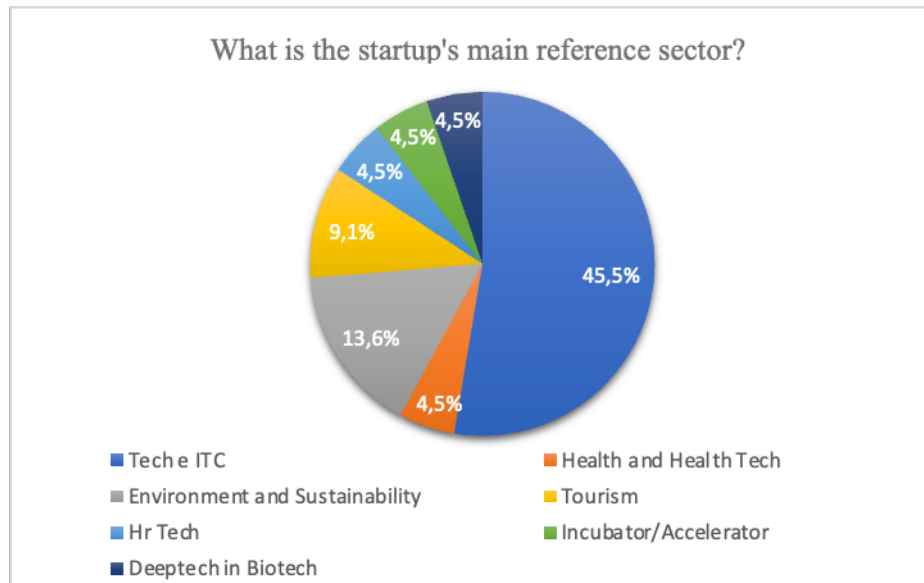


Figure 11:
Reference sectors

As far as finding financing in the area of activity is concerned, it is very easy for companies in the *Tech and ICT* sector in Northern Italy while it is difficult for those in the same

sector located mainly in central Italy. For the *Environment and Sustainability* sector, there is a degree of difficulty for Central Italy, while it is easier for the North, the same trend is found for the *Tourism sector*.

Those who deal with *Deeptech in biotech* and *Health and Health tech* report greater difficulty.

For the next question, concerning the presence of incubation centers and accelerators in the area of activity, there is a high value for those who deal with *Tech* in the North, while the presence for the same sector in the Center South is low. For the other sectors (*Health and Health tech*, *Tourism*, *Training and consulting*, *Environment and sustainability* and *Incubators and HR Tech*) they are considered very available, while for *Tourism* they are present only for those who work in the North and not for the Centre.

It is interesting to note, with reference to question six, which requires how fundamental the contribution of the relational network has been for development, that the answers have a high value for the sectors of *Environment and Sustainability*, *Tourism*, *Health and Health tech*, *Incubators*, *Training and consulting* and *HR Tech*, while the value of

the *Tech and ICT sector is low*, probably due to a high competitiveness in the sector itself.

The answers on the difficulty of getting in touch with investors and business angels are almost homogeneous, which converges more towards the values "very difficult" or "difficult", as well as opinions on question number seven, according to which it is believed that operating in an ecosystem favors startups that are sometimes less innovative than others but more integrated into the environment; in the same way, opinion converges on the importance of the localization of the startup for increasing its credibility.

The answers regarding the question of the opening of one's geographical area to innovation are instead fragmented: while for the Center South the answers tend to the "closed" value for the *Tech* sector, the components of the North of the sector itself tend to answer "open". It appears to be considered open for the rest of the sectors considered, with the exception of *Environment and Sustainability*, *Deeptech in biotech* and *HR Tech*. Finally, regarding the obstacles for startups that are outside the entrepreneurial ecosystems, we find as the majority trend, the lack of funding and capital, the scarcity of networks and professional relationships and the lack of specific infrastructure, indicated by all sectors except *Health and Health Tech*, which indicates only the lack of specific infrastructures and from that of *Deeptech in Biotech* which indicates exclusively the lack of capital.

In addition, the lack of cultural openness towards innovation is indicated by some individuals in the *Tech and ITC* and *Tourism* sectors, while the cultural scarcity of operators is found by a small portion of the *Tech and ITC sector*.

Investigating the interview questions, most respondents said they had found acceleration programs and incubators, with the exception of two components out of 22, belonging to the *Tech and ITC* sector of Central Italy and one component from the *Tourism sector*.

