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Mapping models of impact accelerators and incubators: startup portfolio analysis of Social Innovation Teams

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SUMMARY

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1 CHAPTER 1: INTRODUCTION AND OBJECTIVES

Accelerators and incubators play a crucial role in the development of startups, providing support in terms of resources, expertise and growth opportunities. In particular, recent years have seen a growing focus on entrepreneurial ventures with social, environmental and cultural impact, with the goal of generating value not only economically, but also for the community and the region. These programs offer strategic support to startups and/or enterprises through several specific services that facilitate the transformation of innovative ideas into solid and sustainable business realities.

Impact startups benefit from incubation and acceleration models that integrate sustainability and social innovation criteria in addition to traditional growth tools. Incubators focus on the early stages of development, helping projects validate their business model and find the resources they need to start up. Accelerators, on the other hand, provide intensive programs for more mature startups, with the goal of consolidating their growth and attracting investment. These initiatives are part of a broader context of policies and strategies aimed at fostering a sustainable and inclusive economy capable of responding to global challenges through innovative solutions.

In recent years, the social innovation landscape has seen strong development due to increased public and private investment aimed at supporting businesses with a positive impact on society and the environment. The growing focus on the United Nations Sustainable Development Goals (SDGs) has spurred the creation of business models geared toward reducing inequality, protecting the environment and promoting a circular economy. In this context, incubators and accelerators not only foster the growth of startups, but also contribute to the spread of a new entrepreneurial culture based on values of responsibility and sustainability. However, there are still challenges related to the scalability and economic sustainability of impact startups, making it necessary to continuously improve the support strategies offered by accelerator programs.

This thesis aims to analyse the entire landscape in which incubators and accelerators operate and their role in supporting social, environmental and cultural impact startups and is essentially divided into two blocks, beyond the first deep analysis of the ecosystem by studying its definitions, evolution and current situation.

The first part will be dedicated to the investigation of factors and portfolio ranking criteria peculiar to other incubators and/or external entities conducting research on this ecosystem, carefully chosen according to certain parameters, examining the strategies and tools adopted to support startups in their scaling process. While in the second part we will conduct a mapping and analysis of startups supported by *Social Innovation Teams*, *SIT*, an Italian organization that is configured as an incubator and promoter of social innovation founded by Prof. Paolo Landoni in order to support valuable business ideas with a substantial social or environmental impact on the territory. The purpose of SIT's portfolio mapping is to understand the characteristics of the startups supported by the incubator, following a specific custom classification model.

Finally, in the conclusions, the results obtained from the entire analysis will be compared, with the aim of obtaining a clear, real and reliable picture of SIT's portfolio.

2 CHAPTER 2: METHODOLOGY

Therefore, this research aims to map the portfolio of startups supported by Social Innovation Teams (SIT) with the goal of improving the strategic understanding of the incubator's activity and supporting its future development. The work is based on the development and application of a customized model to analyse the startups of the above-mentioned incubator. The methodological approach turns out to be mixed, integrating qualitative and quantitative analysis to ensure a solid, systemic view while adhering to the real complexity of the Italian innovation ecosystem.

In the first phase there will be a preliminary analysis and study of the literature to contextualize and investigate the peculiarities of innovative entrepreneurship supported by the significant contribution of incubators and accelerators. Thus, the methodological path began with a theoretical-conceptual reconnaissance aimed at defining the perimeter of the object of study: business incubators and accelerators. This phase included consultation of a multiplicity of sources, including institutional websites of Italian and international incubators, reports of third-party entities (in particular the Social Innovation Monitor 2024), and national and international innovation ecosystem analysis sites.

The goal was to understand the nature and functions of incubators, their historical evolution, current positioning in the Italian innovation ecosystem, and commonly adopted classification criteria (e.g., sector orientation, stage of startup development, focus on social or environmental impact).

In the next stage, the thesis will develop into a detailed survey in order to collect and select the main criteria for classifying incubators in order to build a coherent and plausible model to be applied later to Social Innovation Teams.

Accordingly, a systematic collection of data on active incubators in Italy was undertaken, starting with the official list available from the Business Registry. From this raw database, a careful filtering and selection activity was conducted, guided by three main criteria:

- Operation of incubators in the Italian territory
- The presence of a mission oriented toward social and environmental innovation
- A portfolio of incubated startups comparable in number and structure to that of SIT

This phase involved individual analysis of each subject, verifying information available through official websites and, where necessary, using external sources such as university observatories, public reports and sectoral databases, and direct contact with internal contacts to fill information gaps due to the partial transparency of the sector.

At this point in the analysis, once the relevant incubators were identified, the mapping and classification of startups into their respective portfolios was carried out. This was supported by both qualitative and quantitative criteria such as, for example, sectoral classification through ATECO codes when available, identification of the target market, and reconstruction of the startups' areas of social or environmental impact.

This activity was a crucial step in being able to design a functional reference grid for SIT portfolio analysis.

One of the final stages of the journey led to the construction of an operational model for the classification and mapping of startups incubated by SIT. The model, designed as a management tool, aims to concisely and structurally represent key information related to the portfolio, support strategic reading of the incubator's activities, enhance the communicability of its services and benefits, and, finally, provide a dynamic database for future updates, benchmarks and visualizations.

The model integrates quantitative variables such as sectors, stage of development, frequency by category, and qualitative variables such as mission, consistency with impact values, and growth prospects, posing itself as a tool that straddles the line between management analysis and social innovation enhancement.

Throughout the work, it has been necessary to balance structured research with a flexible and adaptive approach in response to the partial availability of data and heterogeneity of sources; in addition, a systemic and interdisciplinary view, capable of linking economic, organizational and social elements into a coherent analytical structure, has been emphasized.

3 CHAPTER 3: OVERVIEW OF THE INCUBATORS' ECOSYSTEM

In recent years, the startup ecosystem has become increasingly central to economic, social and technological development globally. In this context, **incubators** have emerged as key players in supporting innovation and entrepreneurial growth, especially in the early stages of project development.

First, *startups* play a crucial role in fostering innovation: they tend to focus on original, unconventional or technologically advanced solutions to existing problems or emerging needs. This approach enables them not only to introduce new products or services to the market, but also to transform consumption patterns and ways of interacting with technology and digital platforms.

Second, these companies are born with a strong propensity to take early advantage of new market opportunities. Unlike traditional companies, which are more structured and less flexible, startups are able to move nimbly, adapting quickly to changes in the socioeconomic environment and catching weak signals before they become established trends.

Another key aspect concerns the relationship between risk and return. Startups, by their very nature, have a high degree of entrepreneurial risk, often related to uncertainty of outcomes, scarcity of initial resources, and experimentation with as-yet untested models. However, for this very reason, they also represent a high-yield opportunity for investors willing to bet on their potential for exponential growth.

Also not to be overlooked is the ability of startups to generate processes of "disruption" in more traditional sectors, thus changing them strongly. Through the use of emerging technologies and leaner and more scalable business models, these companies often succeed in reducing costs, increasing efficiency and revolutionizing entire supply chains, challenging established balances.

From a macroeconomic perspective, startups play a strategic role in creating new jobs and growing the productive fabric. Their contribution to economic development is not limited to the local dimension, but extends nationally and globally due to their ability to attract talent, capital and intellectual resources, contributing to the development of the business fabric throughout the country.

Startups, then, are not just vehicles for innovation, but true engines of economic and social transformation, capable of opening new development trajectories and generating significant impacts in the contexts in which they operate.

In the early stages, however, startups are naturally characterized by financial uncertainty, as lack of capital prevents them from developing the product, testing it, and managing day-to-day operations. Difficulties arise in the management of a startup as specific skills are required in multiple areas such as finance, marketing, human resources and product development and, finally, by lack of visibility, which is impossible to possess in the beginning, but necessary to attract customers and investors and enter the market. For these and many other reasons, these realities, especially in the early stages, need constant and incisive support from structured ecosystems such as incubators and accelerators that provide various services in order to shape the business idea into a real company that can enter and emerge in the target market.

In this context, the analyses and reports of many research institutes, such as the **Social Innovation Monitor (SIM)**[1] , a research centre based at the Polytechnic University of Turin, which periodically develops a series of annual reports, responsible for analysing in detail the Italian and international landscape of incubators, with the aim of offering an up-to-date and reliable snapshot of this evolving sector, are crucial. The report gathers quantitative and qualitative data to understand the composition, strategies and impact of incubators, with a particular focus on those operating in the field of social innovation.

Among the various studies, it seems most pertinent to focus on Report 2024, published on March 27, 2025 thanks to the collaboration of InnovUp[2] , Main Partner of the initiative, and PNICube[3] , Italian Competence Center for Social Innovation (ICCSI)[4] , Fondazione Giacomo Brodolini[5] , Neolithic Evolution[6] and Social Innovation Teams (SIT). also reported in a dedicated article in "La Repubblica," which, thanks to the administration of a questionnaire filled out by several incubators and accelerators operating in the area, analyzes and delves into their role and characteristics, with a special focus on the dynamics of supporting social innovation. Specifically, the main objectives of these reports are as follows:

- Mapping nationwide incubation and acceleration activities, providing an updated picture of the development and spatial distribution of organizations involved in these processes.

- Analyse the business models adopted, the services provided, and the main differences between the different types of incubators and accelerators, considering variables such as legal nature, sector specialization, and access arrangements for startups.

- To investigate the specifics and challenges faced by incubators that target businesses with significant social and environmental impact, i.e., those businesses that integrate at least one social innovation into their model.

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[1] **Social Innovation Monitor (SIM)**, a team of researchers and professors from different universities united by their interest in innovation and entrepreneurship with significant social and environmental impact. SIM is operationally based at DIGEP (Department of Management and Production Engineering) of the Politecnico di Torino and is coordinated by Prof. Paolo Landoni

[2] **InnovUp** - Italian Innovation & Startup Ecosystem is the association that since 2012 represents and connects the main stakeholders of innovation in Italy, promoting the development of a favorable environment for startups and scaleups

[3] **PNICube** (Italian Association of University Incubators and Business Plan Competitions) was established to foster dialogue between universities and business, through the actions of its 55 members spread throughout the country

[4] **ICCSI** - Italian Competence Center for Social Innovation is an Italian competence center that promotes projects and policies for social innovation, inclusion and sustainable development.

[5] **Fondazione Giacomo Brodolini** is an independent think tank focusing on public policy for inclusion, social innovation and employment, with offices in Italy and Europe

[6] **Neolithic Evolution** is a socially oriented innovative startup that develops urban regeneration, land development and youth entrepreneurship projects

- Conduct an initial assessment of the effectiveness of the support provided by incubators and accelerators in order to understand the extent to which these interventions contribute to the development and sustainability of incubated startups.

3.1 What is an incubator?

In the contemporary innovation and entrepreneurship landscape, business incubators are a key player in supporting the development of startups and entrepreneurial projects in the early stages of the life cycle. These are organizations, often promoted by public agencies, universities, companies or private entities, that offer a structured set of services and resources, aimed at facilitating the birth, growth and sustainability of new innovative businesses.

Incubation organizations play a crucial role in supporting entrepreneurs in the early stages of the business model development process, with the goal of making it replicable and scalable. In particular, incubators contribute to the validation of the startups' business model, gathering data and information useful for demonstrating its economic viability and facilitating access to external financial resources. The added value offered by these facilities takes the form of the provision of specialized expertise, which will be developed in the text, through services such as mentorship, training, consulting and support in the drafting of the business plan; but through the activation of strategic networks, useful for connecting startups with potential investors, business partners and other players in the innovation ecosystem. In some cases, the incubator also provides physical space for carrying out entrepreneurial activities.

A startup incubator, in other words, is the *place, physical but also virtual, within which a startup can transform from a "simple" business idea to an actual entrepreneurial reality.*

It is important to note that incubators do not generally fund companies directly-their job is to create favourable conditions for the startup to effectively access external, public or private funding channels.

The incubation period has a variable duration, which can roughly range from 3 to 36 months, depending on the nature of the project and the maturity level of the company. However, there is no rigid and universal deadline, as each startup has specific characteristics and needs, which may require different time frames for growth and stabilization in the market.

The very concept of an "incubator" evokes a protected and stimulating environment, designed in fact to accompany the evolution of a raw business idea until its concretization into an operational and competitive enterprise. In particular, incubators are aimed at pre-seed or early-stage entrepreneurial realities, which need support in defining the business model, validating the product or service and building a network of strategic contacts useful for market positioning.

Lastly, the official definition of the European Commission is quoted: "a business incubator is an organization that accelerates and systematizes the process of new business creation. It provides them with a wide range of integrated support services including physical incubator space, business development support services, and integration and networking opportunities."

3.2 How does a business accelerator differ from an incubator?

Business accelerators are an essential component of the innovation ecosystem, with a specific function aimed at supporting the rapid growth of startups that have already passed the early stages of development. Unlike incubators, which focus on accompanying business ideas that are still in the embryonic stage, accelerators target already established and operational entities, with a minimum level of validation of the product or service offered.

Acceleration takes the form of a structured and intensive course, generally of limited duration (usually between three and six months), designed to give a significant boost to the growth and scalability of the company. It is, therefore, an intervention aimed at consolidating the foundations of the already defined business model, optimizing internal processes and preparing the startup for market entry or access to new sources of funding.

From an operational point of view, accelerators are distinguished by a *time-bound* logic of intervention, that is, limited to a limited and well-defined period, at the end of which the startup is expected to have reached a level of maturity such that it can independently tackle the next stages of growth. In many cases, entry into an accelerator program is through a competitive call, following which the startups with the greatest potential in terms of innovativeness, sustainability and scalability of the business project are selected.

Startups admitted into accelerators therefore generally already have an MVP, Minimum Viable Product[1] and are looking for funding, market expansion and consolidation of their business model. The goal of the accelerator is to speed up the growth process of companies with intensive programs that usually last from 3 to 6 months and include various support activities.

In summary, the business accelerator can be defined as a strategic and temporary device aimed at consolidating and strengthening existing startups through an intensive process geared toward rapid growth, business structuring and competitive market positioning.

Then a brief comparison can be made between the two entities based on various factors such as selection parameters, objectives, timelines, focus, and funding.

Here, then, are the main factors to consider:

- *Development stage*: accelerators focus on startups that already have a product or initial momentum and need a boost to expand, thus targeting startups ready to progress and grow rapidly. Incubators are better suited for early-stage startups that may still be in the ideation stage. These programs help founders who are working on their business model, market fit or product. Incubators are a place to experiment and refine before fully committing to growth.

- *Program duration*: accelerators typically follow projects for a few months; they are short and intense as the focus is primarily on quick results. There is a structured timeline and the program is scheduled to be of the greatest possible

[1] **MVP, Minimum Viable Product**, is the simplest, scaled-down version of a product that allows its value proposition to be tested in the marketplace with minimal investment of resources. The MVP allows direct feedback to be gathered from consumers to validate business hypotheses, test market interest, and iterate quickly on the product before developing a final version. This approach is critical to reducing entrepreneurial risk and optimizing the product development process.

value in the short term. In incubators, on the other hand, startups might stay for several months or years while they work to refine their business as incubators offer startups the time and space to develop at their own pace without the pressure to grow right away.

- *Investment*: accelerators often provide seed funding in exchange for ownership shares. They usually acquire a small ownership stake in the startup, typically about 5 percent to 10 percent, in exchange for an initial cash investment and access to program resources. Incubators usually do not provide capital, but some charge a fee or charge a fee for the services they provide similar to accelerators. The focus is more on creating an environment in which startups can grow, rather than investing capital directly in the business.

- *Focus*: accelerators focus on helping startups grow, raise funds and prepare for the next big step, whether it's launching a product, expanding the company, broadening the customer base or attracting major investment. Incubators focus on helping founders further develop their idea. The emphasis is on experimentation, developing a business model and determining market fit.

- *End goal*: accelerators often culminate in a demo day, where startups present themselves to investors so they can seek to make connections, obtain funding or potentially secure partnerships. The program focuses on reaching milestones, with an emphasis on growth and visibility. Incubators do not have a set end date or a major event such as a demo day. Instead, they offer ongoing support without the same pressure to reach a milestone by a specific deadline. The goal is to help startups build a solid foundation and set themselves up for long-term success.

- *Pace*: accelerators move very quickly such that they are very fast and intense in order to forcefully push startups to improve, grow and perfect their product in a short period of time, while for incubators there is more time to experiment and reevaluate without the need to meet a tight deadline.

Table 1: *differences overview between incubators and accelerators*

Feature	**Incubator**	**Accelerator**
Startup phase	Early stage (pre-seed, seed)	Growth stage (early-stage, growth)
Duration of the program	Long term (months to years)	Short term (3 to 6 months)
Main objective	Supporting birth and early growth	Accelerating growth and scalability
Intervention model	Ongoing and gradual support	Intensive and targeted support

Type of support	Mentorship, training, general consulting	Targeted mentorship, networking, funding
Focus on innovation	Broader, also traditional entrepreneurship	Strong focus on innovation and scalability
Disposal of equity	Often not required or minimal	Usually in exchange for equity (average 5-10%)
Financing	Support in external fundraising	Possible investment or direct access to financing

3.3 Types of incubators and accelerators

In the collective imagination, an incubator is associated with a single role model: an innovative space where startups find support to grow. In reality, the landscape is much more diverse. Incubators are not all the same; rather, they differ in terms of mission, target audience, legal structure, funding arrangements, services offered and, most importantly, business model adopted.

A widely accepted classification in the literature, and also used by academic and institutional observers such as the aforementioned Social Innovation Monitor (SIM), divides incubators into three macro-categories: for-profit (business-oriented) incubators, social (nonprofit) incubators and mixed (mixed) incubators.

Each typology has distinctive characteristics that reflect different views of the role of innovation in the economic and social system.

1. **Business-oriented incubators** (for profit)

For-profit incubators operate according to market logic and pursue the goal of generating a direct or indirect *economic return* for themselves or their stakeholders. These facilities generally target startups with high growth potential, particularly in the areas of technological and digital innovation, and select projects on the basis of scalability and the ability to attract venture capital investment.

The financial sustainability model is based on the provision of services for a fee (e.g., physical space, mentorship, expert advice), participation in the share capital of incubated startups (equity-based model[1]), or the collection of fees when startups raise funding (success fees).[2]

The prevailing purpose is, therefore, the generation of economic value and return on investment.

2. **Social incubators** (nonprofit)

Social incubators are characterized by a mission-driven approach, geared toward generating positive social and environmental impact rather than profit-making. Their main objective is to support businesses and projects that address social challenges such as labour inclusion, education, urban regeneration, and environmental protection, contributing to the development of a more equitable and sustainable economy.

These incubators operate mostly in the form of nonprofits, foundations, or third-sector entities, and are funded through public grants, philanthropic funds, calls for proposals, and institutional partnerships. Services are often offered for free or at subsidized rates, and aimed at social enterprises, impact startups, cooperatives, and others working in the field of social innovation.

The prevailing purpose here is the production of social impact and the protection of the common good.

[1] The **equity-based model** adopted by for-profit incubators calls for the support provided to startups to be remunerated through the sale of an equity stake in the incubated company. In this way, the incubator becomes a partner in the startup, sharing both the risks and potential economic returns from the success of the venture.

[2] A **success** fee is a fee awarded to a party solely upon the achievement of a predetermined outcome, such as raising capital or selling the business. This remuneration model aligns the interests of the parties, rewarding effective support and the achievement of growth or exit goals.

3. **Mixed (hybrid) incubators**.

Mixed incubators represent a hybrid model that combines elements characteristic of both for-profit and social incubators. The goal is to balance economic sustainability with the generation of social value by adopting an integrated approach that allows them to support a plurality of initiatives, including those with different objectives.

These incubators can pair traditional startups with impact enterprises, tailoring services and support models to the specific needs of incubated projects. Financial sustainability comes from diversified sources: revenue from services, corporate holdings, government grants, and partnerships with third-sector entities.

Thus, the prevailing purpose is to balance economic return and social impact.

Table 2 shows the main characteristics of the different 3 types of incubators, just discussed.

Table 2: *incubators types overview based on business model*

Type of incubator	*Prevailing purpose*	*Economic model*	*Primary beneficiaries*
business	Economic return	Equity, fees, success fees	Technology startups, high growth potential
social (no-profit)	Social/environmental impact	Public/private contributions, donations, symbolic fees	Impact startups, social enterprises, cooperatives
mixed	Impact-profit balance	Hybrid model: equity + public or philanthropic funds	Traditional startups and social impact startups

Another key to analyse the business incubator landscape is the *legal nature of* the promoting or managing entity. In fact, behind every incubator is an organization that defines its goals, influences its governance and determines its operating methods.

This classification provides a better understanding of who promotes and funds incubation activities, what institutional logic underlies them, and what the implications are in terms of services, target audience, and impact on the local area.

1. **University or academic incubators**

They are promoted by universities or public and private research centres. They have as their primary goal the enhancement of scientific research and technology transfer,

encouraging the creation of spin-offs[3] and startups founded by researchers, faculty or students. These incubators are often located near university campuses, so as to maintain a strong link with academia. They offer access to scientific expertise, laboratories, research infrastructure and networking with other innovation entities. Notable examples include Polihub (Politecnico di Milano), I3P (Politecnico di Torino).

2. **Public or institutional incubators**

Managed by public entities (municipalities, regions, chambers of commerce) or local development agencies, these incubators pursue an economic and social policy mission, supporting business creation as a tool for employment growth, urban regeneration or territorial cohesion, such that their impact is strongly rooted in the local context. They often operate with public funds and are accessible free or at reduced cost, particularly for disadvantaged individuals such as young entrepreneurs, women or the unemployed. Good examples are municipal incubators or projects financed by European funds such as ERDF[4] or PON[5].

3. **Private for-profit incubators**

This typology includes private companies, investment funds, companies or industry groups that operate incubators out of strategic or economic interest. The objective may be twofold: to obtain financial returns (e.g., through equity) or to acquire innovations to integrate into their core business. These incubators are very selective and geared toward the rapid growth of startups. They offer equipped spaces, professional mentorship, access to investors and, in some cases, direct collaboration opportunities with the parent company. Some emblematic examples are LVenture Group, Digital Magics, TIM WCAP.

4. **Corporate incubators**

These are structures promoted by large companies with the goal of integrating external innovation into their processes. They are not only investments, but also a way to co-create solutions with startups, test new business models and accelerate digital transformation. They generally select projects that are compatible with the needs of the parent company and provide a mix of technological resources, capital and industrial

[3] The term **spin-off** refers to a new enterprise that is created from a pre-existing organization-typically a university, research centre or company-with the aim of enhancing and transferring skills, scientific knowledge or research results to the market.

[4] The **ERDF** is one of the European Union's main financial instruments for reducing regional disparities and supporting economic and social development. In the area of public incubators, the ERDF finances innovation infrastructure and services, encouraging the establishment of incubators and accelerators, especially in disadvantaged areas, to promote SME competitiveness and entrepreneurship.

[5] **The NOP** is a plan of interventions co-financed by European funds (such as the ERDF) and the national government, designed to achieve strategic objectives in key sectors for the country's development. In the context of public incubators, NOPs-for example, the one on Research and Innovation-support the creation of entrepreneurial ecosystems through funding incubators, training entrepreneurs and technology transfer.

know-how. Some entities worth mentioning are Eni Joule, Enel Innovation Hubs, Intesa Sanpaolo Innovation Centre.

5. **Incubators promoted by foundations or third sector entities**

These incubators arise from philanthropic entities or nonprofit organizations and have as their mission the promotion of social innovation and impact entrepreneurship. They play a crucial role in supporting realities that often remain excluded from traditional venture capital circuits. They are community-oriented and often work in networks with public agencies, universities and social enterprises. They offer free or discounted services, putting values such as inclusion, sustainability and equity at the centre. SocialFare in Turin and Fondazione Brodolini in Rome and Milan are good examples.

6. **Hybrid or partnership incubators**

In some cases, incubators are the result of collaborations between different actors: universities, public agencies, private companies, foundations. These mixed models integrate resources, expertise and networks of relationships, creating more complex and articulated innovation ecosystems. This type of governance makes it possible to multiply the impact on the territory and to offer a broader and more flexible portfolio of services, adaptable to the different profiles of the incubated startups. In this perspective, the reality to be mentioned as an example is certainly Impact Hub, present in several cities around the world, which acts as a bridge between social entrepreneurship, education and international networks.

In this context, related to the classification of these ecosystems, a prominent role is played by *certified incubators* of innovative startups, i.e., those facilities that, in possession of certain technical-organizational requirements, receive a formal certification by the Ministry of Enterprise and Made in Italy (MIMIT)[6] . The goal of such recognition is to ensure the reliability of the actors that support technology and innovative startups, thus strengthening the entire national entrepreneurial ecosystem.

The introduction of the figure of the certified incubator occurred with Decree Law No. 179 of October 18, 2012 (so-called "Growth Decree 2.0"[7]), converted into Law No. 221 of December 17, 2012, the same measure that established innovative startups as a separate legal category. In this regulatory context, the certified incubator is not simply a service provider, but represents a qualified partner for the development of startups, capable of accompanying their growth in the delicate initial phase of the business life cycle.

[6] **The Ministry of Enterprise and Made in Italy (MIMIT)** is the Italian government body responsible for industrial policies, innovation and the promotion of the national production system, with a focus on the protection and enhancement of Made in Italy. Successor to the Ministry of Economic Development (MISE), MIMIT also deals with market regulation, support for startups and SMEs, industrial property, and international trade

[7] **Decree-Law No. 179/2012**, known as **Growth Decree 2.0**, established the regulatory framework for innovative startups in Italy, introducing tax and bureaucratic benefits, definition criteria and access to public support tools

The criteria for achieving certification, in accordance with the implementing regulations contained in the Ministerial Decree of December 22, 2016[8] , are very precise and strict including:

- Physical premises suitable for the purpose of hosting startups, including shared spaces and work areas
- Advanced technology equipment, such as prototyping tools, laboratories, and broadband connections
- presence of an experienced team that can provide managerial assistance and strategic planning support for incubated enterprises
- Expertise in intellectual property, access to finance and technology transfer
- Established network of relationships with universities, research centres, public agencies, investors and companies in the area.

The systemic function and impact of certification is not simply a formal recognition as an end in itself, but rather a seal of quality that distinguishes incubators truly capable of contributing to the growth and sustainability of innovative startups. This status also makes it easier to access public funding programs, regional or European calls, and to participate in systemic initiatives promoted by public and private entities, thus strengthening their role as a strategic node in the innovation ecosystem.

According to updated data from the Register of Innovative Startups, managed by Infocamere[9] , certified incubators in Italy are still a relatively small component in terms of numbers, but highly qualified in terms of impact and ability to generate value.

For the sake of completeness, it is also worth mentioning and analyzing certain types of accelerators, which in some cases may differ from incubators in terms of specific requirements. Beyond the usual classification regarding corporate, university and government- funded accelerators, exist:

1. **Industry-Specific accelerators**

These accelerators focus on firms working within specific industries, for example, healthcare, fintech, edtech, cleantech, or biotech. They deliver industry-focused mentorship and exposure to resources specific to the industry's specific requirements.

2. **Social Impact Accelerators**

Focusing on social entrepreneurship, these accelerators invest in startups with the potential to solve crucial, cultural or environmental problems. They often target sustainable business models and measurable social impact generated.

[8] The **Ministerial Decree of Dec. 22, 2016** established the criteria and procedures for the recognition of certified innovative startup incubators, formalizing the structural and functional requirements for such entities to support innovative entrepreneurship

[9] **InfoCamere** is the consortium company of the Italian Chambers of Commerce, responsible for managing the Business Registry and digital services to support the simplification and innovation of the national business system

3. **Seed Accelerators**

These are the most traditional form, offering a cohort-based program with seed investment, mentorship, and education components, ending with a public pitch day or demo day.

4**. Virtual Accelerators**

With remote work, online accelerators can be accessed from remote locations and they offer virtual resources, mentorship, and network opportunities.

5. **Niche Accelerators**

They are tailored to niche market startups or startups with unique business models, e.g., blockchain, artificial intelligence, or hardware startups.

6. **Equity-Free Accelerators**

They don't take equity from the startups they support and may be funded by non-profits, governments, or other parties more interested in developing business ecosystems than investment return.

3.4 Why do incubators/accelerators exist?

Although, to some extent, something has already been alluded to earlier, it is important to draw attention to why incubators exist, consequently, to their role within the innovation environment and, therefore, to the services they offer to support startups.

Indeed, in today's economic environment, marked by rapid technological change and the growing importance of innovation as a driver of development, business incubators represent an essential infrastructure within entrepreneurial ecosystems. Their existence is not justified simply as support for the creation of new businesses, but responds to a deeper need: to create favourable conditions for the birth, survival and growth of high-potential entrepreneurial ventures, in an environment where such conditions often do not manifest themselves spontaneously.

Numerous researches have highlighted how startups, especially in the early stages, face structural criticalities: limited access to financial resources, difficulties in finding managerial and technical expertise, low visibility in the market, and isolation from support and collaboration networks. In this scenario, the incubator takes on an enabling and systemic role, acting as a mediator between different actors and helping to reduce information asymmetries and systemic inefficiencies.

The Social Innovation Monitor, in its 2023 report "Incubators and Accelerators in Italy," highlights how incubators play an important function in connecting human capital, financial capital and scientific knowledge, promoting not only the birth of businesses but also the development of dynamic and collaborative territorial ecosystems. Such structures are often called upon to operate in territories characterized by development gaps or in strategic sectors for the digital and green transition, thus demonstrating their value also as public policy tools.

