Journal of Finance and Investment Analysis, vol. 8, no. 3, 2019, 39-65
ISSN: 2241-0998 (print version), 2241-0996(online)

The start-up "system" in Italy: support activities of the operators through an empirical analysis

Francesco Minnetti[1]

Abstract

Italian SMEs have often been the focus of attention of institutions, financial intermediaries and the media. More recently, interest has been turned to start-ups and innovative businesses with a series of legislative interventions. The empirical study, conducted through a questionnaire given to a few incubators/accelerators, venture capital operators and business angels, confirmed that the situation is, on the whole, still developing and is still a long way from having consolidated and definitive structures and practices in place. The operators involved highlighted, on one side, an activity which is growing quite fast, even if the behaviours and modus operandi are different, and, on the other side, the relevance of co-investment operations, networking activity and cooperation in general, together with a constant and adequate stock of financial resources to permanently allocate to this type of companies.

JEL classification numbers: G24
Keywords: start-up; business angels; incubators; accelerators; venture capital; finance in SMEs.

1 Introduction

The crucial role played by technological innovation in stimulating productivity, economic growth and the standard of living has always been widely recognized by economists and politicians. In Italy, the challenges of promoting it, essential in sustaining the current phase of recovery we are experiencing following the serious crisis that began in 2008-09, have been exacerbated by the still difficult macroeconomic situation, which in recent years has seen prolonged negative economic circumstances and strong competitive pressure from emerging countries.

In a situation such as this, economic policy can and must play a key role in supporting innovation and competition in the national system, requiring coordinated action, a vision of togetherness and a process of collaboration between a varied and growing network of

[1] Associate Professor of Economics and Management of Financial Intermediation at the University of Cassino and Southern Lazio, Via Sant'Angelo s.n.c. Campus Folcara, 03043 Cassino (FR), Italy

Article Info: *Received*: December 28, 2018. *Revised:* January 23, 2019
Published online: May 10, 2019

stakeholders. This explains the growing interest from *policy makers* and operators in start-ups, which are one of the key vehicles in promoting technological development as well as an important driver for economic growth, particularly given the associated job opportunities, and for internationalization.

This paper aims, in light of recently introduced legislation measures and critical issues affecting the current situation, to understand, through an empirical analysis of descriptive nature based on a specific questionnaire sent to a sample of players diversified and appropriately selected, the potential support activities for Italian start-ups that are activated by operators who intervene either as financiers and/or investors, or as management service providers, i.e. business incubators/accelerators, venture capital operators and business angels, and consequently to provide some suggestions on how to implement the next steps necessary to truly develop this sector.

The work is structured as follows. The second section tackles the central theme of financing innovative companies and companies in the start-up phase whose financial requirements depend on the investment project's stage of development, which is divided into distinct phases, each of which is characterized by well-defined operational details and financial support interventions. The third paragraph presents a summary of the main interventions implemented by the Italian government to support the promotion of start-ups and SMEs involved in innovative projects, and combines this with system data which is useful in analyzing the phenomenon under the principal analysis approaches. The fourth paragraph presents the results of a field survey carried out to examine the individual profiles, structural configurations and management traits of the aforementioned operators. Finally, the conclusion provides a summary of the issues and subjects which, in light of the results of the empirical study, must be better developed and adopted for the "quality leap" that now seems essential.

2 The main literature on innovation's financing

Innovation, understood in its widest sense, is an innate requirement in a modern economic system to maintain and increase its competitiveness. In the last few years, this inherent requirement has grown significantly and is increasingly perceived as a priority in implementing individual economic policies. Information and communication technology, known also as *web-technology*, is extremely pervasive in the economic fabric of all countries, changing the production and distribution methods of goods and services. It is the so-called *New Economy* which has changed and is changing the behaviour of individual players and is seriously putting traditional canons of economic theory and management to the test.

The financial system is a major player in the spread of innovation[2] and the development of the New Economy in its role as a financier and investor in new entrepreneurial initiatives and businesses in the start-up phase (Blank, Dorf, 2012)[3], which are characterised by a high degree of risk and long payback times. They return to such activities between their normal institutional duties where they operate in their more general capacity and aptitude to assure

---

[2] The concept can be defined by: the type of innovation, classified as *product innovation, process innovation, marketing innovation* or *organizational innovation*; and by the level of innovation, either *radical innovation*, which is the result of research and development by industrial and/or government laboratories who, rather disjointedly in terms of both time and industry sector, create new technological paradigms and new markets, or *incremental innovation*, which develops already existing paradigms and consistently improves the efficiency of various production factors (Bower, Christensen, 1995).

[3] These are organisations which, thanks to a valid *business idea*, aim to launch a new product on the market, invest in research and development and propose a business model which is based on technological progress, with the aim of getting past the experimental phase and, in the medium term, consolidating a robust growth path for the business.

companies the necessary supply of financial resources to realise their business strategies and plans and to proceed toward an efficient allocation of available resources.

For innovative businesses, the financial requirement and degree of risk often depend on the stage of development of the investment plan and can be distinguished in four fundamental phases:

- The *pre-seed* phase, during which the entrepreneur studies the feasibility of the project and the uncertainties around future developments of the business idea. Merely sketched out at this stage and requiring limited capital, there are many of these;
- The *seed* phase, which is characterised by technical and economic feasibility studies in support of the entrepreneurial project, which are adequate to plan the first stages of development of the business. Capital requirements are not high but are difficult to acquire from external finance sources because of the prohibitively high levels of risk and uncertainty;
- The *start-up* phase, which is the moment when the project, which has been developed over the preceding phases, is presented to the market and launched commercially and requires consistent investment to create production capacity and develop distribution channels. The level of business risk remains high;
- The *growth* phase, which is the phase of business development and expansion when the risk level is normal and there is a functional need for capital to support the growth of business plans which have already been launched and consolidated. This phase can be further subdivided into the *early growth* phase in which the company continues to require large sums of capital to develop product distribution and increase production capacity, and the *sustained growth* phase which is characterised by a gradual stabilisation of sales and increased possibility of self-financing which allow the company to move into a period of maturity.

With regard to the finance sources which support the various phases, peculiarities and areas of differentiation can be observed in innovative businesses compared to other types of businesses. Since the Modigliani-Miller theorem first appeared in finance literature, maintaining the total irrelevance of the financial structure in real decisions, the position of economists, as is well known, has progressively changed. The advent of the information economy and incentives has in fact shown how, in removing the underlying hypothesis of perfect capital markets, the choice on types of financing (internal sources, bank debt, issue of bonds and shares) instead becomes relevant for decisions on production and investment and has opened the way to numerous contributions aimed at arguing for substituting non-perfect capital markets.

A large part of this literature, from the pioneering contributions of Myers and Majluf (1984) and Fazzari, Hubbard and Petersen (1988), has shown the presence of a genuine financial hierarchy in business financing instruments, the so-called *Pecking Order Theory*: the first choice is self-financing, understood in its widest sense and including personal resources, which does not entail sustaining agency costs during the *screening* and *monitoring* phases due to asymmetric information between the entrepreneur and the financier; this is followed by bank debt, initiated during the first phases – as soon as information, at least hard information, is available – through loan accounts with conditional and/or guaranteed use; and then the direct issue of shares.

The aforementioned traditional hierarchy of preferences, however, is subject to change and conditioning in light of a number of factors including the size, age and characteristics of the business. This is where the theory of the *Financial Growth Cycle* comes into play which links the type of investors and the methods of financing to these factors, theorising on the existence of a causal link between the use of various financial instruments (including finance contracts) and the intervention of various institutional financial/investment intermediaries in the financing of the business, on the one hand, and, on the other hand, the observation of its financial requirements through the various phases of the life-cycle which define its development.

In the case of businesses in the study and launch phases, recourse to internal sources, and in particular self-financing, is unlikely as they are not able to generate sufficient cash flow, particularly in the first phases of development. As far as access to external sources is concerned, one notes that the investors'-financiers' assessment of the innovative project is characterised by a degree of uncertainty and information opacity which is much higher than for companies operating in traditional sectors because these are young companies that do not have a track record (Hart, 2001), which makes the screening process by outsiders particularly difficult and agency costs much higher than average and, in certain cases, even unsustainable. Innovative companies are often not even in a position to be able to provide sufficient explicit guarantees, or real assets, to attenuate the creditor's risk. The intangibility of the capital invested – which is in the form of highly *firm specific* assets such as patents or copyrights and therefore completely allied to the owner company - can be a huge limit to bank debt (Gompers, 1995; Hall, 2002) because it does not allow the business to provide sufficient *inside collateral* which means that the decision to invest and the financial duties that derive from it are practically irreversible.

For these reasons, the innovative company generally turns to two forms of "informal" financing during the first phase: *insider finance*, i.e. using capital belonging to the innovative entrepreneur and/or his family; and *angel finance*, i.e. direct conferral of risk capital from managers, entrepreneurs or professionals who do not have a family relationship with the founder and focus their attention on projects within their chosen sector so as to be able to help grow the business. Furthermore, with their capital, managerial *know how*, network of personal contacts and experience, they can understand the development potential of the business plans as well as the expertise of the entrepreneur (Amis, 2001; Stuart *et al.*, 2003; Lazzeretti *et al*., 2004; Capizzi, Giovannini, 2010; OEDC, 2011)[4]. For a long time, business angels acted in anonymity and limited themselves to interventions with businesses within a network of personal acquaintances and on the basis of occasional meetings, which inevitably meant that a relatively small number of investments were made compared to total investment opportunities (Harrison, 2002; Mason, Sorrentino, 2003; Kotler *et al*., 2004). Over time, so-called BANs (*Business Angel Networks*) or associations have developed in a number of countries whose role is to put investors in contact with one another, facilitating the reciprocal exchange of information and opportunities, facilitating meetings with applicant entrepreneurs, and fostering best practices internationally, developing the phenomenon and consequently representing the category to political institutions.

Increasingly frequently, operators in the public sector are intervening at the embryonic stage with various forms of favourable financing and *business incubators*. The latter are individuals from both the public and private sector[5] who interact with potential entrepreneurs, procuring an integrated series of services[6] for them, supporting them in developing their own ideas right from the launch of the new business, strengthening their bargaining power when dealing

---

[4] Generally speaking, business angels can be classified (Gualandri, Venturelli, 2011) on the basis (i) of the type of contribution (classified as either *financial*, who primarily invest in the company's risk capital without assuming any managerial duties and limit themselves to supervising and controlling the business, and *industrial*, who instead actively participate in management in terms of professional and managerial contributions) and (ii) of the frequency with which they invest in such operations (differentiated between *entrepreneurs* or *professionals* on one side, and *occasional* operators on the other).