When asked where they would like to move their startup, Milan and Turin are identified most by those who work in the *Tech, Environment and Sustainability* sector and the *Incubator sector*.

The south is preferred by those who work in the *Environment and Sustainability* and *Tourism*, in particular Puglia is indicated, and to a lesser extent also by the *Tech* sector.

When asked about the desire to move in the future, most sectors answer that they want to stay where they are, except for a part of those who work in *Tech* who would like to move to the South or abroad; some components of *Environment and Sustainability* are uncertain.

The aforementioned analyses, which refer to the results of the questionnaire and the interviews, and which are based on the statements made by CEO Bisignani, provide a defined picture of what within the Italian startup landscape, are the opinions of those who have actually gone through part of the development process of their own startup. In the next chapter, therefore, the analysis deepens, highlighting what are the final considerations that can be drawn from reading the previous results.

V- Discussion

The analysis of the answers provided by the sample of 132 individuals and the 22 personalities interviewed allows us to explore in depth some of the macro-themes previously outlined in the interview with Edoardo Maria Bisignani. In this section, we will discuss the main evidence that emerged from the processing of the collected data, trying to link them to the initial hypotheses and to the theoretical framework of reference. The aim is to identify the main implicit or explicit assumptions that characterize the perceptions of the sample, relating them to the broader dynamics that cross the phenomenon under study.

5.1 Result discussion

In order to compose the picture of the situation, the first issue is to analyze access to finance, which is generally complex from various points of view; considering the access to capital itself (question no. four), there is a distribution that sees the North as favored, an element that decreases as one approaches the Centre, up to the South which notes a high degree of difficulty in finding financial resources.

Going deeper into the investigation, we focus on the contact with lenders and business angels (question no. seven); In this regard, the same distribution as the in geographical terms is noted. Here a very clear sore point emerges: direct contact with investors remains one of the main obstacles for startups, even in contexts where other forms of support are available; This structural barrier in access to capital is reflected in the territorial distribution of startups and the apparatus itself, which may result from a scarcity of targeted networking opportunities or a lack of mature local ecosystems, assumptions that will be confirmed through the data of subsequent analyses.

Questions five and six are interconnected and present a rather interesting relationship; specifically, question number five asks how much dedicated infrastructure, such as incubators or co-working spaces, are present, while question six asks how fundamental accelerators and incubators are considered in the development of a startup. Considering the results obtained, it is clear that infrastructures are found to be very present in Northern Italy, and not very present not only in the South, but also not very present in Central Italy, and the contribution that these structures give to the development of startups is considered

very relevant by respondents in Central and Southern Italy, while much less relevant for respondents in Northern Italy.

The observation that emerges from questions five and six suggests an interesting dynamic between the perception of the infrastructural presence and the evaluation of its importance for the development of startups, which presents itself with an inverse relationship between the two questions: if in the North the presence is high, however, the contribution of the infrastructures themselves is less fundamental, while in the Center and in the South, are considered more important but less present.

There are many reasons that could explain this phenomenon; for example, the "saturation effect" present in Northern Italy, where startups have the opportunity to leverage other factors (e.g. networks, human capital, access to finance), making infrastructures, more developed and consolidated, a basic element, but not strategic.

At the same time, startups in the North, often part of more mature ecosystems, may be in a different phase (scale-up, internationalization) than those in the Center-South, where infrastructure still plays a fundamental role in the initial stages of launch and consolidation.

As a result, in the Centre-South, in the absence of other enabling factors (e.g. investors, consolidated networks, innovative ecosystems), infrastructure is perceived as a key element to overcome the gap. It can act as a necessary "enabler", so its importance is overestimated compared to realities where other factors matter more. As a result, since the infrastructures are perceived as more lacking, their impact is evaluated in a stronger and more decisive way.

Questions eight, nine, and ten all focus on the dynamics inside and outside of an ecosystem. Here, there are more unambiguous trends than in previous questions, even despite the region and sector to which the respondents belong.

Question number eight asks in particular how important the role of informal relational networks is in the development of startups.

In this case, the answer is divisive: in Central and Southern Italy they are considered very relevant, while in the North, on the contrary, not much. Considering the observations made above, the strong concentration of startups in the northern part of Italy could create

a lot of competition, which is why relationships can be seen as not very profitable for development, creating a dynamic of competition.

