



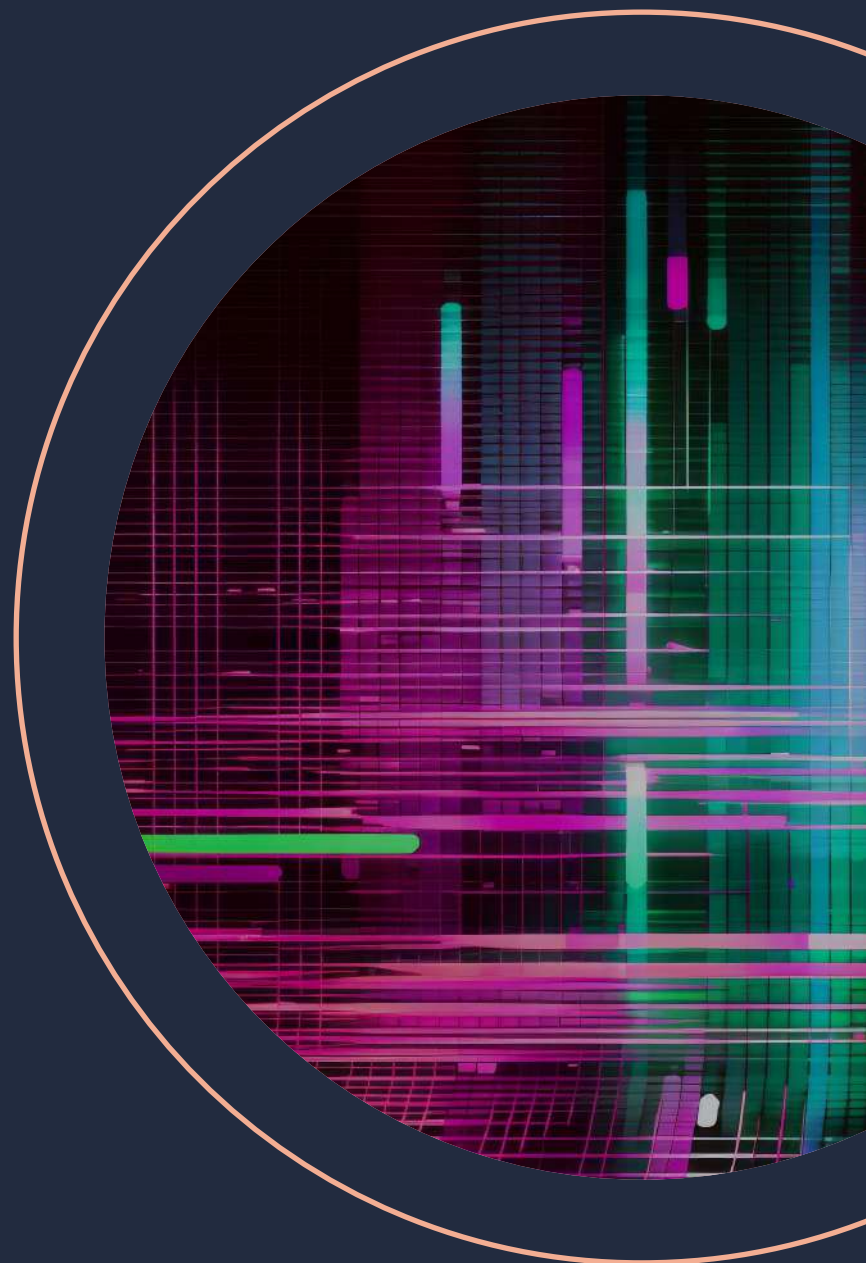
CLUB degli  
INVESTITORI

MAIN PARTNER

FORUM

# TURIN<sub>2024</sub>

## STARTUP ECOSYSTEM





*In search of identity*



Research conducted by Club degli Investitori and ToTem in collaboration with Growth Capital and ESCP Business School.

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Interviews: Marco Fantozzi


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# Executive Summary

 Turin boasts 675 startups and innovative SMEs, experiencing a growth of 0.6% vs 2022, surpassing the national decrease of -3.5%.

 Approximately 63% of these companies operate in the high-tech sector, covering Deeptech, Industrial Technology & Aerospace, Energy & CleanTech, Life Sciences, Software & Cybersecurity, and Mobility & Automotive.

 Turin startups in 2023 raised €65.2 million, showcasing a significant decrease from the €400 million recorded in 2022; on the other hand, the number of investment rounds increased from 40 in 2022 to 60 in 2023

 Excluding Newcleo, Turin demonstrates a 35% decrease from 2022, slightly better than the national decline of -37%.

 Turin maintains its position as the second city in Italy in investment volume and in the number of funding rounds combined.



Turin startup ecosystem in search of identity:

**the vast majority of startups and investors suggest Turin to focus on specific sectors**



Healthcare stands out as the sector attracting the most substantial financial investments.



Aerospace leads in the number of investment rounds conducted.



Despite its innovation potential, Turin currently lags behind comparable European cities.



More than 30 incubators, accelerators, startup studios and more than 20 professional investors based in Turin expect to invest €1BN in Venture Capital in the next 5 years.



Entrepreneurs and industry stakeholders advocate for strategic decisions, focusing on Deeptech and Aerospace, alongside Life Sciences and Software B2B & Cybersecurity.



# 01. Club degli Investitori & Partners introduction





# Club degli Investitori



Giancarlo Rocchietti

President & Founder at  
Club degli Investitori



During the brainstorming session with the Club and Totem team to come up with a title for the research, we were leaning towards "Turin 2024: Glass Half Full or Glass Half Empty". Indeed, the data on the increasing number of investment operations and the decreasing amounts invested make us both optimistic and pessimistic at the same time.

However, after reading the responses to the survey from the founders and numerous operators within the city's startups and innovation system, we decided to title the research "In Search

of Identity." This indicates that at this point, we need to decide which sectors and activities will differentiate Turin and make it unique and indistinguishable in Europe in the coming decades.

It's not enough to simply say Turin will be a city of deep tech or high tech; it's too simplistic. We need to determine whether we will become leaders in aerospace, software, green economy, biotech, or elsewhere.

The city is rich, beautiful, and possesses technological expertise, deserving to rank among the top

10 European cities for innovation (currently in the top 35).

We have laid the foundations of the growth by building exceptional innovation hubs and abundant acceleration programs, and we have beautiful examples of internationalization and return of talents from abroad.

To steer this growth and make the appropriate strategic decisions regarding the city's "identity" the majority of players in the innovation system are indicating the necessity for an alliance between public and private operators.

I agree with this common opinion and suggest not wasting time.





# ToTeM - Torino Tech Map



Enrico Cattaneo

Chairman at Totem - Torino Tech Map

FORUM

Turin has always been a laboratory city, where ideas are born, turn into companies, grow and then find other markets to become big; we have seen this in all sectors, from industry to banking and telecommunications.

This laboratory vocation also finds its application in the start-up mode: the first university incubator in Italy was born in Turin and it is currently the Italian city with the largest number of acceleration programmes on different technological trends.

And even in the case of start-ups, our City Lab supports the first steps

of companies that will develop in areas more suited to the exponential growth required of them.

Turin is one of the oldest ecosystems, but by no means one of the most developed. In fact, it is still in the "activation" phase, according to the definition of Startup Genome's Global Startup Ecosystem Report (GSR), but in 2023 our city moved up 14 ranking spots from 2022. Looking at its longer-term growth from the GSER rankings 2020-2023, the ecosystem has moved up an impressive 25 spots over three years.





# Growth Capital

Turin's venture capital ecosystem, thanks also to the city's industrial heritage, fosters collaborations between startups, business angels, entrepreneurs and established companies. These entities have been pivotal for the ecosystem growth, supporting and testing new products, ideas as well as being startup's first clients.

Specialized investors like Club degli Investitori and LIFTT in Deeptech draw in talent and startups from across the country, and the rise of new vertical investment funds will be crucial for increasing Turin's international appeal.

At the same time, local incubators and accelerators are setting national

benchmarks in nurturing nascent entrepreneurship, driving a surge in early-stage funding rounds and outpacing the broader Italian trend in seed and pre-seed investments.

Turin's ascendant position in the national innovation ecosystem can be seen also with Italian Tech Week, the country's premier tech event that attracts global attention to its thriving venture capital scene.

*Growth Capital is a tech investment bank, with a 90% success rate and offices in Milan, Madrid and London. We provide top-tier advisory services tailored to a wide range of deals and stakeholders, with a notable focus on cross-border transactions.*



Fabio Mondini

Founding Partner  
at Growth Capital





# ESCP Business School



As the Dean of ESCP Business School, I want to emphasize the importance and potential of the Turin startup ecosystem in light of the data from this important research. While the number of startups in Turin has seen modest growth and the invested capital has experienced a significant contraction, these figures must be contextualized within a broader trend that affects both the Italian and European markets.

The decrease in investments, although reflecting global macroeconomic challenges, does not overshadow the intrinsic dynamism of the Turin ecosystem. The increase in financing

rounds demonstrates a vitality and diversification of funding sources that can support growth in the medium term. Moreover, the growth and distinction in investments in the life sciences, aerospace, and deep tech sectors underline the innovation and technological specialization that characterize the Turin ecosystem.

The fact that Turin confirms itself as the second Italian city for invested capital and number of rounds is a testament to its resilience and ability to attract quality investments. Furthermore, initiatives such as Italian Tech Week, Totem, and others related to entrepreneurial training place Turin in a unique position within the Italian panorama, contributing to

talent development and innovation, themes particularly dear to us.

As ESCP Business School, we see Turin as a globally significant innovation hub and are eager to support its growth by developing talent through our educational offerings and assisting startups via our incubator, Blue Factory. Moreover, our commitment leads us to open a new Turin campus this year for around 1550 international students, deepening our connection with the city's innovation ecosystem.

*ESCP is highly regarded for its international focus, diverse student body, and emphasis on entrepreneurship and innovation.*



Alberta Di Giuli

Dean at ESCP Business School  
Turin Campus







## 02. Data on startups and innovative SMEs in Turin

The Turin's Startup ecosystem Research is an initiative launched in 2020 by the Club degli Investitori and now in its fourth edition. The research, carried out in collaboration with the key players in the innovation ecosystem of the area, and with the support of ToTeM, aims to better understand the characteristic of innovative startups and investors in Turin and gather information for the launch of initiatives that promote the creation and development of new tech companies in the city.

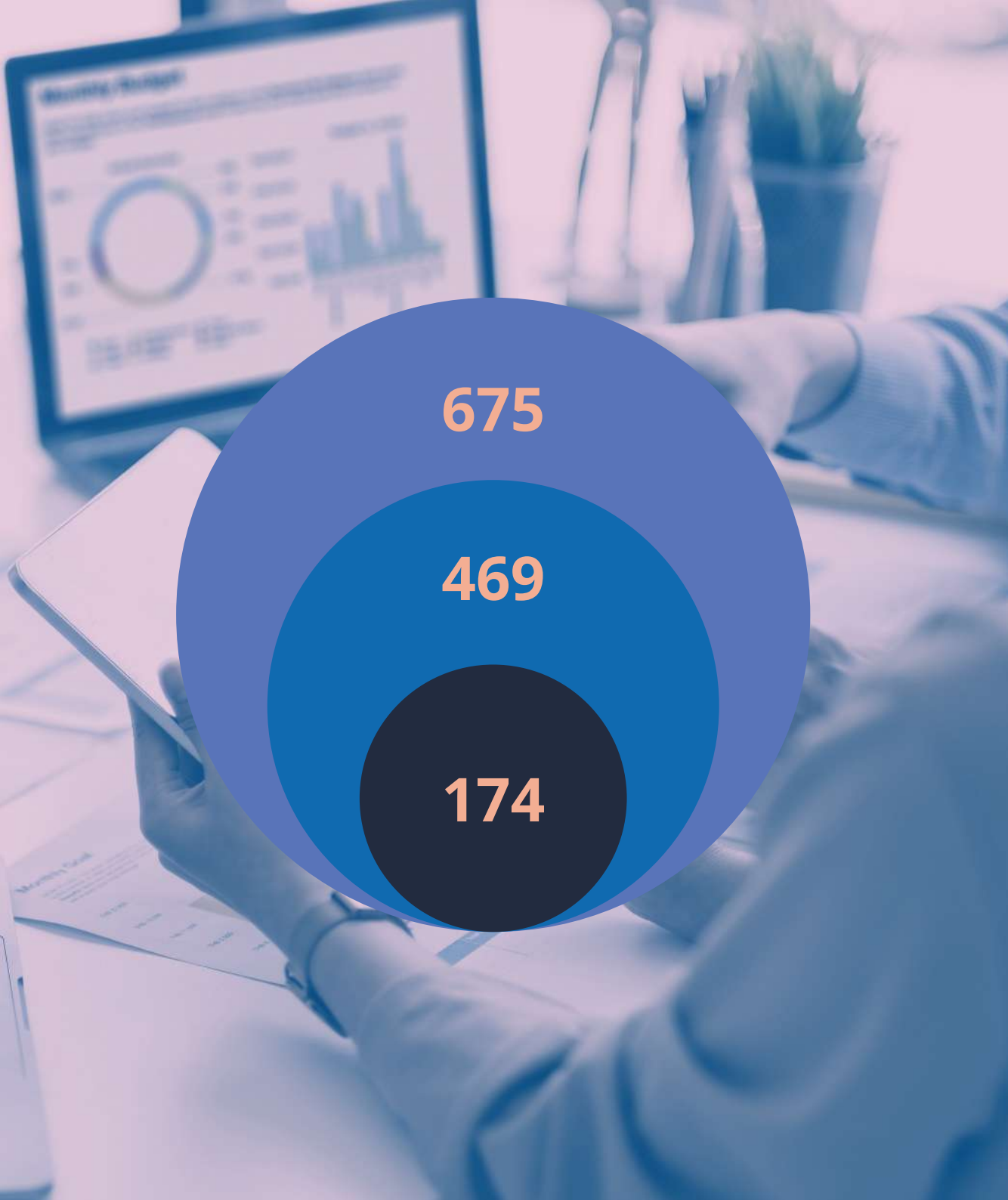
The aim of the 2024 edition is to measure whether there have been any changes compared to the previous period, not only in numerical terms - such as whether there are

more or fewer innovative companies, or whether the amount of capital raised has increased or not - but also and above all in qualitative terms.

This is to understand the sentiments of the entrepreneurs and investors who lead the Turin startup ecosystem.

As the last year, we included a comparison with other comparable European cities in addition to some stories of successful founders and investors.