[5] Obviously, public sector operators' objectives are predominantly social or macroeconomic, capable of supporting the economic development of a given area, with the intention of helping to create local sites of excellence, revitalise neglected areas and promote the development of sectors that are undergoing a crisis period, while the private operator, although contributing indirectly to such aims, is *profit oriented*, as, for this category, the logic of the profit and loss account is of most importance (Aernoudt, 2004).

[6] These usually include: fine tuning the latest business plan; providing access to physical resources such as space and infrastructure; legal, administrative/financial and marketing assistance; support in sourcing human resources suited to the business activity and the company; access to *networks*, where individuals or interlocutors can be found who can become key factors in the success of the incubated businesses; the acquisition of financial resources.

with financiers and increasing their chances of survival and a positive outcome (Auricchio *et al*, 2014; Scillitoe, Chakrabarti, 2010). The majority of them also procure financial resources of restricted amounts, depending on the nature and size of the company (Richards, 2002)[7]. The arrival of the *New Economy* has created a growing specialisation of this type of operator by sector and niche market, (*Specialised Incubator*), while the second half of the 1990s saw the development of the *Networked Incubator* whose main strength is its ability to offer a full package of relationships and commercial and professional contacts who can promote business connections and therefore create value for the assisted companies, leveraging the opportunity to access a network of relationships which can help create strategic partnerships and source better human resources.

Venture capital is the form of fundraising that the entrepreneur-innovator generally uses after having already sought recourse in three sources previously mentioned, but before turning to bank debt (Petrella, 2001). The process of acquiring a shareholding is systematic and continuous and is executed - through well-defined and recognised legal structures, generally closed securities funds managed by investment management companies and specifically capitalised companies - for companies which have preferably already been launched, which have a high level of technological content and strong prospects for development and growth (*high growth potential firm*) in order to incentivise their development and expansion (Kaplan, Stromberg, 2004, Gervasoni, Sattin, 2015). In this case too, intervention is not limited to a mere conferral of equity but is more a contribution of managerial *know how* and an active role in management, where experience, ability and links with venture capitalists can help in defining and organising substantial investment goals and growing the business. The investment is temporary, with a defined exit date in place right from the beginning[8], and minority, not aimed at taking definitive control of the business. For this reason, despite having a share in the risk capital, venture capital financing remains an operation of financial intermediation.

The traditional hierarchy of using debt capital rather than risk capital, therefore, is turned on its head in the case of innovative businesses (Table 1).

Table 1: Categorisation of financial support and business life cycle

Business development stage	Type of intervention	Level of financial resources required	Type of financier/investor
Pre-Seed	*Pre-Seed financing*	Very low	*Family/Friends*
Seed	*Seed financing*	Low	*Business Angel*
Start-up	*Start-up financing*	Medium	*Business Angel/Venture capital*
Early growth	*Expansion financing*	High	*Venture Capital*/*Banks*
Sustained growth	*Development capital*	High	*Venture Capital*/*Banks/Markets*

Businesses turn to bank finance only after having obtained resources through *venture capital* and this is true regardless of the size of the innovative companies and, in order for them to be able to use it, both the level of information opacity and the level of immateriality of the capital goods used must be reduced (Berger, Udell, 1998). The role of *price discovery* played by *venture capital*, however, provides operators with useful indicators for evaluating

---

7 In academic literature (Hackett, Dilts, 2004; Al-Mubaraki, 2012), although the majority of authors tend to agree on the usefulness of incubators in increasing incubated businesses' chances of success, some of them disagree, expressing doubts about the effective contribution of these structures (Schwartz, 2008).

8 Classic literature (K.E. Relander, A.P. Syrjanen, 1993) differentiates two possible approaches to the problem. In the first hypothesis, the so-called *path sketcher* model, the investor identifies possible buyers, right at the start, who, should the investment opportunity be successful, could be interested in buying its share or all of the business. In the second approach, known as *opportunist*, the *venture capitalist* pays less attention to the various potential exits, as his primary interest lies in selecting companies where his contribution can maximise growth opportunity, allowing him to conveniently disinvest his share later.

innovative companies and facilitating successive commercial credit by providers and bank financing. However, because this is the optimal channel for financing innovation, an efficient and transparent second market is also required which allows the disinvestment of invested capital through an exit by IPO and/or a "supply chain" of *private equity* operators (Bertoni *et al*., 2011).

As for *public equity* and the issue of bonds, these are practicable when, as the business grows in size and is consequently restructured, the level of information opacity and risk is noticeably lower and the company's reputation has been consolidated[9].

3 Recently launched support policies and some "numbers" of the competitive context

Policymakers play a key role in promoting development within the sector of innovative companies and companies in the start-up phase; these are institutional stakeholders in the public sector who, due to their authority, policy making powers and powers of regulation and control, have over the last few years launched a "path" aimed at supporting the promotion of new innovative entrepreneurship under the premise that this is one of the channels that can increase the competitiveness of national production. These interventions are made within an ecosystem where the government's role in guiding and orientating has benefitted from constant discussion with market operators and the world of research.

Initially, attention was focused on new innovative businesses or recently formed businesses, the so-called *innovative start-ups*, characterised by their focus on innovation, through the definition of a preferential framework and renewed public support. The relevant legislation is defined in Decree Law 179/2012, "*Further urgent measures for the growth of the country*", modified from Law no. 221 of 17 December 2012, brought into force 19 December 2012, which provides a systematic legislative *corpus* covering the most important aspects of its life-cycle.

In addition to a series of formal requirements[10], in "substance", the innovative companies must meet one of the following conditions:

- the total research and development expenses of each business must be equal or greater than 15% of whichever is greater, total expenses or production value;
- at least one third of the workforce must have or be working toward a PhD at an Italian or foreign university, or at least two thirds of the total workforce must hold a Masters degree;
- the business must be the owner, depository or licensee of at least one patent directly related to its corporate purpose and business activity[11].

The basic objective is to promote sustainable growth, technological progress, employment (particularly youth employment), the development of a new entrepreneurial culture, the implementation of an ecosystem more orientated towards innovation which also promotes greater mobility and an increase in foreign capital and talent. All this must be done by

---

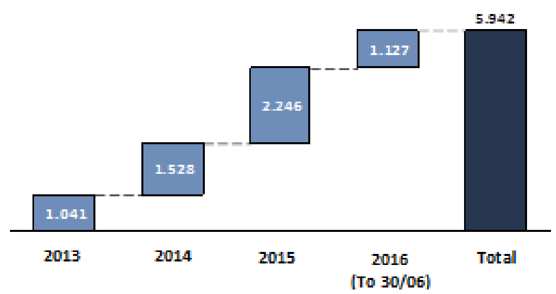
[9] A separate discussion is taking place about the recent spread of crowdfunding platforms, who, as will be explained more fully in the following section, finance companies in the start-up phase by raising capital online.

[10] The criteria specified are as follows: the majority of company stocks or shares must be held by natural persons; the company must be established as a joint stock company, limited liability partnership, limited liability company, including co-operatives, and have been in business for no longer than 48 months; from the second year of business activity, annual production value must not exceed €5m and profits must not be distributed; the exclusive or prevalent corporate purpose must be developing and marketing high-tech products and services.

[11] The legislation also recognises innovation in the social sphere and the possibility of identifying so-called innovative start-ups with a social vocation, or operators in specific sectors defined by decree law 155/2006, such as: social assistance, health care, education, instruction and training, protection of the environment and ecosystem, promoting cultural heritage, university and post-university training, research and provision of cultural services.

creating a favourable environment which provides preferential measures such as simplified procedures, reduction in burdens, some waivers in company law, recourse to a favourable winding-up procedure and by introducing a series of fiscal incentives for stakeholders who wish to invest[12].

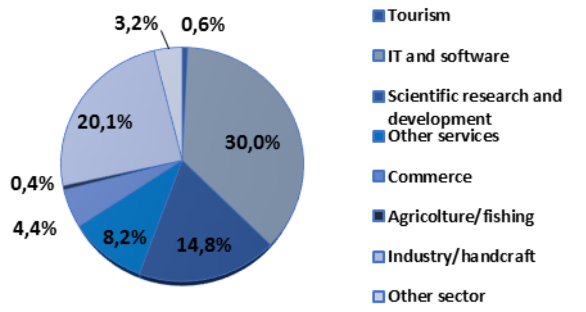
According to the latest statistics, the Italian start-up ecosystem is in good health (Figure 1). On 30 June 2016 there were 5,942 companies registered in the specific section of the Register of Companies, which has been growing consistently since it came into law, bearing in mind that the data for 2016 is biannual. It is undoubtedly an encouraging sign, confirming that the mechanism is starting to work. A breakdown of this business category into sectors (Figure 2) shows that 53% operate in high-tech sectors using highly specialised human capital. In particular, 30% are active in the IT and software sector, approximately 15% in scientific research and development, 20% in industry and craftsmanship, with the remainder split between other sectors. From a geographical perspective, data from Infocamere shows the greatest concentration in the North (55.1%), followed by the central region (24.6%) and then the south and the islands (20.3%). The region with the highest percentage is Lombardy (21.6%) with Milan out in front thanks to its efficient university system and special relationships with the Municipality and the Region, followed by Emilia Romagna (11.8%), Lazio (10.1%) and Veneto (7.6%). Among the southern regions, Campania and Sicily are ranked sixth and ninth in the national classification, representing 6.2% and 4.6% respectively of total start-ups.



Source: *based on data from Infocamere*

Figure 1: Evolution of innovative start-ups

[12] To this end, the subtraction/deduction of investments from taxable income is provided for up to a maximum limit of €95,000 per annum for the purpose of IRPEF (personal income tax) deduction, increased to €300,000 from 2017 (the rate of 19% of amounts invested was raised to 30% on a maximum investment of €1m, with a further benefit in the case of start-ups with a social vocation) and of €99,000 as maximum IRES (corporate income tax) savings increased to €129,600 from 2017, given that the maximum investment per investor must not exceed €1.8m for each tax period and that the amount obtainable from a single innovative start-up must not exceed €2.5m per annum.