The next question focuses even more on the dynamics of an ecosystem, asking how much startups can be favored in these contexts if they are more integrated, despite the real innovativeness of the idea.

There is no doubt about this question: the answer is almost unequivocal and tends towards the affirmation of the concept.

The figure suggests a widespread perception of competitive imbalance, where belonging to established networks can weigh more than innovation itself, at least in terms of opportunities and recognition (see figure 7) This result raises critical reflections on equity and meritocracy in local business ecosystems, indicating the risk that relational proximity may prevail over the originality of ideas. The question therefore reinforces what has previously emerged about the value (and weight) of informal networks in the business context and also shows a possible dark side of the ecosystem: privileged access for those who are "inside the system", even at the expense of innovation.

Immediately afterwards, he wonders how difficult it is to gain credibility outside of an ecosystem.

Here too, except for a few respondents from Northern Italy, everyone's opinion converges towards the same trend. In general, almost 60% of respondents (4+5 scores) agree that the geographical location outside the main ecosystems penalizes startups in the perception of credibility. This confirms a perception of geographical and reputational centrality in the validation processes of startups, where being included in the large innovation hubs (e.g. Milan, Turin) can facilitate the trust of investors, customers or the media. Together with the question on favoritism towards startups integrated into local networks (question n° nine), this result reinforces the idea that geographical and relational position has a relevant impact on perceived competitiveness, regardless of the innovativeness of the project, also showing a potential systemic bias that can hinder the territorial diversification of innovation.

In question eleven, it asks how open its territory is to innovation; The absolute majority of respondents (63.6%) gave it a score of 4 or higher, suggesting that the overall perception of the local ecosystem is conducive to innovation.

However, the presence of a non-negligible slice (27.3%) that is at the low end of the scale (scores 1, 2 or 3) highlights a certain inhomogeneity in perception: openness to innovation may not be uniform across all sectors or geographical areas.

In fact, while the lowest values are indicated by the Centre and the South, the highest ones are reported by respondents from the North.

This result is consistent with the first graph, in which many respondents indicated a good availability of infrastructure for startups, and with the trust in local networks highlighted in other graphs.

However, it partly contrasts with perceived difficulties in accessing investors and the idea that established ecosystems can favor less innovative players: this suggests that openness to innovation does not always translate into meritocratic practices or equitable access to resources.

Question number 12 leaves us with results about the biggest obstacles for startups outside of ecosystems.

The answers "Scarcity of networks and professional relationships" and "Lack of financing capital" hold the majority of preferences, followed by "Lack of specific infrastructure (incubators, coworking)", "Lack of cultural openness towards innovation" and "Cultural scarcity of all operators". The graph (figure 10) highlights how much social and relational capital is crucial for the development of startups: without connections, collaborations and visibility, even valid ideas risk not emerging.

Two critical axes clearly emerge: networks and relationships and access to finance.

This confirms the data on the difficulty of access to investors, but also on the importance of informal networks in facilitating the growth of startups and is also consistent with the perception that established ecosystems favor "local" startups, even if less innovative, thanks to these already existing networks.

What emerges from the comparison between sectors to which they belong is considered relevant as regards the ICT and Tech sector; the same shows strong internal competition, so that some of the respondents say that the value brought to the startup by the relational aspect is low, compared to another part who says the opposite; The cause of this marked difference could therefore be attributed to strong competition, a consequence of the large

presence of startups in the Tech sector rather than in others. A second observation, concerning the same sector, leads to highlight a very serious lack of infrastructure in Central Italy compared to a large presence in the North.

In terms of distribution, there is a large presence of entrepreneurs in the *Tech and ICT* sector in the Centre and North, while greater interest is noted for *Environment* and *Tourism* going towards Southern Italy.

The situation that therefore presents itself as a general framework of this analysis concerns the following issues:

- Access to finance: there is a growing difficulty from North to South; direct contact with investors and business angels remains an important barrier, especially in the Centre-South.
- Geographical distribution of startups: the scarce presence of networking opportunities and mature ecosystems penalizes startups in the Center-South in particular.
- Presence and perception of infrastructures (incubators, coworking, accelerators): infrastructures are more present in the North but considered less crucial; in the Centre-South, where they are less present, their perceived importance is very high.
- Role of informal relational networks: in the Centre-South they are seen as very important, while in the North less so, probably due to greater competition.
- Favoritism towards startups integrated into established ecosystems: integration into local networks is perceived as more important than the innovativeness of ideas.
- Credibility difficulties for startups outside the main ecosystems: Geographically isolated startups suffer from a strong reputational disadvantage.
- Perception of openness to innovation: it is generally positive, but with regional inhomogeneity: the North more favorable, the Centre-South more critical.
- Main obstacles for startups outside the ecosystems: the barriers are represented by a lack of professional networks, difficulty in accessing capital, lack of dedicated infrastructure and limited cultural openness.