675

Total Startups and Innovative SMEs in Turin

469

"Truly" Innovative Startups and SMEs in Turin

174

Startups and Innovative SMEs in Turin interviewed



675

Total Startups and Innovative SMEs in Turin



469

"Truly" Innovative Startups and SMEs in Turin



174

Startups and Innovative SMEs in Turin interviewed

## SURVEY SAMPLE AND METHODOLOGY

The 2023 edition of our survey drew its sample from companies listed in the Innovative Companies Register of Turin as of December 31, 2023, totaling 675 entities. Among these, 535 were startups (defined as companies less than 5 years old from their date of incorporation), and 140 were categorized as Innovative SMEs. For simplicity, we will use the term 'startup' throughout the research text to collectively refer to both types of companies.

Our analysis kicked off by scrutinizing each company to verify whether it possessed the characteristics defining an innovative entrepreneurial entity, in line with international practices.

A thorough examination led to the identification of a refined sample of 469 companies, consisting of 382 startups (representing 70% of the total) and 87 Innovative SMEs (constituting 62% of the total), forming the focus of our research on entities deemed "truly" innovative. Within this refined sample, we conducted interviews with 174 companies, delving deeper into their insights to gather nuanced information.

To ensure comparability with national data published by MISE, our analysis of turnover and the composition of founding teams covered the entire group of 675 companies without restricting the sample.



### Innovativeness

Of the companies in the register, only 62% can be described as "truly" innovative



### Interviews

Research includes 174 direct interviews with innovative companies in Turin

Data source:  
- Registro delle Imprese

## TURIN STARTUPS: DATA AND GROWTH

In 2023, the startup and innovative SME landscape in Turin exhibited resilience, maintaining stability compared to 2022.

This contrasts with the national scenario, where the overall number of startups and innovative SMEs experienced a 3.5% decrease.

Notably, Turin outperformed Milan, the economic capital of Italy, as it faced a more significant decrease of 3.7% in 2023.

Turin's ability to withstand the prevailing challenges highlights its strength and adaptability in the entrepreneurial landscape.

**+0.6% startups in  
Turin vs 2022**

## Number of Startups in 2023



**TURIN**

**675**

(+0.6% vs 2022)



**ITALY**

**16,178**

(-3.5% vs 2022)



**MILAN**

**3,301**

(-3.7% vs 2022)



**ROME**

**1,892**

(-2.7% vs 2022)

**Resilient startup ecosystem in  
2023 amidst national decline**

Data source:

- Relazione Annuale al Parlamento sullo stato di attuazione delle policy in favore delle policy delle startup e pmi innovative (2024)
- Report Open Innovation - Assolombarda (2023)
- Registro Imprese (2023)



## TURIN STARTUPS: PRODUCTION VALUE

By conducting a thorough analysis of the balance sheets of 675 companies, we derived the total and average production values. The overall production value stands at approximately EUR 431.6 million (2022), with an average production value of around €764,000.

Innovative SMEs play a significant role in this total, contributing €339 million (79% of the total). They exhibit an average production value of €2.5 million, with a median value of €858,000.

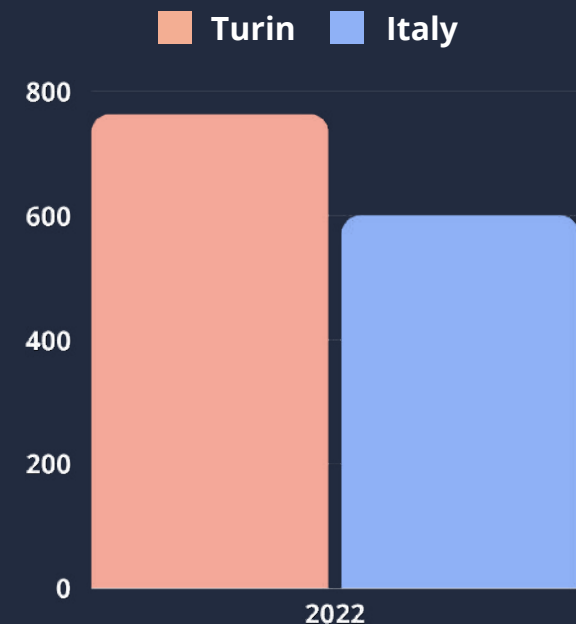
Conversely, startups make a substantial contribution of €92.6 million (a 20% increase since 2021), showcasing an average production value of €216,000 (a 6.4% increase since 2021).



**€ 764k**

Average Production Value of Startups and innovative SMEs in 2022 in Turin

Average production value of startup and innovative SMEs (€k)



In 2022, the total production value in Turin surged by around 24% compared to 2021\*, underscoring its resilience, in stark contrast to the national production value which experienced a slight decrease of 0.3%.

When examining the figures in relation to Italy, the average production value for innovative startups and SMEs in Turin for 2022 stood at approximately €764,000, outpacing the Italian average of €601,000.

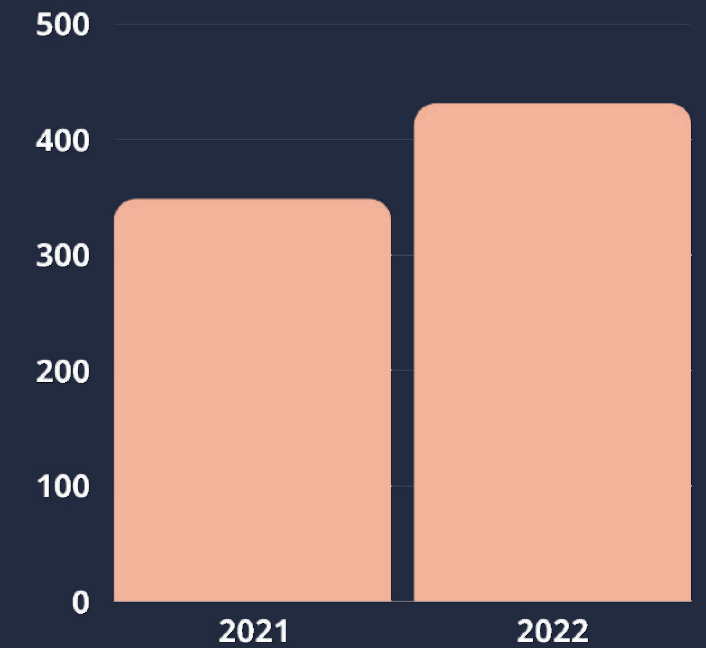
**-0.3%**

Total national production value decrease from 2021



**€431.6M**  
Total production value of startup and innovative SMEs in Turin in 2022

Total production value in Turin (2022 vs 2021) in M€



**+24%**

Total production value increase from 2021

Data source:

- 2022 figures based on financial statements filed with the Chamber of Commerce by 2023, extracted from AIDA and processed by the Club degli Investitori.

- Report Open Innovation - Assolombarda (2023)

\* 2023 research date update

## TURIN STARTUPS: SECTORS

Analysing the sectors of activity of the 469 innovative companies, a strong presence of activities related to the 'digital' world emerges - as is to be expected. A deeper analysis, however, reveals some important signs.



The main sector of activity is "Software & Cybersecurity" with 19.2%.



The second area of activity is "DeepTech, Industrial Technologies, Aerospace" accounting for 16.2% of the sample.



In third place, is "Digital B2C" (15.2%), i.e. the development of consumer-facing applications and services, such as e-commerce platforms

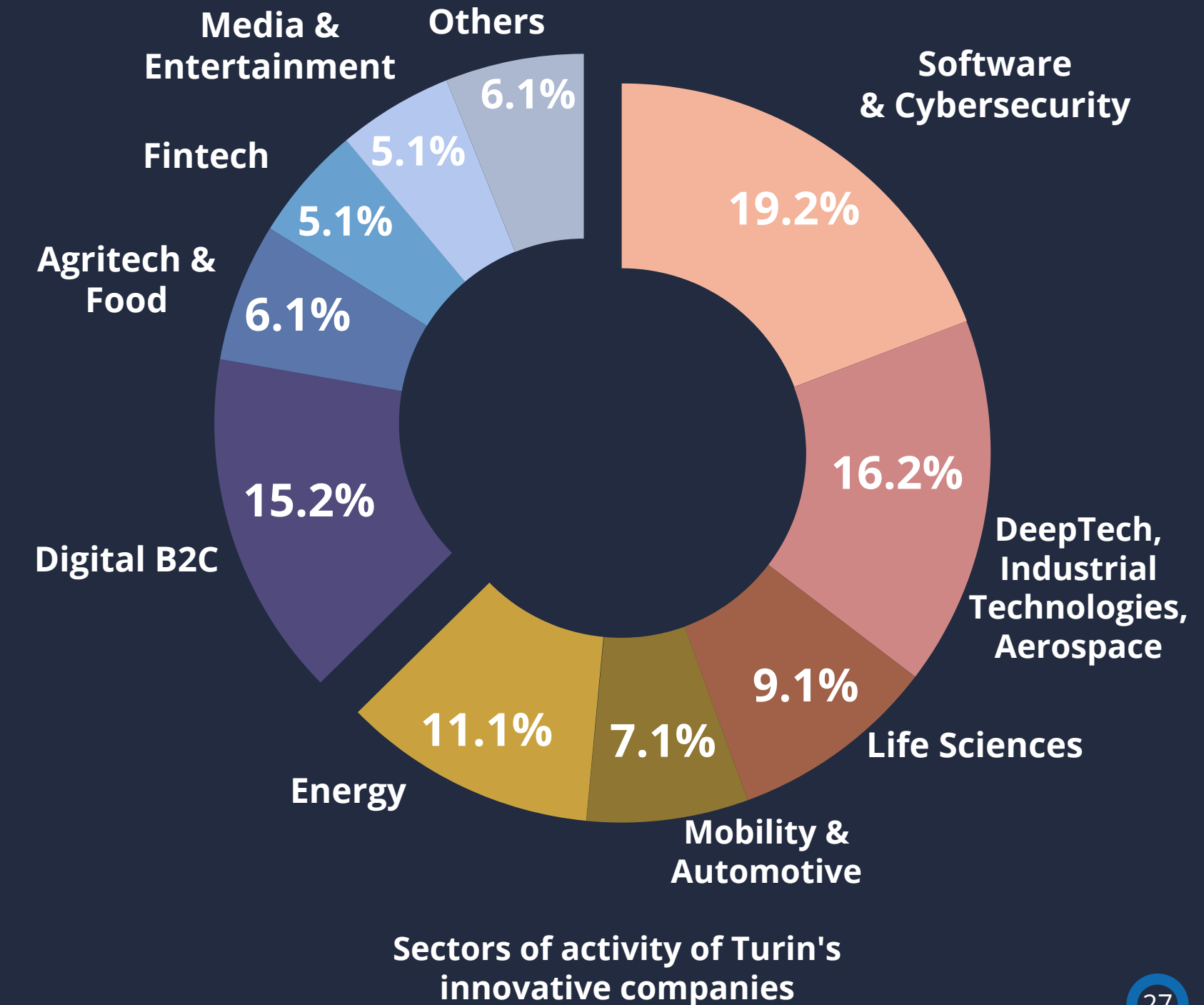
Off the podium, in fourth place is the Energy and Clean-tech sector, representing exactly 11.1% and, finally, in fifth position is the Life Sciences sector (healthcare, medtech, and biotech) with 9.1% of the sample.

The 'Mobily and Automotive' sector ranks sixth with 7.1%.

Overall, if we combine the activities of 'Software', 'Deep-tech, Industrial Technologies, Aerospace', 'Life Sciences', 'Energy & Clean tech' and 'Mobility & Automotive', we reach a share of 63%, thus revealing a prevalence of activities in the "hi-tech" sector.



**More than 63% of Turin innovative companies operates in the high-tech sectors**





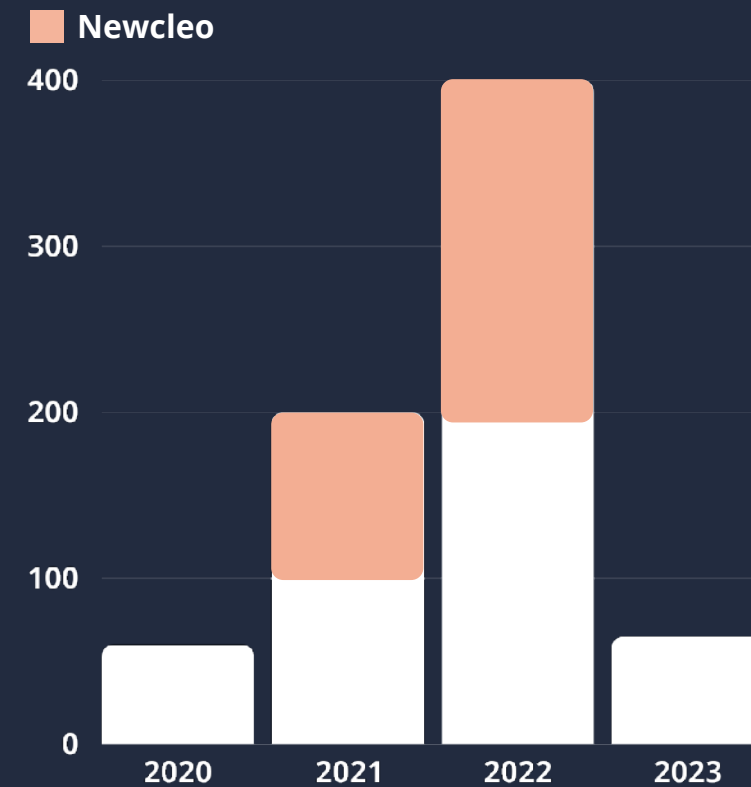
## FUNDING RAISED BY STARTUPS IN 2023

In 2023, the entrepreneurial landscape of Turin saw a noteworthy transformation, as Startups and SMEs collectively secured €65.2 million (excluding rounds below €50k) across 60 investment rounds. Relevant rounds in the city were: Resalis Therapeutics (€10M), Alkemist Bio (€6.9M), Easyrain (€5.8M), Agricooltur (€5M), Remat (€3.5M).

While this reflects a substantial decrease in overall value compared to the previous year, where Turin-based startups secured approximately €400M, it's important to note that 2022 saw an exceptional outlier with Newcleo raising €300M.

Even excluding the exceptional performance of Newcleo, there remains a discernible 35% decrease from the funding levels observed in 2022. However, this decline aligns with the broader trend in VC financing in Italy for 2023, as reported by Growth Capital, indicating a nationwide decrease of 37% in startup investments from the previous year.

## Total funding raised by Turin startups in M€



**Excluding Newcleo, the decrease of investments in Turin is -35%, compared with -37% of Italy**

Another interesting facet is the record-breaking number of rounds in 2023, totaling 60. This suggests a shift in fundraising dynamics, where startups in Turin appeared to experience smaller funding increments spread across more rounds. Multiple factors contribute to this trend, driven by a cautious investment climate amid high interest rates and increased uncertainty. Investors are refraining from committing large sums, signaling a potential shift towards early-stage investments, with a focus on seed and Series A rounds over later-stage funding.