Source: *based on data from Infocamere*

Figure 2: Innovative start-ups by sector at 30 June 2016

A further legislative measure is aimed at promoting development of the so-called *certified incubators*, supporting the progressive growth of these businesses and nationally promoting centres of excellence that can help develop the production system. The relevant qualifying requirements are defined in the Decree issued by the Ministry of Economic Development on 22 February 2013, following a consultation involving numerous public and private bodies from across the country[13]. Certification is in the interests of both those applying for services and the bodies supplying those services and who are recognised as having greater authority than other enterprises. Although, on the one hand, the proliferation of incubators and accelerators underlines the attractiveness and the strong unrest that this market is experiencing; on the other hand, it is necessary to separate the players worthy of greater consideration from improvised plans and initiatives which often do not have the necessary resources (not just financial) to drive the launch of a successful start-up.

On 30 June 2016, according to data from Infocamere, the number of certified incubators – who must self-certify that they are in possession of the requirements specified in law, have registered in the special section of the Register of Companies and periodically update their information – was 39, with a higher concentration in northern Italy where approximately 77% of companies are based.

With the publication of the Consob Regulation in June 2013, Italy was the first country to regulate *equity crowdfunding*, making it a pioneer in this field. In short, through internet sites, a group of financial stakeholders, even with small amounts, finance a new industrial project, acquiring a shareholding in a company with concurrent acquisition of the proprietary and administrative rights that come from it. This arrangement, which is based on the strong potential of a network of interconnected individuals, is a genuine means of raising "equity" online, either in the form of stocks or shares, and therefore risk capital for the companies, and has many similarities to an IPO (*Initial Public Offering*), with the financier effectively becoming a partner in the entrepreneurial initiative which he financed through the platform (Lerro, 2013; Mollick, 2014, Pais *et al.* 2014)[14].

---

[13] In addition to space and adequately equipped premises, the required conditions include (i) entrusting administration or management to people with recognised competence in business and innovation, (ii) having ongoing collaborations with universities, research centres, public institutions and financial partners and (iii) availability of relevant and consolidated experience in supporting innovative start-ups. For proof of the latter, one must refer to the minimum values defined by the Decree of the Ministry of Development (MiSE) of 21 February 2013 which summarise the proven ability to steadily and effectively follow successful projects.

[14] In principle, crowdfunding platforms can be differentiated as *general*, handling projects from all areas of interest, and

The cited Regulation, approved by resolution no. 18592, regulates both the registration of intermediaries, i.e. the portal managers, in the appropriate registry held by Consob, and the proposals launched through the platform. As present, the task of managing the online capital-raising portals is reserved for monitored intermediaries such as banks and investment companies ("rights management companies"), who do not require specific authorisation and are listed in the special section, and to managers who have been "authorised" by Consob and registered in the ordinary section, for whom the regulation provides exemption from the 'common' MiFID (Markets in Financial Instruments Directive) rules regarding the execution of investment services, specific requirements concerning the good repute and competence of the partners, as well as specific disclosure obligations and a series of "rules of conduct" to guarantee diligence, correctness and transparency of behaviour, management of conflicts of interests, and equal treatment of the recipients of the offering[15].

The fundamental role of the portal is to enable investors to understand the characteristics and risks of the proposed investments[16] and, therefore, information to the public must be correct, up-to-date, clear and not misleading[17].

Despite the fact that the system has been drawn up in law and there are a number of platforms in operation[18], the contribution of capital raised through crowdfunding has been small in these years, both overall and in comparison to aggregate data at an international level. In fact, while network funding on a global level (Figure 3) has achieved significant validation and is a positive trend growing by 1,276% from 2012 to 2015 and raising $34.4bn in 2015 alone (up $19.2bn compared to 2014), in Italy we are only beginning and the numbers, both the total amount raised (Figure 4) and the investors who have embraced this innovative practice, although increasing, are essentially irrelevant[19].

---

themed, i.e. specialising in one specific type of business or in projects in particular sectors. The majority of them are based in the United States or Europe, followed by Brazil and Australia. Their common feature is their original approach which aims to "stir the emotions" of visitors to the platform. The operation is almost always presented as innovative and focuses on emotional impact, using images, videos and "pitches", i.e., Powerpoint slides describing the company, the business idea, the people who make up the company and the economic and financial flows expected.

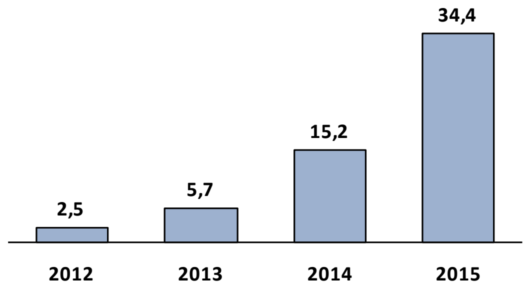
[15] The less onerous control is motivated by the fact that, unlike banks and other financial institutions, the registered operators cannot (i) hold sums of money pertaining to investors, (ii) directly execute orders to underwrite financial instruments offered on its portals, but instead must transfer them exclusively to banks or authorised brokerage companies, (iii) offer financial advice to investors.

[16] The most relevant elements of the operation include: (i) the offer must have a total amount of less than €5m, (ii) it is not necessary to provide an information prospectus, just a simplified form drawn up according to the model defined by Consob and published on the portal, (ii) a sum not below 5% of the increase in capital must be underwritten by professional investors, banking foundations, "certified" innovative start-up incubators or so-called "investors supporting innovation", (iv) non-professional investors enjoy special protections such as the right of cancellation, without reason or expense, within 7 days from the order of registration, the right to withdraw the investment if, during the offer, new facts or material errors come to light, the provision of tag-along clauses and the disclosure of the shareholder agreements.

[17] It must have a section on "investor education" defined by Consob and be aimed at retail investors who must complete a genuine "conscious investment path", starting by completing a special online questionnaire showing that they have read the information provided and have understood the characteristics and risks of investing in start-up initiatives.

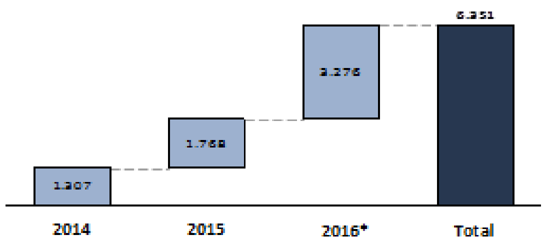
[18] As of 30-06-17, there are 19, almost all registered in the "ordinary" section. The most active are *Startup, Assiteca Crowd, Next Equity, Equinvest* and *Tip Ventures*.

[19] As of February 2017 (Scutti, 2017), the average collection target was €275,000 from 32 successfully closed offers and the share of capital given approximately 19.2%. The average number of investors per operator was 37, with an average investment of approximately €6,500.



Source: *Crowfunding Industry Report 2015-2016*

Figure 3: Crowdfunding globally 2012-2015 ($bn)



**Data is updated 30 June for the year 2016*

Source: *Crowfundingbuzz.it*

Figure 4: Crowdfunding in Italy 2014-2016 (€000’s)

Article 4 of Decree Law 3/2015 on urgent measures for the banking system and investments (the so-called “Investment Compact”), modified in Law 3/2015, finally introduced the new figure of *innovative SMEs*, who can avail of a large proportion of the planned measures to assist innovative start-ups under Decree Law no. 179 of 2012, with particular reference to fiscal incentives for investment and the opportunity to raise risk capital on the market through equity crowdfunding, and in order to access this they must register in the specifically designed special section of the Register of Companies in a Chamber of Commerce[20]. Also in this case, the “innovative” nature of the business[21] is established by the existence of at least two of the following three requirements: R&D expenses equal to at least 3% of whichever is greater between the value and cost of production; employment of highly qualified staff (at

[20] The opportunity to benefit from the preferential measures is counterbalanced by three issues: the checks made by the relevant authorities on effective possession of the requirements; the obligation to update data on an annual basis from the moment of registration in the special section; the legal representative must make a declaration within 30 days from the approval of the balance sheet and within six months from the end of each financial year, to certify that he is still in possession of the requirements, with the obligation to file at the Register of Companies or active status will be lost.

[21] From a corporate point of view, an SME is an unlisted company which employs less than 250 employees and meets at least one of the following criteria: turnover less than €50m per annum and total balance sheet no higher than €43m under the Recommendation of the European Commission of 6 May 2003 no. 2003/361/CE; has certified the last balance sheet and possible consolidation; is not registered in the special register of innovative start-ups.

least 1 in 5 research PhDs or at least 1 in 3 with a Masters degree; be the owner/depository/licensee of at least one patent or piece of software registered in the public registry of the SIAE (Italian Society of Authors and Publishers) which directly relates to the corporate purpose and business activity.

In June 2016, according to data from Infocamere, 204 SMEs were registered in the "Innovative SMEs" section, registering linear growth in the two-year period 2015-2016 and with an economic sector breakdown similar to that already seen for innovative start-ups: 63.4% operate in the service sector (36% of these in IT and software, 20% in R&D), while the percentage of those in industry and craftsmanship is 33%. Also in this case, the Italian region with the highest level of registered innovative SMEs is Lombardi (22.8%), followed by Emilia Romagna and Puglia (8.4%) and Lazio (6.9%).

As with the innovative start-ups, the innovative SMEs have free and easy access to the Guarantee Fund for SMEs under law 662/1996[22] for an amount equal to 80% of the bank loan and a limit of €2.5m as a total maximum guaranteed amount, which can be used for multiple operations until it reaches the threshold, as there is no maximum limit of operations which can be made. Such support is growing significantly, considering that innovative start-ups, being recently-launched entrepreneurial companies, often encounter significant difficulty in getting bank loans[23].

The government has recently intervened with, not only various measures in specific sectors to promote the innovative start-up ecosystem[24], but also venture capital projects in the wake of discussions at the Community level where the European Commission has underlined many times that in Europe there is an *equity gap*, i.e. a serious and generalised lack of start-up funding, particularly for more innovative entrepreneurial initiatives. The recent economic crisis has certainly contributed to intensifying this market problem which risks increasing the gap in entrepreneurial development and economic growth compared to countries which, for some time now, have been putting public intervention measures in place. The interventions in question are generally the establishment of venture capital funds, also in partnership with private bodies, or investment in funds which operate solely through underwriting the shares of other venture capital funds, where the resources made available through public administration are assigned in management, through a competitive process, to private operators on the condition that they raise an equivalent amount on the market.

