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Which STP incubation strategy is best when thinking of the increasing integration of STPs with cities? Incubators? Accelerators? Virtual incubation programs? A combination of these? Which business models are thriving and which are more stagnant? Should we refocus our incubation initiatives? If so, in which direction? Where are the newer experiences to be found?

PARALLEL 4

New business models for incubators in STPs

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Executive summary

Europe and part of North America is facing a major economic crisis. Its economic future and the creation of wealth and employment that will support the well being of its future generations will depend on its capacity to adapt. Public policy has its role to play to promote such an adaptation. Incubators in urban areas is an increasing phenomena and in some cases it seems they can play a role to face this situation. The present paper focus on the role that STP incubators may play in an environment where the problem of “new” unemployment is increasing and new job must be searched in new niche high technology areas. A description of the model adopted in ComoNExT is described in which all the components of a modern incubator are present: a regular (twice a year) call for ideas, an incubation path, and a Venture Capital to boost the best ideas.

Paper

Already in the early 60s had been built structures, called incubators, aimed at facilitating the creation and development of new companies who operated in traditional sectors such as mechanical engineering, chemistry, electrical engineering and, later, electronics. That which is often cited as the first of these structures was founded in Batavia, New York, USA, in 1959 by Joseph Mancuso and is still operational. Among the first incubators in Europe towards the end of the 60s there are those of the Universities of Edinburgh, Cambridge and Oxford, followed by others in the early 80s in Scandinavia and Germany. But it is only with the advent of the Internet and its strong industrial fallout in the high-tech that this model of development of start-up has had a sharp acceleration which, starting from the USA, involved rapidly around the world. The incubator model is often built together with that of the science park, which is a key component. Today there are about 60 national associations of incubators and science parks worldwide.

At the European level the EU in 2003, DG for Enterprise and Industry, launched the Gate2Growth networks (www.gate2growth.com), one of which, the Incubator Forum is dedicated incubators and hold more than 150 members from 25 countries. In Italy, the association between APSTI association of STP and Incubators currently has more than 30 members.

It is estimated that in the world there are over 3300 incubators, of which about one third were created after 1996 under the influence of the Internet boom to support start-up companies in the high tech industry. According to statistics made by CSES, Centre for Strategy & Evaluation Services of the EU, in Europe (in the 15 initial states) there are about 900 incubators that generate 30,000 new jobs per year (without taking into account those induced) .

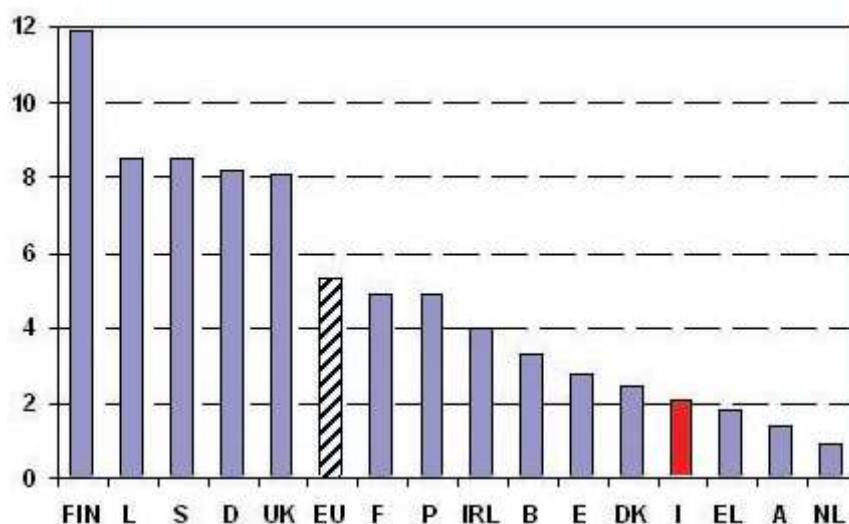


Figure 1 - Number of incubators per million workers and self-employed in the EU 15 (the dashed histogram is the mean value) Source: EU, DG Enterprise)

The cost incurred by public funds per job created within the incubator is about € 4,400, significantly lower than that required in other areas. Five years after their birth, the survival rate of start-up launched in incubators is 80-90%, while the value for SMEs launched on the market is 30-50%.