Similarly, the Ministry of Enterprise and Made in Italy (formerly MISE) recognizes, through its policies and calls to support entrepreneurship, the central role of incubators in strengthening the competitiveness of SMEs, stimulating innovation and supporting the development of local production chains. At the European level, the OECD Report[1] of 2021 highlights how such entities have also become increasingly relevant from a social cohesion perspective, stimulating value creation in peripheral or marginal territories, thus helping to develop the entire territorial community and promoting the local entrepreneurial fabric.

Incubators therefore exist because they respond to a twofold need: on the one hand, the need to *support startups in the most delicate stages of the entrepreneurial life cycle*; on the other, the possibility of acting as *facilitators of systemic innovation*, contributing to the construction of an environment conducive to economic growth, skilled employment and the regeneration of the socio-productive fabric. The impact of these ecosystems is thus measured not only in terms of the financial success of startups, but also in the value created at the systemic level, fostering the spread of culture entrepreneurship, stimulating the connection between innovation and traditional industry, and accelerating the digital and sustainable transformation of local and global economies.

[1] The Organization for Economic Cooperation and Development (**OECD**) regularly publishes reports analyzing the economic and social performance of member and partner countries. These documents offer comparative assessments, policy recommendations, and insights on strategic issues such as innovation, entrepreneurship, education, and sustainable development, providing an authoritative source for public and private strategy-making

In relation to the reason why incubators and accelerators exist and help startups, it is necessary to analyse the services they offer through which new business ideas can be supported and promoted.

The services offered by incubators and accelerators go far beyond merely providing space or seed funding. They provide a complete ecosystem that encompasses:

1. **Customized mentoring and coaching** represent fundamental tools to accompany startups in defining and consolidating their growth path. These interventions are not limited to providing technical-operational support, but take the form of real strategic levers for entrepreneurial development, geared toward strengthening the decision-making, management and strategic capabilities of founding teams. Mentoring is carried out through coaching by industry experts, serial entrepreneurs, investors or professionals with specialized skills, who support startups at crucial stages such as validating the business model, defining the value proposition[2], analyzing the target market and building a coherent business strategy. The relationship between mentor and mentee is based on a continuous and constructive interaction, which allows them to pass on not only theoretical knowledge, but above all experiential skills and tacit knowledge, acquired in the field and difficult to find through traditional sources.

   In parallel, coaching takes on a complementary role, focusing on strengthening soft skills and the entrepreneurial mindset. Through personal and organizational development techniques, coaching aims to strengthen aspects such as leadership, team management, effective communication skills, resilience in times of crisis, and adaptability to change.

2. **Hands-on training**: this is not a simple transfer of knowledge, but a true experiential training, built around the concrete needs of early-stage entrepreneurial teams. This approach aims to bridge the gap between design intuition and strategic execution skills, which is often the most theoretical and complicated step to take. Through thematic workshops, lab sessions and intensive modules, startups have the opportunity to engage with operational tools and methodologies ranging from business model building to digital marketing strategies, from financial management to structuring cohesive, high-performing teams. In particular, established frameworks such as the Business Model Canvas[3] , the Lean Startup Method[4] and

[2] The **value proposition** represents the set of benefits, tangible and intangible, that a company promises to offer its customer segment, thus distinguishing itself from competitors. It clearly answers the question "why should a customer choose this very offering?" and constitutes one of the fundamental elements of the business model (Osterwalder & Pigneur, 2010)

[3] The **Business Model Canvas (BMC**) is a strategic visual tool, developed by Alexander Osterwalder and Yves Pigneur (2010), to represent and design an enterprise's business model in a synthetic and systemic way. It is structured into nine basic blocks that describe how an organization creates, distributes, and captures value: customer segments, value proposition, channels, customer relationships, revenue streams, key resources, key activities, key partners, and cost structure. Its strength lies in its ability to provide insight and facilitate comparison of business hypotheses, even at a very early stage

[4] The **Lean Startup** Method, theorized by Eric Ries (2011), is an iterative entrepreneurial approach designed to reduce the risk and uncertainty typical of startups. The basis of the method is the Build-Measure-Learn cycle, which invites entrepreneurs to rapidly develop a Minimum Viable Product (MVP), test it in the marketplace,

Design Thinking[5] , which can stimulate critical and iterative reflection on the entrepreneurial project, are often used. In accordance with OECD and Startup Genome reports, it is shown that an effective entrepreneurial ecosystem is also based on the ability to train knowledgeable entrepreneurs who are able to interpret market dynamics and build adaptive strategies, and how startups that participate in incubation programs with a strong training component record superior performance in terms of access to investment, time-to-market[6] and sustainable growth.

3. **Access to capital**, made possible through various means, listed below.

   Direct Investments: some incubators and accelerators, particularly those funded by public agencies or private organizations, offer direct investments in startups, sometimes in the form of seed or pre-seed capital, which will be discussed more fully later. These investments, although not always high, provide young companies with the resources they need to cover the initial costs of product development, marketing, and operations, without having to immediately depend on external funding.

   Connections with Venture Capital (VC) Funds and Angel Investors: many incubators and accelerators establish strategic partnerships with venture capital (VC) funds and angel investors, creating direct funding channels for startups. Venture capitalists are professional funds that invest in startups with high growth potential, but also high risk, in exchange for equity stakes. Angel investors, on the other hand, are individuals or groups of investors who, usually with their own capital, are willing to fund early-stage startups, while also offering mentorship and strategic support.

   Pitching events: another key tool offered by many incubators as, during these events, startups have the opportunity to present their project to an audience of investors, including venture capitalists and angel investors. The pitch is a concise but powerful presentation in which founders must convince investors of the validity of their business model, growth potential, and the economic impact the company could have in the marketplace. Such events not only facilitate direct access to funds, but also help build a network of contacts and improve the startup's visibility within the entrepreneurial ecosystem.

   Investment Mediation and Selection: incubators and accelerators also act as mediators between startups and possible investors. A crucial aspect in this context is that, unlike other forms of funding, incubators help startups prepare for financial negotiations by acting as a filter between startups that can actually obtain funding

gather real-world feedback, and, based on that feedback, decide whether to continue or change strategy (pivoting). The focus is on validated learning, resource savings and adaptability, rather than rigid planning

[5] **Design Thinking** is a creative, human-centred problem-solving process aimed at developing innovative solutions through a deep understanding of people's needs. It consists of five main stages: Empathizing, Defining, Ideating, Prototyping and Testing. This methodology, which is also widely adopted in business, allows innovation to be approached not only as a technical exercise, but as a shared path of meaning, with a strong iterative and experimental component

[6] **Time to Market (TTM)** is a strategic indicator that measures the amount of time it takes for an idea, product or service to move from the initial conception stage to the actual moment of its availability in the market. In business circles, it therefore assesses the operational readiness of a team and the speed with which an innovation is introduced into the economic system

and those that are not yet ready to do so. This reduces the risk of uninformed investments and helps select projects with a high probability of success.

4. **Operational and legal support**: this service constitutes a key structural component to ensure the correct set-up of the enterprise, right from its embryonic stages. This type of assistance acts as an enabler for the legal, fiscal and administrative consolidation of the startup, reducing the risk of regulatory and structural vulnerability. One of the first areas of intervention is *corporate structuring*: incubators accompany entrepreneurial teams in the choice of the most suitable legal form, assessing several variables such as the applicable tax regime, the degree of equity responsibility of the partners, the possibility of access to public incentives and flexibility in terms of governance. In particular, for innovative startups, the form of a simplified limited liability company (LLC) is among the most adopted, thanks to its procedural streamlining and the benefits provided by Italian law.

   Contractual support is a second crucial area: often, in the early stages of development, startups lack in-house legal expertise, and it is therefore essential to offer assistance in drafting commercial contracts, non-disclosure agreements (NDAs[7]), shareholders' agreements and letters of intent, so as to regulate the company's internal and external relationships in advance.

   Another pillar of legal support concerns *intellectual property (IP) protection*. Incubators guide companies in defining strategies for the protection of patents, trademarks, designs and copyrights, both domestically and internationally. Such protection, in addition to being a competitive asset, is also an evaluation criterion for potential investors.

   On the tax side, on the other hand, *compliance* support is provided, with the goal of ensuring the startup's compliance with current tax, social security, and privacy regulations.

   Finally, on the operational level, concrete assistance is noted in the management of *administrative tasks*, such as formal incorporation of the company, registration with the Business Registry, preparation of company books, and in establishing the first management tools useful for coordinating company activities.

5. **Strategic networking** turns out to be a competitive asset that can generate direct impacts on the growth, sustainability and scalability of the project entrepreneurship. Relational capital is crucial, especially at a stage when startups often find themselves lacking established resources and visibility in the market, access to an ecosystem of relevant players, including investors, established companies, institutions, mentors and industry experts, allows them to bridge strategic gaps and accelerate decision-making processes. Incubators and accelerators act, in this sense, as connection hubs, facilitating the entry of young companies into existing entrepreneurial communities. Relational capital usually consists of *investors and financiers* such as with venture capitalists, angel investors and public or corporate funds with whom startups come

[7] **Non Disclosure Agreement (NDA)**: is a binding legal agreement between two or more parties that aims to protect confidential information shared during a collaboration by preventing it from being disclosed or used without authorization. It is particularly used in the startup context to protect ideas, projects, technologies, or business strategies that are not yet public

into contact and who, in addition to offering capital, can also contribute in terms of strategic guidance. Participation in pitching events, demo days or investor roadshows organized by incubators allows founders to present their idea to a selected and targeted audience; *industrial and technological partners* with whom startups have the opportunity to test their solutions in real-world contexts by applying "proof of concept," validate the business model and access technological resources, infrastructure and markets that would otherwise be unavailable. This type of partnership can also result in strategic acquisitions or co-development agreements; *mentors and experts*, high-profile professional figures who provide customized support on technical, strategic and organizational aspects; *customers and the market* since through trade fairs, industry events and collaborations with other companies, incubated startups have the opportunity to gather feedback from the market, acquire the first customers, called "early adopters," and start go-to-market activities in a faster and more structured way.

6. **Market validation** is a crucial service for startups, as it allows them to verify whether there is real demand for the product or service they offer. This process helps to avoid significant investment in solutions that may not meet market needs, thereby reducing the risk of failure. A central element in this phase is the development of the *Minimum Viable Product (MVP*), which is a simplified version of the product that includes only the essential functionality needed to satisfy early customers and obtain valuable feedback. The goal is to test the business hypotheses with minimal expenditure of resources, enabling rapid iterations based on validated learning. Several tools exist to test market interest quickly and inexpensively, gathering valuable data on actual market demand; one such tool is Smoke Test[8] , which involves creating a landing page, advertisement, promotional video or sign-up form that presents the product as if it were already available. Users are prompted to take an action (such as sign up, click for more information, or pre-order), and the number of interactions is used to estimate market demand.

7. **Communication and visibility services**, a key role in supporting startups as these services are designed to help them effectively communicate their value proposition, attract investors and customers, and strategically position themselves in their target industry. First and foremost, they aim to build a strong and consistent *brand identity*, which includes defining the company's mission, vision, values, and developing visual elements such as logo, colour palette, and typography. A strong brand identity is essential to differentiate from competitors and build trust with target audiences. Tied to this concept is the focus on the *development of communication materials*, including pitch decks, brochures, promotional videos, and corporate presentations, which are essential to effectively present the company to potential investors, partners, and customers. Notable among these services are *training in public speaking and storytelling* because being able to tell one's story in an engaging way is critical to

[8] **Smoke Test** is a term that originated from the world of electrical engineering and hardware, in which a test was (and is) carried out on newly assembled electronic devices: one would turn on the device for the first time to check that no smoke was coming out. Not all functionality was tested in detail, but a preliminary and basic check of operation was done. In the entrepreneurial arena it then took on the conception of a validation methodology that allows a startup to test a business idea without building a working product, collecting useful data on the real attractiveness of the proposition through behavioural metrics

capturing the attention of stakeholders and communicating the uniqueness of the project, *digital marketing strategies, and SEO* as incubators provide advice on digital marketing strategies including SEO (search engine optimization)[9] , SEM (search engine marketing)[10] , social media management and email marketing campaigns, and *public relations and media relations support* as startups are assisted in managing media relations, including writing press releases and organizing press events. Positive media coverage can significantly increase the company's notoriety and attract the interest of investors and customers.

More general services offered by incubators to startups are clearly **social and environmental impact assessment**, the real driving force behind these ecosystems, sharing co-working spaces, support in the development and scouting of new technologies in order to refine and improve business ideas, and possibly support in intellectual property management to defend and enhance a product or service through, precisely, the use of patents.

[9] **SEO, search engine optimization**, is the set of practices designed to improve a website's organic (not paid) ranking in search engine results. For a startup, an effective SEO strategy means making yourself easily found by potential customers, investors, and partners through optimized content, efficient technical site structure, and targeted use of keywords.

[10] **SEM, search engine marketing**, includes all paid marketing activities carried out on search engines, particularly through advertising campaigns (e.g., through Google Ads). For an early-stage startup, SEM can be a powerful lever for gaining immediate visibility and generating leads, especially in competitive markets

3.5 History and evolution of incubators

3.5.1 In the world

The origins of the business incubator concept date back to the second half of the 20th century, specifically to the United States in the 1950s, in a context marked by profound economic and industrial transformation. The first formally recognized case of business incubation is the 1959 founding of the *Batavia Industrial Centre in Batavia*, New York State. This initiative, started by Joseph Mancuso, marked the beginning of a new way of supporting fledgling businesses: the idea was to reuse a disused industrial space, making it available to small businesses while offering shared services, technical assistance and access to basic resources.

The initial success of the initiative was linked not only to the availability of infrastructure, but more importantly to the managerial vision and integrated approach to entrepreneurial support. Mancuso sensed that in order to effectively support a startup, it was not enough to reduce fixed costs, but it was necessary to build an ecosystem of skills, relationships and resources capable of accompanying the company on its initial journey, which is often characterized by high uncertainty and fragility. In the 1960s and 1970s, the practice of incubation remained relatively marginal, spread sporadically and often confined to local or university settings, but the alarming economic situation had an urgent need for technological advances. The United Kingdom, for example, was one of the first European countries to establish incubators: in 1975, the Business Innovation Centre (BIC)[1] was established with the aim of filling the 180,000 jobs lost in the steel industry and modernizing the United Kingdom technologically. Following the initial need for job creation, the expansion of incubators was also driven by the growing demand for entrepreneurial character. During this phase, incubators gradually began to evolve in the rest of Europe, starting with Germany to facilitate the transfer of research results (1983) and then France (1985). Just from the 1980s onward, entrepreneurship was consolidated as an instrument of economic policy and territorial development, particularly in the context of the crisis of traditional manufacturing industry and the transition to a knowledge-based economy. At that stage, forms of incubation related to brownfield redevelopment (brownfield development[2]), support for youth entrepreneurship and encouragement of emerging technologies began to develop.

From a theoretical point of view, incubators fit within the broader reflection on the innovation ecosystem and the role of intermediary institutions in supporting the processes of startup creation and diffusion. According to the economic literature, incubators respond to market and coordination failures that hinder the birth and growth of startups, particularly in knowledge-intensive sectors. In this sense, they play a "bridge" function between universities, the market, public agencies and private investors. The proliferation of incubators has also been fostered by a broader context, characterized by the growing emphasis on entrepreneurship as a driver of economic development, innovation and employment. In particular, the theories of endogenous growth and systemic innovation have helped legitimize the role of policies geared toward the

[1] **Business Innovation Centers (BICs)** are facilities established to promote innovation and development of small and medium-sized enterprises by offering support services such as technical assistance, mentoring, networking and access to finance. BICs have been promoted since the 1980s by the European Commission as key tools to support the birth and growth of innovative businesses in local contexts

[2] **Brownfield development** refers to urban or industrial regeneration of previously used and then abandoned or underutilized, often contaminated or degraded, sites with the aim of returning them to new economic or social function

creation of environments conducive to the emergence of new businesses, in which incubation is one of the most established tools.

Importantly, the concept of the incubator itself has evolved significantly over time. While it was initially limited to the provision of physical space and logistical services, over time it has evolved into a complex and multifaceted model geared toward entrepreneurial training, mentoring, connection to networks of financiers, protection of intellectual property, and support in the scale-up phase.

Specifically, it is interesting to make an analysis of the evolution of incubators from their inception to the present time, in accordance with the different historical eras in which they developed and operated.

The first ones, thus born in the 1960s, followed a purely infrastructural and territorial model in that they were born as local economic policy tools in response to employment crises and the need to redevelop brownfield sites. The primary objective was to support the creation of small businesses by offering low-cost space and shared logistical services, such as reception, secretarial, telephone lines and access to photocopiers. These incubators were characterized, therefore, by a low level of selectivity, welcoming any business initiative, regardless of its innovative content. They presented a focus on traditional sectors, such as crafts, trade and micro-manufacturing, a weak connection with innovation actors such as universities, research centers, venture capital, and a flexible length of stay, often not tied to growth targets or performance metrics. Thus, the model was configured as a territorial and social solution, with a predominantly local impact and a welfare function toward micro-entrepreneurship.

Incubators defined as "second-generation," on the other hand, have been able to offer newly established companies specialized services traceable to mentoring and advisory activities on issues such as business strategies, business plan drafting, marketing, market and risk analysis, financing search, legal assistance, personnel search and management, and administration. Specialized incubators are the support businesses need to quickly offer the services essential to enhance innovation and enable it to be transformed into products that can be placed on the market quickly.

In contrast, contemporary (post-1990s) incubators essentially constitute a platform for the growth and scalability of entrepreneurial realities, as the spread of digital technologies, the rise of the knowledge economy and the expansion of the culture of innovation have led to the emergence of a new generation of incubators, with profoundly different characteristics founded on the de-materialization of interventions, to the point of allowing the dissemination of sophisticated know-how of activities and services aimed at the creation and management of systems of relationships between businesses, the research world and local government. Contemporary incubators select startups through competitive calls, based on criteria of innovativeness, scalability and team, offer structured and intensive support paths, which include mentoring, access to international networks, so much so that, with the evolution of technologies, they create a network of knowledge in which the incubator and the startups are integrated with the most important market players such as universities, venture capital, corporations and public administrations. The added value of the network lies in the fact that, through its use, start-ups can: establish strategic alliances with other national and international companies established by the incubator, connect with key customers and partners, contact financial institutions and venture capitalists' associations, share knowledge and experience with other entrepreneurs, access centres of excellence at universities and research centres, and increase visibility. These models take the form of cognitive- and relationship-intensive

platforms designed to accelerate the development of high-potential startups, especially in the ICT, biotechnology, fintech, and sustainability sectors.

As is evident then, the subdivision of incubators is not merely chronological, but a distinction of the activity offered by the incubator itself. Indeed, today there coexist incubators that have chosen not to offer networking services and that often merely offer space, facilities and services as second- and third-generation incubators. The spread of incubators since the first experiments in the 1950s has been relentless, and to date an estimated 5,000 incubators are operating worldwide. A third of these were established after 1996 under the impetus of the Internet boom.

An excellent paradigm example of the evolutionary model of incubators is the case of *Y Combinator*[3] , whose model includes a six-month batch of startups selected from thousands of global applications, a three-month intensive program culminating in the famous "Demo Day," where startups present their project to an audience of investors, initial seed funding in exchange for a small equity stake (initially 6 percent), a strong focus on product-market fit, exponential growth, and preparation for capital raising. Y Combinator thus represents not simply an incubator, but a global strategic hub connecting ideas, talent, capital, and entrepreneurial culture. Its influence has helped redefine the role of the contemporary incubator: no longer a physical space, but a cognitive and relational infrastructure for the creation of technology-intensive businesses.

In the years since the success of Y Combinator, the U.S. innovation ecosystem has seen a number of other incubation and acceleration programs emerge and establish themselves globally. Among the best known is Techstars[4] , which is distinguished by a model heavily focused on mentorship-driven acceleration and a global network of more than 7,000 mentors, investors and alumni. Another leading player is 500 Startups[5] , which with a diversity and internationalization-oriented approach has invested in more than 2,500 startups in more than 75 countries. MassChallenge[6], on the other hand, represents a different model as it is distinguished by its no-equity approach and strong ties with public and private institutions in supporting innovation.

These experiences have profoundly influenced the European landscape, contributing to the emergence of projects such as Seedcamp[7], which has incubated more than 400 startups, including TransferWise (now Wise) and Revolut, becoming one of the most important pre-seed funds in Europe. Another example of transatlantic inspiration is

[3] **Y Combinator**, founded in 2005 in Silicon Valley, is considered among the most influential accelerators/incubators globally so much so that it has supported the birth of some of the most relevant tech companies of the 21st century, including Airbnb, Dropbox, Stripe and Reddit.

[4] **Techstars**, founded in 2006 in Boulder, Colorado, is known for supporting more than 3,300 companies, generating more than $23 billion in market capitalization

[5] **500 Startups**, launched in 2010 in Silicon Valley and now renamed 500 Global, is one of the most active venture capital funds in the world, focusing on early-stage startups

[6] **MassChallenge**, founded in Boston in 2010, is one of the world's best-known equity-free accelerators, offering support without requiring equity participation

[7] **Seedcamp**, founded in London in 2007, has played a pioneering role in creating a support infrastructure for early-stage startups in the European context

Startupbootcamp[8], which operates through an acceleration model based on local partnerships, corporate sponsorship and a strong thematic focus by launching specialized programs in vertical sectors such as fintech, health-tech and smart cities.

These incubators and accelerators have not only fostered the growth of innovative companies but have also contributed to the creation of local innovation ecosystems, often in synergy with universities, venture capital funds and large technology companies.

A 2023 report by UBI Global[9] , published in collaboration with DMZ[10] , ranked the top players in each category ahead of the World Incubation Summit, based on performance and impact. The top organizations for each major award category are as follows:

- World Top 5 University Business Incubators:
    - İTÜ Çekirdek Istanbul Technical University Turkey
    - Prendho Universidad Técnica Particular de Loja, Ecuador
    - McGill Dobson Centre for Entrepreneurship McGill University, Canada
    - Red Nacional de Incubadoras de Empresas de la Universidad Tecnológica de México (UNITEC), Mexico
    - University of Toronto Entrepreneurship University of Toronto, Canada

- World Top 5 Public/Private Business Incubators:
    - Kerala Startup Mission, India
    - Bilgiyi Ticarilestirme Merkezi, Turkey
    - MIDITEC, Brazil
    - NEXUS - Hub de Inovação do Parque Tecnológico São José dos Campos, Brazil
    - Shanghai Caohejing Hi-tech Park Innovation Center, China

- World Top 5 Public/Private Business Accelerators:
    - EIT Health Accelerator, Europe
    - Accelerator Centre, Canada
    - Aceleradora mentorDay, Spain
    - NAStartUp, Italy
    - York Entrepreneurship Development Institute, Canada

[8] **Startupbootcamp**, founded in 2010, introduced a thematic, multi-location acceleration model, with projects spread across Copenhagen, Amsterdam, Berlin, London and other European cities.

[9] **UBI Global** is a Stockholm-based intelligence and networking platform that evaluates and ranks university incubators and accelerators on a global scale, offering comparative benchmarks based on performance, impact and services offered. Founded in 2013, it has analysed more than 1,100 programs in more than 90 countries

[10] DMZ (Digital Media Zone) is a technology incubator based at Toronto Metropolitan University (formerly Ryerson University), Canada. Founded in 2010, it is internationally recognized for its support of early-stage startups and has been named for several consecutive years among the world's best university incubators according to UBI Global

In general, business incubators are heterogeneously distributed, with a strong concentration in North America, Europe and Asia, which have peculiar characteristics based on the ecosystem in which they are developed. In North America, where there are an estimated 30 percent of the world's incubators, there is a historical presence of incubators, with private and university models strongly entrenched. In Europe, whose percentage is around 27 percent, there is a structured network of incubators, public support and a focus on sustainability, while in Asia-Pacific, a region with about 22 percent of all incubators, on the other hand, there is strong exponential growth in countries such as China and India, with a focus on deep tech and digit startups.

3.5.2 In Italy

The evolution of the incubator concept in Italy, on the other hand, is closely linked to structural changes in the national economy and the territorial development policies promoted at the European level. Unlike in the United States, where, as mentioned earlier, incubators were born after World War II as a response to urban deindustrialization and the need to support the birth of new technological enterprises, in Italy the concept initially developed in a more fragmented way and with mainly socio-economic and employment purposes.

In fact, the first Italian experiences traceable to embryonic forms of incubation emerge in the late 1980s, especially in the Mezzogiorno, in a context marked by high youth unemployment and industrial crisis. In this period, incubators are mainly thought of as tools for urban regeneration and promotion of local entrepreneurship, rather than as support for the scalability of high-tech businesses.

In particular, Business Innovation Centres (BICs), promoted within the framework of European cohesion policy and supported by DG Regio and the association EBN - European Business and Innovation Centre Network - are spreading. The *BIC Lazio*[1] proposes a model based on management consulting services, training, networking and support in the search for funding.

These incubators operated mainly with public funds, in collaboration with regions, local governments, universities and development agencies, and aimed to establish small local businesses, not necessarily innovative in a technological sense.

Beginning in the 2000s, partly due to the growing influence of Anglo-Saxon models, the spread of the Internet, increasing interest in technological innovation, and with the expansion of the digital economy, the concept of the incubator began to take on connotations closer to venture capitalism and technological innovation. It is at this stage, therefore, that incubators begin to take a more structured form, giving rise to hybrid models that combine support for entrepreneurship with mentoring services, networking, training and access to funding. The rise of European and regional funding programs, such as those supported by the European Regional Development Fund (ERDF) or the National Operational Program (NOP), has contributed to the widespread diffusion of incubation facilities throughout the country. Structures oriented toward supporting scalable, often digital startups, with strong involvement of universities and technology hubs, are emerging in this period. An emblematic example is *I3P*[2] , which introduces a model based on selective evaluation of projects, strategic mentoring and connection with private investors and venture capital funds. Similarly, incubators such as InnovAction

[1] **BIC Lazio**, inaugurated in 1991, represents one of the first structured examples in Italy and works to promote the development of entrepreneurship and support innovative startups and SMEs in the Lazio region.

[2] **I3P, the Innovative Business Incubator of the Politecnico di Torino**, is one of Italy's and Europe's leading university incubators. Founded in 1999, it supports high-tech startups through mentoring services, networking, fundraising and dedicated spaces. It has been recognized by UBI Global among the best university incubators internationally.

Lab[3] , Fondazione Filarete[4], Campania NewSteel[5] and AREA Science Park[6] are beginning to combine public and private resources to support deep-tech or technology transfer-related startups.

This period also saw the emergence of hybrid or private incubators, such as *H-Farm*[7] or *Luiss Enlabs*[8], responsible for anticipating the model of "innovation platforms" later adopted also by corporate incubators.

Since 2012, however, it has been a process of institutionalization and maturation of the incubator ecosystem in Italy. In fact, with the entry into force of the previously mentioned Growth Decree 2.0 (Law 221/2012), the Italian regulatory framework was enriched with a legal definition of "innovative startup" and "certified incubator," introducing objective criteria for accessing tax benefits and public support. The regulation represented a key turning point, promoting a new wave of both public and private incubators and boosting regional and university initiatives.

Meanwhile, associations such as InnovUp and PNICube have helped give visibility to the sector, promoting the connection between innovation players, universities, public agencies and venture capitalists. In parallel, large companies' interest in open innovation[9] has led to the development of corporate incubators and vertical accelerators, as in the case of Enel, TIM or Intesa Sanpaolo.

Over the past decade, the landscape of Italian incubators has further expanded and diversified. Today there are numerous public, private, university, corporate and social impact incubators, which operate according to different logics and business models. In particular, the growing interest in social enterprises, circular economy and environmental sustainability has stimulated the emergence of "social" and "hybrid" incubators, capable of combining economic goals with ethical and impact objectives.

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[3] **InnovAction Lab** is a training program created in 2011, aimed at teaching young Italian talents how to turn ideas into startups by simulating the validation and pitching process in front of real investors. It has contributed to the birth of numerous startups and the spread of digital entrepreneurial culture in Italy.

[4] **Fondazione Filarete** is a center for innovation and technology transfer founded in 2008 by the University of Milan together with public and private partners, with the aim of fostering collaboration between scientific research and business in the biotech, medtech and ICT sectors.

[5] **Campania NewSteel** is a certified incubator promoted by the University of Naples Federico II and Città della Scienza, active since 2016, which supports high-tech startups and spin-offs through incubation services, acceleration and access to national and international networks.

[6] **AREA Science Park is** a national research and innovation organization based in Trieste, active since 1978, which promotes the growth of the production system through applied research, technology transfer and innovation support activities for companies, universities and PA. It houses numerous laboratories and incubators.

[7] **H-Farm**, founded in 2005, is a well-known reality that combines incubation, education and consulting services, very famous in the country and with an initial international vocation

[8] **Luiss Enlabs** is an accelerator born from a joint venture between LVenture Group and the Luiss University of Rome, inspired by international models and with a strong financial footprint, close to the world of venture capital

[9] **Open innovation** paradigm according to which companies do not rely solely on internal resources to innovate, but actively integrate knowledge, ideas, technologies, and skills from external actors such as startups, universities, research centers, customers, suppliers, and even competitors

Today, Italy presents an articulated ecosystem, with more than 200 active incubators and accelerators (many of them certified), distributed mainly in the northern regions (Lombardy, Emilia-Romagna, Piedmont and Veneto), but with a growing focus on southern regions thanks to European programs and PNRR[10].

In general, this historical excursus highlights how the reality of incubators and startups has grown and changed considerably in Italy, adapting to different historical periods and the needs that arose within society.

There has been a steady growth in the number of incubators and accelerators in Italy over a certain period of time, 1995-2023 with a considerable change in the trend around the 2010s, during which, as mentioned above, there was a strong maturation of the incubator ecosystem and a great incentive to the whole reality thanks to the enactment of the Growth Decree 2.0 (Law 221/2012), an element that promoted the growth of the entire ecosystem.