In our country, the *Fondo Italiano d'Investimento SGR* (Italian Investment Fund) has been active for some time. It depends on the *Cassa Depositi e Prestiti* (Italian Savings and Loans Agency) for 25%, the ABI (Italian Banking Association), and Unicredit and Sanpaolo amongst others, and operates predominantly in this sector investing in specialised funds[25]. With the decree of 29 January 2015, the Ministry of Economic Development allocated €50m

---

[22] In the context of a slowdown in loans given by the banking system, particularly those given to SMEs, the Fund, from the point of view of loan accounts, works both by giving guarantees directly to the financing banks (*direct guarantee*) and by counter-guaranteeing Confidi and other guarantee funds, in the first instance guarantors of credit institutions (*counter-guarantee*).

[23] As of 30 June 2016, there were 1,653 finance operations for innovative start-ups guaranteed by the Fund for a total of lines of credit of €417,990,236.

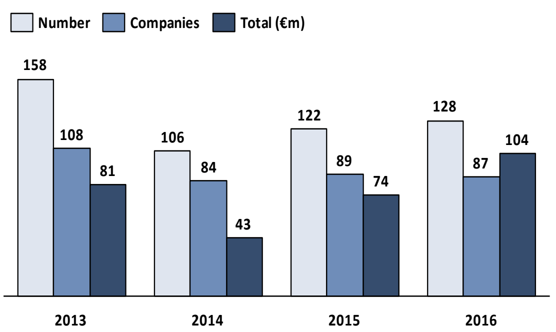
[24] This is not an exhaustive list, but includes: specific finance projects such as the allocation of more than €20m earmarked by the Ministry for Economic Development in 2014 for high-tech companies based in the southern regions (the so-called *Smart & Start Programme*) and then extended across the whole country, or that of approximately €3bn allocated in 2013 by the European Union through the *Horizon 2020's SME Instrument* to the various internationalisation support services of the ICE (Italian Trade Promotion Agency), the agency that promotes Italian companies abroad, and to the *Italia Startup Visa and Italia Startup Hub* programmes launched in 2014 which aim to open up and revitalise national entrepreneurship by attracting human capital from across the world by significantly simplifying the issuing of visas for self-employed workers.

[25] As of 30-06-2016, there are two dedicated funds, *FII Venture* and *Fof Venture Capital*, who have underwritten shares in funds managed by specialised investment management companies, through 5 vehicles with a commitment of €80m, and 3 vehicles with a commitment of €28m respectively.

to allow Invitalia S.p.A. to establish a dedicated fund called “Italia Venture 1”, managed by *Invitalia Ventures SGR*. The fund operates with an equity investment for every single operation of €500,000 to €1.5m, up to a maximum of 70% of the total sum, investing in the risk capital of the businesses along with and simultaneously to private and independent national and international investors[26].

Despite the “media” attention and a reasonable number of new initiatives, in absolute terms the Italian venture capital market is still undersized compared to other industrialised countries, with significant consequences for the innovative potential of the entrepreneurial system, and consequently on the dynamics of economic growth.

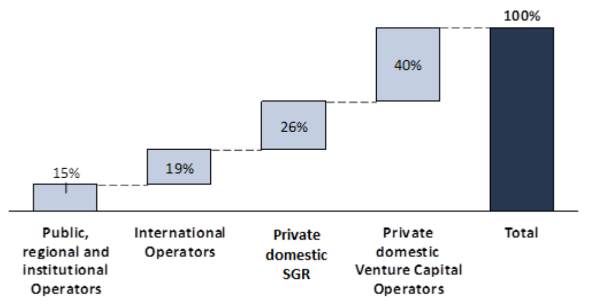
In the period examined (2013-2016), *early stage* operations (Figure 5) fluctuated, but increased overall, with a good performance in 2016 when total investment exceeded the €100m threshold, consolidating, with an increase of 40%, the recovery of investments registered in 2015, after the low point of 2014. More precisely, 128 new investment operations were registered at the end of 2016, distributed across 87 companies with a value of €104m. As regards the type of investor (Figure 6), 40% were *early stage* operators, 26% general investment management companies, 19% foreign operators and 15% public operators.



Source: *based on data from AIFI and PwC 2016*

Figure 5: Early stage investments in Italy 2013-2016

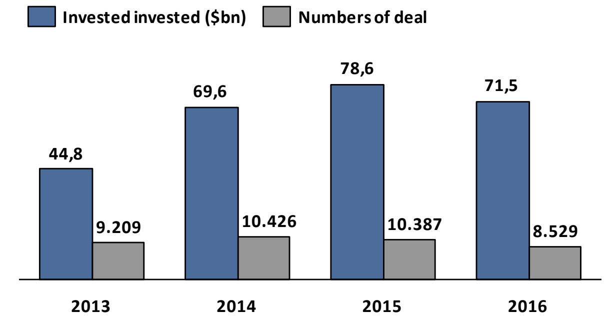
[26] The Fund then acquired further underwritings setting its final target at €100m and immediately placing itself among the major venture capital operators in Italy. As of 31-12-2016, the number of participating companies in the portfolio stood at 11.



Source: *based on data from AIFI and PwC 2016*

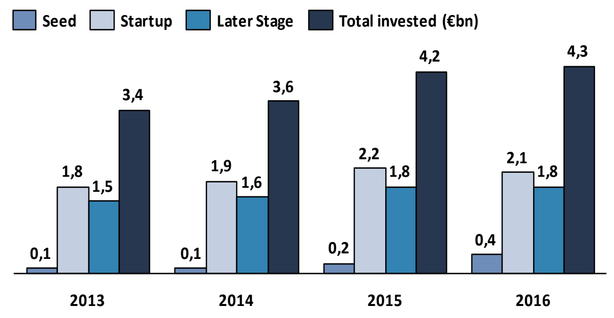
Figure 6: Early stage investments by operator type at 31 December 2016

As a whole, the Italian venture capital sector is still very far from the volume of registered investment in the US and is behind even compared to Europe.
The American market (Figure 7) is characterised by a significant growth in investment activity of 60% in the period between 2013 and 2016. In that year, however, the "movement" experienced a slight decline compared to 2015, both in the number of operations concluded, down to 8,529 (the lowest level of the four-year period) and in value $71.5bn with a decrease of 9%.
At the European level, investments in the period 2013-2016 (Figure 8) grew consistently, reaching €4.3bn in 31 December 2016. Of these, 48.9% were *start-up* investments, 41.8% *seed* investments and the remaining 9.3% *later stage* investments.



Source: *NVCA Pitch Book 2Q, 2017*

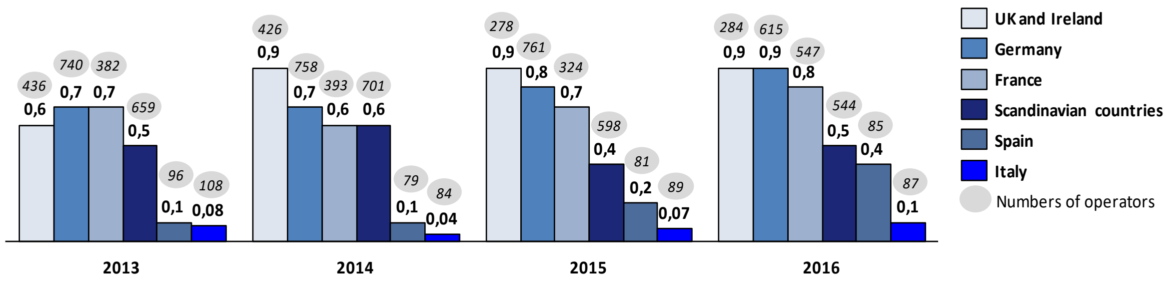
Figure 7: Venture capital in the US 2013-2016



Source: *EVCA Yearbook 2016*

Figure 8: Venture capital in Europe 2013-2016 (€bn)

In a comparison of individual countries (Figure 9) by total amount of investment during the period 2013-2016, the UK stands out. Here venture capital has experienced rapid growth, finding fertile ground in a well-organised country with a lot of capital to invest. In the last number of years, Germany, which registers the highest number of active operators, and France managed to regain ground, and, by the end of 2016, had investment levels on a par with those in the UK, while Spain and particularly Italy, even within the context of increasing trends, are still showing significant gaps.



Source: *EVCA Yearbook 2016*

Figure 9: Investments in venture capital in major European countries 2013-2016 (€bn)

Empirical evidence confirms the correlation between the expansion of the risk capital sector and the nature of its financial system, highlighting how the phenomenon has developed most markedly in "market-oriented" countries, typically Anglo-Saxon countries, compared to systems were bank intermediation has played a bigger strategic role.

4 The results of an empirical study on the modus operandi and strategies of market operators

In order to better contextualise the state of support activities for start-ups and innovative SMEs, management solutions adopted by the operators involved, and current trends within the system, further reflection and close examination of the theme was required. An analysis was carried out of the responses provided by a group of business incubators/accelerators, venture capital operators and business angels in a specifically-designed questionnaire designed to collect, on the one hand, data and information on the background to the initiative and its operating size in terms of the nature of services offered, businesses involved, investments made, and, on the other hand, reference points and indications on strategies and changes in progress in the respective managements. The questionnaire deals with and deepens these elements that also main literature considers relevant to examine and to evaluate the consistency of their activity through 24 questions for incubators/accelerators, 20 for venture capital operators and 18 for business angel associations and/or clubs. The majority of the questions are the same for all three types as, evidently, there are many areas of common interest and overlapping profiles, while some specific features were subject to individual inquiry. Prior to distribution, the questionnaire was tested with a few primary operators.

17 of the 27 companies contacted participated in the survey which was conducted in the first few months of 2017; for reasons of privacy, their names have not been disclosed in this paper. More specifically, there were 5 incubators/accelerators (one of whom is in the public sector), 10 venture capital operators (one of whom is in the public sector and one in banking) and 2 business angel associations which together constitute a diverse base of analysis of current operations within the sector.

In processing the results, each type of question was treated as follows:

- for questions which required a relevancy and/or frequency value on a scale of 1 to 5 (where 1 is "*never/not relevant*" and 5 is "*very frequent/very relevant*") a summary was made of both the average of the reference cluster (incubators/accelerators, indicated by the letter A; venture capital operators, indicated by the letter V; and business angels, indicated by the letter B) and the total average of the sample analysed;
- for questions which required (i) a frequency in percentage terms and (ii) aspects of a qualitative nature, the frequency of the relative responses is referred to;
- for questions which required a response within a certain range of percentage values for multiple response options, the average value of the range of responses was taken and an average of the values obtained was calculated;
- for questions which were put to only some types of operators, the decision was taken either to omit them or mark them as non-applicable ("n/a") and to process the average of the sample without taking those responses into consideration.