Incubators are facilities that begin to produce significant results in the medium term, about 5 years from creation, and their impact on the environment is at local and regional level. Therefore, this kind of initiative should be undertaken in line with the policy of economic development of the province and the region in which it operates. Their philosophy is simple: to create an environment in which it is favored the creation of new businesses, is accelerated their growth is maximized and their survival rate. Aspiring entrepreneurs are provided supports of various kinds to help them transform in the shortest possible time their projects into successful businesses. Depending on the operational practices, the objectives for which they were created, the characteristics of the founding members, and the social context in which they are placed, you can find various types of incubators: public, private, corporate, academic, and non-profit profit, multipurpose and specialized, and others:

the public incubators are funded by public agencies, local or central, and are non-profit organizations. In general they are founded by public and are managed by companies, associations or consortia, controlled in part or in total by the funding bodies. It is frequently the case with many public institutions that work together to give life to an incubator, for example, Chambers of Commerce, municipalities, provinces, regions, banking institutions, industry associations. Are often created in depressed areas and have social objectives (fostering new jobs, contribute to the recovery of a post-industrial area), usually do not have special skills and allow start-ups operating in traditional sectors also not high-tech ;

- the university incubators have as their main objective to provide services and spaces for their students, teachers and researchers in order to evolve the results of research into entrepreneurial activities thus promoting their industrial applications. They are generally non-profit organizations and are located within the campus. They can be placed directly between the structures of the university or are run by university consortia. Compared to the other models have a strong connection with the world of research and are often focused on specific activities in which the university excels that created them, such as ICT, nanotechnology, biotech, pharmaceutical, medical;

- the private incubators are profit oriented. The founders are typically individual entrepreneurs, private industrial groups, financial institutions or venture capitalists evaluating the investment on the basis of a pure logic of profit. In the case of incubators created by one enterprise, such as Intel or Cisco, said corporate, their activities are often synergistic with those of the company that founded them. The companies hosted are selected based on criteria that rely heavily on the objectives for which they were created and are often specialized in a single business segment. Contribute to the success of start-ups in various ways, including by placing them directly in the various specialized companies. They have close links with the market risk capital and business models such equity, taking shares in companies hosted in exchange for services provided, and fees, tariffando services provided to businesses. While the number of private incubators has been declining over time, that of university incubators instead to gradually increasing. The main cause of the negative individuals is to be found in the bursting of the speculative bubble of the Internet with the consequent reduction of all activities in some way connected. After 2000, market conditions reflexive, get profits starting startup has become a task is not easy as it had been in previous years. Therefore many private incubators, whose business model is highly dependent on the economic success of incubated companies, they had to close for lack of funds. Regarding the university incubators because of their positive trend has instead deeper roots. In some countries, traditionally the U.S. and Anglo-Saxon countries, universities have always developed strong links with industry favoring the natural way the economic exploitation and industrial applications of research results. Over the years, in all industrialized countries has become increasingly urgent demand for technological innovations in order to maintain competitiveness in the industrial fabric of the various countries. Universities around the world have gradually reacted to these stimuli by evolving their traditional role, focused on teaching and research of high level, up to involve the economic and social development of the territory. Have given rise to new structures aimed at fostering contacts with industry, to carry out research in close cooperation with them and to develop applications of the results. Have arisen as the Technology Transfer Office, patent offices, and incubators for start-ups and spin-offs. The university incubators have also an important intrinsic feature that other types of incubators can not have: to have an inexhaustible source of innovative ideas and research results powered by thesis and university laboratories associated. This feature produces a continuous stream of start-ups in the most innovative sectors. Some average characteristics of European incubators

detected in a benchmarking study carried out by CSES, DG Enterprise of the EU, are shown in Table 1. As you can see, the values of the ratios have wide ranges of variability. This is due to the fact that not only the type and the specialization of the incubators determine its characteristics but also their age and nation in which are allocated to exert a great influence.

For example, it is clear that incubators started many years by prestigious universities in the highly industrialized countries, think of Cambridge or Oxford, they will have very different characteristics and results from other recently launched by smaller universities in less developed countries. Over the years, the role played by the incubators, their facilities and services offered have evolved deeply and currently there are also substantial differences between the functions they carry out. According to their complexity there are three generations of incubators characterized by rising operating costs but also higher added value provided to start-up incubated

spaces and shared resources

providers of specialized services

nodes of a network of knowledge (knowledge networked incubators)

The first generation of incubators held essentially the role of allocators equipped spaces and shared facilities, including even basic services. The costs for their set-up and management are limited but also the added value that they supply is very limited. Currently they are still created some incubators belonging to this category, but their number is decreasing. In a further development, an incubator starts offering hosted services to businesses increasingly specialized. The second generation of incubators contribute to the success of start-ups by providing, in addition to space and shared resources, including consultants and specialized services in various fields of business activities. In the late 90s she became the third generation of incubators characterized by a sophisticated structure of internetworking. The presence of a network of knowledge, in which not only the incubator but also start-ups have been fully integrated with the major players in the market, it is strategic to the success of businesses. The added value of the network lies in the fact that entrepreneurs can share the network of national and international strategic alliances established from the incubator and can share their knowledge and best practices with other entrepreneurs through the network of incubators. Whereas the services that are offered by the incubators, it can be noted that the majority of them, regardless of type, proposes:

- spaces equipped with furniture, computers, telephones;
- Shared Services (meeting rooms, secretarial services, fax, photocopier, telephone, postal services);
- computer facilities municipalities (local area network, file servers, e-mail server, print server, firewall, and VPN, Internet connectivity).