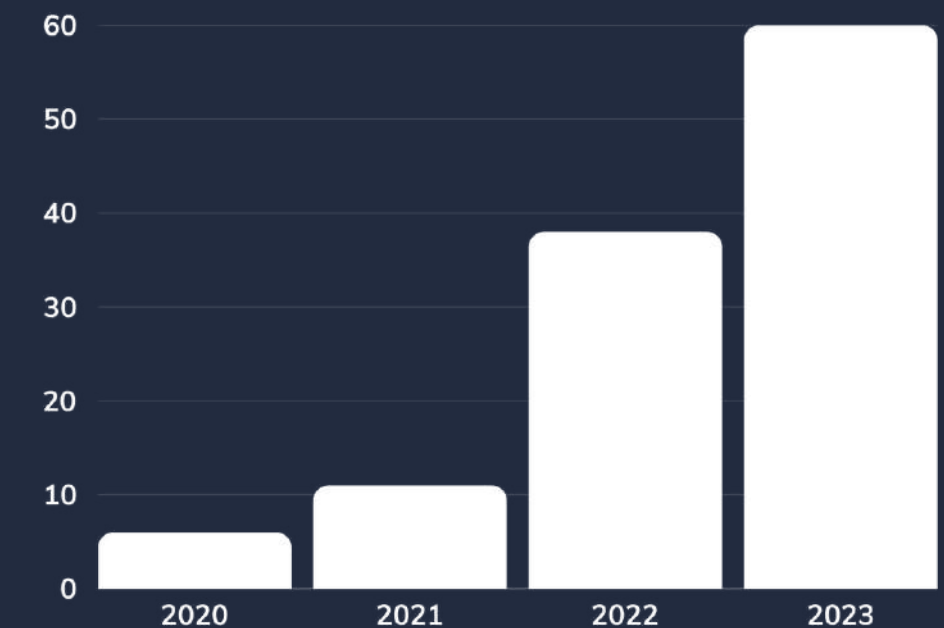


**Turin topped 60 rounds in 2023**

## Top 5 rounds



## Number of funding rounds



Data source:

- Growth Capital and I3P data (2023)

- Growth Capital: Venture Capital Report - Italy Q423 & FY23

In 2023, the Life Sciences sector emerged as the frontrunner in funds raised, securing €19.68 million, representing 30.2% of the total investment.


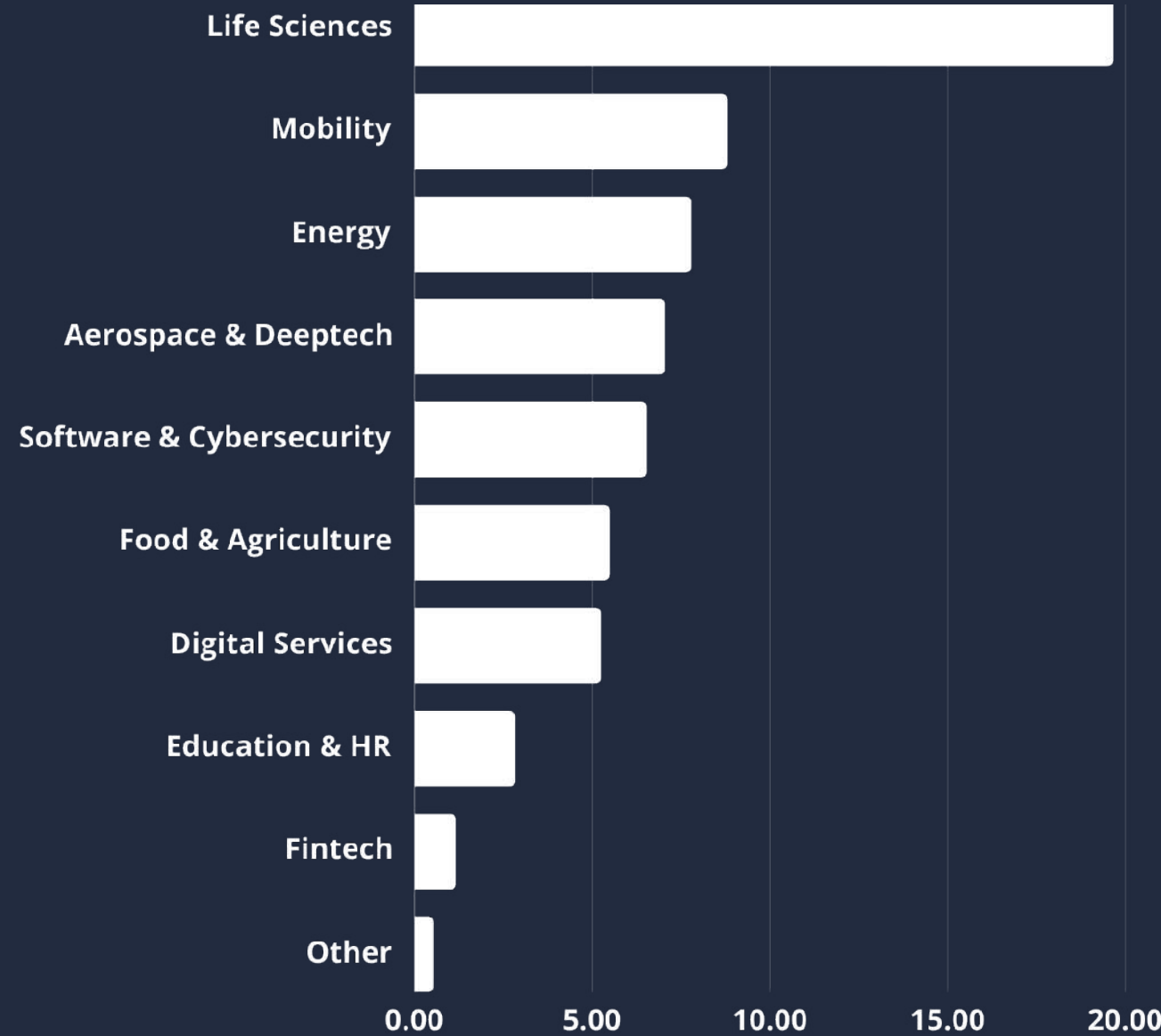
Following closely, the second-highest performing sector was Mobility, which amassed €8.8 million (13.5%), succeeded by Energy with €7.80 million (12%).

Aerospace & Deeptech, identified by our survey respondents as the sector Turin startups should specialize in, secured the fourth position with €7.06 million raised, accounting for 10.8% of the total investment.



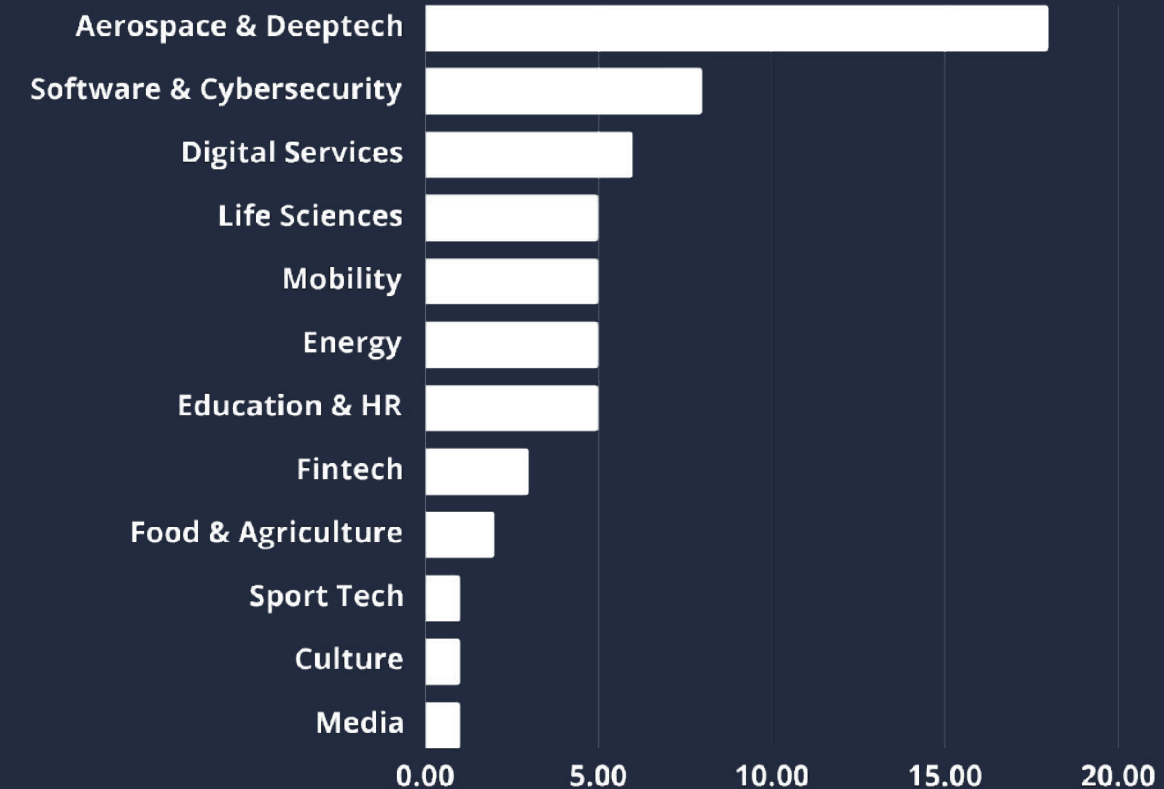
The leading sector in terms of amount of funding is Life Sciences: EUR 19.7 million

### Amount of funding raised by sector in M€



The leading sector in terms of number of funding round is Aerospace: 12 rounds

### Number of funding round by sector



In terms of the number of rounds, the standout performer was the Aerospace & Deeptech sector, securing an impressive 18 rounds. Following closely were Software & Cybersecurity with 8 rounds, and Digital Services with 6 rounds.

These results reaffirm the evident focus and specialization of Turin's startup ecosystem in Aerospace & Deeptech industrial technologies, Software & Cybersecurity, and the Life Sciences sectors.



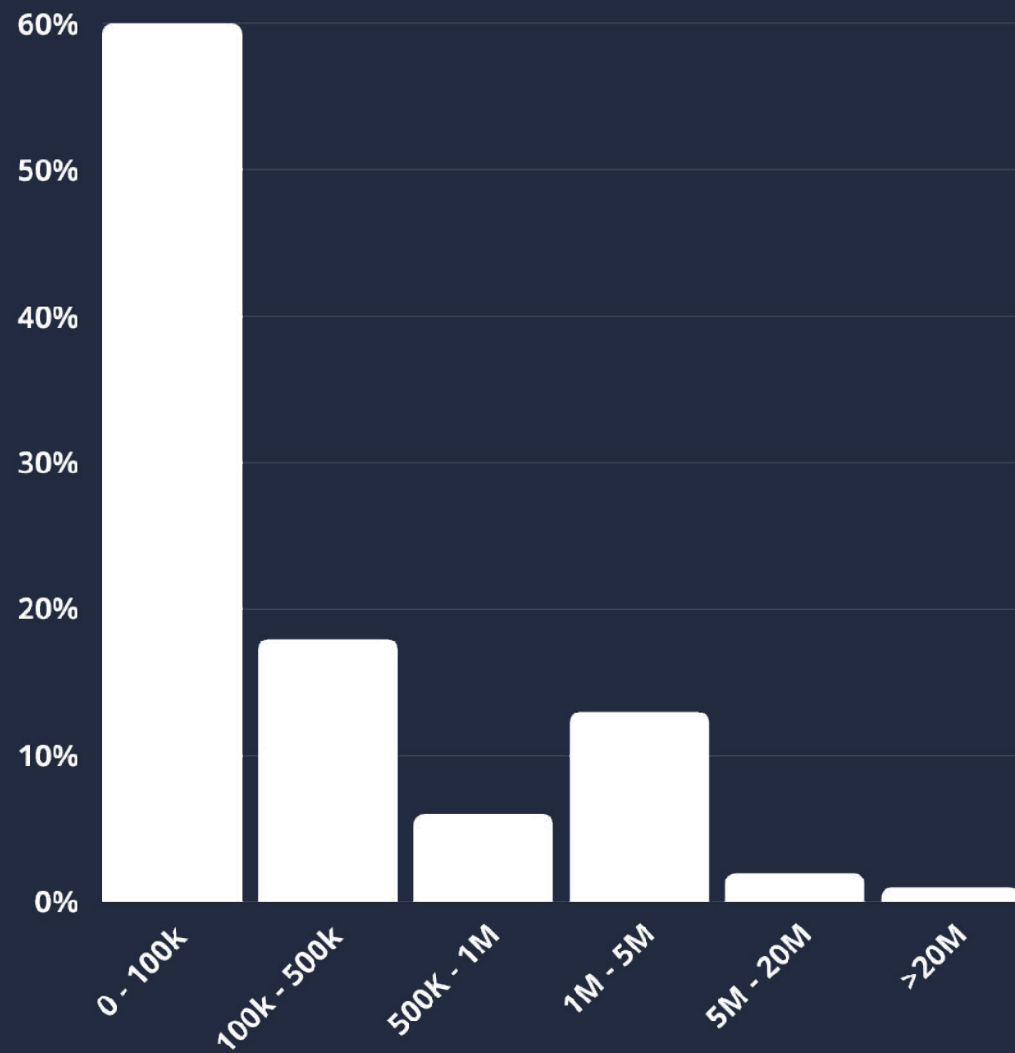
The respondents in our survey also provide results that confirm the situation in Turin, where startups continue to attract moderate-sized investments.

In particular, 60% of the respondents state that their startup has managed to raise investment amounts of up to €100k since its foundation.