The sample of operators interviewed, while not statistically valid due the low number who participated in the study, nonetheless offers interesting reflections and information for an in-depth discussion of the phenomenon under examination, particularly given the inclusion of stakeholders of various sizes and various backgrounds.

The following is the presentation of the key results emerging from the study, with the clarification that – for reasons of space and so as not to burden the reader – the responses to certain questions are reported without reference to the related figure/table, and other responses, which were considered of minor relevance, have been omitted.

The first interesting observation from the analysis is the comparison between the number of "applications" that the operators interviewed receive on average, each year, from companies potentially interested in entering the "orbit" of an incubator or receiving equity shares and the number of companies that, after the selection process, are approved by the incubator or are considered worthy of a participatory investment (Figures 10 and 11).

What stands out is that, given the numerous requests (the number varies greatly for incubators/accelerators, who, in 2 out of 5 cases, responded "*between 100 and 300*" and is significantly higher for venture capital operators who responded, in 6 out of 10 cases, in the range "*over 300*"), the level of positive responses is significantly low, predominantly in the range of "*between 10 and 20*" for both types of operator, who provided largely similar responses. The business angels' execution capacity is even more limited.

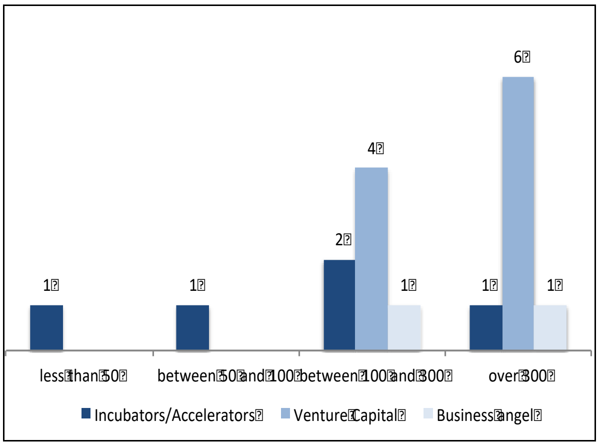


Figure 10: Average number of "applications" received per annum

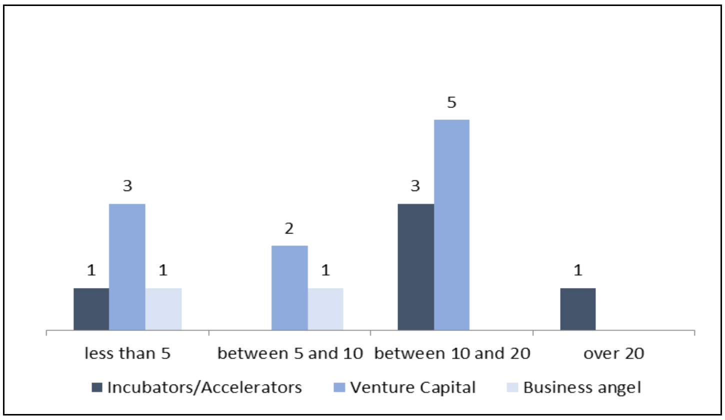


Figure 11: Average number of "applications" accepted per annum

Among the following factors and criteria for selecting which businesses to host and invest in (Table 2), in first place, with a unanimous response, is "*characteristics of the entrepreneurial team*", which is the singular most important driver for evaluating their capability of developing the business plan, followed by the "*potential of the business idea*". Other responses include "*area of business* (of the company) *consistent with the operator's mission*" and the "*level of technology offered*", while less important is the availability, on the part of the business, of financial resources in the form of equity and debt.

Table 2: Relevance of start-up selection criteria

Selection criteria	A1	A2	A3	A4	A5	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	B1	B2	Avg A	Avg V	Avg B	Avg tot
Potential of the business idea	5	5	5	5	3	5	4	5	5	4	4	4	5	4	5	5	4	4,60	4,50	4,50	4,53
Quality of the business plan	4	3	1	2	3	3	3	3	3	3	3	3	3	4	3	3	2	2,60	3,10	2,50	2,88
Characteristics of the entrepreneurial team	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5,00	5,00	5,00	5,00
Stage of the project	5	3	4	2	3	1	5	4	4	5	4	2	3	3	3	3	4	3,40	3,40	3,50	3,41
Availability of financial resources in the form of equity	4	3	2	1	3	2	2	3	2	2	4	3	2	4	4	3	3	2,60	2,80	3,00	2,76
Availability of financial resources in the form of debt	3	3	2	1	3	1	1	1	1	1	1	3	1	2	2	3	3	2,40	1,40	3,00	1,88
Area of business consistent with own mission	5	5	4	4	5	4	4	5	5	5	2	4	4	4	5	5	3	4,60	4,20	4,00	4,29
Level of technology offered	5	4	4	3	4	5	3	5	3	5	3	4	5	5	4	3	4	4,00	4,20	3,50	4,06
Originating from technology transfer processes from universities or other research institutes	3	3	1	4	4	2	4	2	2	5	3	2	3	4	3	3	3	3,00	3,00	3,00	3,00

The business sector which attracts most interest (Figure 12) is, as predicted, the *internet*. Other attractive sectors are *computer science*, *telecommunications* and *electronics*.

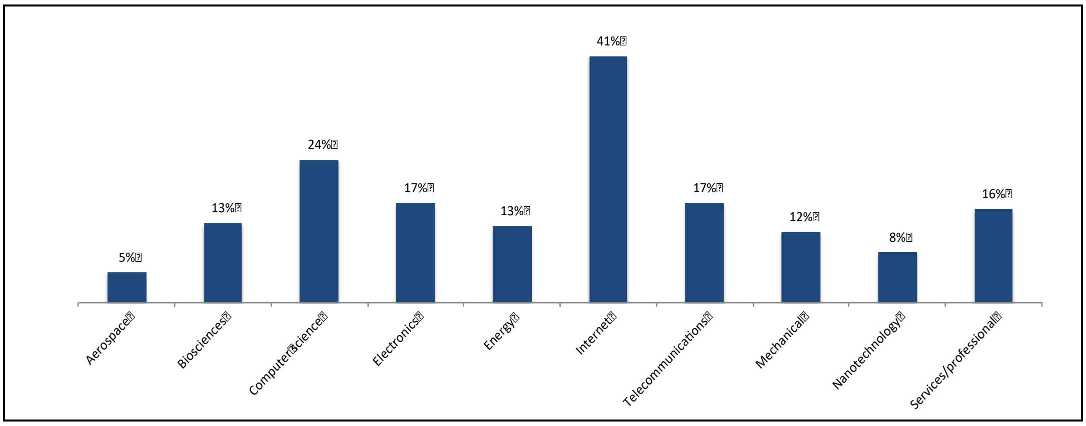


Figure 12: Business sector of the incubated/investee companies

As regards the phase of the business life-cycle in which the operators first become involved (Table 3), responses showed that incubators/accelerators are more frequently present during the *pre-seed* and *seed* phases, while venture capital operators' focus centres on the *start-up* phase and those immediately preceding (*seed*) and following (*first stage of growth*) it.

Table 3: Level of involvement in the life cycle phases of the incubated/investee business

Life cycle phase	A1	A2	A3	A4	A5	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	Avg A	Avg V	Avg tot
Pre-seed	1	5	5	4	5	2	5	1	1	1	2	4	5	1	3	4,00	2,50	3,00
Seed	2	5	4	4	4	4	4	1	2	2	3	3	4	2	5	3,80	3,00	3,27
Startup	3	4	3	4	4	4	3	4	4	3	3	2	3	5	5	3,60	3,60	3,60
First stage of growth	4	2	2	3	4	1	3	4	4	3	4	3	1	3	4	3,00	3,00	3,00
Expansion	n.a.	n.a.	n.a.	n.a.	n.a.	1	2	2	4	1	2	2	1	2	4	n.a.	2,10	2,10

There was a wide range of responses to questions on financial support.
Firstly, the incubators/accelerators contacted stated that they went ahead even with investments in equity, as well as providing active managerial assistance and access to privileged channels of finance to the incubated companies. Specifically, the financial resources conferred to the business projects can be grouped as follows:

- *separate investment fund*, where the incubator creates a fund which can also be managed by an external company;
- *direct capital investment*, where the incubator, equipped with a certain amount of capital, invests directly and in total autonomy, in new potential businesses;
- *limited partnership/angel network*, where the incubator, through a network of private financiers and on a case-by-case basis, raises the required amounts for individual investments.

The value of a single "*ticket*" varies (Figure 13): for the incubators/accelerators, in 3 out of 5 cases, it is "less than €30,000" and, in 2 out of 5 cases, it is "between €50,000 and €100,000". A value which rises to over €100,000 for the two business angel associations that participated in the study. The venture capital operators, for their part, invest higher amounts, with the value of a single deal sitting at: in 5 out of 10 cases, "over €1m"; in 2 out of 10 cases "between €500,000 and €1m"; in 1 in 10 cases, "between €300,000 and €500,000"; and in 2 out of 10 cases "between €50,000 and €100,000".