Now the discussion will focus more on the current situation of the ecosystem of Italian incubators and accelerators, described in detail in Social Innovation Monitor's 2024 report, a valuable guide from the beginning of the analysis.

It is noted that the entire research is based on a sample of 55 incubators, representing 23 percent of the total number of all active incubators in the country; it turns out to be a representative and reliable sample of the Italian innovative environment.

Below is a comprehensive infographic (figure 1) to take an instant snapshot of today's state of the Italian innovation landscape and entrepreneurial fabric.

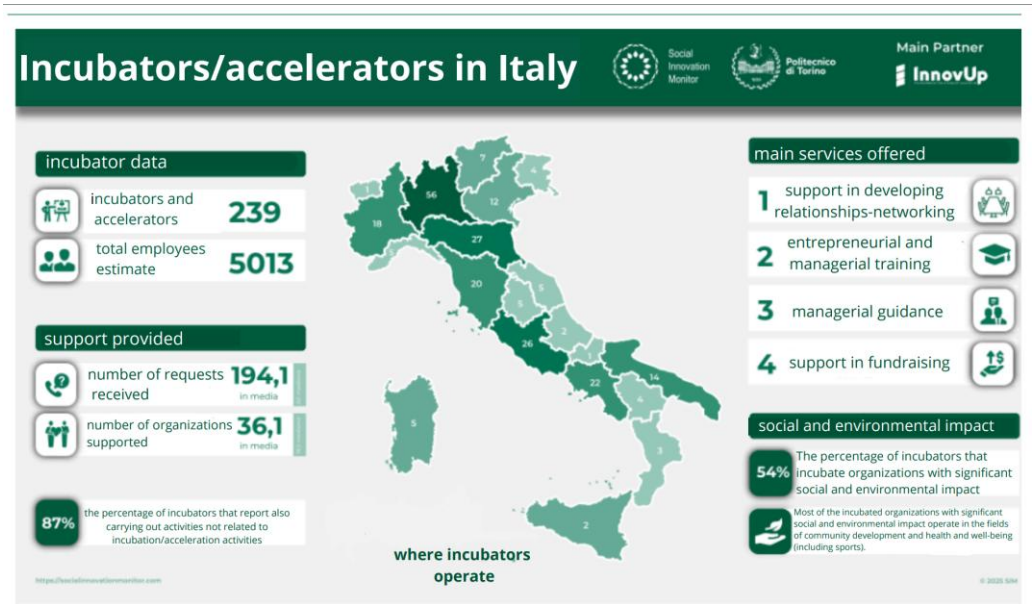

Figure 1:*actual ecosystem of incubators in italy (Report 2024 Social Innovation Monitor)*

[10] The **National Recovery and Resilience Plan** (**NRP**) is the tool developed by the Italian government to access funds from the Next Generation EU program, with the aim of reviving the national economy after the crisis caused by the COVID-19 pandemic. The plan, approved in 2021, is divided into six main missions and includes investments of more than 190 billion euros, with a strong focus on digitization, ecological transition, education, social inclusion and innovation

The key numbers clearly relate to incubator data and the support provided that has been recorded throughout the entire calendar year 2024. Specifically, the presence of 239 currently active incubators and accelerators in the territory is recorded, employing an estimated 5,013 people across the ecosystem. There is a very small decrease in numbers compared to the previous year, but this does not necessarily point to a negative trend but rather, as Prof. Landoni argues in one of his speeches in "La Repubblica," a positive consolidation and therefore strengthening of these organizations. In fact, the number of employees and overall turnovers still continue to increase, demonstrating a widespread presence and a supporting economy structured around innovation.

As can be seen from the map, most of the incubators and accelerators in the country operate in the Northwest of the peninsula, although it is considered fair and encouraging to point out an excellent positive trend in southern areas, whose numbers are growing more and more each year.

Specifically, about 54 percent of the incubator population is located in northern Italy, in which Lombardy is the region hosting the largest number of incubators, with 23 percent of the total, followed by Emilia-Romagna and Lazio with 11 percent and finally Piedmont. The southern and island areas currently represent the areas where there are the fewest active incubators.

Below is a sample table (Table 3) of the geographic distribution of incubators and accelerators operating in the country, showing percentages both referring to the entire population and referring to the sample of incubators analysed.

Table 3: *geographic distribution of incubators in Italy*

Area	*% Population*	*% Sample of incubators*	*Commentary*
North-west	33%	27%	Underrepresented relative to demographic weight
North-east	21%	26%	Overrepresented: more dynamic local business ecosystem
Center	24%	27%	Slightly overrepresented, driven mainly by Lazio
South and Islands	22%	20%	Slight underrepresentation, confirms territorial gap in supply

As seen above, incubators can be classified according to two criteria:

- Type of incubator: business, social or mixed incubators
- Legal nature of the incubator: public, private or hybrid

Starting from the first degree of classification and consulting the SIM report, it can be seen that most incubators are business-oriented or business-social impact oriented. Consistent with their nature, business incubators, which pursue the goal of generating an economic return, did not incubate environmental or social impact organizations in this time period; in contrast, social incubators, oriented toward generating positive social and environmental impact, and mixed, supported the development of impact startups, as seen in Table 4.

The data show a balanced distribution between business-oriented incubators and those with a mixed vocation, both representing 46 percent of the total. Social incubators, although growing, still constitute a niche (8 percent), confirming the need for further investment and policies to support social impact innovation.

Table 4:*percentages by incubator type*

Type of Incubator	Number	Percentage (%)
Business Incubator	23	46%
Mixed Incubator	23	46%
Social Incubator	4	8%

The second degree of classification, on the other hand, concerns the legal nature of incubators. In Table 5, shown below, it is possible to note the percentages of incubators and accelerators in the territory in accordance with their specific legal nature, first taking into account the entire population and then considering only the sample of data analysed. Thus, the percentage values related to the presence of public, private or hybrid incubators in Italy are made explicit. It is immediately evident that there is a strong predominance of private ones, accounting for about 65 percent of the population.

Table 5: t*ypes of incubators according to different legal nature in Italy*

Category	*Population*	*%*	*Sample*	*%*
Public	31	13%	12	22%
Public-private	53	22%	14	25%
Privates	155	65%	29	53%

With reference to legal nature, the data also indicate that:

- Social Incubators are divided exactly between private (50 percent) and public-private (50 percent);
- Mixed Incubators are 52 percent private, 30 percent public-private and 18 percent public;

- Business incubators are 52 percent private, 13 percent public-private, 35 percent public.

In particular, it is shown that social incubators are more likely to play the role of both incubator and accelerator. Also, no social incubators predominantly play the role of incubator. Both mixed incubators and business incubators tend to mostly play the role of incubator or have a hybrid role.

Considering, in parallel, incubators classified by legal nature, on the other hand, it can be seen that, public and public-private incubators tend more to play the predominant role of incubator or have a hybrid role. Private incubators, on the other hand, do not seem to show a prevailing trend between the two roles.

A particularly current issue that greatly influences the ecosystem under consideration is sustainability, which plays an increasingly crucial role in the world in which we live.

The adoption of ESG criteria[11] (environmental, social and governance) by many incubators, and by the startups themselves, testifies to an evolutionary orientation toward a more responsible and inclusive model, which meets more of the needs of our age and, as a result, is also much more palatable in the eyes of outside investors, who have a duty to evaluate entities in a holistic sense. The European regulatory push (e.g., Green Deal[12], Agenda 2030[13]) and NRP funding stimulate the emergence of startups with systemic impacts. Social entrepreneurship therefore appears to be growing strongly as the incubation of social enterprises shows a significant evolution from past years, expanding the scope to include traditional enterprises with hybrid missions. With this in mind, real new evaluation metrics related to the introduction of impact assessment tools that integrate classic economic KPIs with social and environmental indicators are being considered, promoting a culture of impact accountability.

In all this context, therefore, new trends are emerging in the sector, such as the rise of programs specializing in green tech, circular economy, and renewable energy; the growth of collaborative networks with third-sector entities, universities, and PAs for territorial projects with high social impact; and a relevant growing interest from impact-oriented investors, who see incubators as a strategic channel for scouting impact startups.

A particularly relevant figure in the infographic, which highlights the transformation of an ecosystem that is increasingly geared toward generating shared value, is therefore that of incubators that are involved in developing and supporting business ideas that are highly sustainable from all points of view. In fact, 54 percent of all incubators currently

[11] **ESG** stands for **Environmental, Social and Governance** and indicates a set of criteria used to assess an organization's environmental, social and good governance performance. These criteria are crucial in the context of sustainable finance, as they allow investors to identify entities that integrate environmental responsibility, positive social impact, and management transparency into their business strategies

[12] **Europe's Green Deal** is a European Union strategy, launched in 2019, aimed at making Europe climate neutral by 2050 through integrated policies that promote green transition, sustainable growth and social equity. It includes measures in areas such as energy, mobility, agriculture and green innovation.

[13] **Agenda 2030** is a program of action adopted in 2015 by the United Nations General Assembly, divided into 17 Sustainable Development Goals (SDGs), which aims to end poverty, protect the planet and ensure prosperity for all by 2030

active in Italy host initiatives with a significant social or environmental impact, which have beneficial effects on the territory. The nature of the incubator certainly influences the types of startups selected and supported so much so that the percentage of impact incubators comes from the sum of social and mixed incubators, types of incubators that are particularly focused on sustainability. This figure shows that social innovation is no longer a niche, but an integral part of many incubators' offerings, in line with European trends.

With this in mind, two charts are shown regarding the presence of impact incubators in relation to their type or legal nature (Figure 2).

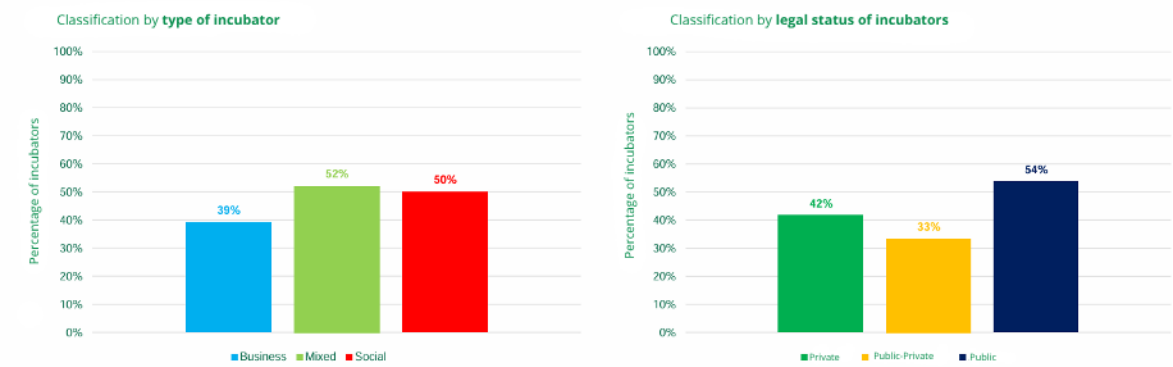

Figure 2:*impact incubators in accordance with their type and legal nature (Report 2024 Social Innovation Monitor)*

Analysis of the first graph shows a prevalence of incubators with a mixed nature (52 percent). This figure suggests a trend toward flexible and multifaceted operating models, capable of accommodating and supporting a diverse range of entrepreneurial initiatives, potentially overcoming the sectoral or focus specificities that characterize business and social incubators more strongly.

At the same time, a significant coexistence is observed between business-focused (39 percent) and social impact-oriented (50 percent) incubators. This numerical equivalence underscores a twofold focus in the incubation system: on the one hand, support for traditional economic value creation and, on the other hand, the growing emphasis on innovation and entrepreneurship with a social purpose. The absence of a single, clearly dominant category indicates a plurality of strategic approaches in accompanying the birth and development of new businesses.

Examination of the second graph reveals a preponderance of incubators with a private legal nature (54 percent). This figure testifies to an active and significant role of the private sector in the innovation and entrepreneurship ecosystem, suggesting considerable investment and interest by private entities in supporting the growth of new businesses. However, also relevant is the substantial presence of public incubators (42 percent). All this points to a structural commitment on the part of public institutions in promoting the birth and development of new businesses, presumably with the aim of stimulating economic growth, employment and innovation at the territorial level. Finally, the lower incidence of incubators with a public-private legal nature (33 percent) might indicate greater complexity in structuring and managing collaborative models between the public and private sectors in incubation. Nevertheless, their presence suggests the existence of

synergies and forms of partnerships aimed at combining different resources and competencies for entrepreneurship support.

From a much more general perspective, analysis of the data presented outlines a diverse and dynamic landscape in the incubator sector, in which a stimulating plurality of approaches and a diverse commitment to supporting innovation and new business creation operate.

From the initial infographic, it can be seen that the main sectors in which most social and/or environmental impact incubators operate are as follows:

- health and wellness (including sports)
- education
- environmental sustainability

From the Social Innovation Monitor (SIM) annual report and a focus mainly on the two most sensitive types of incubators (social and mixed), there is a clear prevalence of the "education" area, which has the highest number of active incubators (169 for Mixed, 6 for Social), suggesting a strong orientation toward promoting knowledge and skill development.

Another area of significant interest is "health and wellness (including sports)," with a high number of mixed incubators (131) and a notable incidence for social as well (29). This figure highlights a growing focus on entrepreneurial initiatives that aim to improve the quality of life and individual and collective wellness.

The areas related to "environmental protection and animals (including agriculture and animal husbandry)" (85 mixed, 6 social) and "culture, arts and crafts" (63 mixed, 5 social) also show a considerable presence, indicating an interest in environmental sustainability and the enhancement of cultural heritage and local artistic productions.

The remaining areas, while having fewer incubators, testify to a diversification of areas of focus, ranging from community development to job placement and gender equality to sustainable finance and the promotion of peace and justice.

In general, then, the graph reveals a concentration of mixed and social incubators in the areas of education and wellness, alongside a significant commitment to environmental sustainability and cultural enhancement. The overall distribution suggests a widespread sensitivity to issues of social impact and sustainable development, albeit with different emphasis depending on the type of incubator.

It is also interesting to monitor the assessment of impact in the entire ecosystem, and in this regard, 46 percent of the incubators in the entire sample analysed in SIM's 2024 report stated that they adopt specific methodologies to assess their impact as an incubator/startup in society. In particular, it is recorded that about 50 percent of mixed, social and public incubators say they actually have metrics for measuring the social or environmental impact of incubated startups. It shows, however, a negative trend for business and public-private incubators whose percentages are around 39 percent and 33 percent, respectively, down from the previous year.

The lack of the use of shared metrics for measuring social or environmental impact may somewhat limit incubators in adopting specific services for supported entities. Similar to the results on measuring the social or environmental impact of incubatees, only 13 percent of mixed incubators offer specific services for organizations with significant

social or environmental impact. No change from last year, however, for the percentage of "social incubators" on this figure, stable at 50 percent.

Returning now to the overall analysis of the infographic, the main services provided focus on key aspects of startup growth:

- Networking and relationship building
- Entrepreneurial and management training
- Managerial support
- Support in the search for funding

Preliminary analysis of the services offered by incubators reveals a marked emphasis on managerial accompaniment, perceived as central to the growth of incubated enterprises. In parallel, the availability of physical space and shared services, as well as support in the development of relationships - networking emerge as key structural elements, providing the necessary infrastructure for development. Entrepreneurial and management training also ranks among the priorities, emphasizing the commitment to enhancing the skills of teams.

Areas related to funding raising, administrative and legal services, and intellectual property management show significant offerings, albeit of lower intensity than the central pillars. A smaller amount of attention seems to be devoted to technology scouting, social impact assessment, and ethics and CSR training.

Figure 3, on the other hand, assesses the relevance of services in accordance with incubator type. Compared to the other types, "business" incubators focus primarily on operational and financial support, "mixed" incubators take a more generalist approach, with good coverage of different areas while "social" incubators pay special attention to networking, entrepreneurial education and social impact measurement, reflecting their specific mission.

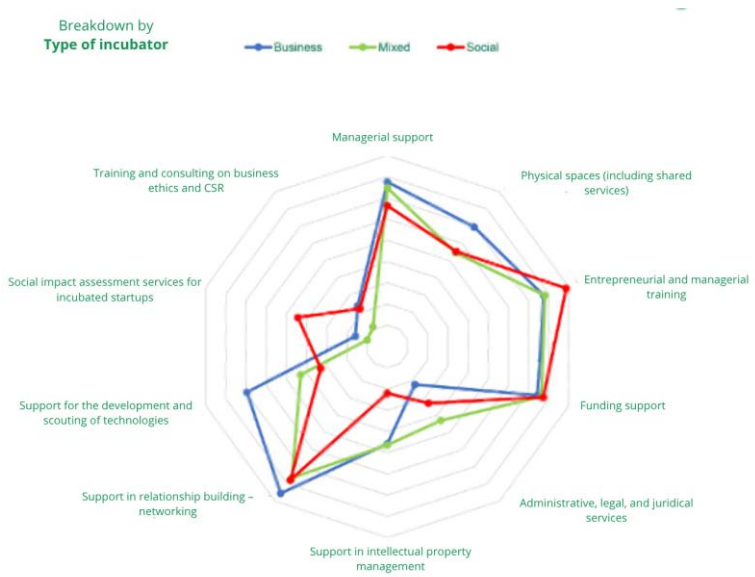

Figure 3: *relevance of services offered by incubators according to their type (Report 2024 Social Innovation Monitor)*

"Business" incubators (blue line) show a strong emphasis on managerial coaching, support in building excellent networking, and the provision of physical space and shared services, areas in which they achieve the highest values compared to the other types. Significant attention is also paid to entrepreneurial and managerial training and support in finding financing. The areas of technology development and scouting support and administrative, legal, and legal services have intermediate offerings, while less emphasis seems to be placed on intellectual property management, social impact assessment, and ethics and CSR training.

"Mixed" incubators (green line) tend to have a more balanced profile, with generally intermediate values in almost all areas. They stand out for a high offer in managerial accompaniment and physical space, similar to "business" incubators, but also show a good level of support in networking. The areas with the lowest intensity of offerings appear to be social impact assessment and ethics and CSR training, similar to "business" incubators.

"Social" incubators (red line), on the other hand, are characterized by a peculiar emphasis. While offering a good level of managerial accompaniment, they show significantly higher intensity in the areas of support in relationship development - networking, entrepreneurial and managerial training, and, more markedly, in services for evaluating the social impact of incubatees, at least compared to other types of incubators. This reflects their social value creation-oriented mission. The areas with the least supply for "social" incubators appear to be support for technology development and scouting and training and consulting on business ethics and CSR, the latter unexpectedly low considering their nature.

The areas of ethics and CSR training and support for technology development and scouting seem to receive less cross-cutting attention from all types of incubators analysed.

As a final analysis of the current state of the ecosystem, it is crucial to monitor the trend in the relationship between the applications received by Italian incubators and their type and legal nature. To this end, two histograms from SIT's report (Figure 4) are shown, which emblematically show the trend of applications received during the year 2024.

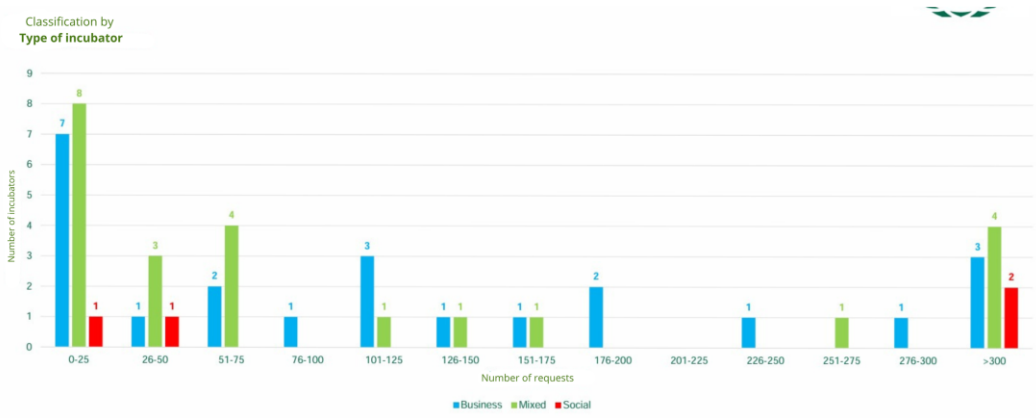

Figure 4: *trend of applications received by incubators according to their characteristics (Report 2024 Social Innovation Monitor)*

On average here are the applications received by incubators according to their characteristics (Table 6).

Table 6: *applications received by incubators divided by characteristics in 2024*

Type of Incubator	*Average Requests Received*
Business Incubator	239,6
Mixed Incubator	203,7
Social Incubator	68,0

It is immediately noticeable that business incubators receive the largest number of applications, followed by mixed incubators. Social incubators, on the other hand, receive significantly fewer applications, a potential signal about a lower prevalence of social impact initiatives or greater selectivity in admission criteria.

In contrast, below is the table (Table 7) showing the average number of applications received by incubators, classified according to their legal nature.

Table 7: *applications received by incubators divided by legal nature in 2024*

Legal Nature	*Average Requests Received*
Public	264,2
Private	174,1
Mixed	130,0

Public incubators tend to receive more applications than private or mixed incubators. This could be attributed to greater institutional visibility, access to public calls for proposals and established infrastructure.

Citing general data, on average, each incubator receives 194.1 requests and supports 36.1 organizations per year-a figure that underscores the high degree of demand from startups and the operational capacity of the facilities.

Data from the SIM 2024 Report highlight how the type and legal nature of incubators significantly influence the number of applications received. Public and business-oriented incubators show greater attractiveness, while social and mixed governance incubators receive fewer applications, despite playing a crucial role in the social innovation ecosystem.

3.6 Classification criteria for incubated enterprises

The classification of an incubator's startup portfolio is based on several qualitative and quantitative criteria that allow analysing the composition, impact, and strategic orientation of the initiatives supported. In the context of Social Innovation Monitor's Report 2024 (SIM), these criteria are key to understanding the incubator's function in relation to its target ecosystem.

First, here is a general list of the classification criteria usually used to analyze the portfolio of startups running an incubator, based on purpose:

- Purpose of startups: distinction between for-profit, nonprofit or hybrid startups (social enterprises, B-corp, etc.)
- Technology area: categorization by sectoral areas such as ICT, energy, health, culture, environment, social, etc.
- Degree of maturity: classification according to stage of development
- Social/environmental impact: qualitative or quantitative assessment of the ESG impact generated by startups
- Geolocation: geographical location of startups (local, national, international level)
- Success rate: measurement of the number of startups that have achieved growth targets, raised investment, or successfully scaled
- Origin of the business idea: whether from universities, research centres, companies, or individual initiative
- Composition of the founding team: analysis of the skills, gender, background, age, and diversity of the entrepreneurial team
- Type of support received: traditional incubation, pre-acceleration, mentorship, training, investment, co-working
- duration of support/incubation: average time spent within the incubator

Looking in more detail at some of the classification criteria taken into account by incubators, it is necessary to focus on some crucial factors for portfolio recognition in order to identify the main elements that outline the startups' profile, specific needs, and required resources. The classification factors are crucial to best understand what kind of support (from incubators, investors, etc.) is best suited for each startup.

Here is an analysis of the main ranking factors that are used to classify startups:

1. **Life Cycle Stage**

Defining a structured lifecycle for startups is one of the most effective keys to understanding their role, challenges and opportunities throughout the entrepreneurial journey. This "stage-specific" logic is now widely adopted by incubators and accelerators, which shape their programs and services according to the dynamic needs of startups, depending on the stage of evolution they are in.

In the *pre-seed* stage, the startup is still in its embryonic form such that it often consists of a small founding team and is engaged in defining and validating the business idea. At this time, incubators play an essential role by offering relationship-intensive services such as mentoring, training, and support in team building and market analysis. The

financial resources required are minimal, but critical, and are often derived from awards, grants, microfinancing or bootstrapping.[1]

Next comes the *seed* stage, in which the startup has built an initial prototype, namely an MVP (Minimum Viable Product), and now seeks to validate the sustainability of the business model. Incubators at this stage offer coworking spaces, access to entrepreneurial networks, coaching, and support in raising pre-seed capital through business angels or early-stage funds. The focus gradually shifts from idea validation to business structuring. At this stage, the first forms of financing begin to emerge with business angels, banks and crowdfunding.[2]

In the *early stage*, on the other hand, the product is already on the market and a growth process has begun. However, many uncertainties remain, especially related to scalability and retention of the first customers. Here, incubators provide a mix of digital tools, legal and business advice and, most importantly, facilitate meeting the first institutional investors. This is a key moment, when the fate of the startup is decided in terms of competitive positioning in the market so much so that the crucial activity at this stage is the market-product fix.

By the early *growth stage*, the startup has now overcome the initial uncertainty and is ready to scale: increase the customer base, enter new markets, and attract significant investment. Incubators, at this stage, operate much like true scaling support platforms in that they offer paths to internationalization, matchmaking with venture capital funds, advanced HR consulting, and expansion strategies. At this point, startups are faced with two rounds of investment: *Series A rounds*, which consist of full-bodied funding (usually between 1 and 10 to 15 million euros, while for Italian startups the range is usually estimated to be between 500k and 5 million) in order to enter new markets, develop new distribution channels and consolidate marketing strategies, and *Series B rounds*, even more full-bodied funding that dramatically lowers the failure rates of startups and is aimed at improving the growth process and expanding the business to increase market share.

The next stage is called the growth stage and is essentially the last phase of startups' lives in which customer growth becomes exponential and they can tap into investment rounds known as *Series C*, a series of low-risk financing that does not rule out further investment.

Finally, in the *exit stage*, the transition from startup to company status is configured and represents the moment of investors' exit from startup ownership. In fact by now the startup is seen as an established innovative SME. At this stage, the incubator's role approaches that of an innovation partner: it works on open innovation activities, M&A processes, access to new foreign markets and digital transformation. Some incubators even develop programs dedicated to companies that wish to return to "startup" mode through the creation of spin-offs or new innovative business units.

The three main options for exit are: *IPO* (Initial Public Offering), by which the startup makes its shares available to the public by going public, *acquisition* by which essentially

[1] **Bootstrapping** refers to a startup's startup and growth strategy based on self-funding, that is, using its own resources or early business revenues, without resorting to outside investment. This approach allows founders to retain control of the business, but requires high efficiency in resource management and may result in more gradual growth.

[2] **Crowfunding** refers to the raising of funds, mostly through the Internet, through small contributions from very large groups that share a common interest or project or intend to support an innovative idea.

the startup is acquired by another company, and finally *buyback*, a case in which the founders buy back the shares in the startup that they had previously sold to investors.

Below is Figure 5, which shows the life cycle of a startup in relation also to the path and financial support that each stage requires. It is therefore logical to emphasize how the company stage and the funding stage are closely related to each other.

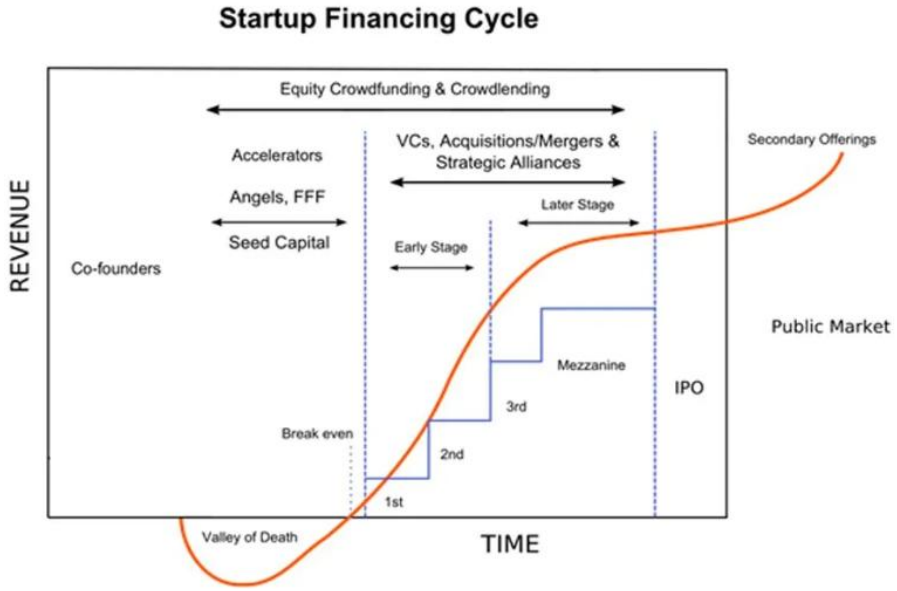

Figure 5: *financial life cycle of startups (Startup Greek)*

This classification is now widely adopted by Italian and international incubators, and it is one of the main criteria on which the monitoring of startup portfolios by entities such as the Social Innovation Monitor is also based, which in its latest report reiterated the importance of segmentation into stages for strategic and effective resource management. Understanding and distinguishing these phases is not just a theoretical exercise: it is the foundation of every policy, public and private intervention designed to support the innovative entrepreneurial fabric in a timely and targeted manner.

2. **Technology area**

One of the key elements in the structuring and operational strategy of business incubators concerns the sectoral classification of hosted startups. This classification is not only descriptive, but assumes a decisive function in defining the resources to be allocated, the skills to be activated, and the networks to be mobilized. Indeed, each sector has profoundly different development dynamics, technological and financial requirements, and market opportunities, which directly affect the type of support needed. In this context, vertical or sectoral incubators, i.e., focused on specific industrial or thematic areas, are increasingly emerging. This choice allows not only a better alignment between demand and supply of services, but also the construction of specialized ecosystems capable of generating synergies, exchange of expertise and attraction of targeted investments. Among the sectors most commonly represented in incubators today are:

- *Advanced Technology (DeepTech)* which includes startups active in areas such as artificial intelligence, blockchain, Internet of Things and software-as-a-service

(SaaS)[3] . These companies require high investment in R&D, access to highly skilled talent and, often, complex regulatory pathways.