**17% of the investments received by the interviewed startups came from international investors**

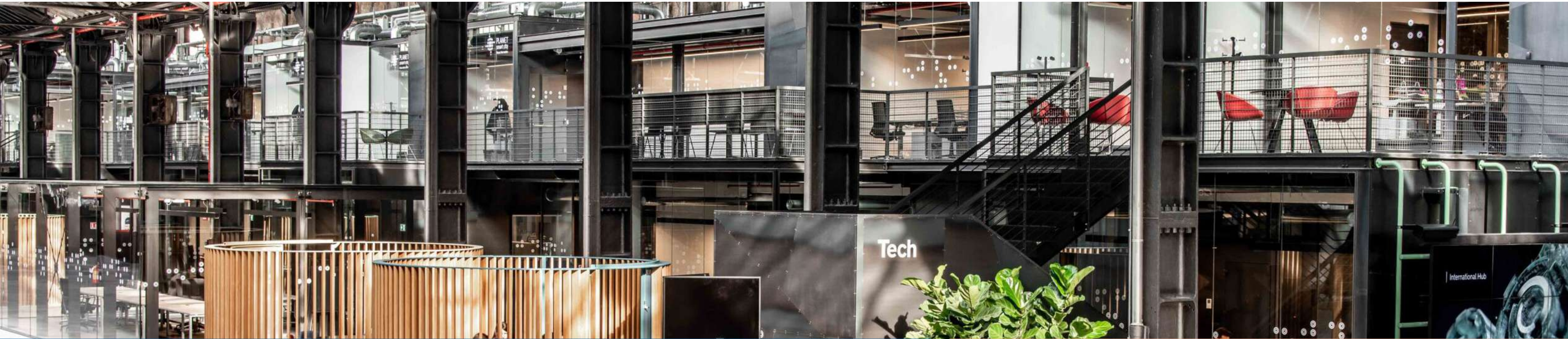
**Only 16% of startups have raised more than 1M**

### How much have you raised so far in the various funding rounds (in euros)?





# 03. State of the art of Turin Innovation System

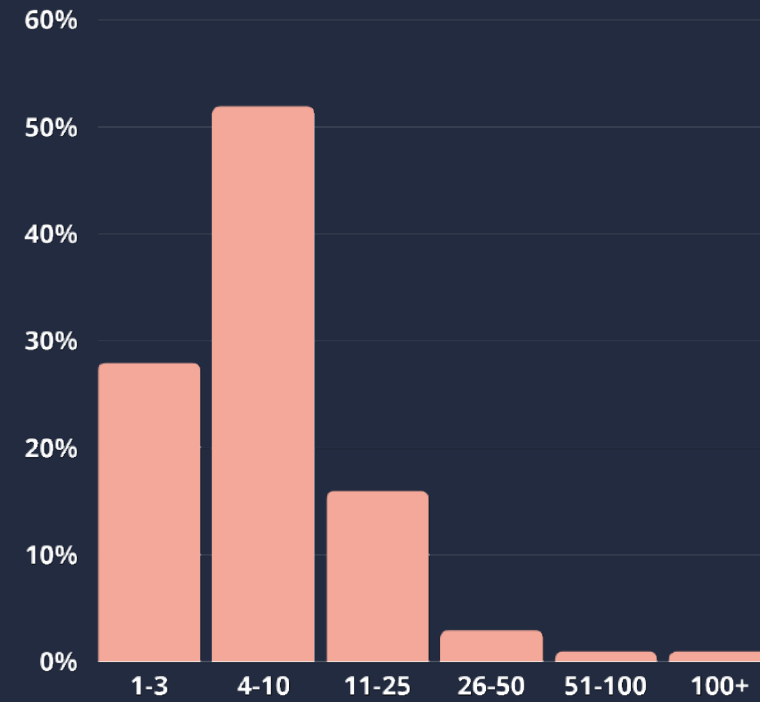




## TEAMS: STRUCTURE

From the 174 interviews conducted, company size in the Turin startup ecosystem appears limited, with more than three-quarters of the interviewed companies, i.e. 80% - a 2.9% increase from 2022-, employing a maximum of 10 people between direct and indirect collaborators.

Conversely, teams of more than 25 employees, make up only 5% of the interviewed startups.



Number of Employees in Turin's innovative companies



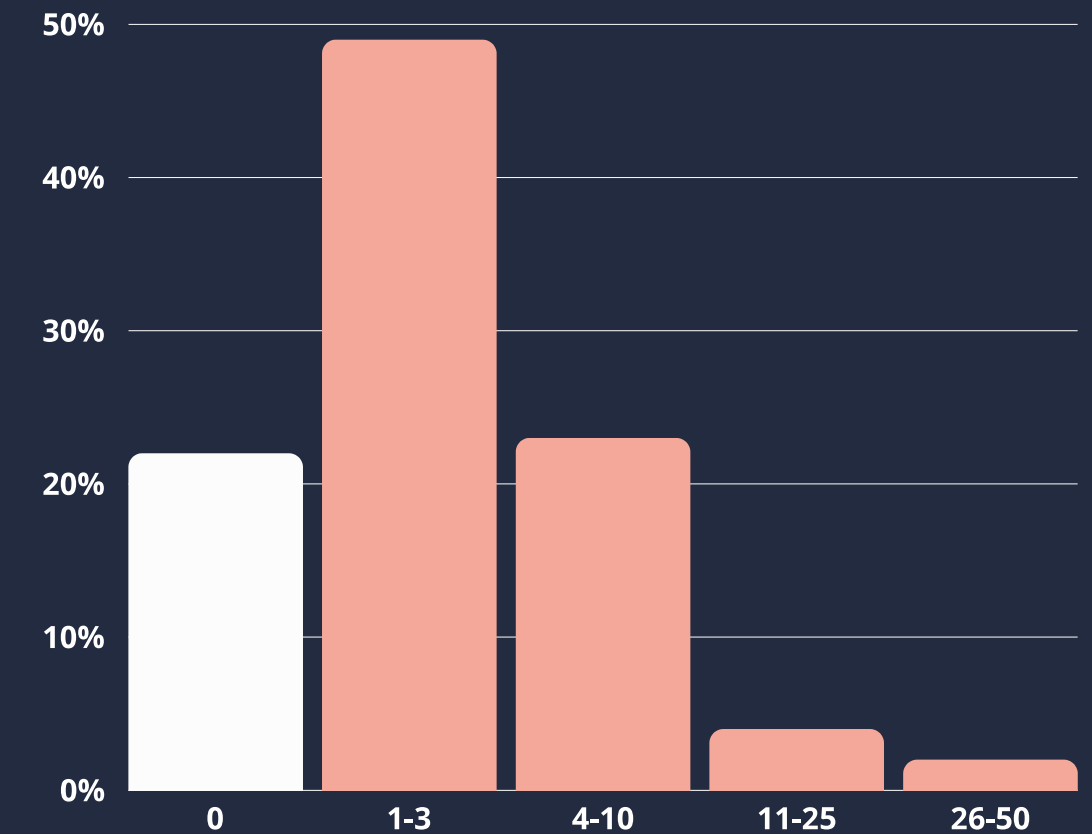
**Only 20% of startups have more than 10 people in the team**



## TEAMS: WOMEN'S PRESENCE

Looking at the gender component of the interviewed startups, 49% of teams count between 1 and 3 women; however, a discernible 22% of startups still employ none.

Overall, it is evident that startups in Turin are still predominantly male-dominated.



How many women are there in the team?



## TEAMS: INTERNATIONALISATION

Analysing the team composition of the interviewed Turin-based companies, it appears that 40% of startups have at least one foreign team member.

Looking at the number of companies established with an international vocation, in 2023 the number fell from 69% of 2022, to 57%.

Similarly, the number of companies with international headquarters or offices reduced from 15% to 13%.



Are there any foreing members in the team?



**40% of the Turin-based startups have an international team**





## TEAMS: TOTAL EMPLOYMENT



By extrapolating insights from our survey results, it has been determined that Turin's dynamic ecosystem of startups and innovative small and medium-sized enterprises (SMEs) collaboratively sustains a workforce of around 6,000 individuals.



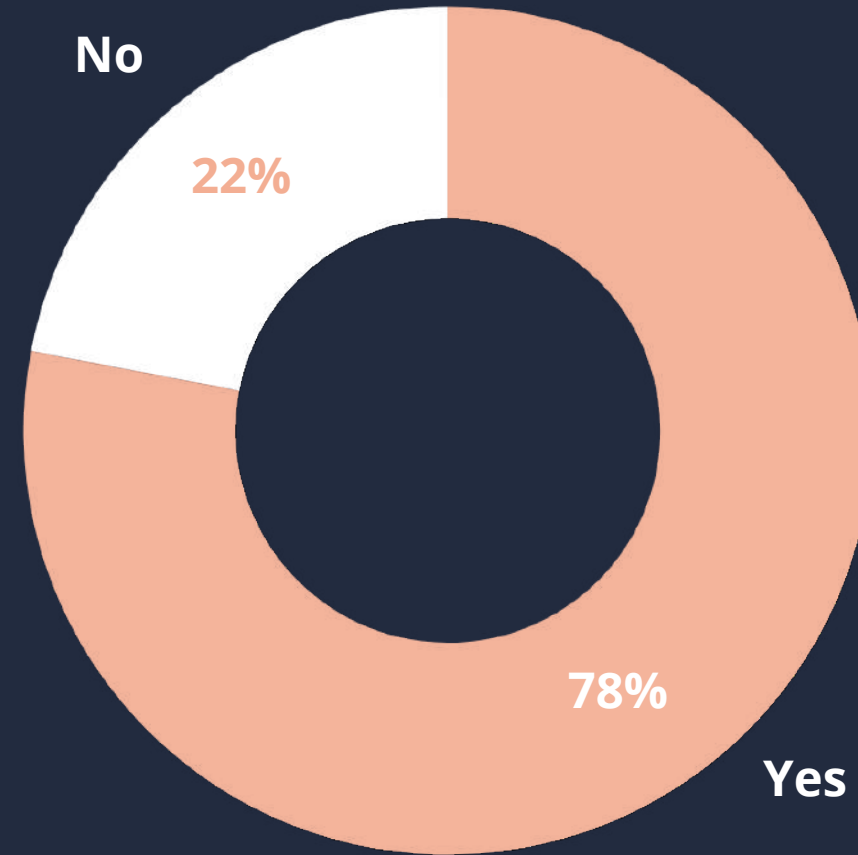


## DO YOU FEEL PART OF TURIN'S INNOVATIVE SYSTEM?

To gain a clearer insight into the perspectives of innovative entrepreneurs in the Turin area, the survey posed the same set of questions as the previous edition to better discern evolving trends and shifts in the sentiments of Turin's innovative enterprises regarding their connection with the city.

In response to the question, "Do you feel part of Turin's innovation system?" 78% expressed a positive sentiment this year, marking a slight decline from 2022 when 84% responded affirmatively.

Nonetheless, compared to 2021, when the positive response reached "only" 72.6% of the interviewed sample, the overall trend remains positive despite yearly fluctuations.



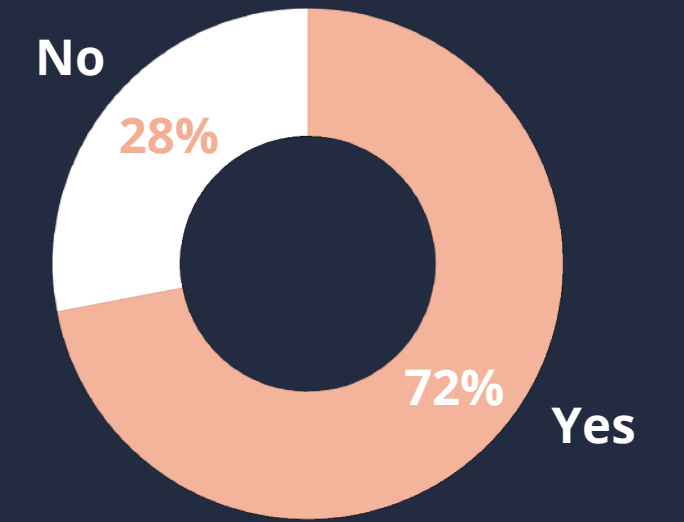
**78% of the startup interviewed in 2023 felt part of Turin innovation "system"**

## PEOPLE AND SKILLS

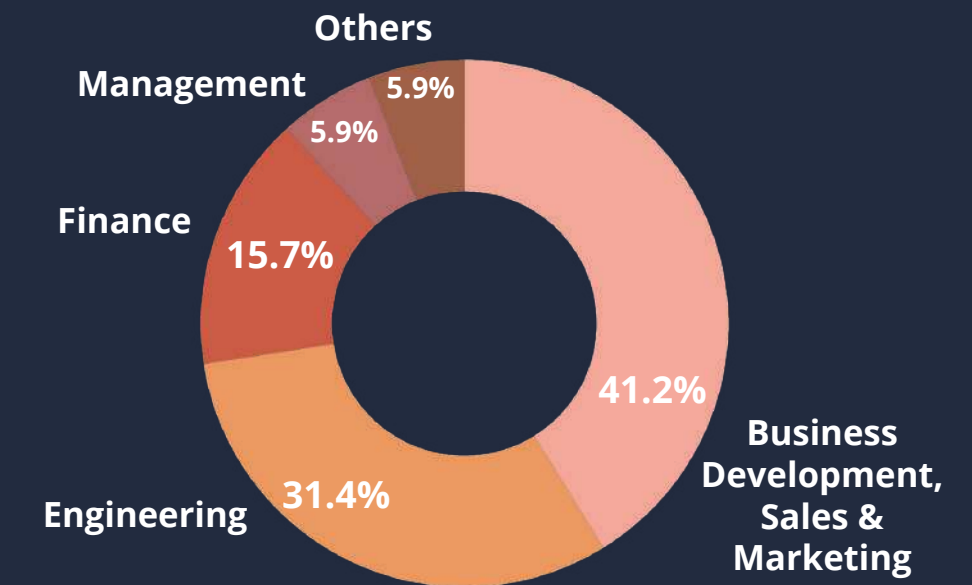
Attracting and retaining top talent is crucial for any business, and even more so for startups. A diverse ecosystem with a broad range of skills thrives upon this foundation.

The latest Turin ecosystem survey reveals a positive trend: 72% of entrepreneurs now believe they can find the necessary talent and skills within Turin to grow their businesses, compared to 63% in 2022. This 9% increase points towards a promising development in the local talent pool.

The trend appears even more positive compared to the 2021 survey, where only 58.8% of entrepreneurs expressed similar confidence. Despite the progress, 28% of respondents currently struggle to find suitable personnel locally. In particular, they need resources related to Engineering (31.4%), business development (27.5%), and Finance (15.7%).