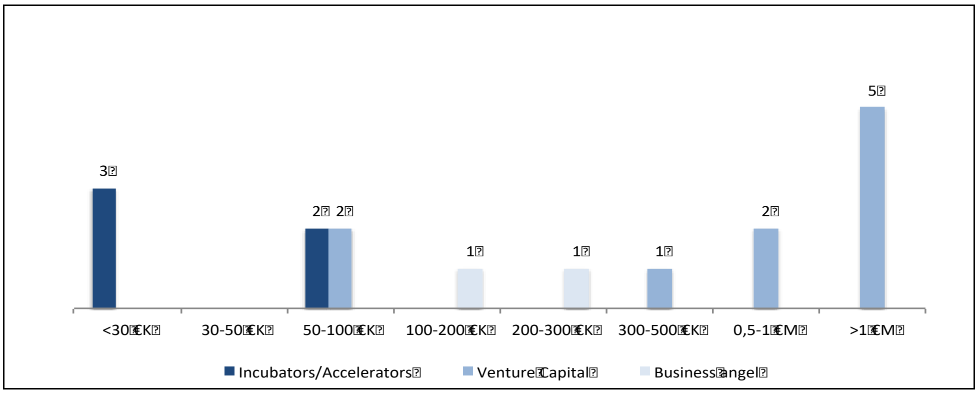


Figure 13: Average investment in equity in a single business

The number of stake holdings in place at 31-12-2016 by the venture capital operators involved in the survey is extremely varied: in 6 out of 10 cases, it is less than 20, with some having just 2 or 3 investments in place, while in the other 4 cases, it is more than 20, with peaks of 40 and 42 investee companies.
Investments are predominantly small (in 9 out of 10 cases) and the practice of participating in investment operations "in syndicate" emerged unequivocally. It is an approach that is also followed by business angel associations and, in a different way, incubators/accelerators whose portfolio is equally mixed, with these last 2 operators registering 40 plus investments, and 3 with less than 5 stake holdings.
As regards the time period a business spent within the specific programme arranged by the incubator/accelerator, who is responsible for assembling and following through the entrepreneurial ideas which are considered as having high potential for financial returns but not yet ready for the market (Figure 14), there is no summary available as every company responded in a different way, although all within a time period of less than 2 years. In comparison, the venture capital operators and business angels, in responding to the same question on the length of the *holding period* of their stake holdings, cited times that were fairly consistent, "over 5 years" and "3-4" years respectively.

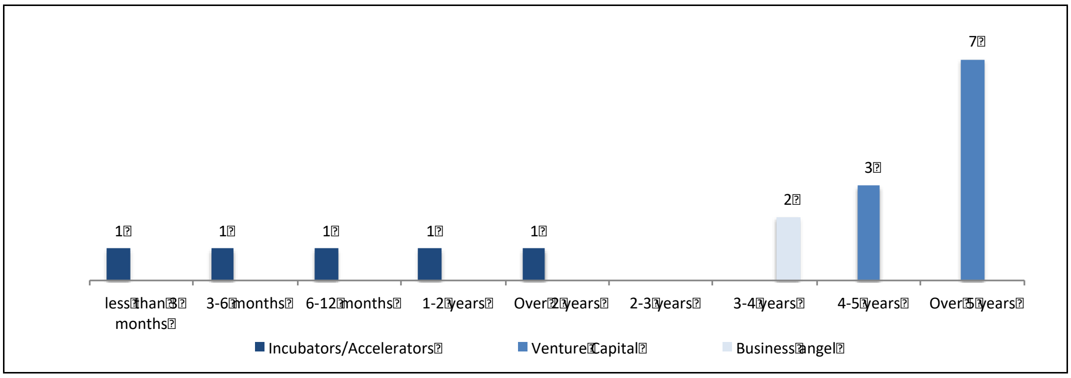


Figure 14: Average length of the holding period

As already highlighted, intervention by venture capital operators usually happens by them taking on a shareholding or underwriting convertible bonds in the companies, therefore, fully sharing the fate of the company and assuming all risks related to the development of the business. The intention is to actively guide the business through an accelerated development process, participating in the various phases of the business plan with its own specific technical–professional contribution, with the aim of maximising, within a reasonable timeframe, the capital gain realisable through the release of the acquired stake holding after the pre-defined growth objectives have been achieved.

During the period when the business' fate is shared, the venture capitalist assumes an active management role with a series of activities providing guidance and assistance (Table 4). To this end, the most important contributions are the "*introduction to strategic industrial and commercial relationships*", useful in promoting the growth and/or consolidation of the business, "*managerial support*", the "*employment of trustworthy and/or respected people to key positions in the organisational structure*". The first two elements were cited, though in inverse order, by the business angels as well, who, as noted, are clearly differentiated from other institutional operators active in the private equity market because their intervention is less structured and more flexible, both in its nature and in terms of timing, making them more suitable than others for financing the initial phase of business development.

Table 4: "Contribution" to investee businesses beyond the conferment of capital

Form of assistance	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	B1	B2	Avg V	Avg B	Avg tot
Feasibility studies and business plan	3	5	1	3	2	3	3	3	3	2	5	1	2,80	3,00	2,83
Managerial support	4	4	5	4	4	5	3	5	4	5	5	5	4,30	5,00	4,42
Access to banking relationships	3	4	4	2	2	4	5	2	2	5	4	2	3,30	3,00	3,25
Introduction to strategic industrial and commercial relationships	3	5	5	4	4	5	4	5	5	5	4	3	4,50	3,50	4,33
Focus on governance and business culture	2	4	4	3	3	3	3	4	4	5	4	2	3,50	3,00	3,42
Employment of trustworthy and/or respected people to key positions in the organisational structure	4	3	3	4	4	3	4	3	4	5	n.a.	n.a.	3,70	n.a.	3,70

The disinvestment of the stake holding represents the natural end of the operation for all three types of operator in the study, in particular, the venture capital operators and business angels, and also allows them to rotate their portfolios which is necessary in guaranteeing an adequate flow of resources for new investments; it is the critical point for every operation. In our country, the lack of a strong tradition of exchanges for SMEs and high-growth companies, which is only partly mitigated by the efforts of the AIM, and the existence of a private equity supply chain which has not yet been fully consolidated, forces operators, where possible and even at the signing of the agreement, to put together a plan with various options for subsequent disposal.

From the responses provided (Figure 15), the type of *exit* cited most frequently and consistently is "*transferral to industrial groups*" with an overall average of 59%, followed by quotation which is a valid option only for venture capital operators who cited it, in 5 out of 10 cases, as between 10% and 25%.

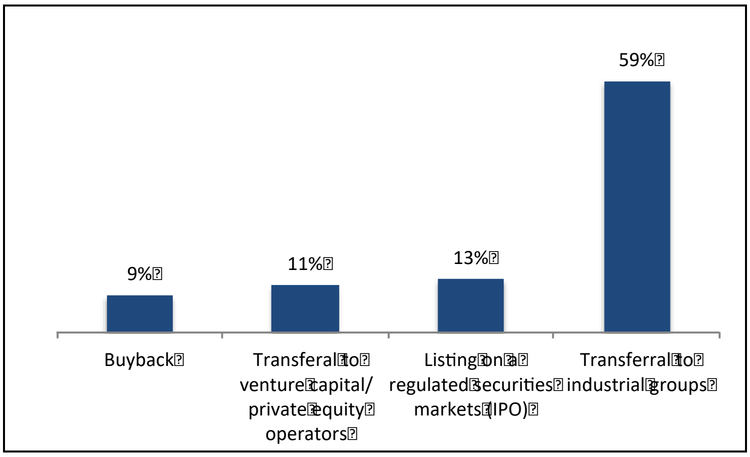


Figure 15: Main forms of way out

More generally, in regard to the percentage of successfully executed exits (Figure 16), responses were mixed and generally at low levels. Of the 17 stakeholders who took part in the survey, 10 gave a response of "*less than 10%*" and only 4 reported results around 50% (2 "*between 25% and 50%*" and 2 "*between 50% and 75%*"). In all probability, these results reflect the phase of the life-cycle that the operators interviewed experienced, some of whom launched their business just a few years ago, and, more generally, it confirms that the risk capital market in Italy has not reached full maturity.

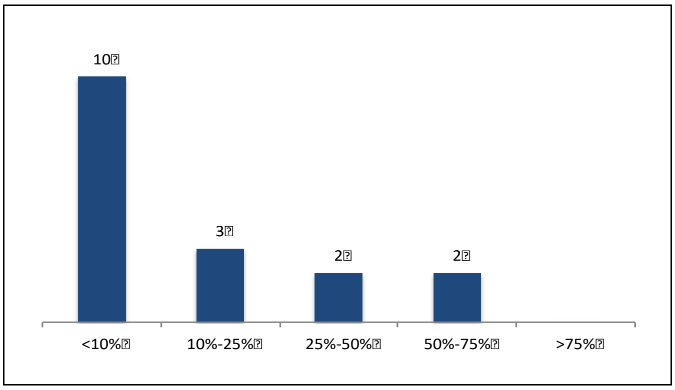


Figure 16: Percentage of successfully executed exits

Similar variability was seen in analysing the responses provided on the percentage of *write-offs*, or operations which did not finish well and incurred a loss of investment with the consequent write-off of the relative value (Figure 17). In the majority of cases (11 out of 17), this was below 25%, meaning that almost one in four operations were a failure. This result is also partly attributable to the "youth" of the operations put in place by the stakeholders who participated in the study, particularly when compared to sector data which shows that percentage at generally higher levels.

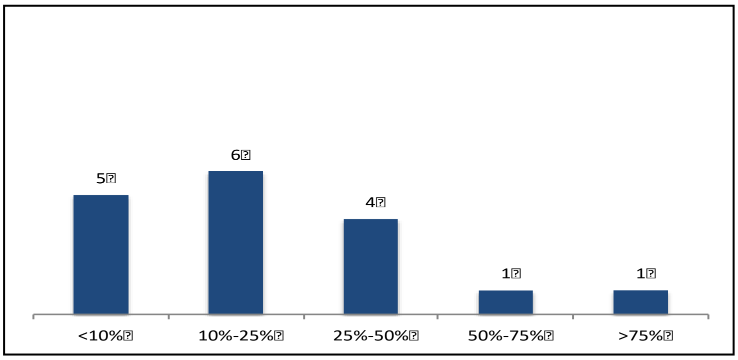


Figure 17: Percentage of write-offs

For the incubators/accelerators, what also stands out – as an important element in evaluating the quality of their work in supporting and encouraging the launch and development of new entrepreneurial proposals when they are most vulnerable, providing active managerial assistance, access to privileged channels of finance and support in using technical and business services (all highly critical elements at this phase) – is the future of the "incubated" business after it has left the incubation programme. The responses given by the incubators/accelerators interviewed, although different, are encouraging on the whole, on average over 50% of businesses continue successfully post incubation.

One particularly interesting feature that came out of the questionnaire, is the prominence, within current operations by operators involved in the development of start-ups, of networking with other players involved (Tables 5, 6 and 7).

Aside from the already observed, widespread tendency to implement "*joint investments in equity*", the results reveal that the incubators/accelerators focus their attention on "*specific development projects in certain sectors*" and participation in "*shared promotional initiatives*", while venture capital operators seem more focused on "*participation in observatories and technical panels*". This last element, together with the activation of "*specific development projects in certain sectors*", is also the area of collaboration most valued by business angels.