- *Biotech and HealthTech*, areas that include solutions in biomedical, diagnostic and pharmaceutical fields, as well as digital tools for healthcare. Startups in these fields require long development times, rigorous certifications and partnerships with academic or hospital entities.

- *FinTech* represents an area that has seen an explosion in recent years due to innovation in payment services, digital financial management, and the use of cryptocurrencies. Incubators specializing in FinTech often work in close dialogue with regulators and banks.

- *GreenTech and Cleantech* are sectors that include startups working toward the green transition, developing solutions related to renewable energy, the circular economy, or sustainable resource management. Such startups often benefit from public incentives and European calls (such as those related to the Green Deal and Agenda 2030).

- *EdTech*, on the other hand, includes all those startups that innovate in the field of education and training through digital platforms, augmented reality or artificial intelligence applied to educational paths. The pandemic emergency has greatly accelerated the development of this sector.

- *Social Impact* is a specific field that refers to a heterogeneous but increasingly relevant set of businesses that aim to maximize positive social and environmental impact by addressing issues such as youth unemployment, social inclusion, and energy poverty. Impact-oriented incubators work in synergy with foundations, universities, and NGOs.

The specialization of incubators according to sectoral criteria has the advantage of making support more coherent and focused, also improving attractiveness to institutional investors and European programs. It is with this in mind that the Italian innovation ecosystem is gradually moving toward greater verticalization of entrepreneurship support structures, as highlighted in the data published in the Social Innovation Monitor and InnovUp reports.

3. **Business Model**

In the startup incubation and acceleration journey, one of the most relevant elements to consider is the business model adopted by the fledgling company. This is not limited to a simple mode of operation, but represents the strategic core around which development choices, funding requirements and scalability potential revolve. For an incubator, understanding and correctly categorizing the business model of each hosted startup is critical to offering customized, effective support consistent with specific growth

[33] The **Software as a Service (SaaS)** model refers to the distribution of software applications over the Internet, accessed in the cloud and usually delivered on a subscription basis. This model enables startups to offer scalable solutions, reducing access barriers for users and ensuring recurring revenue streams. Key benefits include: centralized updates, lower infrastructure costs for customers, and easy monitoring of business metrics

dynamics. Indeed, the business model determines how the startup generates revenue, what type of customers it intends to serve, and what are the main competitive levers on which it can build its advantage in the market. Below are some of the most common categories among incubated startups, each with unique characteristics and needs:

- *B2C (Business to Consumer)* in this model, the business deals directly with the end consumer. This is an approach typical of e-commerce platforms, mobile apps aimed at the general public, or digital services such as food delivery or online booking. B2C startups generally need a strong marketing strategy, curated user experience, and ability to scale rapidly at the user level.

- *B2B (Business to Business)* here the startup offers products or services to other companies. This is the case, for example, with management software, SaaS (Software as a Service) platforms, specialized consulting or industrial solutions. Sales dynamics are more complex, requiring established business relationships, but often have greater contractual stability and higher margins.

- *B2B2C (Business to Business to Consumer)*, on the other hand, represents a hybrid model in which the startup sells to another company that in turn interacts with the end customer. A typical example is marketplaces or brokerage apps, where the company creates the infrastructure but the products or services are offered by a third party. This approach requires great attention to platform management and balancing supply and demand.

- *B2G (Business to Government)* takes the form of a highly specialized model in which startups, often innovative with strong technological content, interact with the public administration. In this case, products or services are geared to address public needs: from the digitization of administrative processes to data management, from sustainable urban mobility solutions to cybersecurity and public health systems.
  The complexity of B2G lies in the nature of its interlocutors since public entities are bound by rules of transparency and accountability, with procurement procedures often articulated and regulated by calls for tenders. This requires startups to equip themselves with specific legal-administrative skills and longer project timelines than in private markets. However, the social impact of proposed solutions can be significant and help build a solid and lasting reputation

For the sake of completeness of the analysis, it is necessary to point out the presence of other types of business models, in addition to the usual ones just discussed. In particular, mention is made of the *subscription-based* model that is mainly addressed by startups that adopt a structure that relies on recurring revenue from subscriptions, as is the case with Netflix or Spotify. This scheme allows them to build a stable cash flow, but also entails the need to offer continuous value over time to minimize churn rate (i.e., user churn). There is also the presence of the *freemium* model in which a basic version of the product is offered for free, while advanced features or additional content are available for a fee. This is a common model in the digital sphere (e.g., educational or management apps), effective for quickly acquiring users and converting them into paying customers only after demonstrating the value of the service. Finally, if we think of intermediary platforms such as Airbnb or Uber, which represent a specific model in which the startup does not sell a product directly, but facilitates a meeting between two or more parties

(providers and end users), we are talking about marketplaces This model has very high economies of scale, but also increasing management complexity as the network expands.

The ability of incubators to accurately identify the business model of each incubated startup allows for more effective segmentation of accompanying pathways, customization of mentorship tools, and better connection with lenders or industry partners. In addition, this classification allows for more accurate measurement of economic performance and key success indicators (KPIs), enhancing the ability of the incubator-startup ecosystem to generate sustainable economic and employment impact. incubators, business angels, venture capital and other funding sources.

4. **Technology and Innovation**

Technology startups represent one of the most dynamic and innovative categories in the contemporary entrepreneurial landscape, operating in an environment that requires continuous upgrading of skills and resources. These companies are characterized by their ability to develop advanced solutions through the adoption of cutting-edge technologies, responding to increasingly specific and complex market needs. Technological innovation, in fact, constitutes the main driver of these realities, which aim to solve global or sectoral problems, exploiting new technological paradigms that go far beyond traditional solutions. In this process, the resources needed are not only about economic aspects, but also about broad technical know-how and a solid technological infrastructure that enable the development of scalable products and services. Technology startups operate in various fields that make intensive use of emerging technologies, key drivers of which include:

- *Software and Cloud*: startups that focus on software solutions or platforms based on cloud computing are at the centre of the digital transformation that is sweeping traditional industries. The use of cloud technologies enables enterprises to reduce costs associated with hardware infrastructure and make business operations more scalable and efficient. In fact, cloud-based platforms offer significant advantages in terms of data access, real-time processing and remote collaboration, thereby meeting a growing demand for flexibility and customization in services.

- *Artificial* Intelligence (AI): The introduction of Artificial Intelligence (AI) into startup operations has had a fundamental impact on a wide range of industries, from process automation to user experience personalization. AI makes it possible to analyse huge amounts of data, learn from user behaviours, and optimize business operations. Startups using machine learning algorithms, for example, can create solutions that autonomously improve over time, generating benefits in efficiency, accuracy and product personalization.

- *Blockchain and Cryptocurrencies*: blockchain, a decentralized technology for secure and transparent transactions, is revolutionizing various areas, from financial transactions to secure data management. Startups developing blockchain-based solutions are trying to overcome traditional barriers in the financial world by introducing more secure and transparent solutions. In fact, cryptocurrencies, such as Bitcoin, are introducing new payment and investment paradigms, reducing international transaction costs and providing greater traceability.

- Internet of Things (IoT): the Internet of Things (IoT) is another booming field for tech startups. By connecting and interacting between physical devices through the Internet, IoT startups are able to create innovative solutions in the areas of home automation, industrial automation and health. IoT devices enable the collection of real-time data, its processing and the triggering of actions in an automated manner, improving operational efficiency and the quality of services offered. IoT is also distinguished by its ability to gather information directly from the surrounding environment, facilitating the adoption of smart technologies in everyday or business settings.

From a general perspective, it is worth noting that technology startups operate in an environment of rapid change and the challenges of adopting and integrating new technologies. Continuous innovation is essential to their competitiveness, but it requires a significant commitment in terms of human and technical resources. The success of these companies depends to a large extent on their ability to leverage emerging technologies, such as those just mentioned, to develop scalable and efficient solutions in an increasingly globalized and competitive market but, at the same time, on their readiness to meet the challenges associated with the rapid evolution of the industry and the management of technological and economic uncertainty.

5. **Target market and scalability**

The importance of scalability in startups is critical to long-term growth and success. Startups with high scalability potential are able to rapidly increase their output and revenue without a corresponding linear increase in costs, making them particularly attractive to investors and strategically competitive. However, scalability is not a process that happens automatically, and to expand effectively, startups need targeted resources, particularly in the areas of marketing, sales and operations.

The market concept can have multiple declinations in that it can be considered from a geographic perspective or as a consequent ramification of the industry concept, as each firm establishes itself in a specific industry by offering different services in order to meet a growing demand from the various specific market segments. In the latter perspective then the items listed will have as a common denominator the Technology Area in which the enterprise operates.

Local market: many startups begin by focusing on a limited geographic market, building a solid customer base and gaining firsthand knowledge of local preferences and needs. At this stage, the main goal is to optimize the product or service, test the business model, and build a solid brand identity. Once stability is achieved, the startup can consider scaling up to a larger level, but this initial process is crucial to ensure that operations are robust and efficient before expanding. Resources needed at this stage mainly include supports in marketing to strengthen the brand and attract the first customers, and operations to ensure effective demand management.

Global market: some startups, on the other hand, aim for an international outlook from the outset, seeking to expand into multiple countries early on. This approach, although more ambitious, can greatly accelerate growth, but it requires a well-defined strategy to deal with cultural, legal and logistical differences between markets. In this context, resources in marketing and sales must be tailored for each market, and the startup must be able to address challenges related to local regulations, language, and differences in

consumer behaviour. Technology plays a crucial role in facilitating global expansion, especially through scalable solutions in the digital sphere.

In general terms, it is worth noting that the scalability of a startup can take place either vertically, that is, by expanding the line of products or services offered, or horizontally, that is, by penetrating new geographic or sectoral markets. Specifically, in the former case, a decision is made to diversify its offerings, allowing it to capitalize on an existing market, offering new incentives to users and increasing customer loyalty. In the case of horizontal scaling, on the other hand, the startup may decide to enter new markets, whether geographic or sectoral; this approach entails challenges related to understanding the dynamics of the new market, including cultural, legal and competitive aspects, and, for this reason, the ability to adapt the product to specific needs and to manage an effective distribution and sales network is crucial.

Startups must, therefore, be able to choose between gradual, localized expansion or rapid global expansion, and decide whether to expand their offerings or enter new markets. Regardless of the direction chosen, the ability to adapt quickly to changes and emerging needs is one of the main keys to success in scaling a startup.

6. **Social Impact and Sustainability**

In the current context, social impact and sustainability are certainly two of the most topical issues so much so that they are now fortunately cornerstones of the missions of most startups, which operate with the aim of generating positive change in society, so much so that they require specific resources to measure and report on the impact of their activities in order to ensure the transparency and effectiveness of their initiatives. The growing focus on sustainability and social inclusion is not just a trend, but a response to the global challenges shaping the economic, environmental and social landscape. In this sense, it is one of the most modern and sensitive ranking criteria for the era we are living in. Below we aim to analyse the two concepts separately, however closely related they may be.

Sustainability: startups that focus on environmental sustainability face a number of challenges related to reducing environmental impact, using natural resources responsibly, and adopting ethically sustainable practices. In particular, these startups must develop innovative solutions to reduce greenhouse gas emissions, promote material recycling, use renewable energy, and optimize resource use. The Green Business Initiative[4] , for example, points out that sustainable startups can gain competitive advantages in the long term, especially if they can build a business model that combines economic growth with environmental protection. Such companies need resources for measuring their environmental impact, tools to constantly monitor their energy consumption, carbon emissions and efficiency of operations. In this regard, the adoption

[4] The **Green Business Initiative** is a program designed to promote and support the adoption of sustainable and green business practices. In general, this initiative encourages companies to develop innovative solutions that reduce environmental impact, improve resource efficiency and integrate environmentally friendly practices into their business models. It is supported by a variety of global sustainability organizations, including governments, NGOs and industry associations, in order to accelerate the transition to a green economy

of international sustainability standards such as ISO 14001[5] is key to ensuring the effectiveness of corporate environmental policies.

Social Inclusion: startups that focus on social inclusion aim to solve significant problems such as poverty, access to education, disability, and other social inequalities. These companies create value not only in economic terms, but also through the introduction of solutions that improve the quality of life for vulnerable communities. Social innovation is emerging as an important field in startups, where social value creation is as significant as economic value creation. Emblematic examples include startups developing accessibility technologies for people with disabilities or providing educational opportunities for children from disadvantaged backgrounds are helping to reduce social inequality. In addition, these projects can benefit from collaborations with government agencies, NGOs, and other organizations working in the social arena.

In September 2015, all member countries of the United Nations adopted the *2030 Agenda* for Sustainable Development, a global plan of action divided into **17** *Sustainable Development* **Goals** (*SDGs*). These goals represent a shared vision for addressing major global challenges. The SDGs are interconnected and indivisible and guide governments, businesses and civil society toward a systemic transformation by 2030. Below is the list of the 17 Sustainable Development Goals promoted by the UN in the 2030 Agenda:

1. *Defeating poverty*
   Eliminating all forms of poverty, everywhere in the world, means ensuring decent living conditions for all. This includes access to economic resources, basic services, property, control of resources and social inclusion.

2. *Defeating hunger*
   aims to end hunger and malnutrition while promoting sustainable, resilient and productive agriculture that can ensure food security and adequate nutrition for all.

3. *Health and Wellness*
   Ensuring the right to health for all by reducing maternal and child mortality, combating epidemics and chronic diseases, strengthening health systems, and promoting mental and physical wellness.

4. *Quality education*
   Promote inclusive and quality education at all levels, with the goal of ensuring equal educational opportunities and appropriate skills for work, citizenship and personal development.

5. *Gender equality*
   Eliminate all forms of discrimination and violence against women and girls by promoting equality in access to education, employment, leadership and political participation.

[5] **ISO 14001** is an international standard for environmental management that provides guidelines for organizations to improve their environmental performance through effective resource utilization and waste reduction. The ISO 14001 environmental management system is designed to help companies achieve sustainability goals and reduce the environmental impact of their operations while improving their competitiveness and compliance with local and international environmental regulations

6. *Clean water and sanitation*
   Ensuring access to safe water resources and adequate sanitation for all is fundamental to public health, human dignity and environmental sustainability.

7. *Clean and affordable energy*
   expanding access to modern, secure and renewable energy sources, improving energy efficiency and reducing the environmental impact of the global energy system.

8. *Decent work and economic growth*
   Promotes sustainable and inclusive economic growth, full employment and decent working conditions, with special attention to young people, women and vulnerable workers.

9. *Business, innovation and infrastructure*
   supports the development of resilient infrastructure, industrial modernization and the spread of technological innovation, fostering a sustainable

10. *Reducing inequality*
    Reduce economic, social and cultural inequalities between individuals and countries by promoting social inclusion, equity of access and social mobility.

11. Sustainable cities and communities
   Making urban settlements inclusive, safe, resilient, and sustainable means promoting planned urbanization, efficient public transportation, access to services, and reduced urban pollution.

12. Responsible consumption and production
   Changing consumption and production patterns to make them more sustainable, reducing waste, pollution and overuse of natural resources in the supply chain.

13. Fighting climate change
   Address the climate emergency through urgent actions to reduce emissions, increase resilience to natural disasters, and integrate climate policies across all sectors.

14. Life underwater
   protect marine ecosystems and ocean resources by reducing pollution, acidification and overfishing to ensure marine biodiversity and food security.

15. Life on earth
   Protection and restoration of terrestrial ecosystems, forests, natural resources and biodiversity, combating desertification, land degradation and habitat loss.

16. Peace, justice and strong institutions
   Promote just, peaceful and inclusive societies by strengthening the rule of law, human rights, access to justice and the fight against corruption and violence.

17. Partnership for goals
   Strengthen international cooperation among governments, institutions, the private sector and civil society to mobilize resources, knowledge and technologies to support sustainable development.

Social impact and sustainability have become key elements in the success of modern startups, as more and more consumers, investors, and business partners reward companies that operate responsibly and sustainably. Startups that focus on environmental sustainability and social inclusion face specific challenges related to measuring and reporting their impact. Adopting appropriate monitoring and reporting tools, along with a solid commitment to ethical practices, enables startups to maximize their positive impact and attract the resources they need to grow. Sustainability and social inclusion policies are no longer optional choices, but a key component of long-term sustainable and responsible business.

3.7 What is the purpose of ranking startups in the portfolio?

Classifying the portfolio of startups is an essential strategic tool for incubators, as it enables them not only to understand the nature of the initiatives supported, but also to monitor the effectiveness of incubation, report on the impact generated, and more precisely define investment and support strategies. This classification activity responds to operational, management and communication needs, in a context where accountability to public and private stakeholders is becoming increasingly central.

The following are the main benefits found by incubators themselves in properly classifying the startups managed within their innovation hub and thus having a clear and holistic view of their portfolio:

1. Improved selection strategies: detailed knowledge of the types of startups incubated allows for refining selection and scouting criteria. An incubator may, for example, decide to focus on sectors with high social or technological impact, balance the portfolio in terms of project riskiness or maturity, and increase diversity and inclusion in the founding teams.

2. Strategic planning and positioning: through classification, an incubator is able to define its positioning with respect to competitors and partners, specialize in a specific sector and/or target market (e.g., in environment, health, deep tech, social enterprise), access targeted national and international funds in line with the goals of Agenda 2030 or the European Green Deal.

3. Evaluation and continuous improvement: the data obtained from the classification allow for periodic evaluation of startup performance (e.g., growth, fundraising, impact), identification of critical issues in the services offered and accompanying pathways, and redefinition of the incubator's value proposition.

4. Communication and impact reporting: in the context of the growing importance of ESG criteria and impact finance, the classification allows for transparent reporting of activities to funders, institutions, and stakeholders, publication of detailed reports on sustainability, inclusion, and performance, and finally support ex-post evaluations for public calls and grants.

5. Benchmarking and networking: a standardized ranking system allows incubators to compare themselves with other Italian and European incubators, participate in international networks (such as EBN or UBI Global) and develop strategic alliances with investment funds, universities and companies.

4 CHAPTER 4: SCOUTING CLASSIFICATION MODELS

Resuming the approach used in the methodology chapter, at this point of the paper we will analyze the scouting that was conducted to arrive at the selection of particular classification models used by other incubators in order to identify classification criteria used to define the portfolio of incubated startups.

As argued earlier, some of these criteria are common to different incubators such as business model, Technology Area, company stage and SDGs. It is appropriate, however, to conduct the actual analysis on the market segment in order to assess which of its declination is most appropriate to consider in the model to be applied to Social Innovation Teams.

To this end, it is necessary to mention and analyze the ATECO (ATtività ECOnomiche) codes, which represent the official classification of economic activities adopted by ISTAT[1] in Italy, in harmony with the European NACE classification[2] . This is an alphanumeric coding that allows unambiguous and systematic identification of the sector to which enterprises, entities and economic subjects belong.

ATECO codes are used administratively, statistically and fiscally for multiple purposes, including registration in the Business Register at the Chambers of Commerce, allocation of the tax and contribution regime to companies, access to public calls, concessions and incentives, often reserved for specific sectors, collection and analysis of economic and employment data by ISTAT and other institutions, and sectoral classification in market analysis, research and public policy.

The structure of ATECO codes is hierarchical and multilevel. Each code is composed of numbers and letters, following a logic that reflects the degree of detail:

- section: indicated by a letter (e.g., C = Manufacturing)
- division: 2 digits (e.g., 10 = Food Industries)
- group: 3 digits (e.g. 10.1 = Meat processing and preservation)
- class: 4 digits (e.g., 10.11 = Processing and storage of meat other than poultry)
- category and subcategory: 5 or 6 digits, for further specification

For example, code C 10.11.00 indicates: Manufacturing > Food industries > Meat processing (not poultry).

The new ATECO 2025 classification has been in effect since 01/01/2025, but became operational on 01/04/2025. The ultimate goal is to better reflect digital and ecological transformations of the economy, such as circular or digital economy, introduce new codes

[1] **ISTAT - National Institute of Statistics**: an Italian public research organization, which carries out the collection, processing and dissemination of official statistical data in the economic, demographic and social fields, and is responsible for the classification of economic activities in Italy.

[2] **NACE - Nomenclature statistique des activités économiques dans la Communauté européenne** is the statistical classification of economic activities adopted by the European Union, developed by Eurostat, the Statistical Office of the European Union. This classification serves as a standard system for organizing and comparing economic data produced by different member states, and is the basis for national classifications such as ATECO in Italy.

for emerging activities such as blockchain and AI, improve international consistency with European NACE (EU) and ISIC (UN) classifications[3].

This evolution is accompanied by the need for public and private entities to update their classification and analysis systems in order to keep the representation of the national economic fabric aligned.

In order, therefore, to understand the best declination to apply to the concept of a market segment, we analyze reports from external third-party entities that assess the performance of the Italian innovation ecosystem.

For the purpose of creating the customized model to be applied to the analysis of the portfolio of startups incubated by Social Innovation Teams, the survey began with a careful search of all incubators operating in the Italian territory, filtering out those that possess a distinctly sustainability-oriented mission and that, as a result, support the development of startups with high social and/or environmental impact.

The first raw lists of incubators were obtained from a file of **Startup Greeks**, itself an Italian incubator and accelerator, founded in 2020 in Mantua, which is distinguished by its digital and scalable approach, through which it offers services to aspiring entrepreneurs in the validation and development of their business ideas, and directly from the public records of the **Business Registry**, managed by Infocamere , which provides the list of Italian incubators currently active in the country.

From this data extraction, which included more than 60 incubators and accelerators operating in the territory, a deeper analysis was conducted to investigate the nature and current status of the incubators, the current size of their portfolios, historical data showing business trends in recent times, and the model of support offered to incubated startups. This additional selective filtering led to a sampling of about 20 incubators across the territory, who were contacted by email in order to ask for the classification criteria they use to map the incubated startups in their portfolios, as this information is not public on their reference sites.

Here is the full list of all incubators contacted: SocialFare, CariploFactory, Bergamo Incubator, Kilometro Rosso, H-Farm, Make a cube, NaStartup, Impact Hub, Bp cube, The Hive, i3P, Credite Agricole le Village, Zest Group, WyLab, IC406, Startup Europa Lab, TechiNova and Innovits.

Some of these, after further targeted selection guided by dimensional, historical, territorial and public relevance criteria, were contacted again by telephone and/or e-mail in order to add value to the survey being carried out.

The feedbacks received are reported below.

- **Kilometro rosso**

  It is an innovation district located in Bergamo, established in 2003 with the aim of promoting collaboration between companies, universities and research centres. Its

[3] **ISIC - International Standard Industrial Classification of All Economic Activities** is an international classification adopted by the United Nations to standardize the collection and comparison of economic data between countries. It constitutes the global reference from which are derived regional classifications such as NACE (EU) and national classifications such as ATECO (Italy).

model is based on the integration of research, training and production, encouraging contamination between different skills and sectors.

Thanks to a meeting with the marketing and communication manager, Manuel Medau of the incubator, it was possible to investigate how the innovation hub is managed and supported by the startups or companies incubated within it. Despite the quality of the infrastructure and the high profile of the incubated subjects, Kilometro Rosso does not represent a preferred destination for early-stage startups with reduced financial means, being more suitable for already structured realities or collaborations between established companies and research centers.

- **Bergamo Incubator**

Similar discourse applies to the Bergamo Incubator, an initiative promoted by the Bergamo Chamber of Commerce, managed by its special company, Bergamo Sviluppo, and located within the POINT - Polo per l'Innovazione Tecnologica in Dalmine. Support activities are particularly focused on innovative businesses in the service and manufacturing sectors.

Through a virtual meeting with an internal contact, it was learned that although the Bergamo Sviluppo Incubator plays an active role in supporting the birth and development of startups, it does not adopt structured classification criteria for analyzing its portfolio. This aspect limits the possibility of conducting systemic monitoring of incubated startups in terms of economic sector, level of innovation, social and environmental impact, or degree of entrepreneurial maturity.

- **012 Factory**

A significant contribution, however, was made by 012 Factory, a certified incubator of innovative startups based in Caserta, Italy, founded in 2014. It is distinguished by a multidisciplinary and holistic approach to supporting the growth of new businesses with high innovative potential. Its mission is to accelerate the growth and renewal process of companies, helping them reach their potential by identifying obstacles to growth and providing rapid support for business needs in terms of training, assistance on business models 4.0[4] and I4.0 technologies[5] and software development. The entity has incubated more than 70 companies and supported the registration of 20 patents and software, is certified as an I4.0 Technology Transfer Center and complies with the UNI ISO 56002:2021[6] standard for the Innovation Management System, as well as being recognized as a B Corporation, meeting requirements in terms of social and environmental performance, accountability and transparency.

[4] **Business 4.0** is a strategic paradigm that integrates Industry 4.0 digital technologies into corporate organizational and business models, promoting flexibility, personalization, efficiency and customer centricity. It aims to create value through the adoption of smart technologies, automation and real-time data.

[5] I4.0 (Industry 4.0) **technologies** encompass the set of digital and intelligent tools, including Internet of Things (IoT), artificial intelligence (AI), advanced robotics, 3D printing, cloud computing and big data, applied to manufacturing processes to foster automation, interconnection and decentralized decision-making.

[6] **UNI ISO 56002:2021** is an international standard that provides guidelines for the design, implementation, maintenance and improvement of an innovation management system. It promotes a structured approach to systemic innovation that can be integrated with other management systems such as quality or environment.

The following are charts provided by a contact from the 012 Factory incubator, Graziella Portia, regarding their internal classification of the managed portfolio based then on certain criteria.

The first classification criterion concerns the *business model* (figure 6), which takes 4 different forms, already discussed in the literature review: business to business (B2B), business to consumer (B2C), business to governance (B2G) and business to business to consumer (B2B2C). The 012 Factory portfolio shows a clear prevalence of startups operating under the business-to-business model, almost completely neglecting the more complex declination (B2B2C).

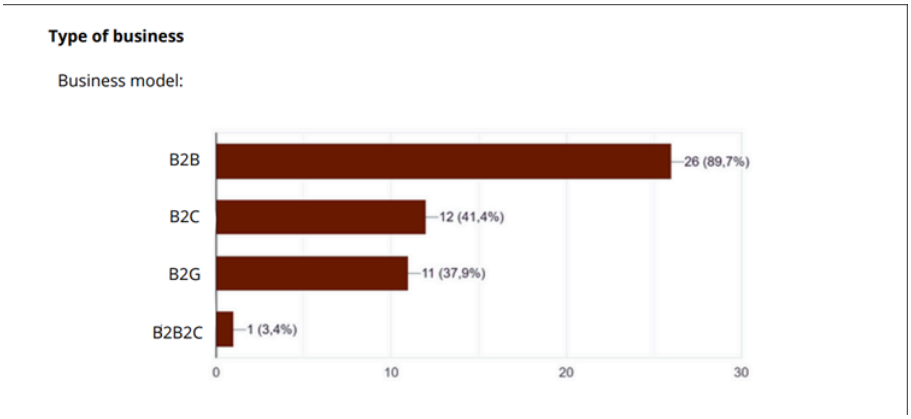

Figure 6: *type of business of 012 Factory portfolio (internal reference)*

The second classification criterion considered is the *market sector* (figure 7) in which the startups operate, which is essential to get a picture of the context in which they develop and the activities they carry out. Consistent with the technological evolution and digitization of the market, the graph shows unequivocally that the portfolio has the most startups operating in digital services, sustainability, education and Industry 4.0.

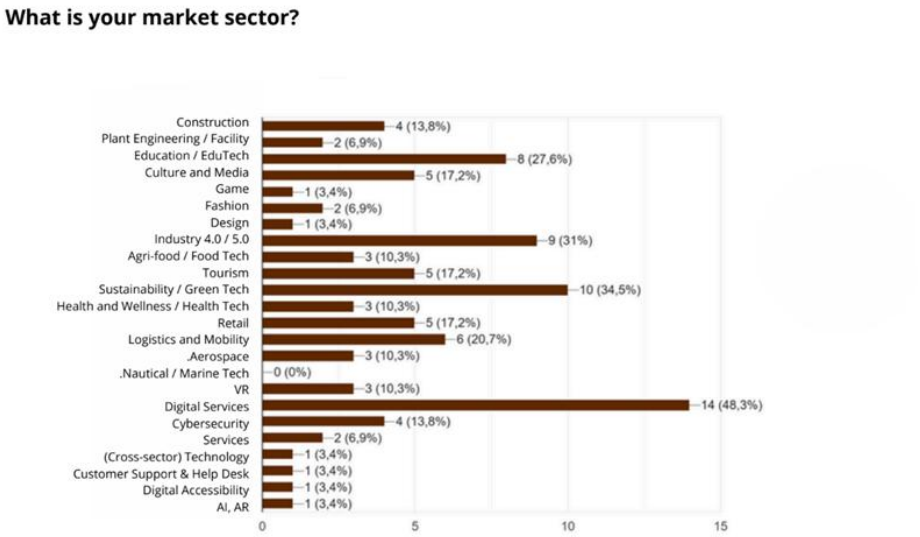

Figure 7: *market sector of 012 Factory portfolio's startup (internal reference)*

The most interesting classification criterion is undoubtedly the *market segment* as it does not possess a fixed declination. The 012 Factory incubator, from the figure, adopts a geographical key in the analysis of this criterion, so much so that it analyzes its portfolio according to the area of operation of the incubated startups: local, national or international. In this specific case, there is a marked presence of startups operating in a national market segment, followed by international.