**Can you find in Turin the people and skills you need to grow your business?**



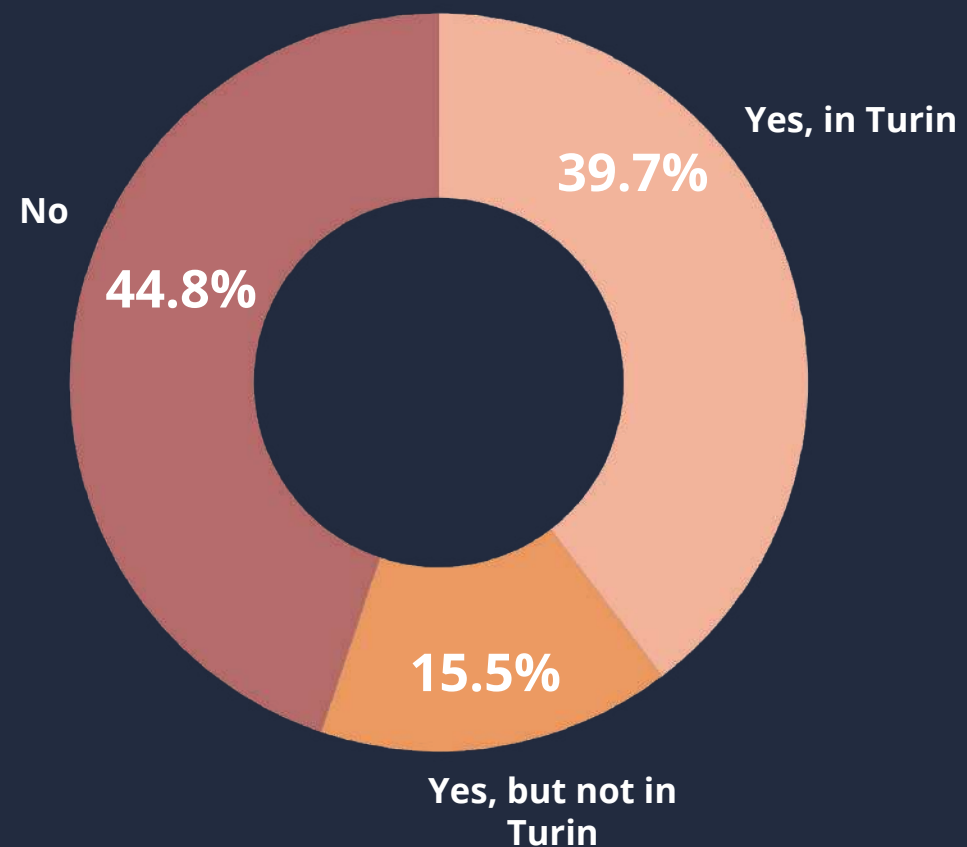
**What resources are missing in Turin?**



## DOES YOUR COMPANY PARTICIPATE OR HAS IT PARTICIPATED IN AN INCUBATION OR ACCELERATION PROGRAMME?

A significant portion (55% of respondents) of entrepreneurs in Turin have participated in incubation or acceleration programs, highlighting their role as valuable resources for business growth.

The analysis further reveals a breakdown by participation location. Notably, 39.7% of respondents engaged in programs within Turin, indicating a robust local support system. Interestingly, 15.5% participated in programs elsewhere, demonstrating entrepreneurs' willingness to explore diverse options for optimal growth.



**55% of entrepreneurs have participated in an incubation or acceleration program**

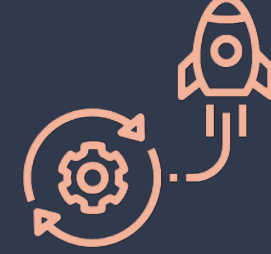




# TURIN STARTUP ECOSYSTEM



 **Professional Investors based in Turin expect to invest 1 billion Euro in Venture Capital in the next 5 years**

 **More than 30 incubators and accelerators in the city (+4 vs 2022)**



## 04. Turin VS comparable cities



To assess the development of Turin's innovation ecosystem, we analysed its international standing by comparing it to similar cities.

This year, we retained Lyon, Rotterdam, and Munich from the previous edition, as they represent attractive innovation hubs for startups and investments, like Turin, without dominating their national rankings.

For the 2024 comparison, we included two additional cities: Boston and Zurich. These share comparable sizes to Turin but also boast top-ranked universities with a strong focus on STEM fields: MIT in Boston and ETH Zurich. While their startup ecosystems are significantly more advanced than Turin's, the comparison aims to set a benchmark for Turin's future development.



# Lyon

In recent years, with over 1000 startups and €300 million in investments, Lyon's startup ecosystem has developed into the 4th-ranking in France. Over the years, the French city has created a thriving innovation hub, with a focus on healthtech, medtech, and biotech. In addition to a strong sense of community in the startup ecosystem, Lyon can count on a growing community of investors and a supportive government.

Furthermore, Lyon is home to numerous top-ranked universities - such as the École Normale Supérieure de Lyon, and the University of Lyon - as well as important institutions and research centres.



**Focus on:  
Biotech and  
Medtech**



**LYON STARTUP**  
ÉLEVEZ VOS IDÉES

Lyobiopôle is a non-profit organisation that acts as the driver of the health innovation ecosystem in the region, promoting the development of new technologies and products in the Biotech, Meditech, and Digital health sectors. Since its foundation in 2005, Lyobiopôle contributed to the creation of more than 600 new companies and attracted significant investment in the region's healthcare sector.

Lyonstartup is a free programme, created with the support of the University of Lyon, which constitutes the city's own centre for entrepreneurship. The programme is designed to help aspiring entrepreneurs launch their startups with networking opportunities, workshops and training, and prized competitions.



**LYONBIOPOLE**  
AUVERGNE-RHÔNE-ALPES

Data source:

- <https://www.lyonstartup.com/>
- <https://lyonbiopole.com/en/lyonbiopole>



# Rotterdam

With over 1900 active startups and more than €340 million in investments, Rotterdam has quickly developed into one of Europe's most vibrant and promising innovation scenes, focusing on future-proof sectors like smart logistics, life sciences, and cleantech.

The Dutch city, which hosts Europe's largest port and a major logistical hub, benefits from a strategic location, supportive infrastructure, strong talent pool, and growing investment opportunities.

Furthermore, Rotterdam has a strong focus on sustainability, promoting several green initiatives and attracting numerous startups tackling circular economy and climate change challenges.



**Focus on:  
CleanTech & Smart  
Logistics**



Erasmus Centre for Entrepreneurship (ECE) is a leading centre for entrepreneurship, research, and education part of the Erasmus University Rotterdam. ECE supported the development of hundreds of successful startups, contributing to the economic and social development of the region, by empowering entrepreneurs through knowledge, networks, and access to resources.

WeTech Rotterdam acts as a facilitator between employers, educational, and government institutions to foster the development of an improved education system with a stronger focus on technology. To this end, WeTech identifies and connects startups, scaleups, and corporate entrepreneurship, not only to one another, but also to talent and investors.

**WETECH**  
ROTTERDAM

Data source:

- <https://startupgenome.com/article/how-startups-are-creating-a-future-proof-economy-in-rotterdam>
- <https://www.ece.nl/en/>
- <https://wetechrotterdam.com/about>



# Munich

With more than 2000 startups, and €2.2B of investments, Munich is Germany's second-largest startup hub and the 6th in Western Europe for its vibrant innovation ecosystem, focusing on B2B solutions, production and manufacturing, insurtech, and mobility.

Munich benefits from the presence of renowned universities, technical colleges, and research institutions like Ludwig Maximilian University Munich and the Technical University of Munich, as well as from a supportive infrastructure and an effective public support system.

However, Munich's biggest strength lies in the deeply embedded connection among startups and a well-established industry with giants like Siemens, BMW, Audi, and Allianz.



**Focus on:  
B2B solutions and  
mobility**



Munich Innovation Ecosystem unites innovative startups, talents, corporates, sciences, academia, and the public sector to drive sustainable and resilient innovation in the region. Today MIE counts more than 300 companies, over 1500 startups, and 45000 employees, making it one of the most prolific networks for innovation.

UnternehmerTUM is Europe's largest centre for innovation and entrepreneurship, counting over 5000 participants, 50 scalable startups, and 100 innovation partnerships each year. UnternehmerTUM is home to several specific programmes, including an acceleration programme for startups, an early-stage venture capital fund, and the 'BayStartUp' and the 'Munich Startup' initiatives.

**UNTER  
NEHMER  
TUM**

Data source:

- <https://www.munich-ecosystem.de/>
- <https://www.unternehmertum.de/en>



# Zurich

Despite its limited size, Zurich is among the most prolific cities in Europe when it comes to innovation. With an ever-growing number of start-ups and investments, Zurich is set to become one of the leading innovation hubs of the continent, setting a trajectory for cities like Turin to emulate. Like the Piedmontese capital, the Swiss city holds a fundamental role of support to the country's main centres and government, thanks to its focus on areas like Cleantech, ICT, and Fintech.

Moreover, Zurich is an important university pole, hosting world-class institutions, especially in the STEM field, like ETH Zurich, the 'MIT of Europe'.



**Focus on:  
Fintech and ICT**



**ETH** zürich

A top-ranked university, ETH is a leading institution in research and education, and especially in innovation, having created an impressive amount of over 400 spin-offs in the past 20 years. Moreover, ETH has numerous initiatives, programmes and centres supporting the innovation ecosystem, such as the ETH Entrepreneur Club, the ETH Innovation and Entrepreneurship Lab, and the ETH Zurich Foundation.

GZA is the official promotion agency of the economic region of Zurich. It acts as an intermediary to promote innovation and entrepreneurship in various fields, particularly for Robotics, Life Sciences, Fintech, and FoodTech. Thanks to its availability of talents, funds, and clients, as well as to the presence of a stimulating environment keen on fostering innovation and entrepreneurship, GZA has successfully helped the establishment of over 1000 companies in Switzerland, and keeps attracting new start-ups.

**GREATER  
ZURICH  
AREA**



Switzerland Innovation is a national network of six innovation parks, which facilitates collaborations between science and economy. SI aims to build an ecosystem to foster connections among national and international companies, startups, and universities to promote growth, research, and innovation.

Data source:

- <https://ethz.ch/en/research.html> ; <https://ethz.ch/en/industry.html>
- <https://www.greaterzuricharea.com/en/about-us-greater-zurich-area>
- <https://www.switzerland-innovation.com/>



# Boston

Of the four cities selected for this comparison, Boston, today, is the furthest from Turin, in terms of number of startups and investments, but also in terms of dimension and overall GDP. Nonetheless, we chose to include the American city in our analysis due to the comparability of its role: Boston, thanks to its focus on life sciences, robotics, and cybersecurity, as well as its geographical proximity, specialises in services supporting New York's businesses.

Furthermore, like Turin, Boston is home to several top-ranking universities, especially in the STEM field, including MIT, Harvard, and Boston College.



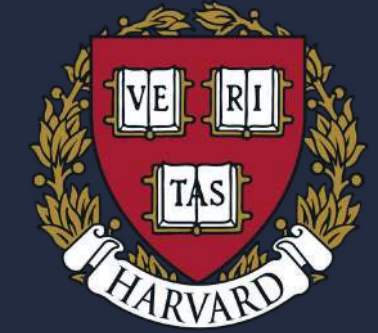
**Focus on:  
Life sciences and  
robotics**



**Massachusetts  
Institute of  
Technology**

MIT has numerous initiatives, programmes and centres supporting the innovation ecosystem, such as the MIT Innovation Initiative, the MIT Enterprise Forum, the MIT Sandbox Innovation Fund, the Martin Trust Center for MIT Entrepreneurship, and the MIT Media Lab.

In the past 5 years, Harvard launched over 100 startups which have collectively raised financing for more than \$4.4 billion, in fields such as pharma and biotech, education, food and agriculture, energy, sustainability, and high-tech goods.



Masschallenge is a nonprofit global network of startups, experts, corporations, and communities that fosters the growth and transformation of businesses and economies. Masschallenge Boston is the leading programme, which, starting in 2010, has supported over 1.900 startups, creating more than 136.000 jobs, and gathering over \$6.2 billion in investments.



Data source:

- <https://www.mit.edu/innovation/>
- <https://masschallenge.org/hubs-united-states/>
- <https://otd.harvard.edu/impact/harvard-startups/>



## COMPARISON BETWEEN EUROPEAN CITIES AND TURIN

	Turin	Munich	Lyon	Rotterdam	Zurich	Boston	Milan	Turin + Milan
<b>Inhabitants</b> (metropolitan area; 2023)	2.1M	2.9M	1.7M	2.6M	1.6M	4.9M	3.2M	5.4M
<b>Number of startups</b> (2023)	675	2,122	1,000	1,907	1,796	4000	3,301	3,976
<b>GDP metropolitan area</b> (in euro; 2022)	68.5B	210.2B	98.4B	86.6B	120B	504.1B	204.5B	273B
<b>Investments</b> (in euro; average last 3 years)	153M	2.4B	251.6M	304.6M	1.8B	24.2B	662M	815M
<b>Investments / GDP</b>	0.22%	1.13%	0.26%	0.35%	1.46%	4.81%	0.32%	0.30%
<b>Startups per 10,000 inhabitants</b>	3.1	7.2	5.7	7.3	10.8	8.2	10.3	7.4

## Does it make sense to continue to speak of Turin vs Milan?

Despite its growth, Turin remains a young ecosystem and continues to lag behind other cities, as highlighted by the 2023 investment data. It is evident that a significant gap exists between Turin and other major international innovation hubs.

For instance, when we relate innovation investments (averaged over the last three years) to the GDP, Turin ranks at the bottom among the cities considered. The disparity becomes even more pronounced concerning the number of startups per 10,000 inhabitants.

With 3.1 startups per 10,000, Turin

occupies the last position, having less than half the number of startups per 10,000 inhabitants compared to cities like Munich and Rotterdam.

To be comparable with other cities, Turin should ideally have between 5.7 and 10.8 innovative startups per 10,000 inhabitants, a goal that remains distant for now.

Certainly, in recent years, Turin has initiated various endeavors reminiscent of examples from other cities, such as the establishment of major international events like the Italian Tech Week and local initiatives like ToTeM - Torino Tech Map.



Each of these cities, which once again this year proves to have a more mature innovation ecosystem than Turin, has something in common.

Over the years, each has managed to develop its own identity. For instance, Boston specializes in life sciences and providing services to businesses based in New York, Rotterdam focuses on the circular economy, Zurich on hi-tech, Munich on mobility and automotive, and Lyon on healthcare.

The next step for the startup ecosystem in Turin is to identify and solidify its own identity.