- Relational and financial capital as the main levers: at the same level, networks of contacts and financial capital are fundamental for the growth of startups.

5.2 Implications for managers

Within this framework, the dynamics that are emerging favor, as we have already discussed in previous chapters, those who want to start and conduct a business in Northern Italy, creating a very wide gap as you travel the peninsula towards the South.

As stated by Edoardo Maria Bisignani, doing startups outside the ecosystems is today a challenge and an act driven by passion and commitment to the world of entrepreneurship.

Having outlined what the dynamics are to date for those who find themselves inside and outside these contexts, it is also possible to outline what the repercussions are for managers:

- Difficulties in accessing capital and international investors: this issue, one of the most urgent, leads managers to have to take, even before starting their business, the decision of where to actually develop the idea, many times assessing environments far away from their own; similarly, those who are already in business may find themselves faced with the choice of transferring part or the entire organization to a location other than their current one, even abroad, in order to be more attractive globally, as also emerged from the opinions given by respondents.
- Regulatory barriers: even if there are many incentives, as seen also aimed at the development of the South, the regulatory contexts differ from region to region, and the same incentives may not be effective in the form in which they are given; this represents another major risk for those who manage a start-up, having to take the responsibility of attempting a path that implies costs, be they in legal and tax consultancy, as well as those of transferring the activity to a specific location.
- Limited exposure to the ecosystems of interest: the current distribution of territories favorable to the development of start-ups generates a situation of strong paradox that is fully affirmed by the respondents to the analysis: even in the face

of an innovative and functional idea, the lack of network and tools deriving from not being within the ecosystem are the real factors that affect the future of a project, whether it is valid or not. To be successful, it is not enough to be in the vicinity of the environment, or to be in an area favored by incentives: one must now be within the environment, the network, and the circle of financiers that are proper to the ecosystem. For Italian managers, there is not much choice, and if the strategy is to 'contain' certain costs by moving away from the entrepreneurial fulcrum, the consequence is a more than proportional increase in the difficulties and commitment required to get one's idea developed.

Focusing more on what are the further implications for startup managers in Southern Italy, there is a greater concentration of these barriers, which are accentuated both with regard to the search for talent and access to capital, but also with factors such as:

- Lower propensity for innovation: in the process of creating a startup, even before launching an idea operationally, there are great difficulties in finding interest and expertise in the development of new innovative projects.
- Less developed infrastructure: the lack or inefficiency of co-working hubs, incubators and other types of infrastructure translate into higher operating costs for the development of the company.
- Lack of ecosystems: this creates a heavy slowdown and gap in growth, to be compensated, as Bisignani strongly states, through the construction of a functional network.

5.3 Implications for companies

If the current dynamics are reflected in the decisions of managers, at the same time they have an impact on the startups themselves and on the entrepreneurial circuit of this kind in Italy.

Specifically, if we look at the overall picture of Italian startups, the consequences are divided into the following:

- Loss of talent and innovation: the current offer of startups, which are increasingly inclined to migrate to international markets, translates into a loss of talent, as well as new ideas. For entrepreneurs, too, a disincentive for ideas and their creativity leads to a loss of competitiveness
- Reduced global competitiveness: the difficulty of creating innovation and having favorable and dynamic environments, leads, as already mentioned, to a loss of competitiveness and creativity of Italy in being recognized as an innovation hub.
- Reduced investments: the disincentive dynamics are reflected on startups and on those who seek to create entrepreneurship and innovation in what is the phase of raising funds and investments. If Italy is already at a disadvantage compared to its international equivalents, the current climate does not help to improve the attitude of lenders to risk.
- Limited scalability: Without a physical presence or direct operations in other markets, startups may struggle to scale their business model. This happens because the product or service may need cultural or regulatory adaptations, but also because there is a lack of local contacts, reference customers or distribution partners, so growth is slower or expansion is not sustainable in the long term.
- Local awareness issues: Operating from a context perceived as peripheral to innovation hubs can negatively affect brand positioning, so the startup can struggle to build a credible international reputation, limiting the trust of foreign customers and partners.