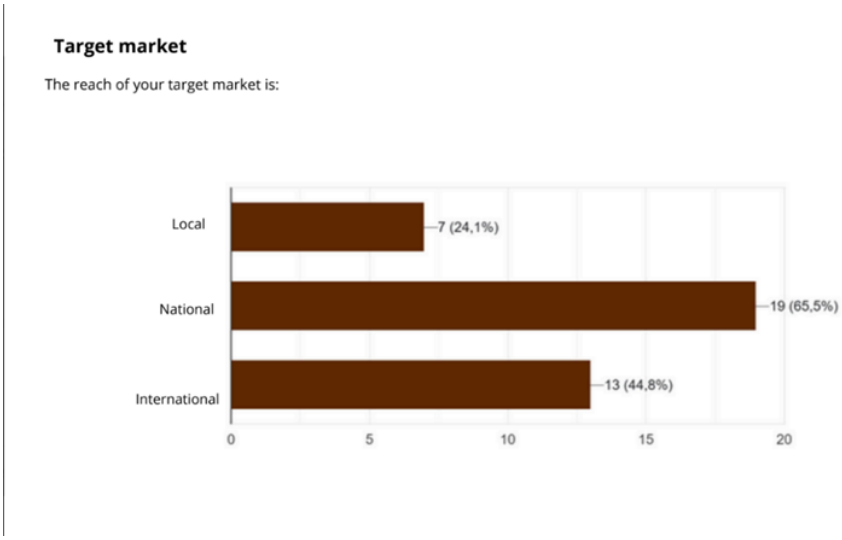

Figure 8**:** *target market of 012 Factory portfolio's startup (internal reference)*

As expected, another classification criterion is the *life cycle stage* of the incubated startups in order to have an overall view of the current status of the players in their portfolio. As the figure 9 shows, 012 Factory presents a rather heterogeneous situation in that about 40 percent of the incubated startups are in the growth stage, less than 20 percent turn out to be already small or medium-sized traditional companies, while all the others are in preliminary stages of development such as pre-seed, seed and early stage.

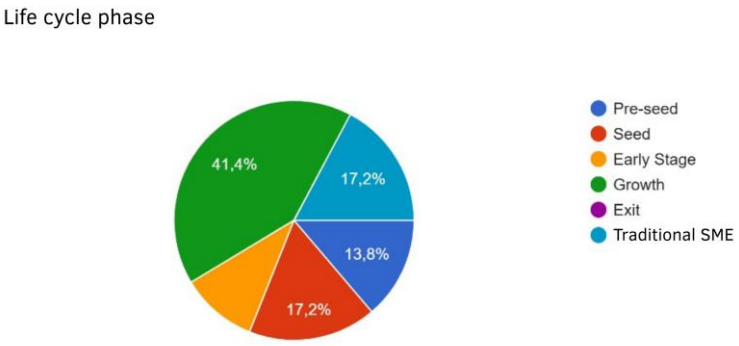

Figure 9**:** *life cycle stage of 012 factory portfolio's startup (internal reference)*

Finally, one last classification criterion is recorded, which is definitely current and impactful in the holistic evaluation of the activity offered by an incubator*: the sustainability criteria, SDGs* (figure 10). A couple of more viable goals are clearly recorded in accordance with the economic-industrial nature of startups: "business, innovation and infrastructure" to stimulate technological development, "decent work and economic growth" aiming at sustainable and inclusive growth that allows full employment of even the most vulnerable in society, and "partnership for goals" in order to promote cooperation between governments, institutions and private sectors to mobilize resources, knowledge and technologies. These are followed by "quality education" to ensure an equal and excellent level of education and "gender equality" to eliminate all forms of discrimination or inequality between the sexes.

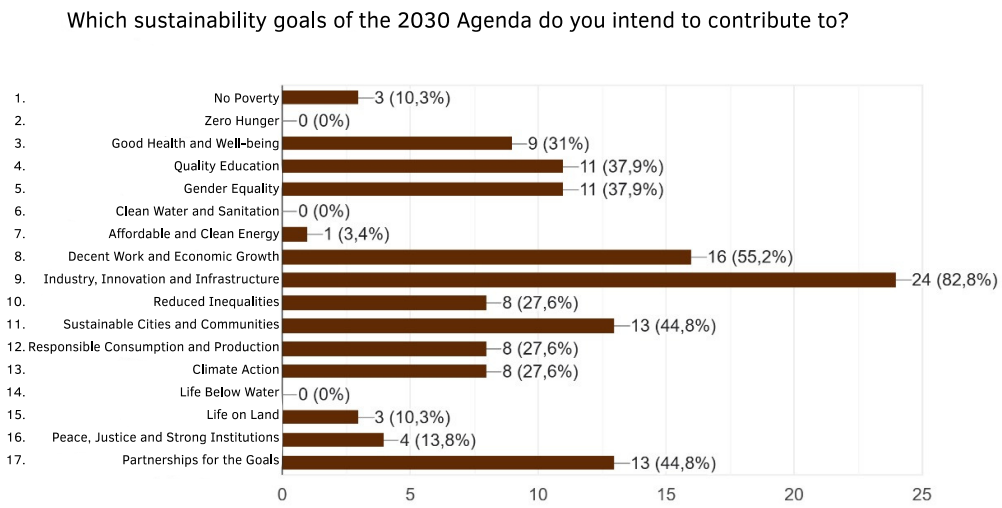

Figure 10*: SDGs of 012 Factory portfolio's startup (internal reference)*

- **I3P - Innovative Business Incubator** of the **Politecnico di** Torino

Another positive feedback, received through a meeting with an internal contact person, Enrico Ghia, came from **I3P - Incubator of Innovative Enterprises** of the **Politecnico** di Torino, which is distinguished by its adoption of an articulated model for classifying incubated startups, designed to respond to the heterogeneity of the entrepreneurial projects supported and the plurality of interlocutors with which it interfaces, including private investors, public institutions and research bodies. This approach reflects the incubator's awareness of the growing complexity of the innovation ecosystem and the need to provide flexible but structured reading and monitoring tools.

The first level of aggregation relates to a particularly macroscopic, cross-cutting *scope* classification based on the technological or application area in which each project operates. The main categories identified are:

- Aerospace
- Clean-tech
- Med-tech
- Digital

This segmentation allows for an initial functional mapping of the portfolio, although there is room for overlap between sectors (e.g., a startup developing digital technologies for medical diagnostics might fall into both the "digital" and "med-tech" clusters). Categorization at this stage has a descriptive and guiding value, useful both for strategic positioning and to facilitate matching with external stakeholders.

The second degree of classification relates to the *state of development*, which is related to the maturity of the business project, broken down into three key stages derived from the "lean startup" methodology:

- Customer Discovery: initial exploration phase in which the business idea is tested to understand the real needs of the market and verify the validity of the problem to be solved.

- Customer Validation: minimum product definition and testing (MVP) phase, aimed at verifying the match between supply and demand and initiating initial market iterations.

- Growth: expansion phase, in which the startup has validated the business model and is ready to scale, acquire customers and optimize sales and distribution processes.

This categorization allows the incubator's service offerings to be tailored to the real needs of startups at each stage, both in terms of mentorship and access to resources.

The third degree of classification, mentioned in the meeting, is the *value creation paradigm*, by which I3P aims to understand the strategic rationale that guides the growth and positioning of the enterprise. The main categories are:

- Deep Tech: includes projects based on a radically new technical or technological solution with patentable potential and a strong focus on R&D. The goal is to demonstrate the value of the technology asset to facilitate early exit transactions (such as acquisitions), even in the absence of intense distribution activity. This paradigm requires advanced skills, intellectual protection, and access to networks of experts and opinion leaders.

- Digital: refers to startups developing digital solutions that are not necessarily proprietary, often focused on rapid scalability and acquiring a strong user base. In this case, the focus is on MVP development, traction metrics, and go-to-market optimization, rather than technology protection or radical innovation.

- Industrial: includes entrepreneurial projects with a comprehensive organizational structure and efficiency-oriented business logic. In this paradigm, value creation is based on a sustainable business model capable of integrating saleability, proof of concept and operational scalability. It is often required to achieve intermediate milestones such as industrial pilots or

initiating customer partnerships. In this context, the most important KPIs are the usual accounting metrics, such as EBITDA.

A classification based on *the year of entry into* the incubator pool is then mentioned, in order to track the size of the portfolio over time, and *compatibility with third parties*, such as public calls or associations that can offer a fruitful development path for startups; while other levels of categorization are binary such as *company incorporation* or *social impact*, avoiding further specific analysis related to sustainability criteria, SDGs, unless specifically requested.

Finally, the presence of less hybrid degrees of categorization such as *preponderant technology*, *target market* and *industry*, i.e., the sector of operation of the startups, is highlighted. In this context, reference to ATECO codes is not systematically adopted, despite the fact that they represent an official standard of economic classification. The choice is dictated by strategic considerations: many innovative startups, in fact, operate in a hybrid and cross-sectoral manner, making a rigid and unambiguous framing difficult and potentially misleading. It is therefore preferred to use a flexible classification that is more in keeping with the design nature of the enterprise and more consistent with the requirements of public calls, tax incentives or funding policies active in the reporting period.

A further distinguishing feature is the decision not to classify startups according to traditional life cycle (e.g., pre-seed, seed, early stage, growth), as this structure may not be functional with respect to the specific dynamics of the market in which the incubator operates. Alternatively, a binary distinction is adopted between:

- Pre-incubated startups, i.e., entities not yet formally incorporated as companies
- Incubated startups, i.e., companies already established and active in legal form

This simplification responds to operational needs and allows the incubator to better calibrate accompanying pathways and support activities, focusing on the level of structuring of the initiative rather than too rigid segmentation of the development cycle.

- **Impact Hub**

Impact Hub represents one of the main global ecosystems dedicated to social innovation and impact entrepreneurship, with a network spread internationally and territorial presidia acting as local hubs. In Italy, Impact Hub is configured as an active player in supporting emerging entrepreneurship, with particular reference to early-stage startups.

Through a virtual meeting with an internal contact person, Francesco Gia, it was possible to identify the context in which the incubator operates and how it is organized in the marketplace.

Incubation offerings, in particular, include more than ten structured programs aimed at supporting startups in the early stage of development and guiding them along their entire entrepreneurial journey. The support is end-to-end, i.e., it covers all phases of the startup life cycle: from idea validation to market positioning (go-to-market), to scalability strategies and capital raising (fundraising). To this end, startups are paired

with vertical mentors, selected based on the specificity of the industry or the skills required by the founding team.

A distinctive element of the approach adopted by Impact Hub lies in the temporal flexibility of the programs: there are no incubation cycles bound to predefined windows, but rather a continuous entry, in line with the logic of personalizing the path and adapting to the times and needs of individual entrepreneurial realities.

The main target audience is impact-driven startups, i.e., those oriented to generate value in the environmental, cultural or social sphere. In this context, Impact Hub also pays special attention to B-founder profiles[7] , offering ad hoc accompaniment and training tools.

Unlike many traditional incubation models, however, Impact Hub does not adopt stringent metrics or rigid classification criteria for the selection and ranking of startups. This orientation reflects an underlying philosophy that places at the center not so much the categorization of projects according to pre-established types (e.g., sector, technology, stage of development), but rather the ability to respond individually to the specific needs of each team.

This approach aims to avoid standardization of pathways and to promote adaptive and contextualized development, in which the growth dynamics of startups are interpreted in their uniqueness.

Given the limited amount of feedback received from incubators, we also extend the analysis to third-party entities that provide reports and surveys in order to assess the performance of the Italian innovation ecosystem. Some examples deemed relevant for relevance and usability of information are Assintel, the MIMIT, Anitec-Assinform and Roma Startup.

Firstly, we cite the Annual Report 2024 on the "State of Implementation and Policy to Support Innovative Startups and SMEs" by Adolfo Urso of the **Ministry of Enterprise and Made in Italy (MIMIT)**.

Below is the figure 11, extracted from the above report, in which the numbers of sectors in which startups operate in the years 2022 and 2023 are shown.

It shows how the ATECO 2007 classification, still in effect in 2024, is used to classify the market segments in which Italian startups analyzed in the Ministry of Business and Made in Italy report operate.

[7] **B-founders** are individuals who decide to embark on an entrepreneurial path despite not having previous experience in the industry.

Sections	Divisions	Year 2022		Year 2023	
		No.	weight %	No.	weight %
A - Agriculture, forestry and fishing		108	0,8%	94	0,7%
C - Manifacturing activities		2.008	14,1%	1.764	13,2%
D - Electricity, gas, steam and air conditioning supply		106	0,7%	94	0,7%
E - Water supply; sewerage; waste management and remediation activities		33	0,2%	25	0,2%
F - Construction		139	1,0%	140	1,0%
G - Wholesale and retail trade; repair of motor vehicles and motorcycles		422	3,0%	385	2,9%
H - Transportation and storage		33	0,2%	30	0,2%
I - Accommodation and food service activities		60	0,4%	54	0,4%
J - Information and communication services		7.283	51,1%	6.983	52,1%
K - Financial and insurance activities		37	0,3%	40	0,3%
L - Real estate activities		31	0,2%	24	0,2%
M - Professional, scientific and technical activities		3.290	23,1%	3.127	23,3%
N - Rental and leasing activities, travel agencies, business support services		337	2,4%	291	2,2%
P - Education		144	1,0%	125	0,9%
Q - Health and social assistance		69	0,5%	64	0,5%
R - Arts, sports, entertainment and recreation activities		56	0,4%	54	0,4%
S - Other service activities		48	0,3%	41	0,3%
Not specified		60	0,4%	59	0,4%
Total Italy		**14.264**	**100,0%**	**13.394**	**100,0%**

Source: elaboration on InfoCamere data

Figure 11:*market segments of startups in 2022 and 2023 (MIMIT 2024 report)*

On the other hand, analyzing the December 2023 report by **Anitec - Assinform**[8] , which therefore focuses on the analysis of startups in the ICT sector, shows how, again, the ATECO 2007 code was used as a criterion for classifying the markets in which the startups studied operate.

Continuing the analysis, we focus on the 2024 report of **Assintel**[9] , an external body representing ICT companies, conducted by Alex Buriani, Research Director of the Ixè Institute.

Below, then, is a graph (figure 12) showing the multiple response to the questionnaire submitted to startups regarding classification by market segment. There is a strong affinity and relevance to ATECO codes for many market segments such as finance, education, energy & utilities, fashion, construction and building, agriculture, real estate, raw material extraction, accommodation & food service services, and retail.

In contrast, other designations do not fully reflect the standard classification as they may belong to different categories based on specific characteristics.

[8] **Anitec-Assinform** is the Italian association representing Information and Communication Technology (ICT) companies that is a member of Confindustria. It was formed through the merger of Anitec (National Association of Computer, Telecommunications and Consumer Electronics Industries) and Assinform (Italian Association for Information Technology). The association produces annual market analyses, reports and development scenarios of technological innovation in Italy.

[9] **Assintel** - National Association of ICT Companies: a representative body of the ICT and digital sector in Italy, a member of Confcommercio. Promotes the development of digital culture and offers support services to member companies.

One example is "aerospace," a hierarchy 2 sector belonging to the macro-category "manufacturing," already present in the graph, however; other emblematic examples are "business/consumer products and services," which may have ATECO codes 70, 47 or 73 identifying consultancy, retail trade and marketing, respectively, or the designation "healthcare/pharma/biotech," which may belong to the research category (ATECO code 72) or manufacture of basic pharmaceutical products and pharmaceutical preparations (ATECO code 21 - hierarchy of manifacturing).

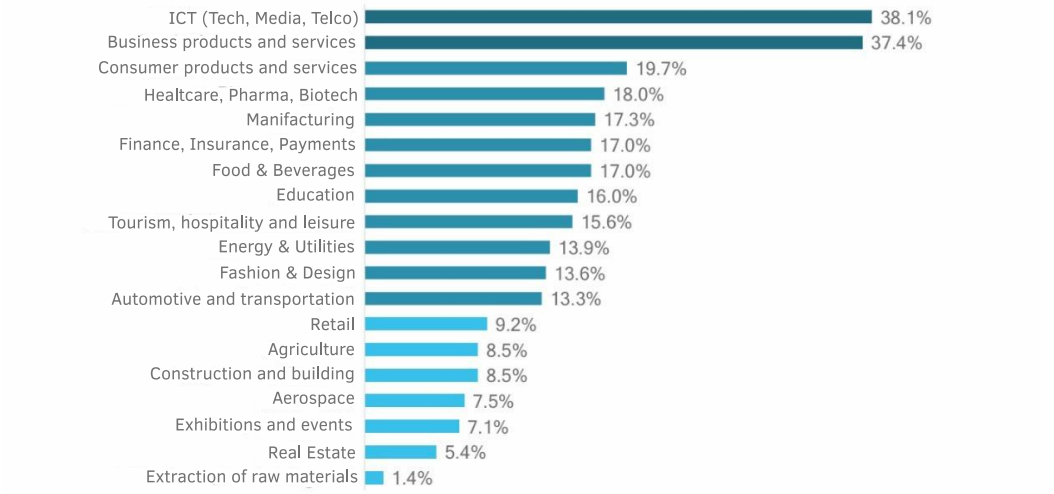

***Figure 12**:market segments of startup sample (Report 2024 Assintel)*

This can be further confirmed by reporting the histogram (figure 13) for the sample of high ecological and/or sustainable impact startups analysed, in which we simply find a subset of the previous market segments. Thus, the same logic is followed within the entire report, as expected.

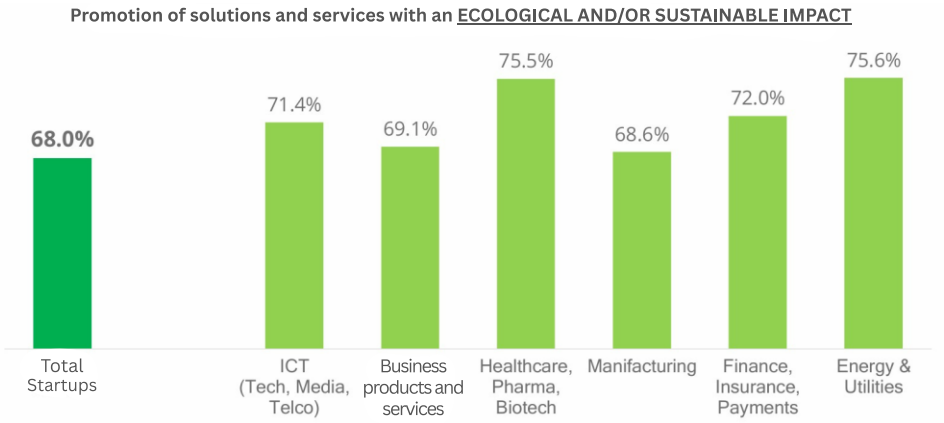

Figure 13:*market segments of social and environmental impact startups (Assintel Report 2024)*

Finally, we would like to mention an additional external entity whose report is useful in moving forward with this type of analysis: Rome Startup[10].

In this case, the figure 14 is shown in which the market segments are indicated with their corresponding ATECO codes. Again, therefore, the standard classification criterion has been considered, albeit for a different purpose, namely to differentiate the percentage of serial and non-serial investors.

ISIC	Sector	Percentage of serial investors	Percentage of non-serial investors
62	Computer programming, consultancy and related activities	21,78	32,23
72	Scientific research and development	21,78	15,99
74	Other professional, scientific and technical activities	9,9	2,95
63	Information service activities	8,91	9,13
1	Crop and animal production, hunting and related service activities	6,93	0,31
26	Manufacture of computer, electronic and optical products	4,95	3,62
35	Electricity, gas, steam and air conditioning supply	4,95	1,52
27	Manufacture of electrical equipment	2,97	1,70
28	Manufacture of machinery and equipment n.e.c.	1,98	3,05
32	Other manufacturing	1,98	1,42
82	Office administrative, office support and other business support activities	1,98	1,93
2	Forestry and logging	0,99	0,11
20	Manufacture of chemicals and chemical products	0,99	0,64
29	Manufacture of motor vehicles, trailers, and semi-trailers	0,99	0,49
30	Manufacture of other transport equipment	0,99	0,89
38	Waste collection	0,99	0,45
41	Buildings	0,99	0,30
43	Specialized construction activities	0,99	1,04
58	Publishing activities	0,99	2,10
61	Telecommunications	0,99	0,46
64	Financial service activities (except insurance and pension funding)	0,99	1,22
66	Activities auxiliary to financial services and insurance activities	0,99	0,07
88	Social welfare	0,99	0,26
O	Other	0,00	18,12

Figure 14**:** *startup sectors supported by serial or no-serial investors (Roma Startup report)*

[10] **Roma Startup** is a nonprofit association founded in 2012, representing the ecosystem of innovative startups in Rome, promoting the city as a hub for innovation and technological entrepreneurship.

5 CHAPTER 5: MAPPING MODEL

As highlighted in the previous chapters, the overall goal of the analysis is to **map the** portfolio of startups incubated by *Social Innovation Teams* by defining a **custom** classification model.

Of the evidence that emerged during the interviews, the contribution made by **012 Factory** was particularly consistent with the logical and structural approach the applicant intends to take in developing the model. In contrast, the other incubators involved do not adopt formalized or rigidly structured classification criteria.

As hypothesized at the preliminary stage, many organizations operate according to flexible classification logics, while maintaining some internal consistency. In fact, these systems are generally functional as much to the operational needs of the hubs, which aim to guarantee personalized and adaptive support to startups, as to the requests coming from external stakeholders (public bodies, institutions, media, etc.), which need certain tools for reading and tracking the evolution of the Italian innovation ecosystem.

This very practical and context-specific approach moves away from a more rigid and systematic theoretical structure, as would be expected in an analytical model designed to be consistent and applicable even in comparative contexts. However, this very heterogeneity confirms the need for a tool that, while maintaining a rigorous analytical structure, is able to intercept the variety of organizational models and incubation needs.

In light of these considerations, the following section presents the **proposed model for Social Innovation Teams**, based on **six** carefully selected **classification criteria**, with the aim of heterogeneously and flexibly mapping the portfolio of incubated startups, without sacrificing a useful analytical framework for interpreting and comparing the collected data.

1. Business model

Within the proposed model, the *business model* that each startup intends to adopt for its market positioning will be mapped. Specifically, it will be classified according to the main configurations recognized in the literature and business practice, such as: Business-to-Business (**B2B**), Business-to-Consumer (**B2C**) and Business-to-Government (**B2G**). This categorization is functional not only to understand the relational and business logic behind each startup's activity, but also to highlight market access strategies, the complexity of the value chain and the type of stakeholders involved in generating impact. The table 8 below indicates the business model criteria.

Table 8: *list of business model criteria*

Business Model
B2B
B2C
B2G

2. Technology area

In the context of the analysis and representation of the startup portfolio, the ATECO code is a compulsory starting point because, this classification, which is widely recognized at the institutional level, makes it possible to ensure methodological homogeneity and comparability of data with respect to official sources, also facilitating potential comparative analyses on a national scale, for tax, statistical or administrative purposes.

However, when it comes to accurately describing the variety of business models and technological domains that characterize innovative startups, this system often proves too rigid and schematic.

For this reason, it was decided to replace the formal ATECO classification with a more flexible approach, structured around sectoral and technological macro-areas. The methodological inspiration came from the experience of I3P, the incubator of the Politecnico di Torino, which adopted a categorization system not bound to predefined codes, but built dynamically, with the aim of responding both to the needs of internal analysis and the need to communicate effectively externally.

This approach has proven particularly useful in several respects. First, it allows a more faithful representation of reality, rendering the complexity of the sectors in which startups operate and the multidisciplinarity of the solutions developed. It also facilitates a more strategic reading of the portfolio, allowing for a clearer identification of the areas of greatest presence, emerging clusters, potential synergies and spaces for growth. No less important, it offers a more immediate communication tool, making it possible to tell the identity and impact of startups in an accessible and recognizable way even to non-specialist audiences, such as industrial partners, investors or institutional stakeholders.

The proposed structure is divided into six technological macro-areas, selected on the basis of recurrence in the observed projects and relevance of innovation trends:

- **Deep Tech**
  startups active in areas such as artificial intelligence, blockchain, Internet of Things and software-as-a-service (SaaS). Companies in these fields invest heavily in R&D, require highly skilled personnel, and face development cycles that often take years before reaching commercialization. These companies create robust intellectual property, which is a barrier to market entry, and aim to fundamentally change entire industries, facing high technical risks that are not always predictable.

- **Ed Tech**
  startups that innovate in the field of education and training through digital platforms, augmented reality or artificial intelligence applied to educational pathways. Their development has been accelerated by the pandemic and, to date, they must demonstrate pedagogical effectiveness, scalability and interoperability with existing training systems. Success is contingent on precise scientific validations and learning metrics.

- **Fin Tech**
  expanded technologies to the financial sector, including electronic payments, lending platforms, and blockchain and cryptocurrency-based solutions. FinTech startups operate in highly regulated environments and must build strong relationships with banks, regulators, and intermediaries. While they have faster development cycles than Deep Tech, they present complex challenges related to compliance, user trust, and competitiveness in established markets.

- **Green Tech**
  technologies aimed at environmental sustainability, energy efficiency, circular economy and reduction of ecological impact. These organizations often benefit from public funding, European funds (e.g., Green Deal, Agenda 2030), but at the same time they must operate in rapidly changing markets where it becomes essential to demonstrate the balance between environmental and economic sustainability.

- **Health and Bio Tech**
  startups working in the biomedical, diagnostic, pharmaceutical or in the creation of digital platforms aimed at healthcare. These initiatives require long development cycles, rigorous clinical trials, international certifications and often established collaborations with universities and healthcare facilities. Interaction with regulators and ethics committees is a strategic and indispensable aspect, necessary to ensure the safety of the innovation before real impact on healthcare systems.

- **Social Impact**
  enterprises that, while adopting business models, bring a social or environmental mission to the center. The goal is to solve structural issues such as poverty, unemployment, inequality, inclusion, and public health. These startups also measure their value by metrics that are not strictly financial, and they often work in synergy with third-sector entities, foundations or international organizations, adopting hybrid approaches that mix economic goals and social impact.

Each of these categories represents a set of technologies and applications with a strong internal coherence, but at the same time leaves room for cross-cutting interpretations, encouraging an open reading of the target markets and the social or environmental purposes involved.

The table 9 shows the list of technology areas applied in the model.

Table 9: *list of technology areas criteria*

Technology Area
Deep Tech
Ed Tech
Fin Tech

Green Tech
Health & Bio Tech
Social Impact

3. Market segment

It should be pointed out that the concept of *market segment* does not coincide with that of technology area or technology areas. While the latter refers to the industry to which the startup belongs or, as in the present case, to the technological macro-area in which it operates, the market segment identifies the demand space to which the startup's offer is addressed, i.e., the group of final recipients of the proposed products or services.

From this perspective, market segment mapping responds to a demand-oriented logic, focusing on those who buy or use the supply, rather than on the productive activity itself. This distinction is particularly relevant in the context of social innovation and impact entrepreneurship, where sectoral transversality and the plurality of target audiences often make a reading based solely on sectoral codes inadequate.

Therefore, it was deemed appropriate to use the **ATECO code** as the starting point for the analysis.

However, in order to respond more effectively to the specifics of the analyzed business environment and the needs of the present research, it was necessary to critically intervene on the original structure of the ATECO 2025 code. In particular, starting from the official list, a further operation of aggregation and sometimes even disaggregation of the hierarchical macro-levels was conducted, with the aim of obtaining a more functional, heterogeneous and adherent sectoral list to the characteristics of the incubated startups.

The result of this process is a reworked list of sectors, which maintains a consistency with the hierarchical structure of the ATECO code, but enhances its interpretative flexibility, while ensuring comprehensiveness, effectiveness and inclusiveness: each incubated startup can in fact be placed within one or more categories, seeking to avoid classificatory forcing and respecting the hybrid or intersectoral nature of many impact entrepreneurial projects.

Table 10 shows the aggregate list of market segments that will be used to map incubated startups.

Table 10: *list of market segments*

Market segments
Agri-food
Chemistry and pharmaceuticals
Trade and retail
Consumers and households
Culture, tourism and entertainment

Energy, environment and mining
Finance and insurance
Ho.Re.Ca. and catering
Real estate and construction
Information Technology and TLC
Education, research and training
Logistics and transportation
Manufacture
Mechanics, automotive and aerospace
Media and communication
Public administration and defense
Health and social care
Professional Services
Sports and Leisure
Textile and fashion

4. Geographic target market

A further classification criterion, of a more intuitive nature, refers to *the geographic area of action of* the startup, i.e., the extent of the market in which the entrepreneurial initiative intends to operate. Following the approach proposed by 012 Factory, a first basic distinction between local, national and international markets is adopted, which is a useful preliminary skim to understand the degree of ambition and scalability of the project. It is pertinent to add the designation "European" among the entries in this classification in order to distinguish the degree of diffusion and development of the reality.

This categorization, while seemingly simple, plays a strategic role in the analysis of startup portfolios, as it quickly captures the breadth of the target pool, potential barriers to entry, and the level of organizational and operational maturity required to address more complex and competitive markets. It also helps to assess the ability of the business model to be replicable in contexts other than its origin, which is particularly relevant in scaling and internationalization paths.

The following table 11 shows the list of geographic target markets criteria applied to the mapping model.

Table 11: *list of geographic target markets criteria*

Geographic target market
Local
National
European
International

5. Company stage

Another element that cannot be missed in the proposed model is the *company stage* each entity is in. Although, as emerged from the interviews, not all incubators feel the need to adopt a formal categorization of this kind, often preferring more flexible and adaptive approaches, we chose to include this criterion because of its relevance both theoretically and operationally.

There are different stages of development, each with very different characteristics, needs and critical issues. Classifying a company as an idea, startup, scale-up, or SME is not just a matter of labels: it is a key step in understanding its true state of maturity, better targeting growth strategies, and making it easier to meet the right investors.