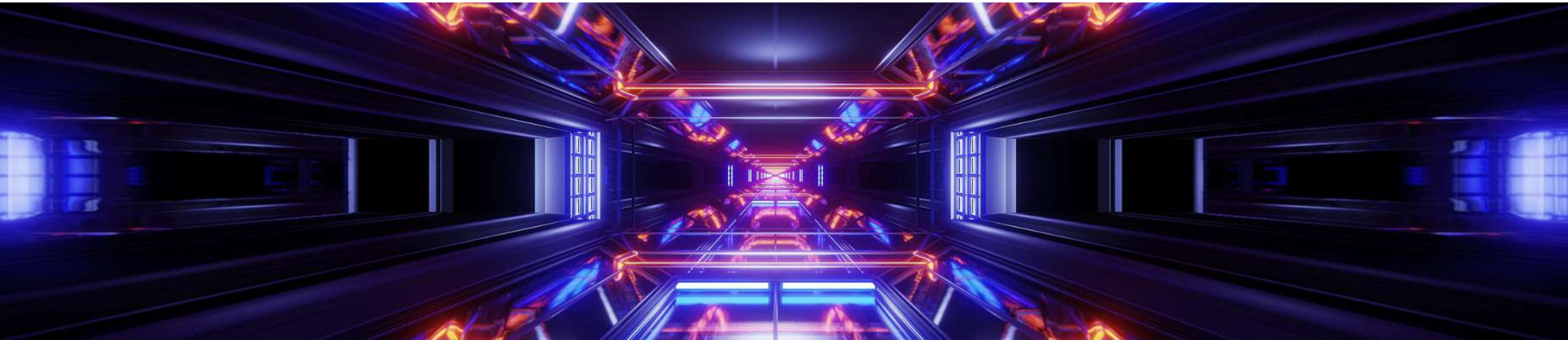
Leveraging its pool of talent, it will be able to carve out a prominent place in the European landscape of innovative ecosystems.

**Despite its innovation potential, Turin currently lags behind comparable European cities**





◀ 05. Suggestions and “Moving forward”

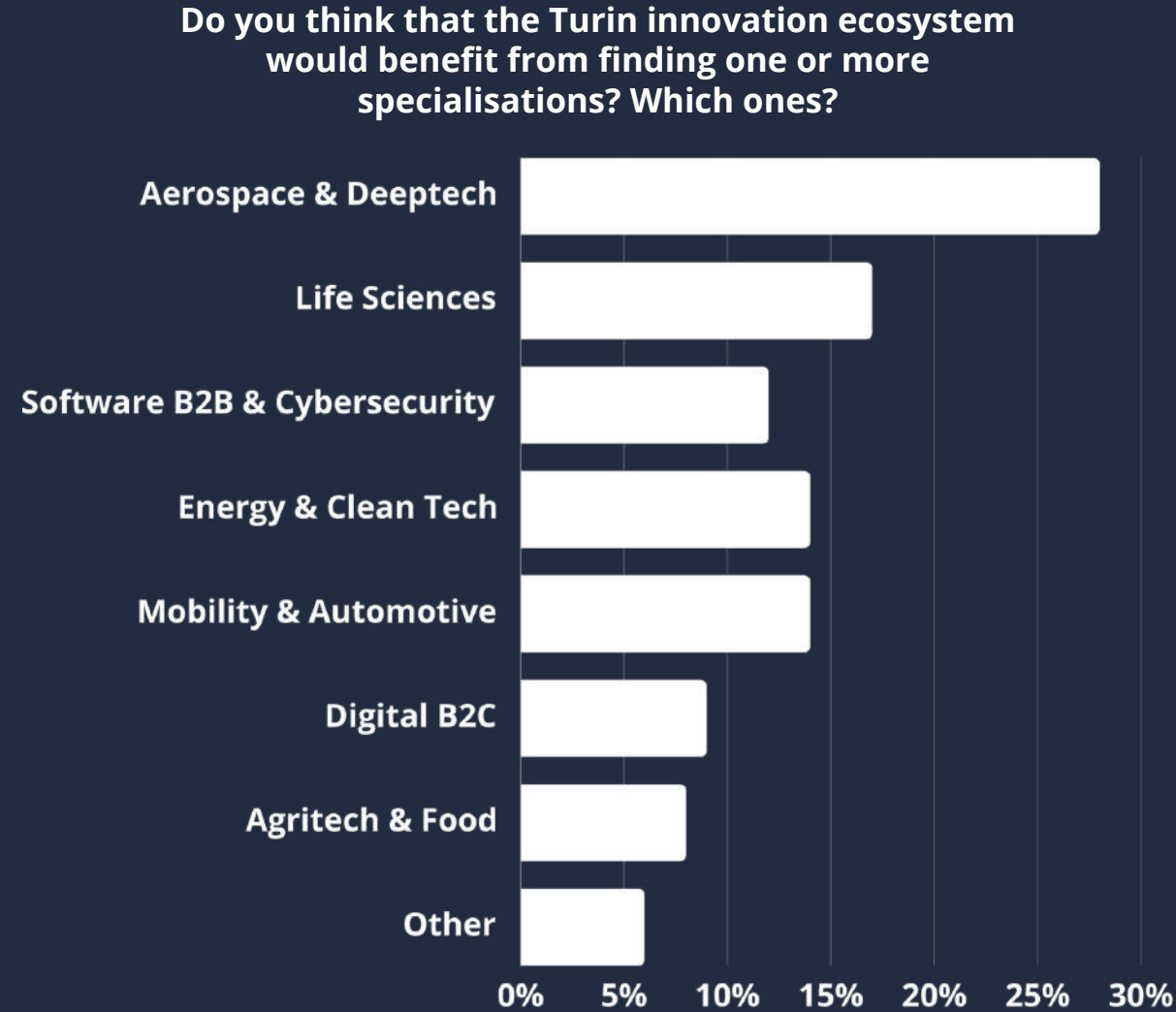




## IN SEARCH OF IDENTITY: FOUNDERS' VIEW

In the context of an innovation hub like Turin, establishing a distinct identity becomes paramount. This led us to engage with the interviewed startups to explore their views on whether Turin should concentrate on one or multiple specializations. A resounding 72% of the respondents affirmed this need.

Notably, 28% among them identified aerospace & deep tech as the sector Turin should prioritize. Following closely were life sciences (17%) and Software B2B & Cybersecurity (12%) as the second and third sectors recommended for emphasis, respectively.



**Turin startup ecosystem in search of identity: the vast majority of startups and investors suggest Turin to focus on specific sectors**



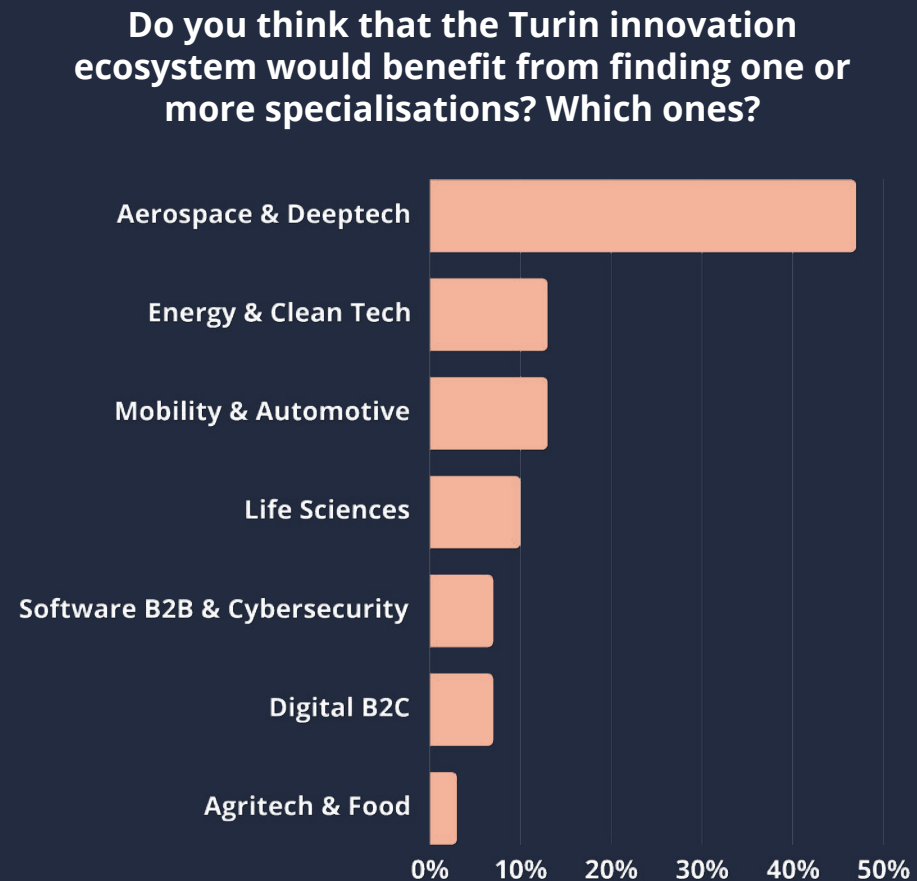
## IN SEARCH OF IDENTITY: INVESTORS AND OTHER PLAYERS' VIEW

We directed the same inquiry to other stakeholders within Turin's innovation system, encompassing investors, accelerators, and incubators. Over 60% of respondents advocate for Turin to define its specializations.

This second group of respondents shares alignment with entrepreneurs, with Aerospace and Deeptech emerging as primary areas of focus. A noteworthy 47% of respondents recognize this strategic concentration, indicating that the innovative ecosystem would experience heightened advantages through specialization in these domains.

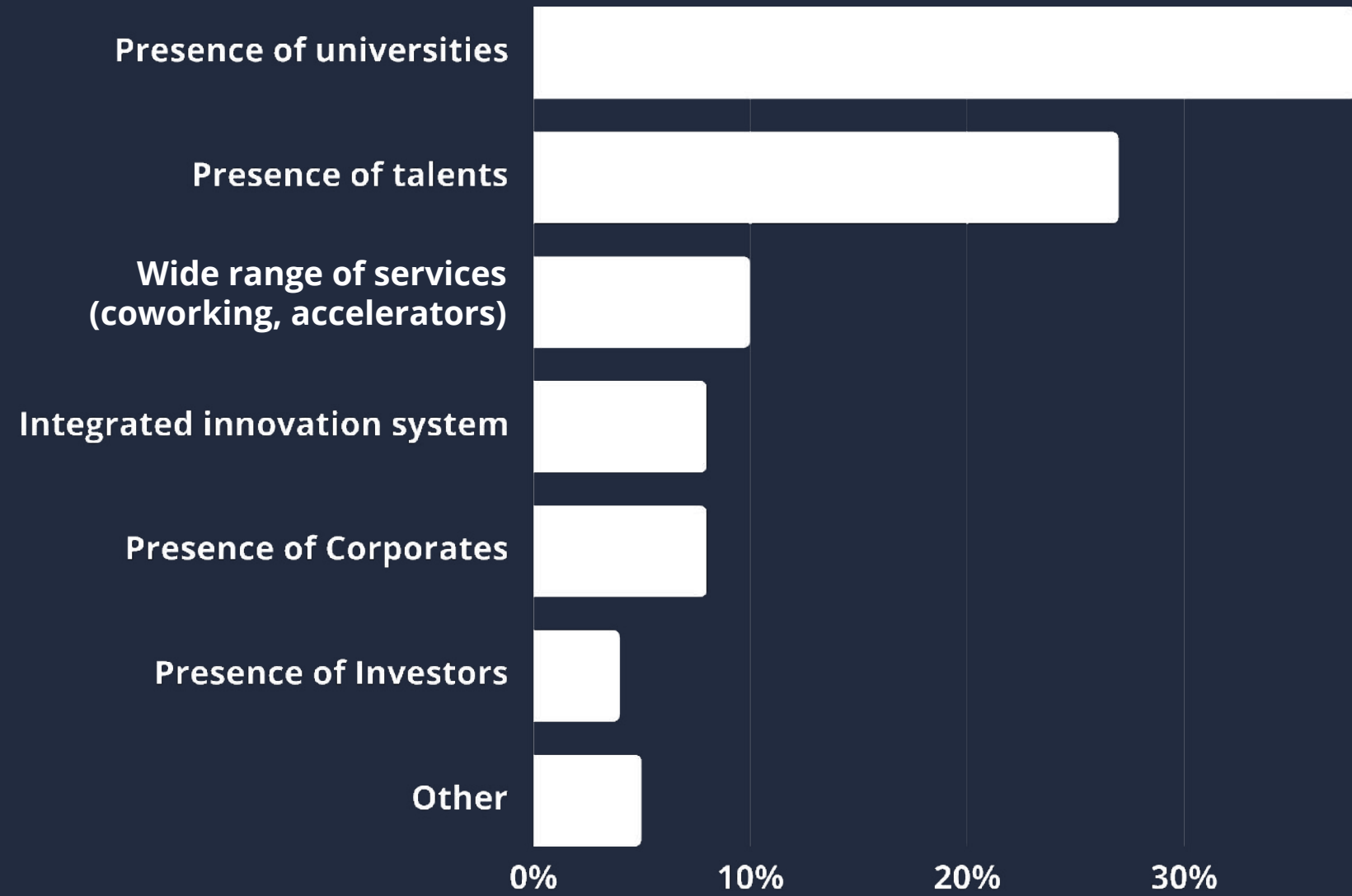
**The vast majority of startups and investors point to Aerospace & Deeptech as their focus area**

In the second position, we find both Energy & Cleantech and Mobility & Automotive, each accounting for 13%, followed closely by Life Sciences at 10%.





## IN SEARCH OF IDENTITY: DISTINGUISHING FACTORS



What are the distinguishing factors of Turin compared to other ecosystems?



What sets Turin apart?

In our survey, we queried startups about the distinctive factors that differentiate the Piedmontese capital from other ecosystems.