Going deeper, in the distinction between North and South, we find the great difficulties on the following issues:

- More limited access to capital: the difficulties in financing and sustaining growth are even greater, as venture capital and private equity are much less developed in the South than in the North (e.g. Milan concentrates a large part of investments in Italian startups). Even public tenders or European funds available in the South are often less accessible to those who do not have specific skills in design.
- Lack of innovative ecosystems: there is a lack of solid technological hubs, strong industrial clusters, accelerators and incubators of quality comparable to those of Milan, Turin or Bologna. The interaction between startups, universities, large

enterprises and investors is weaker; all this leads to isolation, fewer networking opportunities and contamination of ideas.

- Lack of highly specialized skills: the South trains good university talents, but often the most qualified profiles emigrate for better opportunities and finding skills in advanced fields (e.g. AI, biotech, fintech) is more complicated; therefore, there is a need to attract talent from outside the region or work remotely, increasing costs and management complexity.
- Infrastructure problems: some areas of the South still suffer from logistical shortcomings (transport, digitization, fast connection) and bureaucracy can also be slower and more complex. The result is operational penalization compared to competitors from the North or abroad.

VI- Conclusions

6.1 Summary of research findings

The aim of this survey is to examine the great division between Northern and Southern Italy in terms of the development of innovative startups. In particular, the main characteristics that differentiate the two areas of Italy were highlighted, distinguishing between a territory very inclined to innovation, with cutting-edge infrastructures and thriving networks and numerous opportunities for visibility, such as the ecosystems of Milan and Turin, and environments, from Central Italy to the South, increasingly less inclined to risk, comparison and investment in innovation.

After analyzing a literature that has strongly affirmed the difference in the startup field between Northern and Southern Italy, and the great impact that ecosystems have on the development of both the various ideas and the contribution to the development of the Italian entrepreneurial apparatus, the assumptions of the literature were verified through a case study, that of Vision Studio srl, and subsequently through closed-ended questionnaires and semi-structured interviews.

After analyzing all the collected data, reflecting on the findings, and considering the emerging themes, the research has yielded its results:

- **What dynamics does a startup face when growing within Italy's innovation ecosystems?**

The difference between the growth and development of a startup within an ecosystem rather than outside is crucial and decisively influences the success of the entrepreneurial project.

The dynamics that act most and that diversify the North from the South of Italy so much are those that theory recognizes as belonging to the ecosystem.

In particular, the startup ecosystem is defined as an environment composed of people, startups at various stages of development, and a set of organizations that interact physically or virtually in a given geographical field, in order to create new startups (Bala Subrahmanya, 2017).

In this context, openness to new trends, intellectual and financial capital and actors such as investors, accelerators, policy agencies and risk capital providers are crucial; the

contribution of each of these agents contributes to increasing the prolificacy of the business environment and the proper functioning of the startup community.

From the investigations submitted within this research, we come to identify what are the dynamics for startups that are located within an ecosystem:

- **availability of dedicated infrastructure:** the ecosystem provides each founder or CEO with access to facilities such as incubators and accelerators dedicated to the development of ideas;
- **access to the reference entrepreneurial network:** the relationships between the various agents are highly favored and act significantly in what is access to the business environment and access to finance;
- **access to finance:** investors are a fundamental and central part in the development process, and in an ecosystem, the opportunity to access finance, through the exposure of one's project, is favored and encouraged;
- **risk appetite:** as a consequence of the previous point, the ecosystem is characterized by actors who are strongly inclined and knowledgeable about risk.

Within this thriving context, the research focuses on an extremely significant phenomenon: despite the opportunity of the Founders to get a hearing and to enter the network, the credibility of an idea is influenced by factors independent of it, such as the time it belongs to the ecosystem and the reputation of the entrepreneur.

The dynamic emerged almost unanimously that if you are in an ecosystem that has long been superior to other companies or if the CEO or Founder enjoys a reputation already known to the environment, the innovativeness of a company or the real effectiveness of the project is considered in the background compared to those who possess the previous reputational factors, obtaining less visibility and credibility at the expense of this.