- The "**idea**" stage is often just a hunch, with no practical evidence. There is no product yet, no real team.
- The real **startup** begins to take its first steps: develops an MVP, seeks its first users, perhaps receives a small seed investment.
- **The scale-up** has already proven that the product works, has a market, and now aims to grow, scale and structure.
- Finally, the **SME** is a more solid entity, with stable internal processes, perhaps already profitable, and with less dependence on external capital.

Knowing indicatively what stage of its journey an entrepreneurial reality is in is not just a classificatory matter, but represents key information for understanding what challenges it is facing, what kind of support may be most effective, and what margins for development are still viable. This prospectus is usually given by cross-referencing it with financial information such as investment rounds, revenues, KPIs; thus, by combining qualitative and quantitative information, it is possible to obtain a much more realistic snapshot of the life cycle of an innovative reality.

In these terms, the classification adopted by 012 Factory turns out to be hybrid and not purely consistent with the methodological structure that the candidate proposes for the construction of the mapping model; for these reasons, the more flexible classification, discussed above, will be used.

In the following table (table 12) there are the aggregate list of different company stages.

Table 12: *list of company stages criteria*

Company stages
Idea
Startup
Scale-up
SME

6. Sustainable development goals

Finally, last only in order of exposition, but certainly not in importance, the proposed model also takes into account the contribution of startups to the *Sustainable Development Goals (SDGs*) promoted by the United Nations.

At a time in history when the innovation ecosystem is undergoing a profound transformation, increasingly oriented toward the creation of shared value, it is essential to include ranking criteria related to the social and environmental impact generated by business initiatives.

The SDGs represent a shared international framework for systematically reading the impacts of business activities on the territory, the environment and communities. For this reason, including them as a classificatory dimension is not only useful, but now almost necessary, especially for young businesses entering the market with the intention of generating positive and lasting impact.

Below, for the sake of completeness, the full list of the 17 Sustainable Development Goals promoted by the UN in the 2030 Agenda is given again (table 13):

Table 13: *SDGs' list criteria*

SDGs
Defeating poverty
Defeating hunger
Health and Wellness
Quality education
Gender equality
Clean water and sanitation
Clean and affordable energy
Decent work and economic growth
Business, innovation and infrastructure
Reducing inequality
Sustainable cities and communities
Responsible consumption and production
Fighting climate change
Life underwater
Life on earth

	Peace, justice and strong institutions
	Partnership for goals

This criterion, in addition to reinforcing the value of the mapping model, also allows for an assessment of the strategic alignment of startups with major global challenges, thus offering a more comprehensive and contemporary reading tool of the impact innovation ecosystem.

6 CHAPTER 6: MODEL APPLICATION TO SIT PORTFOLIO

6.1 Introduction to Social Innovation Teams and its portfolio

Social Innovation Teams (SIT) is a nonprofit organization for projects and startups with a social and environmental effect.

SIT is made up of people and organizations who are committed to the creation and promotion of entrepreneurial projects which generate a positive impact. SIT's objective is to promote a new economic model which is fairer for society and the environment.

Having outlined and structured the classification model, we now come to the application phase of the analysis. Indeed, it is now time to put the constructed framework into practice by applying it to the portfolio of startups incubated by Social Innovation Teams (SIT), consistent with the candidate's initially stated objective.

In the following paragraphs, all SIT-supported startups will then be analysed according to the criteria defined in the customized model. The intent is to heterogeneously, systematically, and effectively map the entire portfolio, which currently has about 50 entrepreneurial entities.

This phase represents the concluding moment of the investigation, where theory and practice meet: on the one hand, to verify the adaptability and coherence of the proposed model, and on the other, to return a structured snapshot of the entrepreneurial ecosystem incubated by SIT, useful both for internal purposes and with a view to external communication and reporting.

6.2 Enterprises of SIT portfolio

1. AirQ

AirQ is an innovative startup that develops advanced indoor and outdoor air quality monitoring systems. Through a proprietary technology platform based on IoT sensors, the company provides real-time data on air pollution, useful for public agencies, businesses and citizens. The goal is to promote more environmentally and health-conscious choices.

- *Business Model*
  B2C - AirQ offers a mobile application aimed at end users, particularly sports people and citizens interested in air quality. The app provides personalized information, suggests routes with lower pollution levels, and offers tips for improving quality of life.

- *Technology area*
  Deep Tech; Health and Bio Tech

- *Market segment*
  Mainly sportsmen and citizens interested in air quality monitoring to improve their lifestyle
  Potentially targeted to public administrations and/or enterprises in the field
  Consumers and family; health and welfare

- *Geographic target market*
  National with potential international expansion. Pilot activities and collaborations concentrated in Italy.

- *Company stage*
  Early stage - has already developed a working product and initiated initial collaborations and installations.
  Startup
- *SDGs involved*
  SDG 3 - Health and wellness
  SDG 11 - Sustainable Cities and Communities.
  SDG 13 - Fighting Climate Change.

2. Alteredu

Alteredu is an innovative social impact startup offering an online training platform targeting youth, professionals and businesses. The mission is to provide digital skills and recognized certifications to improve employability, particularly in geographic areas with fewer educational opportunities. Born in Calabria, Alteredu aims to reduce the education gap and promote inclusion in the labor market through accessible and flexible pathways.

- *Business Model*
  B2B / B2C - The platform targets both individual users who wish to acquire new skills and companies interested in training their staff.

- *Technology area*
  Ed Tech

- *Market segment*
  Youth seeking employment or specific certified
  Professionals in need of continuing education
  Firms that invest in staff training
  Education, research and training; professional services

- *Geographic target market*
  National - With a focus on southern Italian regions, but with potential for nationwide expansion.

- *Company stage*
  Growth - The startup has consolidated its market presence and is expanding its training offerings and user base
  Startup

- *SDGs involved*
  SDG 4 - Quality Education
  SDG 8 - Decent work and economic growth
  SDG 10 - Reducing Inequality

3. Atelier Reformation

Atelier Riforma is a socially oriented innovative startup founded in Turin in 2019 by Elena Ferrero and Sara Secondo. Its mission is to reduce the environmental impact of the fashion industry through the circular economy. The startup collects used clothes and transforms them into new garments through a network of social tailors, promoting the labour inclusion of people in economically and socially fragile conditions. It is developing Re4Circular, an artificial intelligence-based technology that automates the collecting, sorting and digitizing of textile waste toward reuse, recycling or upcycling solutions.

- *Business Model*
  B2B - Offers services to companies in the fashion industry for sustainable textile waste management and sells upcycled garments directly to consumers. But the main business model consists of fruitful collaborations with brands and/or fashion companies.

- *Technology area*
  Deep Tech

- *Market segment*
  Companies in the fashion industry interested in sustainability
  Circular fashion professionals
  Textile and fashion

- *Geographic target market*

National - Activities concentrated in Italy, with potential for international expansion.

- *Company stage*
  Growth - the business has consolidated its market presence and is expanding its technology offering and user base
  Startup

- *SDGs involved*
  SDG 8 - Decent work and economic growth.
  SDG 9 - Industry, innovation and infrastructure
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change

4. BionIT Labs

Founded in 2018 in Soleto (LE), BionIT Labs is an Italian medtech startup specializing in human-machine integration, applying computer technologies to bionics with the goal of "transforming disabilities into new possibilities." Its flagship product is *Adam's* Hand, the world's first fully adaptive bionic hand designed to simplify the use of prosthetics through a patented mechanism that allows simultaneous finger movement with a single motor. The startup has raised over €7 million in public and private funding and won the IMSA 2023 Prize. Currently, Adam's Hand is available in 12 European countries.

- *Business Model*
  B2B / B2C - BionIT Labs sells directly to orthopedic clinics and rehabilitation centers (B2B) and, through partnerships, provides customized prosthetics to end users (B2C).
  B2G - public health systems undertaking projects or partnerships with the startup to test its products or potential.

- *Technology area*
  Health and Bio Tech; Deep Tech, Social Impact

- *Market segment*
  People with amputations or congenital malformations of the upper limbs
  Orthopedic clinics and rehabilitation centres
  Public and private health care systems
  health and social care

- *Geographic target market*
  European - Activities concentrated in Italy, with potential international expansion through planned international fairs and partnerships.

- *Company stage*
  Innovative SME - After receiving a substantial investment round in 2023, their flagship product is currently in 12 European countries and will participate in several international trade shows. The startup has expanded its customer base and technology offerings so much that it is now considered a full-fledged SME.

- *SDGs involved*
  SDG 3 - Health and wellness
  SDG 10 - Reducing Inequality

5. Biorfarm

Founded in 2015 by Osvaldo De Falco and Giuseppe Cannavale, Biorfarm is the first digital farming community in Europe. The platform allows individuals and businesses to adopt fruit trees, olive trees, vines, and beehives grown by small Italian organic farmers, monitor their growth online, and receive fresh produce delivered to their doorstep. A social marketplace that allows everyone to receive high-quality organic produce, sourced directly from the best local farmers in the area. With more than 60 partner organic farms and 33,000 active users, Biorfarm promotes a short supply chain model that values sustainable production and conscious consumption.

- *Business Model*
  B2B / B2C - Biorfarm targets both end consumers, offering them the opportunity to adopt trees and receive organic produce at their doorstep, and businesses, offering corporate social responsibility solutions through the adoption of corporate digital orchards

- *Technology area*
  Green Tech

- *Market segment*
  Consumers who pay attention to sustainability and food provenance
  Small organic farmers seeking direct sales channels
  Companies interested in social and environmental responsibility initiatives
  Agri-food; consumers and households

- *Geographic target market*
  National - Biorfarm operates mainly in Italy, with some pilot initiatives in other European countries.

- *Company stage*
  Growth - After consolidating its presence in the Italian market and expanding its network of partner farmers, Biorfarm is expanding its offerings and improving its digital platform, as demonstrated by the launch of Biormarket and crowdfunding campaigns.
  Startup

- *SDGs involved*
  SDG 2 - Defeating Hunger.
  SDG 3 - Health and wellness
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change.

6. Biova Project

Founded in 2019 in Turin by Franco Dipietro and Emanuela Barbano, Biova Project is an innovative startup applying circular economy principles to the food sector. The project transforms unsold bread from bakeries and large retailers into craft beer, reducing food waste and CO_2 emissions. In addition to beer, Biova produces snacks (Ri-Snack) and fermented drinks (Ri-Drink) using brewing byproducts and other recovered ingredients. In 2024, Biova became a certified B Corp, solidifying its commitment to environmental and social sustainability.

- *Business Model*
  B2B / B2C - Biova sells its products both directly to consumers through its e-commerce and selected outlets, and to business partners such as supermarket chains (e.g., ALDI), restaurants, and companies interested in sustainable gifting solutions.

- *Technology area*
  Green Tech

- *Market segment*
  Consumers who care about sustainability and reducing food waste
  Companies and restaurateurs interested in innovative and sustainable products
  Large-scale retail trade (GDO)
  Agri-food

- *Geographic target market*
  National - Biova operates mainly in Italy, with a significant presence in more than 190 ALDI stores and collaborations with other retail chains.

- *Company stage*
  Growth - After validating the business model and expanding the product range, Biova is consolidating its presence in the Italian market and evaluating expansion opportunities.
  Startup
- *SDGs involved*
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change.

7. Bonoos

Founded in 2023 by Emanuele Cipriani and Giovanni Scansani, Bonoos is an innovative startup and Benefit Company based in Milan. Its mission is to integrate public welfare measures (bonuses, benefits and contributions) into corporate welfare plans through an intuitive WebApp accessible from any device. The platform maps, classifies and updates in real time more than 600 public benefits available at the national, regional and municipal levels, offering workers personalized support to access the benefits to which they are entitled. Bonoos works with companies and welfare providers, such as Randstad Welfare, to enhance employee income support programs without requiring additional investment from companies.

- *Business Model*

B2B - Bonoos offers its platform to companies, institutions and corporate welfare providers, enabling them to integrate public welfare measures into existing corporate plans.

- *Technology area*
  Deep Tech

- *Market segment*
  Companies of various sizes interested in optimizing welfare plans
  Corporate welfare provider
  Professional Services

- *Geographic target market*
  National - Bonoos operates throughout Italy, working with companies and institutions on a national, regional and municipal scale.

- *Company stage*
  Early stage **-** After launching in 2023, Bonoos has rapidly acquired clients and partners, such as Randstad Welfare, and continues to expand its presence in the Italian market.
  Startup

- *SDGs involved*
  SDG 3 - Health and wellness
  SDG 8 - Decent work and economic growth
  SDG 10 - Reducing Inequality

8. CoDe RTD

Founded in 2020 by Paolo Costanzo and Loris Dedamiani, CoDe RTD (Research & Technological Development) is an Italian innovative startup specializing in multimedia content protection through artificial intelligence. The company's mission is to combat digital piracy and unauthorized content sharing by offering advanced solutions for multimedia file security. At this stage it is developing the first prototype system by establishing relationships with institutions, national and international companies by receiving support from the community. This is because CoDe RTD wants, in addition to fighting this phenomenon, to raise awareness and popularize information security, both low-level and high-level.

- *Business Model*
  B2B - CoDe RTD offers solutions such as "ISMA" and "Black Room" designed for companies and professionals who need to protect sensitive digital content, such as film production houses, media agencies and content providers.

- *Technology area*
  Deep Tech

- *Market segment*
  Media content producers (film, television, digital creators)
  Content distribution and sharing platforms (video-sharing, social networks)

Culture, tourism and entertainment

- *Geographic target market*
  National - CoDe RTD operates mainly in Italy, with offices in Turin, Florence and Benevento, but the startup is also initiating activities and collaborations abroad by working with partners and participating in European programs.

- *Company stage*
  Growth - After validating the business model and expanding the range of services, CoDe RTD is consolidating its presence in the Italian market and evaluating opportunities for international expansion.
  Startup

- *SDGs involved*
  SDG 9 - Industry, innovation and infrastructure
  SDG 16 - Peace, justice and strong institutions

9. DoctorApp

Founded in 2018 by Alessandro Giraudo, DoctorApp is an innovative Italian SME that has developed a digital platform to simplify medical booking management and improve communication between patients and healthcare professionals. The app allows patients to book visits, request prescriptions, and manage appointments for themselves and family members, while providing doctors with tools to optimize practice organization, reducing phone load by up to 80 percent. Since 2023, DoctorApp has expanded its target audience to include specialist physicians and private clinics, evolving into a true marketplace of healthcare services. With more than 400,000 active users and more than 100,000 bookings handled quarterly, the company has successfully closed two equity crowdfunding campaigns, raising a total of more than €1 million.

- *Business Model*
  B2B - The platform provides advanced tools for healthcare professionals, such as digital agendas, booking management and patient communications, improving the efficiency of medical practices.
  B2G - Collaborations with public administration in order to exploit the potential of the app and test the possibility of obtaining a real marketplace of health services

- *Technology area*
  Deep Tech

- *Market segment*
  General practitioners and pediatricians
  Specialist physicians and private clinics
  Local public administration
  Public administration and defense; health and social welfare; professional services

- *Geographic target market*

National - Currently, DoctorApp operates mainly in Italy. However, the company has expressed its intention to expand into foreign markets by considering internationalization opportunities.

- *Company stage*
  Advanced growth - After validating the business model and expanding the range of services, DoctorApp is consolidating its presence in the Italian market and evaluating opportunities for international expansion. It is formally an **innovative SME** despite the fact that it is still independent, no divestment and/or merger event has occurred, and international scalability has not yet been realized.

- *SDGs involved*
  SDG 3 - Health and wellness

10. Dromt

Founded in 2022 in Chivasso (TO), Dromt is an Italian innovative startup developing a software platform for the automation of drone operations, offering advanced monitoring and analysis solutions for sectors such as agriculture, construction, and emergency management. The platform integrates flight management with image processing and analysis, turning collected data into useful information to optimize operational activities. In the agricultural sector, for example, Dromt uses multispectral maps to monitor crop health, identify areas of stress and optimize resource use. The startup has been selected for the Takeoff Accelerator program, receiving an initial investment of between €120,000 and €150,000 and participating in a five-month track at OGR Turin.

- *Business Model*
  B2B - Dromt offers advanced solutions for companies in the agricultural, renewable energy and construction sectors, providing tools for monitoring and analyzing data collected by drones.
  B2G - Dromt worked with the City of Turin and ENAC to test its fleet management system, indicating interaction with public agencies.
- *Technology area*
  Deep Tech

- *Market segment*
  Farms interested in precision agriculture
  Construction companies to monitor and manage construction sites
  Entities and organizations involved in emergency management
  Agri-food; real estate and construction; professional services; public administration and defense

- *Geographic target market*
  National - Currently, Dromt operates mainly in Italy, based in Chivasso (TO). Participation in accelerator programs and the search for strategic partners indicate potential future expansion into international markets

- *Company stage*
  Early stage - Since its founding in 2022, Dromt has developed its platform and entered into partnerships with entities such as CTE Next for field trials.

Participation in the Takeoff Accelerator program and seeking investment indicate an early stage of growth.
Startup

- *SDGs involved*
  SDG 9 - Industry, innovation and infrastructure
  SDG 11 - Sustainable Cities and Communities
  SDG 13 - Fighting Climate Change

11. Empethy

Founded in 2021 in Naples by Annamaria Barbaro **and** Lorenza Silvestri**,** Empethy is the first digital platform in Italy dedicated to facilitating informed adoptions of dogs and cats. The platform connects citizens and animal welfare associations through a matching system that considers animal characteristics, family habits and geolocation. To date, Empethy has partnered with more than 800 associations and facilitated more than 3,000 adoptions nationwide.

- *Business Model*
  B2B - collaborations with companies through the "Corporate Pet Responsibility" program, which promotes responsible adoption among employees.
  B2C - free service for citizens wishing to adopt an animal.

- *Technology area*
  Deep tech

- *Market segment*
  Associations, kennels and shelters
  Citizens interested in animal adoption
  Companies engaged in social responsibility programs
  Consumers and households

- *Geographic target market*
  National - The startup focuses its activity mainly in Italy, with plans to expand to a few European countries, such as Spain or France

- *Company stage*
  Growth - After the initial development and validation phase, Empethy is consolidating its presence in the Italian market and planning for international expansion.
  Startup

- *SDGs involved*
  SDG 11 - Sustainable Cities and Communities
  SDG 12 - Responsible Consumption and Production
  SDG 15 - Life on Earth

12. Enercade

Founded in Turin by a team of engineers from the Politecnico di Torino, Enercade is an innovative startup developing a digital platform for the creation and management of Renewable Energy Communities (RECs). The platform integrates advanced technologies such as artificial intelligence, smart contracts, and IoT sensing to optimize energy production, storage, and consumption within communities. Through a gamification-based approach, Enercade incentivizes active citizen participation, transforming energy management into an engaging and rewarding experience.

- *Business Model*
  B2C - Enercade provides citizens with tools to monitor and manage their energy consumption, actively participate in CERs, and receive incentives through gamification mechanisms.
  B2B - The platform provides companies and ERC managers with advanced tools for energy management, incentive allocation and performance analysis.

- *Technology area*
  Green Tech

- *Market segment*
  Operators of Renewable Energy Communities (RECs)
  Citizens and prosumers interested in actively participating in the energy transition
  Companies wishing to implement collective self-consumption solutions
  Energy, environment and mining

- *Geographic target market*
  National, with plans to expand into the European market. Enercade has participated in international events such as Enlit Europe 2024, highlighting interest in a broader presence in the European

- *Company stage*
  Growth - After the initial phase of product development and validation, Enercade is consolidating its presence in the Italian market and initiating its first international collaborations. Participation in accelerator programs and industry events indicates a phase of growth and scalability.
  Startup

- *SDGs involved*
  SDG 7 - Clean and Affordable Energy
  SDG 11 - Sustainable Cities and Communities
  SDG 13 - Fighting Climate Change

13. Escape4Change

Founded in 2021 in Turin by Davide Rizzi, Pasquale Lanni and Vittorio Randone, Escape4Change is an innovative startup with a social vocation that designs and creates immersive playful-educational experiences inspired by the themes of Agenda 2030. Using the format of escape rooms, both physical and digital, the startup addresses issues such as climate change, circular economy, racism and environmental migration, promoting awareness and social action through cooperative play.

- *Business Model*
  B2B - collaborations with companies for team building activities and training on soft skills such as time management and cooperation.
  B2C - experiences open to the public, often in collaboration with NGOs, museums and during cultural events.

- *Technology area*
  Social Impact

- *Market segment*
  Companies interested in experiential training programs.
  Schools and educational institutions for innovative educational projects.
  Non-governmental organizations (NGOs) and museums for thematic events.
  Education, research and training; culture, tourism and entertainment

- *Geographic target market*
  National, with projects implemented in several Italian regions, including Piedmont, Tuscany, Emilia-Romagna and Sicily. The startup has also participated in European programs, indicating an interest in international expansion.

- *Company stage*
  Early growth - Having completed the development and validation phase of its model, Escape4Change is currently strengthening its presence in the Italian market and has launched its first collaborations internationally. Participation in accelerator programs and presence at industry events are concrete signs of a move toward a phase of growth and scalability of the project.
  Startup

- *SDGs involved*
  SDG 4 - Quality Education
  SDG 11 - Sustainable Cities and Communities
  SDG 13 - Fighting Climate Change

14. Flowerista

Flowerista is an innovative startup and Benefit Society founded by Sara Malaguti in 2017 as a blog and later evolved into a digital ecosystem dedicated to the sustainable growth of creative brands, freelancers, and microenterprises. With legal headquarters in Milan and a team deployed in full remote mode, Flowerista offers training, strategic consulting, digital marketing and business coaching services, promoting an approach defined as "kind digital," combining innovation, empathy and sustainability.

- *Business Model*
  B2B / B2C - Flowerista primarily offers services to small and medium-sized enterprises (SMEs) and micro-enterprises in the creative sector but also caters to freelancers and solopreneurs who wish to develop or grow their businesses. Through its platform and community, therefore, Flowerista also caters to the B2C market, offering courses, webinars, and resources for the personal and professional growth of men or women who are aspiring entrepreneurs or out of the desired market.

- *Technology area*
  Ed Tech

- *Market segment*
  Creative enterprises and emerging brands.
  Freelancers and professionals in the creative industry.
  Organizations interested in sustainable digitization pathways.
  Education, research and training; professional services

- *Geographic target market*
  National, with increasing expansion to the European market. Flowerista has supported more than 350 Italian brands and launched initiatives such as the Local Ambassador network to be closer to local

- *Company stage*
  Growth - Having completed the project development and validation phase, Flowerista is currently engaged in strengthening its position in the Italian market, establishing itself as a point of reference for creative businesses. Participation in acceleration programs, active presence in networking contexts and the launch of structured initiatives highlight the move towards a phase of expansion and consolidation also potentially at the international level.
  Startup

- *SDGs involved*
  SDG 4 - Quality Education
  SDG 5 - Gender Equality
  SDG 8 - Decent work and economic growth

15. Foodu

Foodu is a food-tech startup founded in 2020 in Palo del Colle (BA) by Antonella Fasano and Paolo Pannarale. It aims to be the first participatory food e-commerce in Italy, where consumers not only buy, but actively participate in the selection and validation of products. Through a community composed of independent experts and consumers called "Approvers," Foodu aims to create an online supermarket tailored to customers' needs, favoring healthy, sustainable and quality products.

- *Business Model*
  B2C - direct sales of selected food products through the online platform.
  B2C2B - consumers actively participate in the product selection process, directly influencing the available supply.

- *Technology area*
  Green Tech

- *Market segment*
  Consumers who pay attention to food quality and sustainability.
  Agri-food producers interested in testing and improving their products through direct consumer feedback.

Consumers and households; agri-food

- *Geographic target market*
  National, with operational headquarters in Puglia and plans to expand to other Italian regions. The platform is accessible online, allowing the participation of users from all over Italy

- *Company stage*
  Early growth - After the initial development and validation phase, Foodu is consolidating its presence in the Italian market, expanding its community of users and producers, and developing new B2B services for agri-food producers. Participation in accelerator programs and the launch of equity crowdfunding campaigns indicate a phase of growth and scalability.
  Startup

- *SDGs involved*
  SDG 3 - Health and wellness
  SDG 12 - Responsible Consumption and Production
  SDG 17 - Partnership for the Goals

16. Fortunale

Fortunale is an Italian sustainable fashion startup founded in 2018 in Cassano delle Murge (BA) by Ivan Aloisio, as a spin-off of the family business Majra Moda Maglierie. The brand stands out for the production of pure organic wool garments, dyed exclusively with vegetable pigments, made entirely in Italy according to circular economy principles. Each sweater is numbered and associated with the planting of a tree, actively contributing to the reforestation of land confiscated from organized crime.

- *Business Model*
  B2C - Fortunale sells directly to consumers through its e-commerce and selected physical retailers

- *Technology area*
  Green Tech

- *Market segment*
  Environmentally and socially conscious consumers.
  Customers interested in handcrafted Made in Italy products.
  International market sensitive to ethical and sustainable fashion.
  Consumers and households; textiles and fashion

- *Geographic target market*
  National, expansion to international markets such as the U.S., Canada and Germany through crowdfunding initiatives and participation in international trade shows

- *Company stage*

Growth - Fortunale is consolidating its presence in the Italian market and initiating international collaborations. Strong growth and propensity for scability in the future.

- *SDGs involved*
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change
  SDG 15 - Life on Earth

17. Genuine Way

Founded in 2019 by Walfredo della Gherardesca, Amelia Bassini and Luca Nardelli, Genuine Way is an Italian-Swiss startup with offices in Milan, Lugano and Salerno. The company develops solutions based on blockchain technology for the traceability and transparency of production chains, targeting mainly small and medium-sized enterprises (SMEs) that want to authentically certify and communicate their environmental, social and governance (ESG) commitment. Through its proprietary Gen Platform, Genuine Way allows companies to upload documents and certifications to Ethereum's public blockchain, generating QR codes or NFC tags to be applied to physical products. These tools allow consumers to easily access detailed information about the sustainability and authenticity of the products they purchase.

- *Business Model*
  B2B - Genuine Way positions itself as a technology partner for companies, offering business-to-business solutions that aim to deliver direct value to the end consumer. The company offers supply chain digitization services, ESG data notarization and transparent communication tools, supporting companies in combating greenwashing and promoting more conscious consumption.

- *Technology area*
  Deep Tech

- *Market segment*
  Small and medium-sized enterprises (SMEs) in the food, fashion, cosmetics, design and pharmaceutical sectors.
  Consumers who pay attention to sustainability and product transparency.
  Organizations interested in certification and communication of ESG practices
  Professional services; chemical and pharmaceutical; agri-food; textile and fashion

- *Geographic target market*
  European - Genuine Way operates in 7 countries: Italy, Switzerland, UK, Portugal, Netherlands, Germany and Austria. It works with more than 40 companies, including Ponti, Womsh, Sabatini Gin and Cantine Lizzano, managing more than 5 million QR codes that generate thousands of monthly interactions with consumers interested in sustainability.

- *Company stage*
  Growth - After an initial development and validation phase, Genuine Way has consolidated its presence in the Italian market and initiated international

collaborations.The recent capital increase of 550,000 euros led by international business angels indicate a phase of growth and scalability.
Startup

- *SDGs involved*
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change
  SDG 16 - Peace, justice and strong institutions
  SDG 17 - Partnership for the Goals

18. Greenlance

Greenlance is an Italian startup that offers consulting and support services to make events more environmentally, socially and economically sustainable. Through a structured approach, it accompanies organizers of music, sports, corporate, trade show and cultural events in all phases: pre-event, during and post-event. Services include context analysis, defining areas of focus, drafting the project and communication plan, implementing and updating the operational plan, reporting results, and supporting certification.

- *Business Model*
  B2B / B2G - Greenlance primarily targets event organizers, companies and institutions that wish to integrate sustainable practices into their events. It offers customized service packages (Silver, Gold and Green) that vary according to the desired level of sustainability, including training, consulting, operational support and certification assistance.

- *Technology area*
  Social Impact; Green Tech

- *Market segment*
  Event organizers (music, sports, corporate, trade show, cultural)
  Companies that sponsor or organize events
  Public institutions involved in organizing events
  Professional Services

- *Geographic target market*
  Italy - Greenlance operates mainly in Italy, offering its services nationwide.

- *Company stage*
  Early stage - Greenlance is an early stage startup that has developed a range of structured services and has begun working with several clients in the sustainable events sector. It appears to be close to the growth stage but not yet fully scalable.
  Startup

- *SDGs involved*
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change.
  SDG 17 - Partnership for the Goals**.**

19. Helsetech

Helsetech is an Italian startup that develops artificial intelligence-based digital solutions for nutritional support and health management. The platform offers advanced tools for nutrition professionals and end users, facilitating the creation of personalized diet plans, patient management, and optimization of nutritional practices. Key features include patient record management, personalized diet design, integration with medical devices, and an AI assistant to speed up repetitive tasks.

- *Business Model*
  B2C - With MYHELSE, it directly provides consumers with an app to monitor nutrition, receive personalized advice and interact with experts. There was no evidence of direct collaborations with government agencies to justify the inclusion of the B2G model.

- *Technology area*
  Deep Tech; Health and Bio Tech

- *Market segment*
  Food professionals (nutritionists, dietitians)
  End users interested in improving their health through nutrition
  Health and social care

- *Geographic target market*
  National - Helsetech operates mainly in Italy, offering its services nationwide.

- *Company stage*
  Growth - The startup has already launched its products, is expanding its customer base and is in the process of consolidation and functional development.
  Startup

- *SDGs involved*
  SDG 3 - Health and wellness

20. Homes4all

Founded in 2019 in Turin, Italy, Homes4All S.r.l. is an innovative startup and B Corp certified benefit company since 2022. The company's mission is to reduce the housing emergency and promote urban regeneration through the acquisition, renovation and management of vacant or underutilized properties, allocating them to families in need at affordable rents. The model is based on a network of social impact investors and collaboration with public entities and Third Sector organizations.