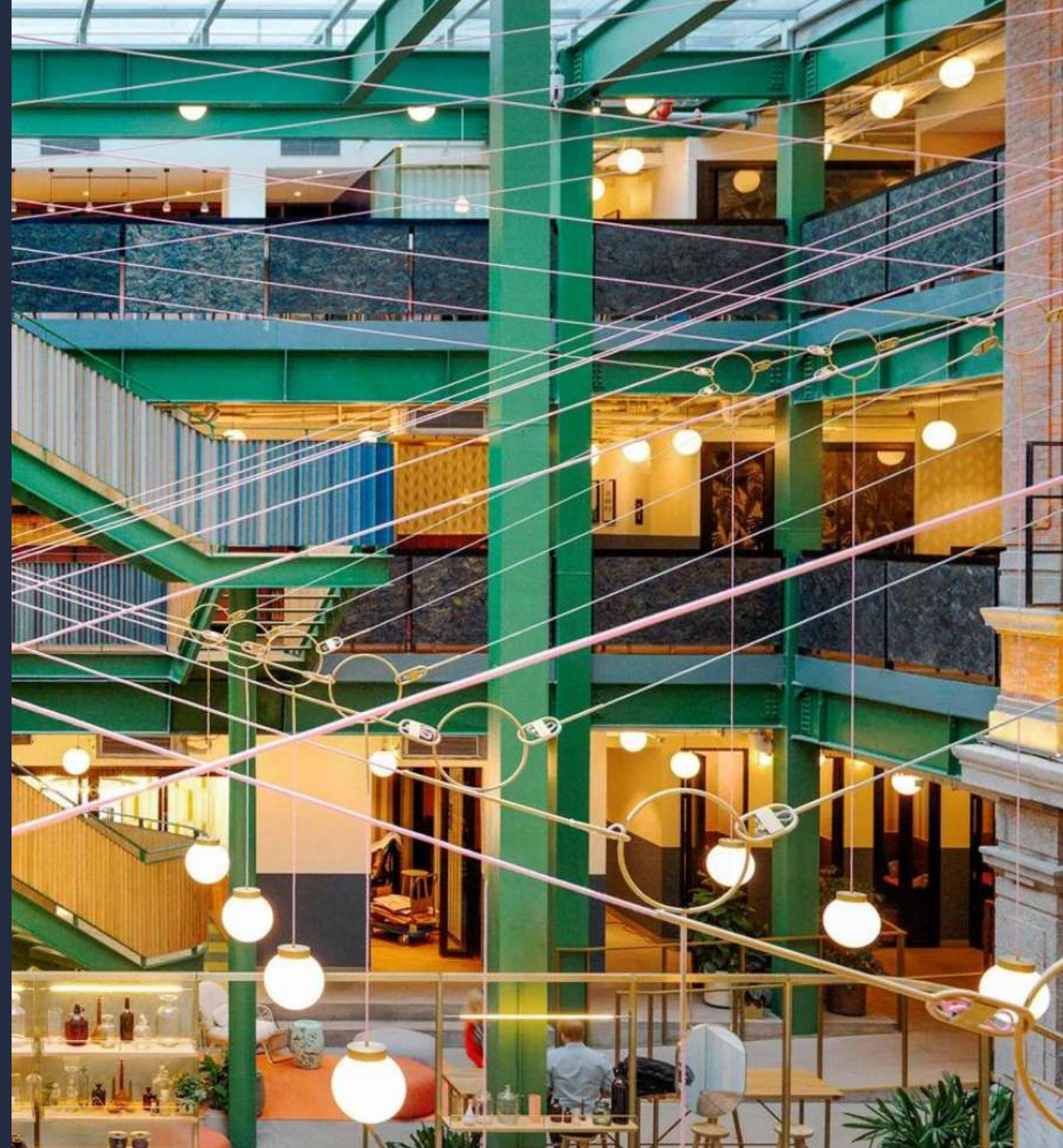
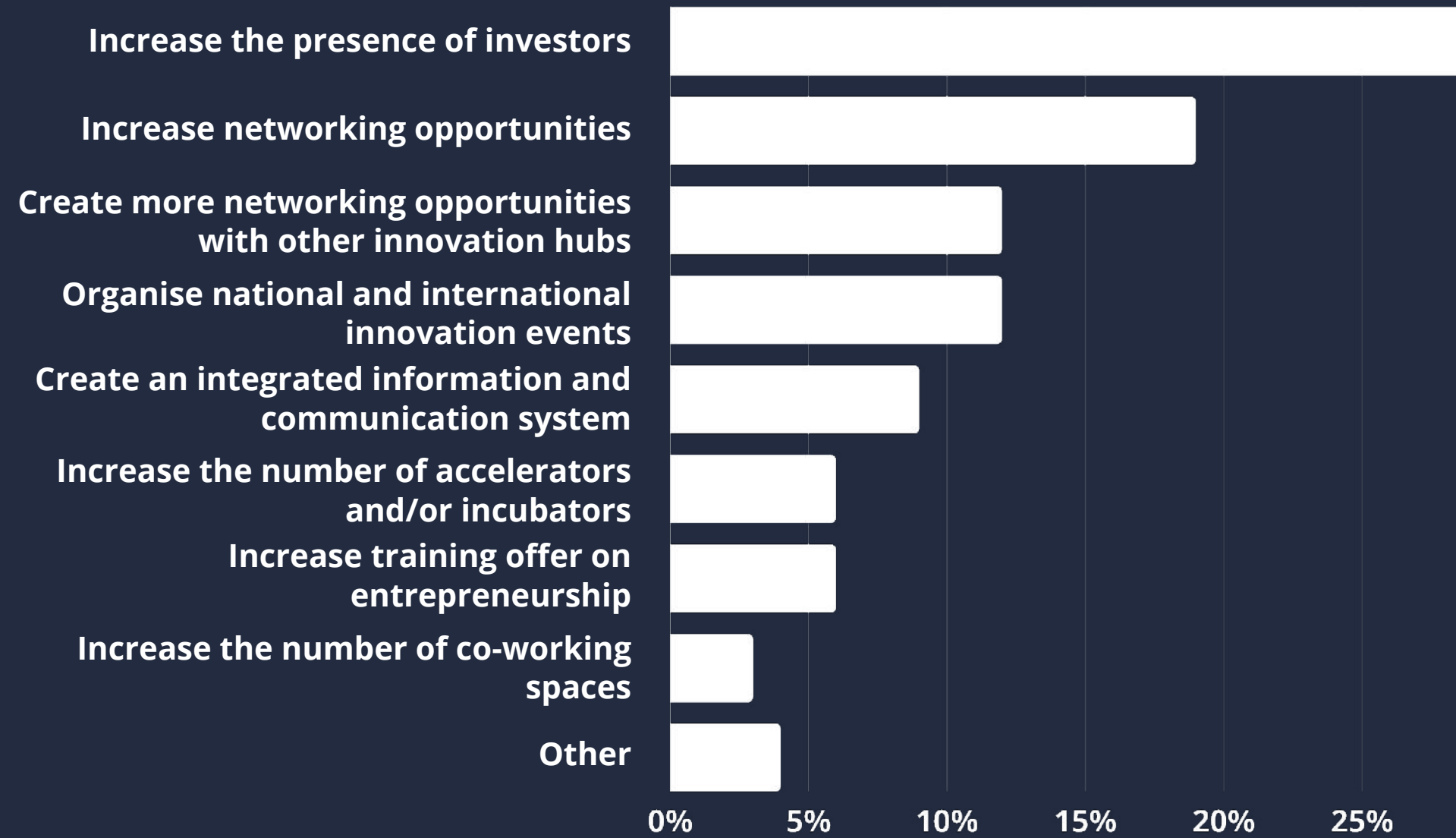
The majority of respondents (38%) identified the presence of universities as the primary distinguishing factor for Turin.

The second-most highlighted factor was the abundance of talents, noted by 27% of respondents.

Indeed, Turin is home to some of the most esteemed universities in Europe, including Politecnico di Torino and ESCP Business School, each excelling in their respective fields.



## MOVING FORWARD: WHAT CAN TURIN DO TO ATTRACT AND GROW ITS STARTUPS?



But what do the startups in Turin think? Entrepreneurs share insights on what Turin can do to attract and support their growth. According to respondents in our survey, much like last year, the primary request is for the presence of investors (29%).

Despite the presence of investors, and proximity to Milan, and other European cities, founders see the main issue as the lack of investor presence.

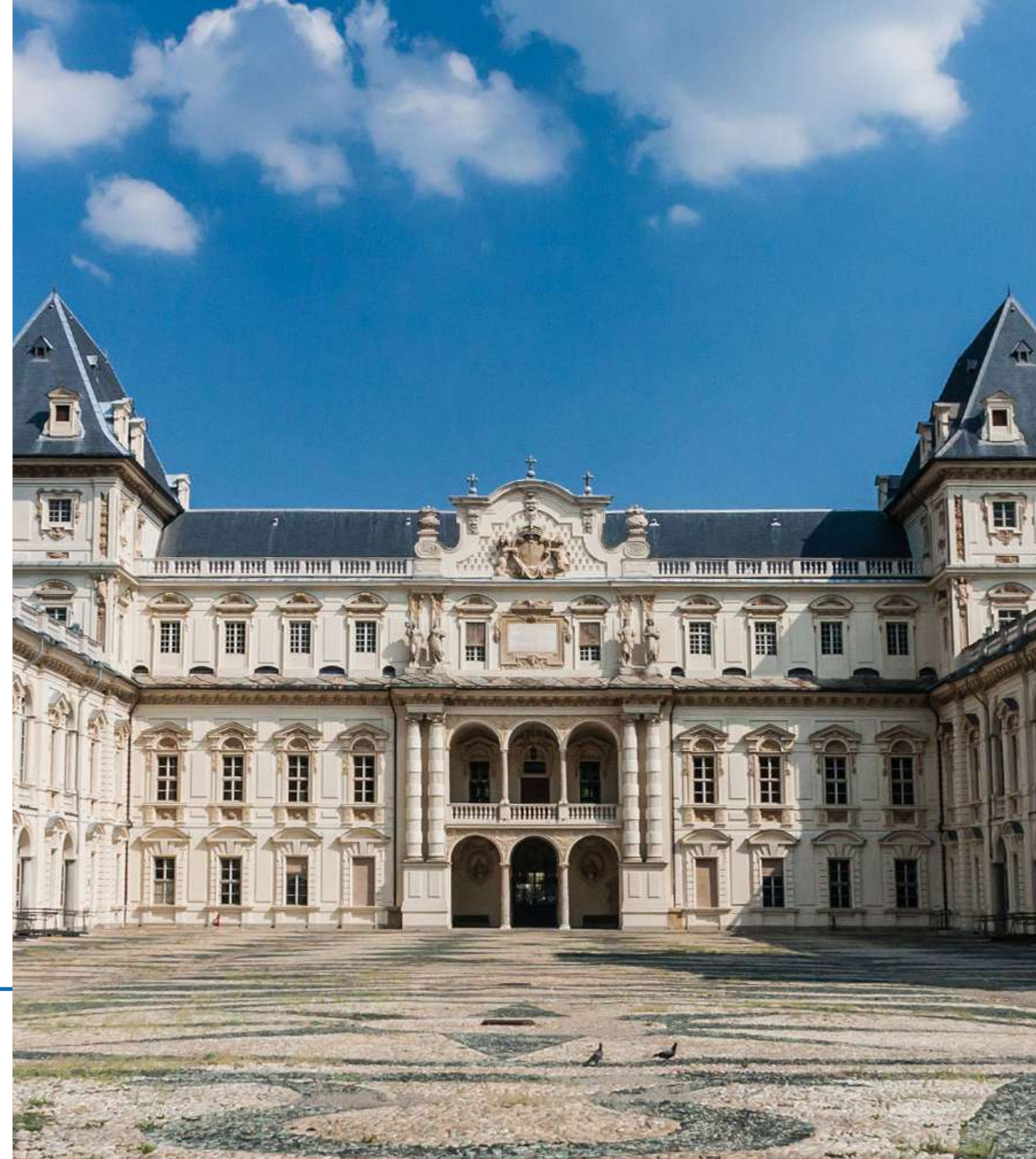
Additionally, the importance of both local and networking events with other innovation hubs is evident in these responses (19% and 12% of respondents, respectively).

**Founders are looking for more networking opportunities**



# Moving forward: 5 Things Turin should do to grow in innovation

1. Define sectors of excellence to invest in for the future: deep tech, aerospace, biotech, energy, smart cities.
2. Increase interaction and convergence among operators.
3. Improve connectivity and collaboration with European hubs (including Milan).
4. Attract talent and startups from abroad.
5. Establish entrepreneurship courses.



It's not easy to give suggestions to Turin to enhance its innovation system. However, leveraging our presence in the territory and knowledge of the main global hubs, we wanted to list 5 things that Turin should do.

None of the 5 guidelines involve public investments not already planned, but rather the decision-making process of industrial policy in short timeframes.

To achieve this, we hope for collaboration between the city's policymakers and startups, investors, and all those involved in the city's innovation services.

**Create an alliance for  
growth among all public  
and private players**





## 06. 10+1 reasons why to establish a startup in Turin

Despite the research revealing strengths and weaknesses of the city, we would like to conclude with 10+1 reasons why to establish a startup in Turin.

This list demonstrates the strengths and beauty of our city.

We started late, 10 years after other European cities; we are only at the beginning of a construction site, but we have built solid foundations. Now, we just need to make some decisions and run to build our great future.



# 1. Torino is a university and research hub

- Over 100,000 students in Turin and 140,000 students in the region
- Home to world-class, top-ranked universities as Politecnico di Torino and ESCP Business School
- Significant presence of innovation labs and headquarters of major corporations
- Turin serves as a dynamic hub, fostering collaboration between academia and industry



# 2. Moderate cost of living

- Turin stands out for its affordability when compared to other major European cities
- The city offers affordable housing options tailored to both students and professionals
- Turin's cost of living is notably lower than that of major Italian cities like Milan, Bologna, and Genoa



### 3. Southern Europe's Largest Innovation Hub (OGR)

- 200 million invested
- 120 startup supported
- 14 acceleration and incubation programs
- 70 partners

Host of international events as Italian Tech Week



### 4. Home of the best Public Incubator in the world

- I3P is the Best Public Business Incubator in the world, as recognized by the World Rankings of Business Incubators and Accelerators 2019-2020
- 900+ collected ideas and 23 incubated startups last year
- 300 startup incubated over the years





## 5. Host of the Italian Tech Week

- Italy's Premier Event in Tech and Innovation Excellence
- A 3-day event for Cutting-Edge Technology and Innovation
- 13,500 Attendees
- 160 Distinguished Guests Representing 10 Different Countries
- More than 7m streaming views

ITALIAN  
TECH  
WEEK



## 6. Base for Investors with a capacity of 1 Billion\*

- 31 incubators and accelerators
- 15 Venture Capital Investors
- 400 Business Angels
- 5 Corporate Ventures
- More than 650 startups and innovative SMEs

\*based on last year research



## 7. Italy's Largest VC Investor in Deep Tech

LIFTT is an Italian Venture Capital chaired by the scientist-entrepreneur Stefano Buono.

Operating in every industry with a focus on deep-tech, to date it has raised +€103M and completed 49 investments in innovative start-ups.

While generating value for its shareholders, LIFTT supports the creation of businesses, development, employment, and economic growth, through the implementation of an ethical and transparent governance model.



## 8. World's Largest Group of Italian Angels

- 370 + Business Angels selecting, investing, and supporting Italian tech entrepreneurs worldwide.
- The typical Club Member is an entrepreneur, manager, or leading professional with relevant experience and international competencies.
- For a founder receiving an investment from the Club means much more than a financial contribution. It represents the involvement of a group of people whose network and experience is worth way more than the capital they are investing.





## 9. City's Beauty and Surroundings

- Stunning architecture and historic landmarks.
- Picturesque landscapes.
- Proximity to the Alps and the seaside.
- Offering outdoor recreational opportunities.
- Center of gastronomic excellence



## 10. Home of large corporates and innovation labs

Boasting a unique blend of established corporations and cutting-edge research, Turin fosters a dynamic environment where startups and universities collaborate to drive innovation.