- **How, on the other hand, can a startup grow and develop outside these ecosystems?**

Analyzing the opposite case, i.e. that of those who want to develop a startup outside the geographical area of the startup ecosystem, therefore outside the areas of Northern Italy, and in particular from Milan and Turin, the following results are revealed:

1. **difficulty in accessing funding:** Getting a hearing and finding investors is highly difficult, with a low presence of venture capital, business angels or incubators.
2. **lack of risk capital:** the propensity for risk and innovation are very low; in an environment where the circulation of capital is difficult, investing in new ideas is not prudent and very dangerous, preferring the stability of large companies;
3. **reduced access to dedicated infrastructure:** lack of hubs, incubators and accelerators, but also lack of expert consultants in the startup sector;
4. **difficult scalability:** the user base does not allow innovative products to be validated and scaled;
5. **weak entrepreneurial culture:** outside the ecosystems, as mentioned before, there is a lack of encouragement of risk as an opportunity, and the mentality is less based on collaboration, but more on competition.

Growing outside of an ecosystem means carrying out a project in the absence of elements such as capital, culture and support network, which are already available within an ecosystem, and which outside must be created on their own.

As a contrast and the first element to refer to in order to bring value and contribution to one's growth, as strongly stated by Edoardo Bisignani, the network of entrepreneurial and personal relationships is used; these dynamics, which then determine the choices of those who want to make startups and influence the territory itself, differ from region to region, following a trend that worsens more when looking at the South.

Despite this, there is a gradual improvement in some areas of Central and Southern Italy, such as Puglia and Campania, which through incentives and facilitations, aim to exploit their strengths to create a business environment favorable to startups.

6.2 Limitations of the research and suggestions for future research

The study conducted delved into and gave relevance to concrete issues that influence the daily development processes of the entrepreneurial fabric of start-ups in Italy.

Despite the relevance of the topic addressed, this research has some important limitations to highlight for its future development.

Although a mixed methodology was used, through which an attempt was made to capture the nuances of thought as accurately as possible, the representativeness of the sample is limited to a small number of interviewees. Furthermore, although the research revealed unambiguous trends on all topics, the sample, which took in individuals from different Italian regions, does not represent the various areas (North, Central and South Italy) in a proportional manner.

Finally, in conducting the research on the dynamics occurring within start-up ecosystems and outside them, only the point of view of start-up CEOs and Founders was taken as a reference.

With this in mind, future studies should aim to deepen the aforementioned dynamics by opening up to a larger sample of CEOs and Founders, trying to represent the geographical subdivision of the peninsula as proportionally as possible.

In addition, in order to have greater feedback and new ideas for research and in-depth analysis, the opinions and opinions of other actors belonging to startup ecosystems should be taken into account, such as investors and financiers, institutions dealing with support and incentive policies, development and assistance centers for startups, universities and research centers and corporate companies acting as partners, highlighting the role of cooperation on the one hand, and barriers, on the other.

What this research demonstrates and on which various future insights would draw attention concerns profoundly current and concrete dynamics, which involve a national system that has already demonstrated, on the one hand, the great value that the Italian entrepreneurial fabric can create through the right policies and synergies and which, on the other, must commit itself, through the collaboration and competence of the various actors, to create new value, increasing its credibility and the potential of the economic fabric both internally and abroad.

6.3 Actual consequences on territorial gap

The dynamics illustrated are just one example of the deep gap that divides Italy in two: the North, prolific and productive, and the South, with difficulties in growth and development.

The SVIMEZ report, an annual analysis of the causes and economic and social phenomena in the South, provides data on trends and critical issues in this regard.

According to the 2024 report, the South has experienced growth higher than that of the Centre-North of the same year; in the face of this, however, it highlights the need for targeted policies and the current difficulty in the executive phase of the executive works incentivized by the measures of the PNRR.

If in terms of employment, the South generates +330 thousand units out of 750 thousand employed on a national basis, the drop in wages is 5.7% for the South, the highest figure compared to the Centre-North (-4.5%).²⁷

In terms of human capital, 500 thousand graduates emigrated from the South between 2002 and 2022 and, according to the report, 40% of ITS students in the South drop out of school (compared to 20% in the Centre-North).

In this context, the birth and scalability of innovative companies is strongly hindered; those who want to start startups very often find themselves choosing to move to the northern areas or abroad, as it is difficult to enter and grow in an environment where local supply chains are less developed or not very innovative, synergies are scarce, infrastructure support is less personalized and there is difficulty in finding tech profiles, managerial or scientific; moreover, the policies for the South are also ineffective in this context.