- *Business Model*
  B2G - Partnerships with public agencies and institutions for urban regeneration and social housing projects.
  B2C - Providing affordable housing solutions for families in a vulnerable situation.

- *Technology area*
  Social Impact

- *Market segment*
  Social impact investors
  Public bodies and local governments
  Families in housing emergency
  Third Sector Organizations
  Real estate and construction

- *Geographic target market*
  National - Currently operating mainly in Turin and Genoa, with plans to expand nationwide.

- *Company stage*
  Growth - After the initial development and validation phase, Homes4All has consolidated its presence in the Italian market, initiating partnerships with institutional investors such as Sefea Impact Sgr, Guber Banca and Gruppo Alfano S.p.A., and launching equity crowdfunding campaigns to support business expansion.
  Startup

- *SDGs involved*
  SDG 1 - Defeating Poverty.
  SDG 10 - Reducing Inequality.
  SDG 11 - Sustainable Cities and Communities.

21. Humanmaple

Human Maple is a startup founded in 2022 in Castelfranco Emilia (MO) by three young entrepreneurs-Ali Benkouhail, Marco Boccia, and Simone Vivacqua. The company aims to improve the relationship between humans and the environment by turning cigarette butts into heat-insulating materials that can be used for stuffing jackets, pillows, stuffed animals and other objects, thus reducing toxic waste pollution.

- *Business Model*
  B2B - Collaborations with companies, shopping malls and public places to install smart ashtrays and manage the service of collecting and recycling butts.
  B2G - Partnerships with public agencies and local institutions for environmental awareness projects and installation of ashtrays in urban areas.

- *Technology area*
  Green Tech

- *Market segment*
  Businesses and public places interested in sustainable waste disposal solutions
  Public bodies and local governments engaged in urban regeneration and sustainability projects
  Energy, environment and mining

- *Geographic target market*

National - Currently operating mainly in Emilia-Romagna, with installations in cities such as Modena and Bologna, and collaborations with shopping centres in several Italian regions.

- *Company stage*
  Early growth - After the initial development and validation phase, Human Maple has acquired its first customers and is working to scale the business, but has not yet achieved exponential growth or an established market presence. However, it has established partnerships with public and private entities, participating in accelerator programs, and planning to expand nationwide with new facilities opening by 2028.
  Startup

- *SDGs involved*
  SDG 11 - Sustainable Cities and Communities
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change

22. Toy Club

Club dei Giocattoli is an innovative startup founded in 2018 by Milvia Bonvicino and Alessandra Garini, two moms and digital marketing experts. The company introduced Italy's first online toy sharing service, offering a sustainable alternative to traditional toy buying. The platform allows families to rent quality toys for children from 0 to 12 years old, with the option of returning them or buying them at a subsidized price, thus promoting waste reduction and sharing education.

- *Business Model*
  B2C - Direct service to families through monthly subscriptions or individual toy rentals.
  B2B - Collaborations with toy companies to select and supply sustainable products.

- *Technology area*
  Social Impact

- *Market segment*
  Families with children from 0 to 12 years old
  Sustainability-conscious parents and conscious education
  Sustainable toy companies
  Consumers and families; culture, tourism and entertainment; education, research and training

- *Geographic target market*
  National - Currently active mainly in the provinces of Milan and Monza Brianza, aiming to expand nationwide.

- *Company stage*

Early growth - After the launch and validation phase of the model, Club dei Giocattoli is consolidating its presence in the Italian market, expanding its customer base and collaborations with companies in the sector.
Startup

- *SDGs involved*
  SDG 4 - Quality Education
  SDG 11 - Sustainable Cities and Communities
  SDG 12 - Responsible Consumption and Production

23. Impact Skills

ImpactSkills is a social impact startup founded in 2021 in Turin, born from the evolution of NGO 2.0, a network with more than a decade of experience in digital training for nonprofits. The platform offers online training paths, mentoring, coaching and co-design spaces, with the aim of enhancing the digital and design skills of Third Sector and international cooperation practitioners.

- *Business Model*
  B2C - Individual training for students, young professionals and social workers.
  B2G - Collaborations with NGOs, Third Sector entities, public institutions and social enterprises for training projects and consulting.

- *Technology area*
  Ed Tech

- *Market segment*
  Third Sector and International Cooperation Workers
  Young professionals and students interested in careers in social work
  NGOs, nonprofits, and public institutions
  Education, research and training; consumers and families

- *Geographic target market*
  National - Currently operating mainly on a national scale through courses, webinars and consulting services, but the startup has a strong international focus. It could potentially enter the European world in the near future.

- *Company stage*
  Early growth - Since its founding in 2021, ImpactSkills has consolidated its training offerings, expanding its network of partners and participants nationally and internationally.
  Startup

- *SDGs involved*
  SDG 4 - Quality Education.
  SDG 8 - Decent work and economic growth.
  SDG 9 - Business, innovation and infrastructure

24. Kampaay

Founded in Milan in 2020, Kampaay is a scaleup that digitizes and simplifies the organization of corporate events, offering a platform that integrates end-to-end services. The solution enables companies to plan events, from vendor selection to budget management, with the help of innovative technologies, including artificial intelligence for process optimization.

- *Business Model*
  B2B - Partnering with companies to organize corporate events, offering a digital platform and support from industry experts.

- *Technology area*
  Deep Tech

- *Market segment*
  Medium and large companies for convention and trade show organization
  Marketing, HR and procurement departments
  Corporate event managers
  Professional services; culture, tourism and entertainment

- *Geographic target market*
  European-Italy and Sweden, with planned expansion to Spain, France, Germany and the Netherlands.

- *Company stage*
  Growth - After closing a 7.3 million Series A round in 2023, Kampaay has doubled revenues in the past two years from 4 million to 8 million, with a goal of 15 million by 2025.
  Startup

- *SDGs involved*
  SDG 9 - Business, innovation and infrastructure
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change

25. Krill Design

Founded in Milan, Italy in 2018 by Ivan Calimani, Krill Design is an innovative startup that transforms organic by-products, such as fruit peels, coffee grounds and shells, into REKRILL®, a patented biodegradable and compostable biomaterial. This material is used to create eco-design products through 3D printing, offering a sustainable alternative to traditional plastics. Krill Design is distinguished by its integrated approach, managing the entire production process in-house, from the research and development of the material to the realization of the final product for the end use of the source company itself.

- *Business Model*
  B2B - Partnering with companies to transform their organic waste into customized sustainable products, promoting the circular economy.
  B2C - Direct sales of sustainable design products through e-commerce, such as the "Ohmie" lamp made from orange peels.

- *Technology area*
  Green Tech; Deep Tech

- *Market segment*
  Companies from different sectors interested in circular economy solutions, oriented towards sustainable product design.
  Sustainability-conscious end consumers and eco-friendly design.
  Energy, environment and mining; Manufacturing

- *Geographic target market*
  European - Based in Milan, Krill Design has expanded its presence in international markets, also supported by investments and collaborations with foreign partners.

- *Company stage*
  Growth - After closing a € 6 million Series A financing round in 2025, Krill Design is expanding its production capacity by building a new plant and expanding its presence in international markets.
  Startup

- *SDGs involved*
  SDG 9 - Business, innovation and infrastructure
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change.

26. Make Green

Makegreen is an Italian startup offering sustainable solutions for audiovisual productions. Its offerings include biocatering services with organic and short-chain ingredients, use of compostable and plastic-free materials, and implementation of practices to reduce the environmental impact of film and television sets. Makegreen is committed to turning every production into a green action, promoting sustainability in the audiovisual sector.

- *Business Model*
  B2B - Providing sustainable services for audiovisual productions, including biocatering and consulting for reducing the environmental impact of sets.
- *Technology area*
  Green Tech

- *Market segment*
  Film, TV, advertising productions, i.e., entities that purchase sustainable services to reduce the impact of their activities.
  Culture,tourism and entertainment, Ho.Re.Ca and catering

- *Geographic target market*
  National-with potential expansion into other European markets interested in sustainability in audiovisual productions.

- *Company stage*
  Growth - Makegreen is expanding its presence in the audiovisual sector, collaborating with various productions to promote sustainable practices.
  Startup

- *SDGs involved*
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change

27. Merits

Merits is a benefit company founded in 2017 in Milan by Roberto Sanlorenzo. Through a digital platform and mobile app, it incentivizes virtuous social and environmental behavior by rewarding citizens, companies, public entities and nonprofit organizations with digital tokens called "merits." These tokens can be used at participating businesses, creating an ecosystem that values civic engagement and sustainability.

- *Business Model*
  B2B - Collaborations with companies and public administrations on social responsibility and community engagement projects.
  B2C - Direct citizen involvement through the app, incentivizing positive and responsible actions.
  B2G - Supporting public agencies in implementing participatory and sustainable policies.

- *Technology area*
  Deep Tech; Social Impact

- *Market segment*
  Citizens interested in actively participating in social and environmental initiatives.
  Companies that wish to strengthen their social responsibility and engage stakeholders.
  Public administrations engaged in civic participation and sustainability policies.
  Nonprofit organizations seeking innovative fundraising and community engagement tools.
  Consumers and families; public administration and defense

- *Geographic target market*
  National - based in Milan. Merits has implemented projects in several Italian cities, including Milan and Settimo Torinese.

- *Company stage*
  Innovative SME - Since its founding in 2017, Merits has won significant awards, including funding from the European Innovation Council in 2020 for innovative blockchain-based solutions. In 2022, it achieved B Corp certification, solidifying its growth and commitment to social impact. To be considered a full-fledged innovative SME.

- *SDGs involved*

SDG 11 - Sustainable Cities and Communities.
SDG 12 - Responsible Consumption and Production
SDG 17 - Partnership for the Goals**.**

28. MeWe - Collaborative Living

MeWe - Abitare Collaborativo is a social enterprise based in San Bartolomeo al Mare (IM), specializing in the promotion and implementation of cohousing, co-living and social housing projects. The company is distinguished by its participatory approach, directly involving future residents in the co-design of living spaces and the formation of intentional communities. MeWe is committed to regenerating brownfield properties, working with public and private entities to provide affordable and sustainable housing solutions, fostering sociality and inclusion.

- *Business Model*
  B2C - Offering collaborative housing solutions to citizens interested in cohousing and coliving models.
  B2G - for collaboration with public entities in urban regeneration and co-design of social housing solutions.

- *Technology area*
  Social Impact

- *Market segment*
  Citizens sensitive to collaborative and sustainable living models
  Public administration and public agencies interested in social housing solutions
  Real estate and construction

- *Geographic target market*
  National - based in San Bartolomeo al Mare (IM). MeWe operates on a national scale, promoting cohousing and coliving projects in several Italian regions.
- *Company stage*
  Growth - MeWe has consolidated its presence in the collaborative living sector, expanding its network of projects and collaborations with public and private entities. The company continues to develop new initiatives to meet the growing demand for sustainable and inclusive housing solutions.
  Startup
- *SDGs involved*
  SDG 10 - Reducing Inequality
  SDG 11 - Sustainable Cities and Communities

29. Midori

Midori S.r.l. is an innovative startup founded in 2011 in Turin, Italy, specializing in the development of digital solutions for monitoring and optimizing household energy consumption. The company has developed Ned, a smart device that analyzes the electrical consumption of household appliances, providing users with detailed information to promote more sustainable energy behaviors.

- *Business Model*

B2C - Direct sales of the Ned device and associated services to end consumers interested in monitoring and reducing their energy consumption.
B2B - Collaborations with energy and technology companies to integrate Midori solutions into their services.

- *Technology area*
  Deep Tech; Green Tech

- *Market segment*
  Domestic consumers interested in solutions for monitoring and reducing energy consumption.
  Energy and technology companies seeking partners to develop innovative energy efficiency services.
  Energy, environment and mining; professional services

- *Geographic target market*
  National - based in Turin, Italy. Midori operates primarily in the domestic market, with potential for international expansion through strategic partnerships.

- *Company stage*
  Innovative SME - Since its founding in 2011, Midori has consolidated its presence in the energy efficiency market, expanding its customer base and partnerships with companies in the industry. The company continues to develop new features for the Ned device and explore opportunities for growth. In this sense, however, it should already be considered a true innovative SME.

- *SDGs involved*
  SDG 7 - Clean and Affordable Energy
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change

30. Neolithic evolution

Neolithic Evolution S.r.l. is an innovative startup founded in 2024 in Ragusa, Sicily. Specializing in immersive multimedia experiences, artificial intelligence and extended reality (XR), it offers advanced technological solutions for museums, public entities, companies and Third Sector organizations, supporting them in digital transformation. The company is registered in the special section of innovative startups and has been recognized as an innovative startup by the Ministry of Enterprise and Made in Italy.

- *Business Model*
  B2B - providing solutions to private companies, Third Sector organizations and technology partners

- *Technology area*
  Deep Tech

- *Market segment*
  Third Sector companies: nonprofit and cultural organizations that need support in digitizing and digitally engaging their audiences.

Technology partners and media agencies: to develop joint innovation and open innovation projects.
Culture, tourism and entertainment; information technology and TLC

- *Geographic target market*
  National - Potential international development through European collaborations and projects.

- *Company stage*
  Early Stage - startup founded in 2024, in the early stage of development with initial collaborations and pilot project launches. Despite rapid growth, it is still in the initial consolidation stage typical of newly established innovative startups.
  Startup

- *SDGs involved*
  SDG 9 - Industry, innovation and infrastructure
  SDG 10 - Reducing Inequality
  SDG 11 - Sustainable Cities and Communities

31. Orange Fiber

Orange Fiber S.r.l. is an Italian innovative SME founded in 2014 in Catania, Italy by Adriana Santanocito and Enrica Arena. The company has patented a process to transform citrus industry by-products, such as pulp, into high-quality sustainable fabrics, offering an environmentally friendly alternative to silk. Production is through an integrated supply chain consisting of pulp extraction in Sicily at a pilot plant in Caltagirone, spinning in Spain, and weaving in the Como area.

- *Business Model*
  B2B - Supplying sustainable fabrics to mid- to high-end and luxury fashion brands
  B2C -Direct sales to people aimed at a healthier and more responsible lifestyle
  B2BC

- *Technology area*
  Green Tech

- *Market segment*
  Luxury and high-end fashion brands: Collaborations with brands such as Salvatore Ferragamo and H&M on sustainable collections.
  Textile manufacturers and designers: Providing innovative fabrics for creating eco-friendly garments.
  Consumers of fashion products more aware and demanding of environmental protection issues.
  Textiles and fashion; trade and retail

- *Geographic target market*
  International - Registered office in Catania, with production facilities in Sicily and collaborations with textile companies in Lombardy, but presence in foreign markets through partnerships and collaborations with global brands.

- *Company stage*
  Innovative SME - The company has moved beyond the startup stage, consolidating its market presence and expanding partnerships. It can be called a true innovative SME for a few years now.

- *SDGs involved*
  SDG 9 - Industry, innovation and infrastructure
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change.
  SDG 15 - Life on Earth

32. Orangogo

Founded in 2018 by Giulia Pettinau, Orangogo is the first sports search engine in Italy. The platform allows users to discover, book, and manage sports activities, while offering sports clubs digital tools to promote and organize their services. Currently, Orangogo has more than 22,500 registered sports clubs in more than 3,600 Italian municipalities, covering more than 350 sports disciplines.

- *Business Model*
  B2B2C - Orangogo offers a service to sports clubs to provide a service to end users. Revenues come mainly from services offered to sports clubs through a SaaS model[1] with a proprietary vertical management and digital marketing services.

- *Technology area*
  Social Impact

- *Market segment*
  Sports clubs (ASDs, SSDs, gyms, sports centers) use the platform to promote and manage their activities.
  End users (families, youth, adults) search, book and manage sports activities through the platform.
  Consumers and families; sports and leisure

- *Geographic target market*
  National - Extensive presence in more than 1,500 Italian municipalities and international expansion being considered to extend service beyond national borders.

- *Company stage*
  Growth - Orangogo has outgrown its initial startup stage, recording significant growth. In 2022, it closed a third funding round of 1.5 million euros, with the entry of institutional investors such as Banca Patrimoni Sella & C. The startup is

[1] The **Saas** model is a software distribution model in which a service provider hosts and manages software applications, making them available to users over the Internet, usually through a Web browser. In practice, the user uses the software without having to install or manage it directly on his or her own computer.

in the process of transitioning to innovative SME status, maintaining a significant innovation component in the sport-tech sector.
Startup

- *SDGs involved*
  SDG 3 - Health and wellness
  SDG 4 - Quality Education.
  SDG 9 - Industry, innovation and infrastructure
  SDG 11 - Sustainable Cities and Communities

33. Footprint

Founded in 2022 in Brindisi, ORMA Guides is an innovative startup that transforms cities into laboratories of activism through thematic journeys led by activists, experts and creatives. The platform offers immersive experiences that promote positive impact, social inclusion and sustainability by engaging travelers in activities that support local communities.

- *Business Model*
  B2C - Direct sales of thematic travel experiences and digital urban guides to end consumers interested in sustainable and conscious travel.
  B2G - Partnerships with public bodies and institutions on projects for territorial enhancement and promotion of sustainable tourism.

- *Technology area*
  Social Impact

- *Market segment*
  Conscious travellers and activists: Individuals interested in travel experiences that combine urban exploration and social impact.
  Organizations and social enterprises: entities that collaborate to co-create experiences and promote local initiatives.
  Public bodies and institutions: Partners for projects for territorial enhancement and promotion of sustainable tourism.
  Culture, tourism and entertainment

- *Geographic target market*
  National - Currently operating in several Italian cities, with focus on local experiences and community involvement. International expansion under consideration.

- *Company stage*
  Early Stage - Founded in 2022, ORMA Guides is at an early stage of development, with operational activities launched and first revenues recorded.
  Startup

- *SDGs involved*
  SDG 3 - Health and wellness
  SDG 4 - Quality Education
  SDG 11 - Sustainable Cities and Communities

34. Palingen

Founded in 2019 in Naples, Palingen S.r.l. is a social startup that promotes the labor inclusion of women in prison and in fragile conditions through ethical and sustainable tailoring production. The main workshop is located inside the Pozzuoli women's prison, where participants are trained and employed in the creation of fashion garments using recovered fabrics, with a circular economy approach.

- *Business Model*
  B2C - Direct sales of ethical and sustainable clothing to end consumers through online channels and participation in fairs and markets.
  B2B - Collaborations with fashion and design companies to produce capsule collections, ethical merchandising and custom supplies.

- *Technology area*
  Social Impact

- *Market segment*
  Aware Consumers: Individuals who care about ethics and sustainability in fashion and are interested in products with positive social impact.
  Companies and designers: Brands and fashion professionals seeking partners for ethical and sustainable productions.
  Textile and fashion
- *Geographic target market*
  National - Currently operating mainly in the national territory, with headquarters in Naples and collaborations in several Italian regions. The startup appears to be a guaranteed member of the World Fair Trade Organization (WFTO), with potential for growth and recognition at the European and global level, however not yet effective

- *Company stage*
  Growth - Since its founding in 2019, Palingen has consolidated its presence in the ethical fashion industry, expanding partnerships and gaining recognition such as WFTO certification. The company continues to develop new projects and expand its partner network.
  Startup

- *SDGs involved*
  SDG 5 - Gender Equality
  SDG 8 - Decent work and economic growth
  SDG 10 - Reducing Inequality
  SDG 12 - Responsible Consumption and Production

35. Pedius

Pedius is a socially oriented startup founded in 2013 that has developed a mobile application aimed at people who are deaf or hard of hearing, enabling them to make phone calls independently. Using speech synthesis and speech recognition technology, the service enables real-time communication with operators, companies, and public

services. Pedius promotes inclusion and accessibility through globally scalable digital solutions.

- *Business Model*
  B2C - The application is available for private users, who can subscribe to subscription plans to make personal calls.

- *Technology area*
  Social Impact; Deep Tech

- *Market segment*
  People who are deaf or hard of hearing seeking solutions for independence in communication.
  Consumers and families; health and welfare

- *Geographic target market*
  International - Pedius is active in several countries, including Italy, France, the United Kingdom, Spain, the United States and Hong Kong.

- *Company stage*
  Innovative SME - Founded in 2013, Pedius lost its status as a socially oriented innovative startup in 2019 and became an innovative SME. The company continues to grow, with an increase in the number of users and collaborations with large companies and institutions.
- *SDGs involved*
  SDG 3 - Health and wellness
  SDG 10 - Reducing Inequality
  SDG 11 - Sustainable Cities and Communities.

36. Regusto

Regusto is a digital platform developed by Recuperiamo S.r.l. Benefit Company, founded in 2016, that deals with the redistribution of surplus food. Started as a consumer-facing app, Regusto has evolved into other business models, partnering with companies and public entities to reduce food waste. The platform uses advanced technologies, such as blockchain and artificial intelligence, to ensure traceability, transparency, and measurement of the environmental and social impact of food donations.

- *Business Model*
  B2B - Next, the platform turned toward companies in the food supply chain, facilitating the donation of surpluses to nonprofits and municipalities.

- *Technology area*
  Green Tech

- *Market segment*
  Businesses wishing to manage food surpluses sustainably
  Agri-food; Ho.Re.Ca and catering; energy, environmental and mining

- *Geographic target market*

National - Currently, Regusto operates mainly in the Italian territory, working with companies and local government agencies.

- *Company stage*
  Innovative SME - post-startup / advanced growth, with strong technology component, social impact and structured collaborations with public entities. By presenting an established business, public customers and excellent measurable impact, the company can be effectively called an innovative SME.

- *SDGs involved*
  SDG 2 - Defeating Hunger
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change

37. reBuy

riCompro is an Italian platform specializing in the reconditioning and buying and selling of used electronic devices, such as smartphones, tablets and MacBooks. Founded with the goal of promoting sustainability and circular economy, riCompro aims to reduce e-waste, which accounts for 12 percent of the European total, by offering customers the opportunity to sell their used devices and buy guaranteed refurbished products. The platform stands out for its focus on quality, offering certified devices with 24-month warranty and services such as free evaluation, free express pickup, and payment within 48 hours.

- *Business Model*
  B2C - reCompro directly targets end consumers, offering them the opportunity to sell used electronic devices and buy refurbished products through the online platform.
- *Technology area*
  Green tech

- *Market segment*
  Individuals interested in selling their used electronic devices or buying refurbished products with warranty.
  Consumers and households; information technology and TLC

- *Geographic target market*
  National - Currently, riCompro operates mainly in the Italian territory, offering its buying and selling and reconditioning services to customers all over the country.

- *Company stage*
  Growth - reCompro is in a growth phase, with an established business model in the Italian market and an expanding customer base.
  Startup

- *SDGs involved*
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change

38. Ridaje

Ridaje is a social startup founded in 2019 in Rome by a team of 19 partners, including Lorenzo Di Ciaccio and Luca Mongelli. Ridaje's mission is to offer a second chance to homeless people, ex-convicts, migrants and asylum seekers through training and employment as urban gardeners. The project aims to simultaneously address social marginalization and the redevelopment of abandoned green areas in Rome, promoting a sustainable business model that can be replicated in other cities.

- *Business Model*
  B2G - Ridaje works with public entities, such as the Municipality of Rome and Ferrovie dello Stato, to maintain and upgrade urban green areas. **B2B** - Offers gardening and urban redevelopment services to private companies interested in corporate social responsibility projects.

- *Technology area*
  Social Impact

- *Market segment*
  Public bodies: Local and national governments interested in urban green maintenance and social inclusion projects.
  Private companies: Businesses wishing to invest in social responsibility and environmental sustainability projects.
  Health and social welfare; public administration and defense; energy, environment and mining

- *Geographic target market*
  National - Currently operating mainly in Rome, with plans to expand to other Italian cities, such as Turin.

- *Company stage*
  Growth - After an initial phase of model validation, Ridaje has consolidated its presence in Rome, establishing significant partnerships and expanding its social and environmental impact.
  Startup

- *SDGs involved*
  SDG 1 - Defeating Poverty
  SDG 8 - Decent work and economic growth.
  SDG 11 - Sustainable Cities and Communities
  SDG 13 - Fighting Climate Change

39. Sportfulness

Sportfulness is an innovative startup founded in 2024 in Milan by Jennifer Isella, a former athlete, manager and occupational psychologist. Sportfulness' mission is to make sports mental coaching accessible to athletes of all levels through a holistic approach that combines sports psychology, mindfulness and neuroscience. The platform offers

customized mental training paths, with video content and individual consultations, to improve sports performance by working on the emotional and psychological dimensions.

- *Business Model*
  B2B - The startup works with companies and sports organizations to provide tailored mental coaching programs, integrating mindfulness practices and psychological techniques to improve team wellness and performance.
  B2C - Sportfulness offers monthly subscriptions to amateur and professional athletes, which include weekly video courses, personalized consultations and exclusive content for endurance disciplines.

- *Technology area*
  Ed Tech

- *Market segment*
  Amateur and professional athletes: Individuals who participate in endurance sports and wish to improve their performance through mental coaching.
  Businesses and sports organizations: Entities interested in training and wellness programs for their employees or members.
  Education, research and training; sports and recreation

- *Geographic target market*
  National - Currently operating mainly in Italy, with headquarters in Milan and collaborations with local associations such as BuildItUp.

- *Company stage*
  Pre-seed-the startup is developing its product and forming its support network, but has not yet launched the MVP to market or acquired an initial user base.
  Startup

- *SDGs involved*
  SDG 3 - Health and wellness
  SDG 4 - Quality Education
  SDG 5 - Gender Equality

40. Squiseat

Squiseat is a Bologna-based innovative startup founded in 2019 that aims to combat food waste through a digital platform that facilitates a direct connection between merchants and consumers by offering unsold products at a discounted price. The startup stands out for its innovative approach to environmental sustainability and circular economy, promoting a new culture of conscious consumption and helping to reduce the environmental impact related to food waste.

- *Business Model*
  B2C - End users buy unsold food products at a discounted price through the app, contributing to the reduction of food waste.
  B2B - Businesses (restaurants, bakeries, catering services) upload their surplus food to the platform, reducing economic losses and contributing to environmental sustainability.

- *Technology area*
  Green Tech

- *Market segment*
  Individuals interested in reducing food waste and saving money on purchasing quality food products.
  Restaurants, bakeries, catering services and other businesses that wish to reduce economic losses from food waste.
  Agri-food; trade and retail; consumers and households

- *Geographic target market*
  National - Currently operating mainly in Bologna, with planned expansion to other Italian cities.

- *Company stage*
  Growth - Squiseat has outgrown its start-up phase, with a growing user base and an expanding network of merchants.
  Startup

- *SDGs involved*
  SDG 2 - Defeating Hunger
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change

41. SurgiQ

SurgiQ is an innovative startup that develops Artificial Intelligence solutions for healthcare, specifically for planning and optimizing hospital resources, such as operating rooms, medical personnel, and treatment pathways. The platform is used to improve the management efficiency of healthcare facilities by reducing waiting times and optimizing the use of available resources.

- *Business Model*
  B2B - SurgiQ offers software solutions to public and private hospitals, clinics and health groups for resource optimization.
  B2G - collaborations with local governments to streamline the management of health care facilities

- *Technology area*
  Deep Tech; Health and Bio Tech

- *Market segment*
  Public and private hospital facilities
  Health care entities and local/regional governments in the health care field
  International healthcare organizations interested in intelligent resource management solutions
  Health and social care

- *Geographic target market*

National - The startup is active in several Italian healthcare facilities, including Galliera Hospital in Genoa and Bambino Gesù Hospital in Rome, managing more than 10,000 patients. Internationally, it has launched pilot projects in the UK with the aim of expanding into the UK National Health Service (NHS) market.

- *Company stage*
  Growth - SurgiQ has passed the initial development phase, having raised about €1 million in funding from investors such as CDP Venture Capital and Digital Magics. Currently, it is in a growth phase, with team expansion and new feature development, has a stable structure, and features scalable products and patented technologies.

- *SDGs involved*
  SDG 3 - Health and wellness
  SDG 9 - Industry, innovation and infrastructure
  SDG 17 - Partnership for the Goals

42. Sustainable brand platform

Sustainable Brand Platform (SBP) is an Italian startup founded in 2022 in Milan, Italy, specializing in developing digital solutions for measuring and managing sustainability performance in the fashion industry. The cloud-based platform enables brands and manufacturers to monitor the environmental and social impact of their activities in real time, facilitating the adoption of sustainable practices along the entire value chain.

- *Business Model*
  B2B - SBP offers its services to fashion brands and manufacturers, providing tools for collecting, analysing and reporting sustainability data.

- *Technology area*
  Green Tech

- *Market segment*
  Fashion brands (SMEs and large companies) - Italian and international, interested in improving their ESG sustainability and transparency.
  Textile suppliers and manufacturers-Included in platforms that track sustainability along the supply chain.
  Sustainable fashion stakeholders-Certification agencies, fashion innovation support bodies.
  Textile and fashion

- *Geographic target market*
  European-The startup has rapidly expanded its presence beyond Italian borders. The platform is used by international companies and manufacturers, and SBP has established collaborations with foreign partners, as evidenced by its partnership with Moda Lisboa, Lisbon Fashion Week, to support emerging designers on the path to sustainability.

- *Company stage*

Growth - Founded in 2022, SBP is currently in a growth phase. The startup launched its sustainability data intelligence platform in August of the same year and began collaborating with international fashion brands and "Made in Italy" suppliers. Digital Magics. Currently, it is in a growth phase, with team expansion and new feature development. It is not yet classifiable as an established SME nor has it undertaken any exit processes.
Startup

- *SDGs involved*
  SDG 9 - Industry, innovation and infrastructure
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change

43. TimeFlow

TimeFlow is an Italian innovative startup founded in 2020, with offices in Milan and Lecce. It has developed a cloud-based platform that automates and optimizes workforce management and resource provisioning in the IT supply chain, using proprietary artificial intelligence and machine learning algorithms.