Table 5: Relationships between operators and institutions

Networking activities	A1	A2	A3	A4	A5	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	B1	B2	Avg A	Avg V	Avg B	Avg tot
Joint investments in equity of the start-ups	1	3	5	5	3	4	4	4	4	3	5	3	5	5	4	3	3	3,40	4,10	3,00	3,76
Shared promotional initiatives	2	4	3	5	3	2	3	1	4	1	1	3	4	4	4	4	3	3,40	2,70	3,50	3,00
Specific development projects in certain sectors	4	5	4	4	4	2	2	1	3	1	1	4	3	3	3	5	3	4,20	2,30	4,00	3,06
Participation in training projects	1	3	3	2	3	3	2	1	1	2	1	4	2	3	3	3	2	2,40	2,20	2,50	2,29
Participation in observatories and technical panels	2	3	2	3	2	5	3	4	3	4	1	4	1	4	3	5	4	2,40	3,20	4,50	3,12

Relationships with banks, however, are less frequent and usually limited to the acquisition of lines of credit to support investment in equity.

Table 6: Relationships between operators and banks

Networking activities	A1	A2	A3	A4	A5	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	B1	B2	Avg A	Avg V	Avg tot
Participation in shared initiatives	2	2	3	4	4	2	4	1	2	2	2	3	2	3	3	n.a.	n.a.	3,00	2,40	2,60
Joint investments in equity of the start-ups	1	1	1	2	2	2	3	1	1	2	2	3	3	4	3	n.a.	n.a.	1,40	2,40	2,07
Acquisition of lines of credit	1	3	2	5	4	3	3	2	2	2	4	1	4	2	3	n.a.	n.a.	3,00	2,60	2,73

Of great importance, particularly among incubators/accelerators, are relationships with large industrial groups who are obviously interested in start-ups and SMEs who are proposing innovative and advanced solutions in their sectors, exploring specific new segments of the market and developing new technologies, with the aim of integrating them into their business at the end of the "path". Seen from another perspective, large businesses can become "buyers" and/or "clients" of the products/services provided by the new entrepreneurial initiatives, and so accelerate their *time to market* and therefore their growth process.
On the same topic, in addition to the "*organisation of promotional events*", which are always important in increasing awareness of individual initiatives and improving the business culture at various levels, it is also interesting how incubators/accelerators, in particular, implement "*industrial and technological development projects in certain sectors*", while "*joint participation as partners and/or shareholders in specific initiatives in the sector*" is generally less practised.

Table 7: Relationships between operators and large industrial groups

Networking activities	**A1**	**A2**	**A3**	**A4**	**A5**	**V1**	**V2**	**V3**	**V4**	**V5**	**V6**	**V7**	**V8**	**V9**	**V10**	**B1**	**B2**	**Avg A**	**Avg V**	**Avg B**	**Avg tot**
Industrial and technological development projects in certain sectors	5	5	4	2	4	3	1	1	3	3	2	3	4	4	4	2	3	4,00	2,80	2,50	3,12
Joint investments in equity of the start-ups	1	5	2	2	3	2	2	4	2	2	3	2	2	5	3	2	2	2,60	2,70	2,00	2,59
Organisation of promotional events	3	5	5	5	4	1	5	1	3	2	2	3	5	3	3	5	4	4,40	2,80	4,50	3,47
Joint participation as partners and/or shareholders in specific initiatives in the sector	1	5	2	2	3	3	2	1	2	3	2	1	5	3	3	2	2	2,60	2,50	2,00	2,47

Finally, of particular note, is the data on the prospects and further requirements of the "system" under examination.
First of all, the operators involved agree on the potential, which they described as "interesting", of *crowdfunding* platforms (Figure 18), whose role as a "collector" of financial resources online could be seen as an initial approach to financial markets which, in time and as the phenomenon is consolidated, could launch a new generation of businesses, whose natural end would be, first of all, listing on the minor markets (dedicated to SMEs, such as *AIM Italia*) and, later, *listing* on the major regulated markets. In reality, the development of the market, which is inevitably affected by resistance imposed mostly by "cultural" factors, is consistent with the growth data reported at an international level, as well as the optimistic predictions from many parts and confirmed herein. Moreover, the use of "alternate" finance instruments, which is exactly what *crowdfunding* is, has other relevant effects, including helping to overcome two issues which often limit the potential of Italian SMEs, namely under-capitalisation and the limitations of corporate structure.

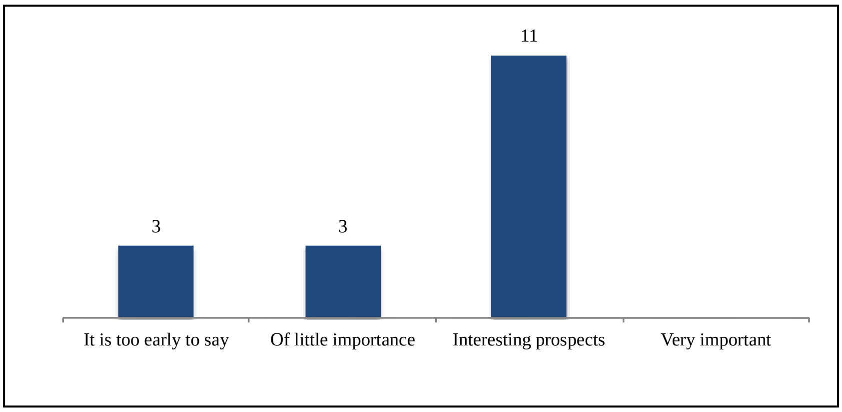


Figure 18: Contribution of crowdfunding to the start-up ecosystem

From a subjective point of view, the operators interviewed, in judging their own competitive position (Table 8), given what is already happening with co-investment operations, consider it advantageous to strengthen their network of relationships, expanding it to include foreign interlocutors, and consolidate their capacity to find financial resources. More precisely, they believe they must work primarily on the following actions:

- "*draw up cooperation agreements with foreign operators*", "*develop and increase the network of relationships*" and "*favour transactions where multiple operators co-invest*" in the case of incubators/accelerators;
- "*increase the amount of financial resources available and the base of subscribers and/or associates*" and "*develop and increase the network of relationships*" for venture capital operators and business angels.

Table 8: Strategies to strengthen the individual competitive position of operators

Current key measures	**A1**	**A2**	**A3**	**A4**	**A5**	**V1**	**V2**	**V3**	**V4**	**V5**	**V6**	**V7**	**V8**	**V9**	**V10**	**B1**	**B2**	**Avg A**	**Avg V**	**Avg B**	**Avg tot**
Increase the amount of financial resources available	2	3	5	4	3	5	5	5	5	5	4	2	5	5	3	n.a.	n.a.	3,40	4,40	n.a.	4,07
Increase the base of subscribers and/or associates	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5	4	n.a.	n.a.	4,50	4,50
Greater focus on certain sectors	2	5	3	2	4	4	3	4	3	5	2	4	3	3	5	3	3	3,20	3,60	3,00	3,41
Sharpen management of business activities	n.a.	n.a.	n.a.	n.a.	n.a.	3	4	4	3	3	2	4	2	3	3	3	3	n.a.	3,10	3,00	3,08
Improve training	1	5	2	2	3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2,60	n.a.	n.a.	2,60
Incorporate a new level of professionalism into the workforce	1	3	3	4	4	3	4	3	3	3	2	4	4	3	2	n.a.	n.a.	3,00	3,10	n.a.	3,07
Develop and increase the network of relationships	3	4	5	5	3	4	3	4	4	4	5	4	5	5	5	5	4	4,00	4,30	4,50	4,24
Draw up cooperation agreements with foreign operators	4	5	4	4	5	4	2	5	3	2	3	4	5	5	4	5	3	4,40	3,70	4,00	3,94
Favour transactions where multiple operators co-invest	2	4	5	4	5	4	3	4	5	2	5	4	4	5	2	4	4	4,00	3,80	4,00	3,88

At an "institutional" level however, the drivers cited in the responses have generally been accepted by the stakeholders involved in the study, with medium-high degrees of relevance (Table 9). In order of preference, based on aggregate data, the main drivers are (i) the need for a greater contribution by business associations and large industrial groups, (ii) strong government focus on dedicated policies for the start-up ecosystem, (iii) research into more efficient cooperation and networking among the various types of operators and investors involved, (iv) greater involvement by universities and research centres.

Table 9: Measures to further support the growth of national start-ups

Actions to be implemented	**A1**	**A2**	**A3**	**A4**	**A5**	**V1**	**V2**	**V3**	**V4**	**V5**	**V6**	**V7**	**V8**	**V9**	**V10**	**B1**	**B2**	**Avg A**	**Avg V**	**Avg B**	**Avg tot**
Government must continue to offer special concessionary policies	4	3	4	4	4	5	4	5	5	3	4	4	5	4	5	5	4	3,80	4,40	4,50	4,24
Implement institutional communications on a permanent basis	4	3	2	2	3	5	3	4	3	3	3	4	5	4	3	5	3	2,80	3,70	4,00	3,47
Get more involvement from universities and research centres	4	3	2	4	4	3	4	4	3	5	3	4	4	5	4	5	5	3,40	3,90	5,00	3,88
Demand greater and more incisive contribution from business associations and large industrial groups	4	4	4	5	4	4	5	5	3	4	5	4	5	5	4	5	4	4,20	4,40	4,50	4,35
Support greater cooperation and networking between the different types of operators and investors involved	5	3	4	4	5	4	3	5	3	2	5	4	4	5	4	5	4	4,20	3,90	4,50	4,06
Strengthen the role of the banking system	5	2	3	2	4	2	2	4	1	2	5	4	3	4	3	5	3	3,20	3,00	4,00	3,18

5 Conclusion

Italian SMEs have often been the focus of attention of institutions, financial intermediaries and the media because of their importance in terms of employment and for their contribution to national GDP. More recently, interest has been focused on start-ups and innovative businesses with a series of legislative interventions aimed at introducing special terms and simplifying measures of various types to support their development, under the premise that strengthening of this sector would fundamentally support the economic growth of the country. This has caused a stir on the communications front, as well as the launch and consolidation of various operational initiatives, which have been viewed with a certain optimism, even in the knowledge of the steps that must be taken to reach a position which is more in line with our country's status of being amongst the most industrialised in the world, and to bridge the gap with more fully-equipped economic systems.

In fact, on one hand – at the institutional level – the legislative and regulatory framework characterised by significant tax savings/reliefs, has been strengthened and appears consistent and coherent with the fundamental macro objectives, on the other hand – at a concrete level – the data reveals a system that is still lagging behind.