The city is home to the headquarters of numerous leading international companies in diverse sectors like automotive, software, aerospace, food & beverage, and banking. This vibrant ecosystem creates a fertile ground for businesses to flourish and push the boundaries of progress.



# +1 First and only platform in Italy for startups and local innovation system

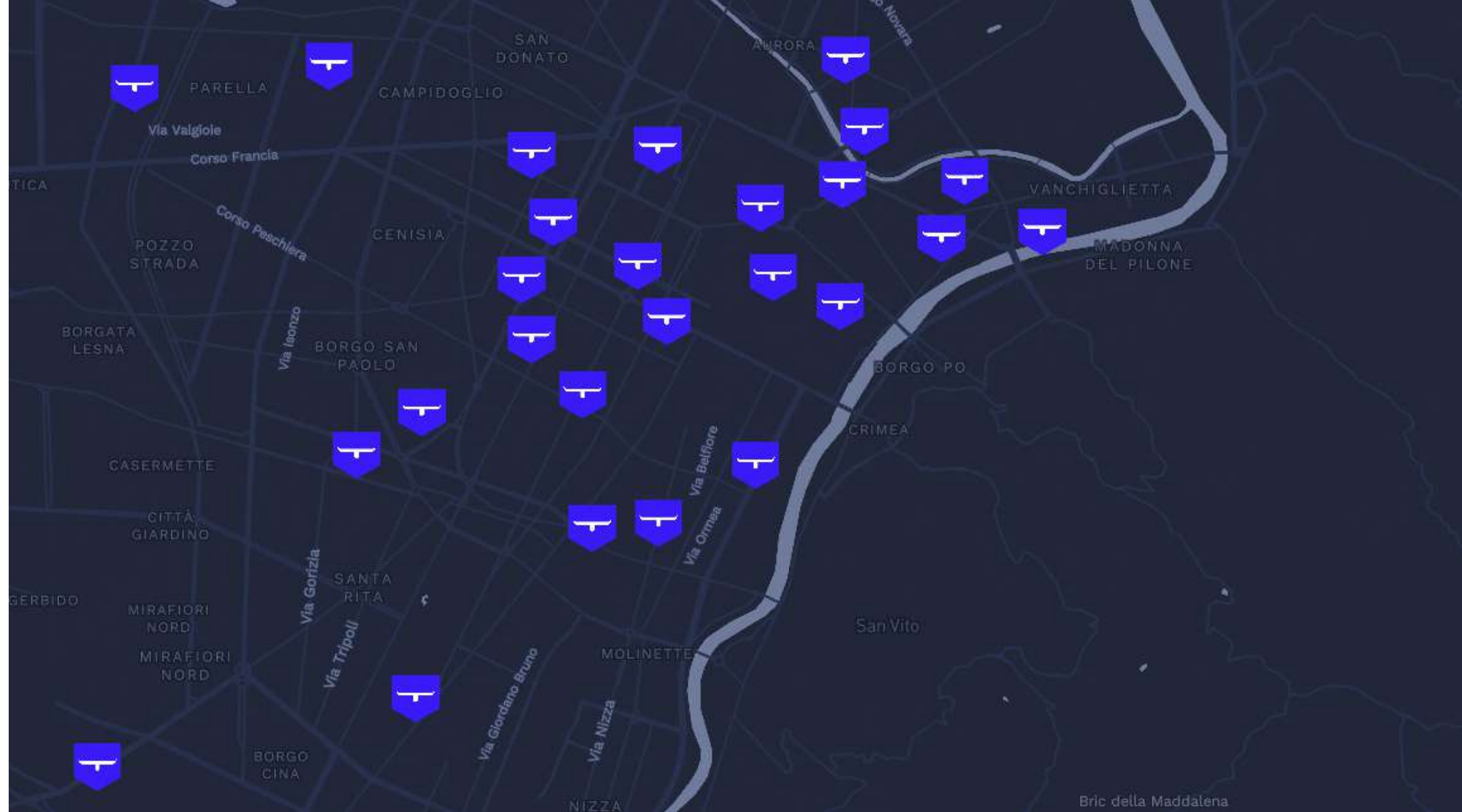
ToTeM (Turin Tech Map) facilitates the dialogue among the players of Turin's innovation, placing startups at the core. It accomplishes this through three activities:

- Mapping the ecosystem (with over 300 organizations).
- Managing an online media platform (with an audience exceeding 10,000 people).
- Hosting live events (with over 1,000 attendees annually).

Supported by:



# TO TEM







## 07. Successful cases

Every year, we include case studies in our research to demonstrate that the future Turin can be high-tech.

This year, we have chosen three startups in different sectors that share commonalities:

1. Attraction of talent from abroad.
2. Funding raised from professional Turin-based investors International vocation from the moment of foundation.
3. Strong connection with local universities and research centers.





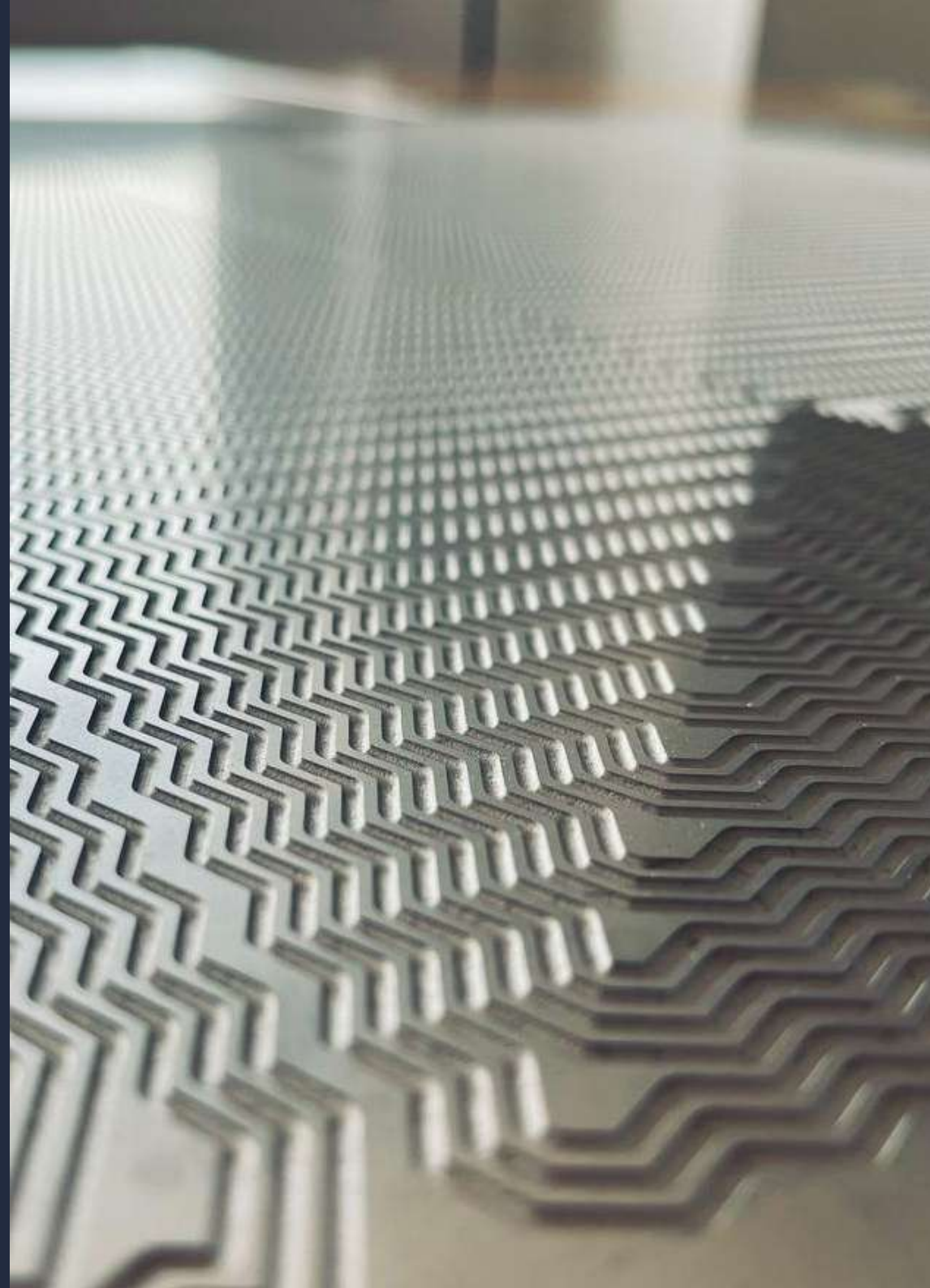


Microchannel Devices ( $\mu$ CD) stands as an innovative SME based in Settimo Torinese (TO), originating in 2019 as a spin-off of STV Italy with support from private investors and LIFTT SpA, a private equity fund dedicated to accelerating innovative startups.

$\mu$ CD is the outcome of a series of R&D projects directed at crafting pioneering product and process solutions within the micro-channel devices domain, specifically addressing energy transition and decarbonization technologies.

Specializing in the deep chemical milling of thick metal plates and the assembly and diffusion bonding welding of PCHE heat exchangers,  $\mu$ CD has positioned itself as a key player in advancing cutting-edge technologies.

**Microchannel Devices stands as a great example, highlighting Turin's excellence in developing industrial technologies**



In 2020, the new headquarters in Turin was inaugurated—a sprawling facility spanning over 4,000 square meters, equipped with state-of-the-art machinery. The fully integrated production cycle adheres to the principles of "Industry 4.0."

Demonstrating its commitment to innovation,  $\mu$ CD is a proud member of the MESAP innovation pole and H2.IT association. Active cooperation agreements are in place with esteemed institutions such as Politecnico and IIT (Istituto Italiano di Tecnologia) in Turin. Currently, the company's dynamic team comprises 20 dedicated

professionals, including 6 skilled engineers and a board of 5 highly qualified managers, 3 of whom hold key operational roles (CEO, CFO, and Senior CTO). The forecast for  $\mu$ CD entails doubling its workforce over the next 2 years.

Looking ahead, 2023 marks the first full year of operation, with a projected turnover of approximately €2,000k in alignment with its Business Plan. Anticipating robust year-on-year revenue growth,  $\mu$ CD targets €15,000k by 2027, with over 90% of its revenue stemming from exports, showcasing its commitment to global impact and market leadership.

**Investors: LIFTT (lead), Club degli Investitori**



**Alessandro Vaiarelli**  
CEO Microchannel Devices



# REVOLV

Revolv Space is an aerospace startup dedicated to supercharging small satellites, striving for a remarkable tenfold enhancement in performance. It leverages advanced technology from major satellite players, making it accessible to the small satellite market without compromising reliability.

Revolv Space assists ambitious space companies by offering turnkey solutions to power their satellites in orbit. Notably, it developed SARA, the world's first autonomous Sun-tracking system for solar arrays, ensuring fail-safety through SnapBack, its proprietary backup mechanism.

**Turin attracted Revolv's talents from the Netherlands**



Revolv Space started out as a dream of four international students at the Delft University of Technology. The Netherlands served as its launchpad for the initial two exciting years, and Revolv will maintain its roots there with a local branch situated next to ESA ESTEC.

The company is now poised for the next phase in Turin, a vibrant hub for hardware

startups. Turin has a strong manufacturing history and is home to big players in the space industry.

Their proximity, together with the large talent pool offered by the city, are all critical ingredients to fuel Revolv's ambition as a growing company on its way to become the go-to provider of power systems in the space industry."



**Marco Sala**

Co-founder & CEO Revolv Space





ALKemist Bio is a biotech startup focused on the development of T-Cell Receptor (TCR) based therapeutic approaches for ALK-positive cancers, leveraging the immune system's precision and potency in recognizing and combating cancerous cells.

The company, financed in 2024 by a syndicate of Italian investors led by Claris Ventures, was founded in Turin by Prof. Roberto Chiarle, esteemed pathology expert active at the University of Turin, currently heading the haemo-lympho-pathology department at the European Institute of Oncology in Milan and overseeing research groups at Boston Children's Hospital.

**Alkemist Bio is a great example of collaboration between Turin and Boston**



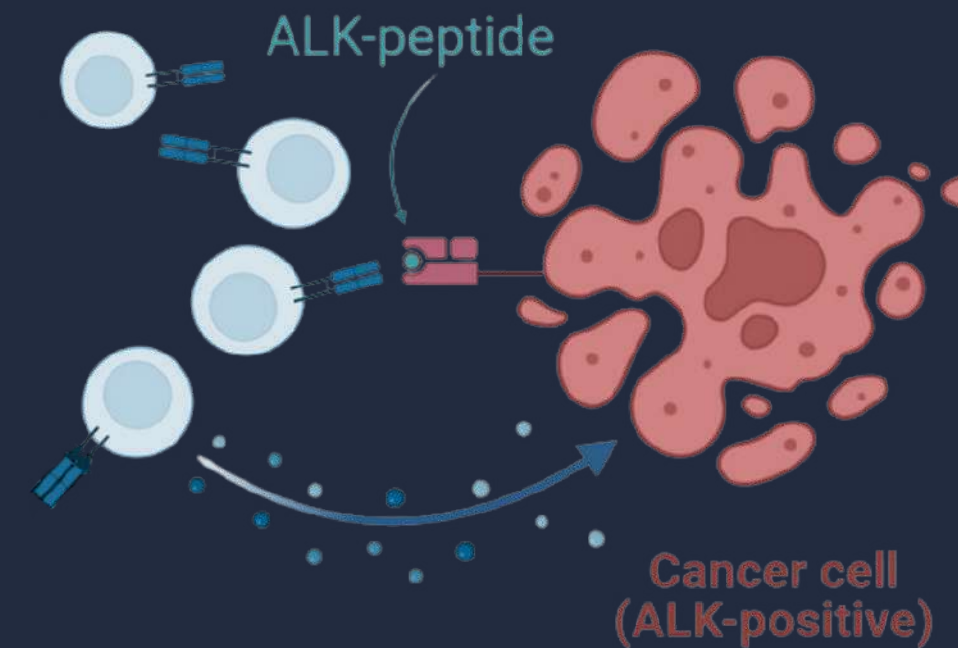
While keeping strong international connections to leverage on the best scientific support possible, the key scientific, business and financing stakeholders of the company are all based in Turin. This physical convergence

grants a fast, efficient and flexible execution, providing a strong advantage in this early stage of development and attracting unique competences and people to Turin – poised to become one of reference hubs in this pioneering sector.

**Investors: Claris (lead), Fenera, Club degli investitori and IAG**



**Roberto Chiarle**  
Founder Alkemist Bio





# Thanks to the Startups who answered the interview...

# ...and many more





# Thanks to investors, accelerators and incubators who supported us in this research



*In search of identity*