- *Business Model*
  B2B - TimeFlow offers SaaS solutions to large enterprises, SMEs and scaleups for centralized IT vendor management and engagement of qualified technology partners.

- *Technology area*
  Deep Tech

- *Market segment*
  Corporate IT and multinational corporations: Companies in need of workforce management and IT vendor solutions.
  SMEs and scaleups: Growing enterprises seeking reliable and qualified technology partners.
  Public bodies: Government organizations that require IT solutions for specific projects.
  Information Technology and TLC

- *Geographic target market*
  International - Offices in Milan and Lecce, with a solid client base in the country. And presence in five countries and managed projects in strategic markets such as the UK, Germany and France.

- *Company stage*
  Growth - TimeFlow has closed a €4 million investment round in 2025, aiming to expand its international presence and develop new artificial intelligence-based capabilities.
  Startup

- *SDGs involved*
  SDG 8 - Decent work and economic growth.

SDG 9 - Industry, innovation and infrastructure

44. Townforyou

Townforyou is an Italian innovative startup founded in 2020, which has developed a digital platform that promotes the local commerce and culture of small and medium-sized Italian territories. Through digital solutions such as e-commerce, service and event reservations, and dedicated promotion, Townforyou creates a "digital version" of each village and territory, conveying its characteristics and creating a unified experience between online and offline.

- *Business Model*
  B2B - Townforyou offers services to small and medium-sized local businesses, helping them digitize their presence and reach new customers through the platform.
  B2G - Townforyou works primarily with municipal governments and other public agencies, offering digital solutions to promote the local area, enhance local commerce, improve institutional communication and facilitate civic participation.

- *Technology area*
  Social Impact

- *Market segment*
  Public bodies and local governments: municipalities, municipalities, and territorial authorities that wish to digitize services and promote the local economic and social fabric through innovative technologies.
  Local SMEs, artisans, traders, tour operators, who use digital services to promote their products or services.
  Culture, tourism and entertainment; public administration and defense

- *Geographic target market*
  National - Activity focused on the Italian market, particularly in southern and northern Italy (offices in Lecce and Milan). Potential future expansion at European level, but currently not yet active internationally.

- *Company stage*
  Seed - The startup is still in its early stages, with a defined product already validated in some territories. It is consolidating its market positioning and expanding collaborations with public entities.
  Startup

- *SDGs involved*
  SDG 8 - Decent work and economic growth
  SDG 9 - Industry, innovation and infrastructure
  SDG 11 - Sustainable Cities and Communities

45. Truffle market

Truffle Market is a digital platform launched in 2021 by the National Association of Italian Truffle Hunters. It aims to be the first decentralized marketplace for the direct purchase of Italian truffles, guaranteeing product traceability and authenticity. Through the app, consumers can buy truffles directly from truffle hunters, shortening the supply chain and ensuring freshness and quality.

- *Business Model*
  B2C - Direct sale of truffles to end consumers via mobile application.
  B2B - Collaborations with restaurants, delis and specialty retailers interested in traceable, high-quality truffle supplies.

- *Technology area*
  Green Tech

- *Market segment*
  Enthusiasts of gastronomy and high quality products.
  Chefs, restaurateurs, and specialty retailers.
  Agri-food; trade and retail

- *Geographic target market*
  International - Strong presence and established network of truffle seekers.
  Availability of the app in several languages and shipping to various European countries.

- *Company stage*
  Growth - Since its launch in 2021, Truffle Market has experienced significant growth, expanding its user base and B2B partnerships.
  Startup

- *SDGs involved*
  SDG 8 - Decent work and economic growth.
  SDG 12 - Responsible Consumption and Production
  SDG 15 - Life on Earth

46. Up2You

Up2You is an Italian greentech startup founded in 2020, based in Milan. Its mission is to make sustainability a competitive advantage for companies by offering digital and consulting solutions for CO_2 management, ESG reporting, training and obtaining environmental certifications.

- *Business Model*
  B2B - Up2You primarily targets businesses of different sizes, providing customized services to improve environmental and social performance.
  B2G - Collaborates with public agencies and institutions to promote sustainable practices and implement ESG strategies.

- *Technology area*
  Green Tech

- *Market segment*
  From SMEs to large enterprises wishing to embark on a path of sustainability.
  Local governments and institutions interested in implementing environmental and social strategies.
  Energy, environment and mining; public administration and defense

- *Geographic target market*
  International - Strong presence in the country, with collaborations with Italian companies and institutions.
  Up2You has initiated international projects, such as participating in Erasmus+ initiatives, and in 2024 was included in the "Sifted 250" list of Europe's fastest-growing startups.

- *Company stage*
  Growth - Since its launch in 2020, Up2You has experienced significant growth, expanding its customer base and developing new technology solutions.
  Startup

- *SDGs involved*
  SDG 9 - Industry, innovation and infrastructure
  SDG 12 - Responsible Consumption and Production
  SDG 13 - Fighting Climate Change
  SDG 17 - Partnership for the Goals

47. Village Care

VillageCare S.r.l. is an innovative startup with a social vocation founded in 2015 in Milan. Specializing in smart aging services, it offers digital and consulting solutions to support family "caregivers" of the frail elderly through a platform that integrates home care, specialized consulting and corporate welfare services.

- *Business Model*
  B2B - Collaborates with companies to implement corporate welfare solutions, employee training and support for workers with family care responsibilities.
  B2C - Offers personalized counseling and guidance services to family "caregivers" of frail elderly through free initial guidance counters and private counseling.

- *Technology area*
  Social Impact

- *Market segment*
  Families and individuals who need support in caring for the elderly or frail.
  Companies interested in implementing corporate welfare solutions to support employees with family care responsibilities.
  Health and social care; consumers and families; professional services

- *Geographic target market*
  National - Operating mainly in the country, with headquarters in Milan.

- *Company stage*
  Growth - Founded in 2015, VillageCare has passed its initial start-up phase and is currently expanding its activities. It has launched a crowdfunding campaign on BackToWork to enhance its services and improve caregiver needs profiling. It also has a presence on five corporate welfare platforms, reaching a pool of more than 5 million workers.
  Startup

- *SDGs involved*
  SDG 3 - Health and wellness
  SDG 5 - Gender Equality
  SDG 8 - Decent Work and economic growth

48. Wyblo

Wyblo S.r.l. is an Italian innovative startup founded in September 2021 in Borgo San Dalmazzo (CN). It operates in the EdTech sector, offering a SaaS platform for the management and optimization of training processes, with a focus on automation, real-time feedback and data analysis.

- *Business Model*
  B2B - Wyblo primarily targets training institutions, ITS Academies, vocational schools and freelance trainers, providing tools for digitizing and streamlining training processes.

- *Technology area*
  Deep Tech; Ed Tech

- *Market segment*
  Independent professionals delivering training courses.
  Enterprises that need tools for managing and optimizing internal training.
  Education, research and training

- *Geographic target market*
  International: main market and base of operations in Italy but active presence abroad as well (e.g., Spain, USA), as indicated in partnerships and promotional activities reported on the official website and interviews.

- *Company stage*
  The company is currently in liquidation, as shown in the Company Register. Formally it can be considered to be in the process of closure, thus **post-growth/exit**.

- *SDGs involved*
  SDG 4 - Quality Education
  SDG 9 - Industry, innovation and infrastructure

6.3 Statistics descriptive and results

Having completed the mapping of the startups in the Social Innovation Teams portfolio, it is now time to analyse the results that emerged and return an overall picture of the portfolio. In this section, therefore, an attempt will be made to describe the overall profile of the incubated startups, commenting on the output that emerged from the applied classification system. To facilitate the reading and interpretation of the data, the results will be accompanied by graphs that visually summarize the most relevant aspects.

Figure 15 regarding the distribution of business models clearly shows a predominance of the B2B model, reflecting the fact that many startups in the analyzed context are oriented toward providing services or solutions aimed at other businesses. B2C remains relevant, however, signaling a non-negligible presence of end-consumer-oriented realities. On the other hand, B2G appears more marginal, indicating a lower penetration of startups in public services or institutional partnerships. This figure could reflect, on the one hand, the greater accessibility and dynamism of the private market; on the other hand, the possible bureaucratic and regulatory barriers that characterize the public sphere.

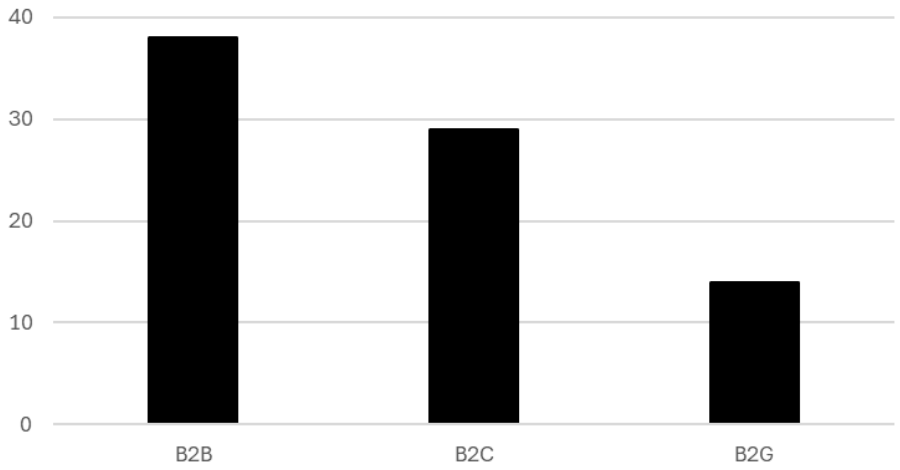

Figure 15:*business model of the startups in SIT's portfolio*

Figure 16 returns the result of the geographic market in which the startups analyzed operate. The most relevant geographic vocation is definitely national, with a clear majority targeting the domestic market. This trend can be interpreted as a strategy of progressive consolidation and growth: many startups prefer to develop a solid base domestically before tackling the complexities and challenges of internationalization. The limited presence on a European or global scale suggests a potential not yet fully explored, which could become an important competitive lever for more mature or ambitious entities.

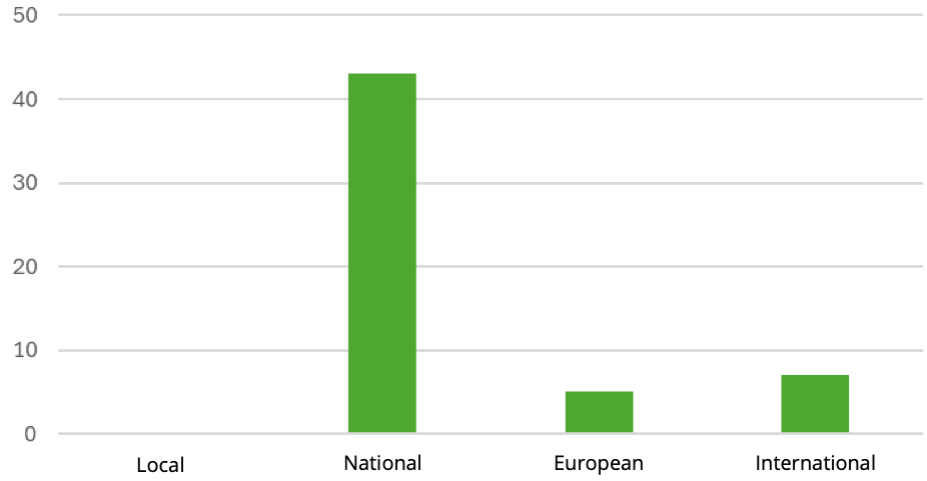

Figure 16:*geographic market of startups in SIT's portfolio*

The distribution of companies by stage of development, observable in Figure 17, shows a strong concentration in the startup stage, confirming the dynamism but also the young average age of the ecosystem analyzed. The small number of scale-ups and SMEs suggests that few realities manage to overcome the initial stage and access more structured levels of development. The scarcity of projects still at the "idea" stage could instead reflect a selection that has already taken place upstream, or a focus of the analysis on realities already in the operational phase.

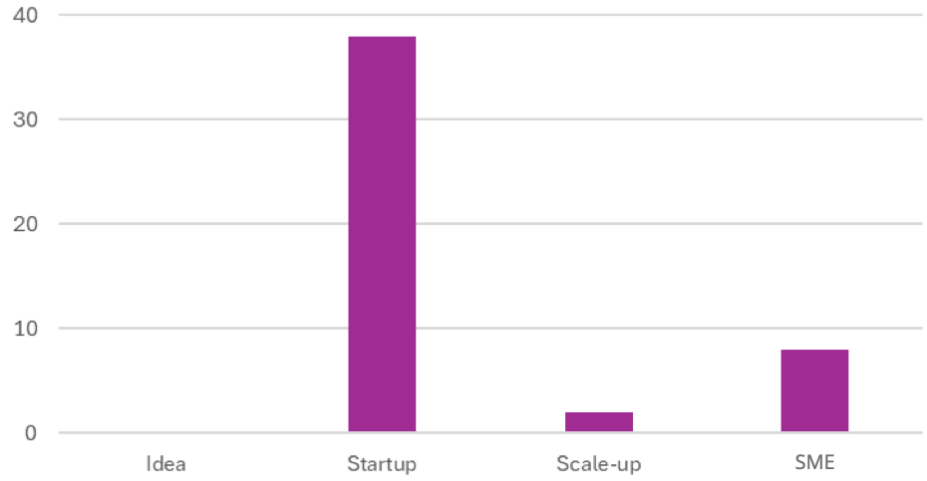

Figure 17:*company stage of startups in SIT's portfolio*

The histogram in Figure 18 shows the distribution of startups by technology sector. It shows a substantial predominance of startups operating in the "Deep Tech" and "Green Tech" sectors, which have, in fact, the largest number of startups. "Deep Tech" stands out with a value reaching almost 20, suggesting a strong interest in emerging themes

such as artificial intelligence, blockchain and Internet of Things. "Green Tech" and "Social Impact" follow, with about 15 startups, indicating a strong bias toward sustainable innovations and positive social impacts. Sectors such as "Health & Bio Tech" and "Ed Tech"" show more limited, but still significant participation, while "Fin Tech" is not detected in the profiles of the startups considered, suggesting potential yet to be explored in terms of development and innovation.

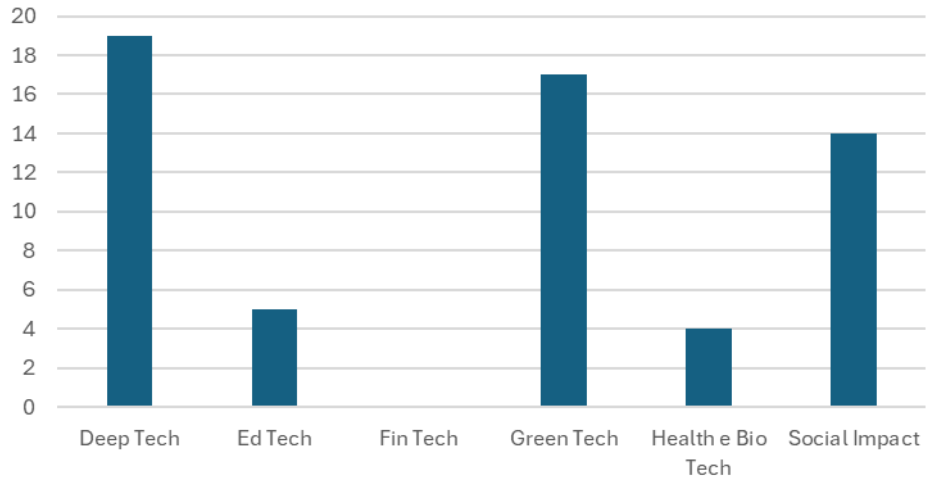

Figure 18:*technology areas in which SIT incubated startups operate*

Figure 19, on the other hand, aims to return a true snapshot of the target markets that startups target, providing a greater degree of detail. Markets such as "Consumers and Households," "Energy and Environment," and "Professional Services" emerge as the most significant, with numbers approaching or exceeding 10. This suggests that startups tend to focus on consumer-friendly innovations and environmental issues. Other economic activities such as "Manufacturing" and "Media and Communication" appear more subdued or nil. With comparable numbers, other segments of markets such as "Agri-food," "Culture, Tourism and Entertainment," "Energy, Environment and Mining," "Education, Research and Training," "Health and Social Care," and "Textiles and Fashion" appear relevant, demonstrating excellent heterogeneity in the incubator's portfolio, attentive to any area that can provide social, economic or cultural benefit.

It is intended to emphasize that most startups, by nature and definition, possess a particularly hybrid configuration such that they offer solutions to several target markets simultaneously and/or act, in some, cases in multiple technology areas.

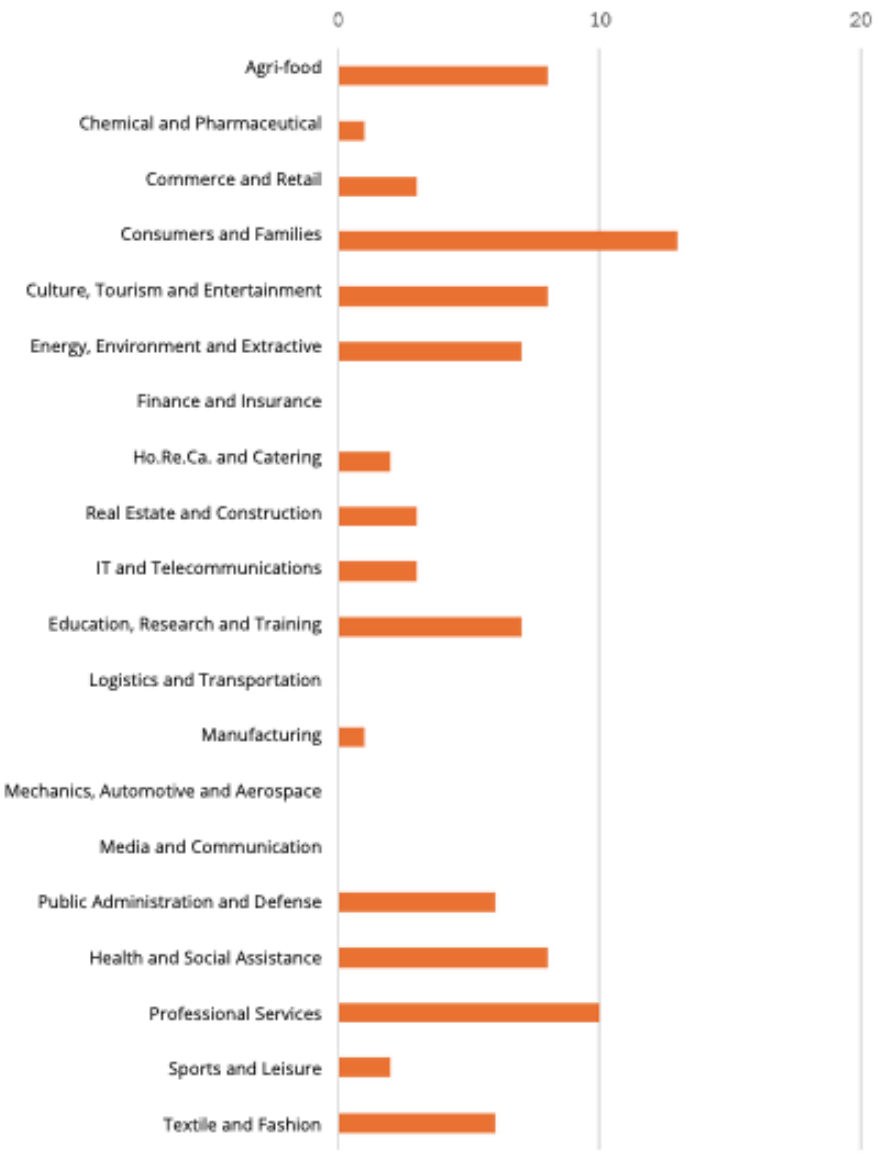

Figure 19:*target markets in which SIT startups operate*

In accordance with the innovative and entrepreneurial evolution of recent years, startups are increasingly characterized by a mission oriented toward ensuring real social impact and a strong focus on both environmental and economic sustainability. Evidence of this approach to generating positive change in society can be seen in the contribution of startups to the Sustainable Development Goals (SDGs). As shown in Figure 20, the most represented SDGs are "SDG 3 - Health and Welfare," "SDG 9 - Enterprise, Innovation and Infrastructure," "SDG 11 - Sustainable Cities and Communities," "SDG 12 - Responsible Consumption and Production," and "SDG 13 - Combating Climate Change," which are crucial for improving living conditions and economic sustainability. This shows that startups are strongly oriented toward creating solutions that address public health problems, foster innovation, environmental sustainability and promote increasingly sustainable and responsible production models.

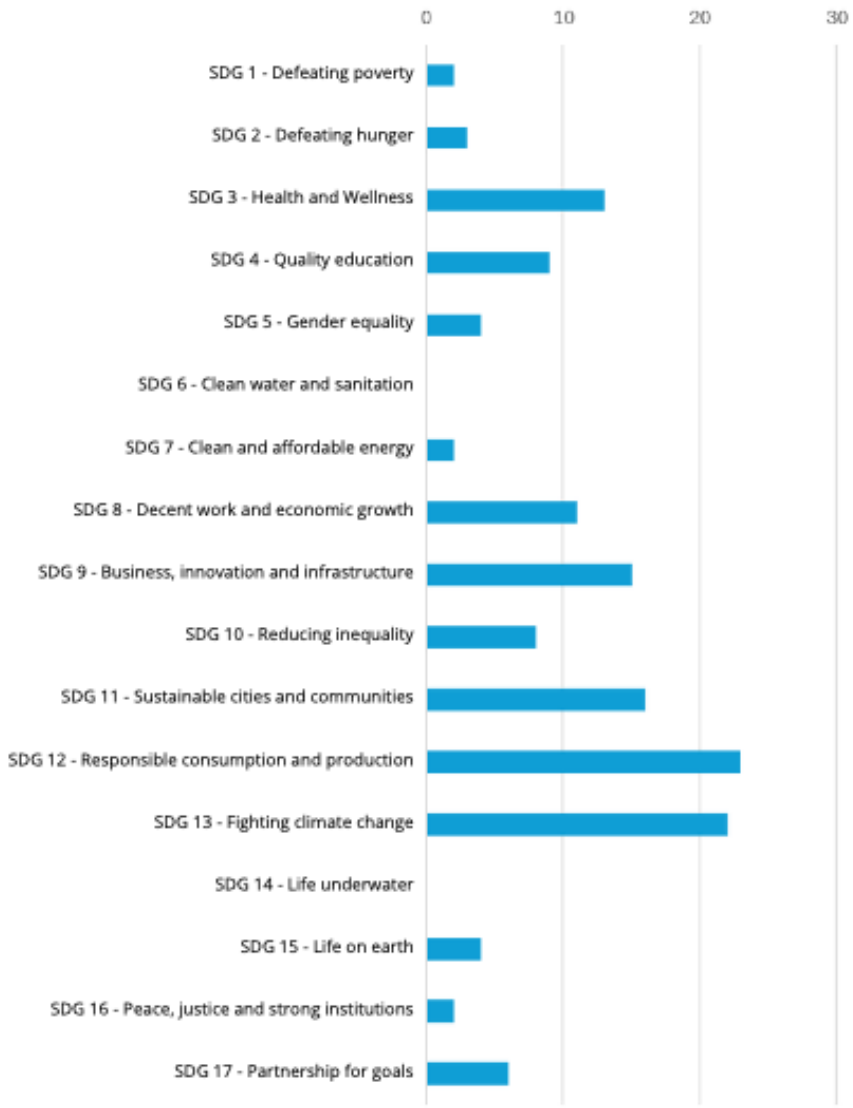

Figure 20:*SDGs involved in the activity of startups incubated by SIT*

The last figure 21 shows a high concentration of startups in the North, particularly in Lombardy, which hosts the largest number of startups (15), followed by other northern regions. The regions in the South and Islands have significantly lower numbers, highlighting a possible gap between Northern and Southern Italy in terms of development and support for startups. This could indicate the need for incentive policies to foster the growth of startups in these less developed areas. Consider, clearly, that the location of the incubator itself in Lombardy influences a greater focus on new business ideas with tangible impacts on the area.

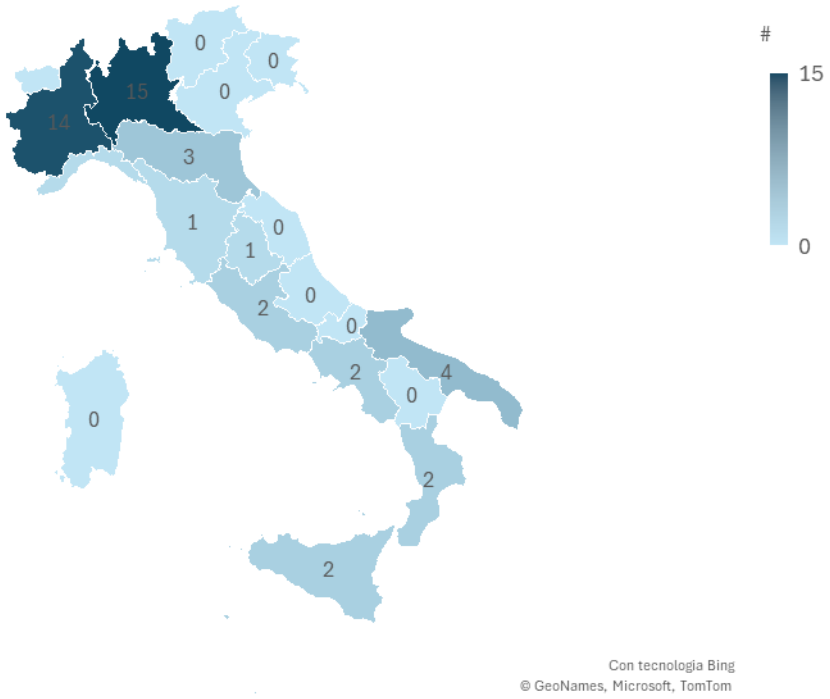

Figure 21:*geographic distribution of startups incubated by SIT*

7 CHAPTER 7: CONCLUSIONS

The process of mapping the portfolio of startups supported by Social Innovation Teams (SIT) provided a detailed and structured view of the characteristics of incubated companies, highlighting the importance of a flexible and adaptable approach in support and classification strategies. The methodology adopted, which combined qualitative and quantitative analysis, facilitated the collection and analysis of data on incubated startups so as to provide a classification model that takes into account sectoral diversity, stage of development, and areas of social and environmental impact. However, during the process of data collection and comparison with other incubators and accelerators, a crucial aspect emerged: a rigid and universal classification is difficult to apply due to the specific needs of each incubator, the various stakeholders involved, and structural and strategic differences among startups.

In fact, feedback collected from incubators and accelerators confirmed that, while classifications are useful for some purposes, they cannot be rigid, but must adapt to external variables such as the goals of incubators, the type of support required by startups, local dynamics, and communication needs to stakeholders. Sector orientation, focus on social and environmental impact, and the stage of development of the startup are all variables that make classification a dynamic rather than a static process. The reality of startups is constantly evolving, and support needs change rapidly, making it difficult to adopt an unambiguous classification that can remain valid over time.

Moreover, it is essential to recognize that any model, by its nature, is a simplification of reality. This implies an inherent trade-off: a certain degree of approximation and minor loss of information must be accepted in order to achieve a broader aggregated interpretative value. While some nuances of individual cases may be smoothed out, the overall sense and analytical value of the mapping remain intact and meaningful. The model's purpose is not to replace the complexity of the real world, but to offer a framework that supports strategic decision-making without undermining the specific characteristics of each startup.

Additionally, it became clear through the collected feedback that there is no single, definitive model or stable solution. Classification and evaluation criteria must remain open, updatable, and customizable according to the needs of each incubator, the evolution of support strategies, and the objectives of involved stakeholders. The possibility to adapt or even radically revise these parameters is a strength rather than a weakness, as it enables the system to respond dynamically to contextual and structural changes.

A further dimension that emerged as increasingly relevant is the importance of systematically measuring social and environmental impact, not only as a means of validating the effectiveness of incubated startups, but also as a compass for guiding incubation strategies and aligning them with broader sustainability goals. Clear and standardized impact metrics can enhance accountability and attract aligned investors and stakeholders.

The final conclusions of this research suggest that although the mapping of SIT's portfolio provided an accurate and useful snapshot of the current state of incubated startups, further investigation could be useful to analyze how the dynamics of support may evolve over time. The results confirm that the incubation and acceleration model needs to remain flexible and sensitive to the specifics of each project, embracing a more

individualized approach that fosters the growth of startups in an increasingly complex and competitive environment.

Another key aspect that emerges from the research is the importance of creating a supportive ecosystem that integrates diverse expertise to enable startups to meet economic and scalability challenges while ensuring that social and environmental goals are met.

Finally, while the data collected in SIT's portfolio mapping offer a holistic view of incubated startups, the work of supporting these companies must be seen as an evolving process, in which support and ranking strategies must adapt to the challenges and opportunities that arise over time. Research suggests that a continued evolution of incubators and accelerators, accompanied by a strengthening of public policies to support social and sustainable innovation, will be critical to meeting future challenges and fostering an increasingly inclusive and sustainable startup ecosystem.

Open points for future work include the integration of more detailed financial analysis and forecasting tools, which would enhance the robustness and completeness of the model. Such analysis would allow a more nuanced understanding of the economic sustainability of startups and contribute to more informed support strategies.

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