Although in constant growth, in absolute terms, there are only a few businesses which qualify as "start-up" and/or "innovative SMEs" and which turn to specialised incubators/accelerators (so-called "certified incubators") in the initial phase of their business. *Crowdfunding* platforms are only in their infancy, and therefore practically insignificant, while the venture capital operators market reveals an annual volume of investments which is much lower than that of the United States and major European countries.

The empirical study, conducted by means of a specially designed questionnaire, which is however limited in terms of its statistical validity and, more generally, by the descriptive nature of analyses of this type, and the informal conversations with the operators interviewed confirmed that the situation is, on the whole, still developing and is still a long way from having consolidated and definitive structures and practices in place. The operators involved, who represent a diverse sample in terms of size and background, highlighted an activity which is developing strongly, even if the behaviours and *modus operandi* are different.

In other words, the field study bears witness to the existence of a structure of individuals who, at various levels and with various aims, are working steadily in support of start-ups and SMEs during their growth phases. Some of them, because of specific competitive advantages such as, for example, their financial resources or a well-established operative tradition, are assuming a more visible role and are consequently becoming a reference point for the entire movement; others, on the other hand, operate more in isolation and with initiatives that are not really connected to the rest of the system.

After all, co-investment operations, networking activity and cooperation in general are the necessary glue to lend strength and depth to a sector which needs all its components to be involved. In this regard, the study does not move away from theoretical hypotheses, confirming the relevance and validity of a mixed approach in which, in addition to the natural action of market forces with autonomous and independent projects and proposals, the public sector, represented by government and relevant ministries, and the private sector, represented by operators and associations in the sector, cooperate and meet with one other openly and systematically to continually define the most suitable support and intervention instruments and best practices.

In fact, the "technical panel" has been established and collaboration started, but data on annual *early-stage* investment in Italy in recent years, which exceeded €100m only in 2016, provides an unequivocal indication of the fact that we need to do more and do it better. The input from the research shows, amongst other things, the need for more involvement by large industrial groups, either as innovation "inspirers" or "buyers" of products and services which are the result of innovation, and by universities and research centres, whose contribution could grow significantly in terms of planning and execution if appropriately financed with ad hoc allocations.

The availability of a constant and adequate stock of financial resources to permanently allocate to this type of companies is, in a country such as ours, the key driver to allow the system to take off, as well as the ability to identify and select the businesses and projects which are most deserving and have the greatest development potential and to accompany and support them through the various phases of the journey.

Therefore, and this can be verified through further research, the stakeholders who are involved in various ways, and who have been referenced many times in this contribution, must fully fulfil their role in a process, which, as has been highlighted repeatedly, must be configured as a real system.

It should start with the banks, who until now, with a few exceptions, when dealing with innovative businesses in the start-up phase, have taken a generally marginal and un-dynamic approach. Although they frequently participate in their capacity as underwriters of investment vehicles, it must be emphasised that the promotion and *sponsorship* of specific initiatives should specifically be referred to large banking groups, who have a strong role as not only short-term credit financers but also as promoters of "external" finance and as organisers of operations on the market, and who have demonstrated over time a propensity for innovation by their package of offers and sensitivity to the need to renew the industrial system. Other banks, however, are characterised by limited involvement, copying or, in any case, being influenced by counterparts and operators in the system. However, what is needed from Italian credit institutions is more convincing action, based on a precise strategic plan which, steadily and systematically, with its range of services, provides financial assistance to start-ups and innovative SMEs with potential for development, either by providing equity or more suitable and functional financing instruments. And with that, regenerating and promoting from inside the system, the subject of the current paper, the contribution of the banking system, which has always been the determinant of business financing in our country.

References

[1] R. Aernoudt, Incubators: Tool for Entrepreneurship?, *Small Business Economics*, vol. 23, (2004), 127 - 135.

[2] AIFI, PwC, *Il Mercato Del Private Equity E Del Venture Capital Nel 2015*, 2016.

[3] H. Al-Mubaraki, Comparative Study of Incubator's Landscapes in Europe and in the Middle East, *European Journal of Business and Management*, 4 (10), (2012), 1 – 10.

[4] M. Auricchio, M. Cantamessa, A. Colombelli, R. Cullino, A. Orame, and E. Paolucci, Gli incubatori d'impresa in Italia, Banca d'Italia, QEF n. 216, (2014).

[5] D. Amis and H. Stevenson, *Winning Angel: The Seven Fundamentals of Early Stage Investing*, Financial Times Prentice Hall, Harlow, UK, 2001.

[6] A.N. Berger and G.F. Udell, The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle, *Journal of Banking and Finance*, vol. 22, (1998), 613 – 673.

[7] F. Bertoni, M.G. Colombo and L. Grilli, Venture Capital Financing and the Growth of High-Tech Start-Up: Disentangling Treatment From Selection Effects, *Research Policy*, vol. 40, (2011), 1028 – 1043.

[8] S. Blank and B. Dorf, *The startup owner's manual: the step by step guide for building a great company*, K&S Ronch Publishing LLC, Pescadero, California, 2012.

[9] J.L. Bower and C.M. Christensen, Disruptive Technologies: Catching the Wave, *Harvard Business Review*, January - February, number of vol. 1, (1995), 43 – 53.
[10] V. Capizzi and R. Giovannini, *Business Angel e Informal Venture Capital in Italia*, Bancaria Editrice, Rome, 2010.
[11] CrowdExpert, Crowfunding Industry Report 2015-2016, 29 February 2016, www.crowdexpert.com/crowdfunding-industry-statistics/, (2016).
[12] EVCA European Private Equity Activity, Invest Europe, 5 July 2017, www.investeurope.eu, (2016).
[13] S. Fazzari, G. Hubbard and B.C. Petersen, Financing Constraints and Corporate Investment, *Brookings Papers on Economic Activity*, vol. 1, (1988), 141 – 205.
[14] A. Gervasoni and F.L. Sattin, *Private Equity e Venture Capital. Manuale di investimento nel capitale di rischio*, Guerini Next, (2015).
[15] P. Gompers, Optimal Investment, Monitoring and the Staging of Venture Capital, *Journal of Finance*, vol. 50, (1995), 1461 – 1489.
[16] E. Gualandri and V. Venturelli, Business Angel: investitori a valore aggiunto, Confindustria Modena, (2011).
[17] S. Hackett and D. Dilts, A Systematic Review of Business Incubation Research, *Journal of Technology Transfer*, vol. 29, (2004), 55 – 82.
[18] B.H. Hall, The Financing of Research and Development, NBER National Bureau of Economic Research, *Working Paper* **W8773**, (2002).
[19] R.T. Harrison, Barriers to Investment in the Informal Venture Capital Sector, *Entrepreneurship & Regional Development*, vol. 14, (2002), 271 - 287.
[20] O. Hart, Financial Contracting, NBER National Bureau of Economic Research, *Working Paper* **W8285**, (2001).
[21] Infocamere, Report - Riepilogo sulle Start-up Innovative, with Cooperation of Chamber of Commerce of Italy, www.infocamere.it, (2016).
[22] S.N. Kaplan and P. Stromberg, Characteristics, Contracts and Actions: Evidence from Venture Capitalist Analyses, *Journal of Finance*, **59** (5), (2004), 2177 – 2210.
[23] P. Kotler, H. Kartajaya and S.D. Young, *Attracting Investors. A Marketing Approach to Finding Funds for Your Business*, Wiley, New Jersey, 2004.
[24] L. Lazzeretti, L. De Propis and D. Storai, Impannatori and Business Angel: Two Models of Informal Capital Provision, *International Journal of Urban & Regional Research*, **28** (4), (2004), 839 – 854.
[25] A.M. Lerro, *Equity crowdfunding. Investire e finanziare l'impresa tramite internet*, Il Sole 24 Ore, Rome, 2013.
[26] LIUC and AIFI, Rapporto 2015 - Early Stage in Italia, with cooperation of IBAN, Italian Business Angel Network and VeM - Venture Capital Monitor, Milan, (2016).
[27] C.M. Mason and M. Sorrentino, *I business angel in Italia*, in M. Mustilli and M. Sorrentino, *I business angel in Italia*, Giappichelli Editore, Turin, 2003.
[28] E. Mollick, The dynamics of crowdfunding: an exploratory study, *Journal of Business Venturing*, **29** (1), (2014), 1 – 16.
[29] S.C. Myers and N.S. Majluf, Corporate Financing and Investment Decision When Firms Have Information that Investors Do Not Have, *Journal of Financial Economics*, vol. 13, (1984), 187 – 221.
[30] NVCA, Yearbook, data provided by Thomson Reuters, www.nvca.org, (2016).
[31] OEDC, Financing High-Growth Firms: The Role of Angel Investors, OEDC Publishing, http://dx.doi.org/10.1787/9789264118782-en, (2011).
[32] Osservatorio Crowdfunding, 1° Report italiano sul CrowdInvesting, Politecnico di Milano - School of Management, Milan, (2016).
[33] I. Pais, P. Peretti and C. Spinelli, *Crowdfunding. La via collaborativa*

all'imprenditorialità, Egea, (2014).
[34] G. Petrella, Sistemi finanziari e finanziamento delle imprese Innovative: profili teorici ed evidenze empiriche dall'Europa, Quaderni REF, n. 4. (2001).
[35] PricewaterhouseCoopers, L'impatto economico del Private Equity e del Venture Capital in Italia, 27 March, www.pwc.com/it/it/industries/private-equity/economic-impact-2017.html, (2017).
[36] K.E. Relander and A.P. Syrjanen, Analisys of the trade as a venture capital exit way, *European Venture Capital Journal*, April-May, (1993).
[37] S. Richards, *Inside business incubators & corporate ventures,* John Wiley & Sons, New York, (2002).
[38] M. Schwartz, Incubator Age and Incubation time: Determinants of Firm Survival after Graduation?, *IWH Discussion Papers*, n. 14, (2008).
[39] J. Scillitoe and A.K. Chakrabarti, The role of incubator interactions in assisting new ventures, *Technovation*, vol. 30, (2010), 155 – 167.
[40] A. Scutti, L'equity crowdfunding: uno strumento all'avanguardia per la crescita delle PMI, *Andaf Magazine*, n. 2, (2017).
[41] P. Stuart, G. Whittam and J.B. Johnston, The Operation of Informal Venture Capital Market in Scotland, *Venture Capital: An International Journal of Entrepreneurial Finance*, **5** (4), (2003), 313 – 335.