In summary, the North/South divide produces a **vicious circle**: less capital, less talent, fewer networks, fewer startups, less growth, further flight of resources.

²⁷ SVIMEZ Report 2024, Association for the Development of Industry in Southern Italy

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Attachments

Edoardo Maria Bisignani, CEO of Vision Studio Srl

- *Can you briefly tell me how the idea of your startup was born and what were the first steps you took to make it happen?*

The idea was born from three guys with the desire to do startups. After several attempts and a Master's degree in Blockchain and Digital Assets, we reflected on the future of art and the lack of physical solutions capable of making NFTs concrete and usable experiences, especially in exhibition or domestic contexts. We identified a gap in the market and decided to fill it by combining know-how in technology, design and art. The first steps included studying the NFT market, involving Italian designers for the development of prototypes, and building a network of contacts with digital artists and galleries interested in the product.

In essence, today Vision Studio S.r.l. is an innovative startup born with the aim of enhancing digital art and NFTs through the integration of technology and design. Our core business is the design and production of intelligent physical frames that allow artists and collectors to display digital works in an elegant and tangible way, transforming a digital product into an immersive visual experience.

The startup is currently in a growth phase: we have consolidated our product, participated in trade fairs, and we are expanding partnerships, both on the artistic and commercial side, also at an international level.

- *How did you finance the initial phase of the startup (own funds, crowdfunding, business angels, public funds, other)?*

The initial phase was funded through a combination of personal resources and the entry of an angel investor. This dual source has allowed us to start the early stages of product development without having to immediately resort to institutional capital, thus maintaining a certain flexibility and speed in strategic decisions. After about a year we won two regional public tenders that allowed us to continue to invest in our dream.

- *What were the biggest difficulties in obtaining the first funding?*

The main difficulty was related to the Italian mentality, which still tends to be quite conservative with respect to business risk and innovation, especially in emerging sectors such as NFTs. In addition, the lack of a structured network between investors and startupper makes raising capital a long and often opaque process. Sometimes funding is available, but the conditions for accessing it are not very advantageous or bureaucratically complex.

- *Do you think that the Italian ecosystem is favorable to startups from an economic-financial point of view? Why?*

In recent years, the Italian ecosystem has made significant progress, both in terms of financial instruments and entrepreneurial culture. However, there is still a certain gap compared to other European countries, at least as regards the general perception and ease of access to capital. There are public funds and incentives, but they are often difficult to intercept or have barriers to entry that are too high for a startup in the early stages (for example, they are region-by-region, or offer reimbursement funds on the assumption that a founder must advance that money). These dynamics complicate the lives of those who are already preparing for a huge risk even more. Obviously, the gap with the United States still seems really big.

- *Have you ever been part of a startup incubator or accelerator? If so, what specific benefits did you derive from it? If not, why didn't you choose this path?*

Yes, vision is part of Innova, an incubator recognized at European level and based in Rome. This proved to be extremely useful both in terms of mentoring and networking. The support received was essential to refine the business model, better understand the go-to-market logic and access strategic contacts in the world of investment and technology.

- *Do you think that incubators and accelerators are actually useful for growth?*

Absolutely yes. The possibility of comparing yourself with other entrepreneurs,

receiving structured feedback from expert mentors and taking advantage of physical spaces such as coworking or specialized hubs (I am thinking, for example, of the Talent Garden) is an element that can significantly accelerate the growth of a startup. In a context where relational capital is often more relevant than economic capital, building a good network is the key to overcoming many of the initial obstacles.

- *How important was it, during your journey, to build and cultivate a network of personal and professional relationships with other startupper and professionals?*

It was fundamental. Sharing experiences, problems, and solutions with other startupper was not only a learning opportunity but also a way to access resources, contacts, and even customers. In the absence of a consolidated national structure, it is precisely the informal network that acts as an infrastructure to support innovation. The network of acquaintances almost always opens better doors than capital would open.

- *In addition to funding, what were other significant obstacles in the initial development phase of the startup (e.g.: regulations, bureaucracy, human resources)?*

The obstacles were many. Italian bureaucracy still represents a considerable brake on entrepreneurship: from an administrative point of view, starting and managing a startup involves non-trivial time and costs. Added to this are the difficulties in trivially finding those who want to listen to you and, especially in very specific technical areas, there are fewer and fewer people willing to face high financial risks in a context that is still not prone to error and failure as an integral part of the innovation process.