These services are used primarily to reduce the time required to go from concept to commercialization by providing immediate solutions to typical problems that must be solved in the first moments of the life of a start-up.

Note that these aid provided to companies incubated at low or no cost, they are extremely valuable because more than 80% of start-ups begin with self-financing.

In any case, the added value of incubators lies mainly in tutoring services, networking and funding, and it is on those activities that differ from each other in substantially different incubators. The tutoring can be done at various levels of detail and on very different topics. In function of the type of incubator you pass by the presence of one tutor that follows many start-up until the availability of professionals who follow a very limited number of companies, dedicating to each lot of time, and that may also be involved in their management operatively .

Among the topics on which consultations are carried out are:

- analysis of the business strategy
- business plan management
- marketing
- market analysis and risk
- seeking funding
- legal assistance
- Research and management of staff

- Administration
- Public Relations
- advertising.

The skills needed to perform these functions can be found both inside and on the market or at affiliated institutions, such as university professors connected to the incubator or employees of the industrial group since it was founded. The networking is to have access to a network of knowledge and contacts that only networked incubators can offer. The added value of the network lies in the fact that young entrepreneurs can:

- Access to the network of national and international strategic alliances established incubator
- make contact with key customers and partners
- Contact the financial institutions and the associations of Venture Capitalists,
- share their knowledge with other entrepreneurs inside and outside the incubator
- analyze best practices
- have digital libraries with specialized equipment in the various business issues
- make e-learning on topics related to the activities of start-up
- access to centers of excellence in universities and research institutes, to be visible on the market

The availability of such a network is typical of the incubators of the third generation. Regarding funding is clear that the main activity of a business incubator is to provide capital, but to facilitate the process of birth and growth of a business. However, it is also known that a company that looks out on the market faces enormous difficulties, especially on the economic-financial plan. For a start-up at this stage, at least in Italy, it is virtually impossible to obtain credit from banks or other financial institutions. Some private incubators provide to solve this problem of limited funding, seed, which are then recovered in various ways. The incubators that have funds available to invest in seed are very few. It should be noted that the availability of these funds is extremely important as it usually incubators and venture capitalists involved at different times of the life cycle of an enterprise. The incubator follows a start-up in the early stages of life up to the time when it hits the market now has a proper structure. The Venture Capitalists are not interested in early stage companies to early-stage acting only on those who have already demonstrated the validity of the business model, customers, and have a decent turnover and require a rather substantial funding to support growth. Some incubators, particularly those university, have activated a phase, known as pre-incubation. For a short time, a few months, potential entrepreneurs are helped to better define the business model and, more generally, to solve all the issues that are still unclear before you actually start the new start-ups. At the end of this period or entering the regular process of incubation or leave the incubator.



Figure- 2 ComoNExT structure

Integration of STP Incubators in urban areas means to try to give a solution in a better way to the problems arising in the more economically advanced part of the World, mainly in continental Europe and North America where the financial/industrial crisis of the last years has created an increasing lack of new qualified and stable jobs for young people and recently also for middle age people with huge experience. Opportunities of entrepreneurship with the support for creation of startups are one possible solution.

The problem is that standard incubators are especially dedicated to University spin off, while, often, good ideas and needs come from people outside the University, from existing companies where they spent a part of their working life and not necessarily with high level of study. A further problem for standard incubators, University based, is that they normally do not provide seed money to start an idea, nor mentoring activities, neither commercial support (a network) once the idea is developed.

Such a situation creates a strong separation between standard incubators (University based) and the real needs of entrepreneurship rising in urban areas. Standard incubators are seen more as ivory towers, where some university professors or students try to create high tech enterprises, very far from the daily world activities.

A new model of incubator and start up concept has to be thought, a model where a standard citizen feels free to submit ideas, where ideas are evaluated not only from a science or high tech point of view, but from their real business potential.

There are some cases in which this model has been applied and one of them, even if the experience started only three years ago, is in ComoNExT STP in Lombardy (Northern Italy).

In short the ingredients of this new concept of incubator. First of all a well-advertised “call for ideas” is organized in the interested region. The call for ideas is open to all citizens and may be thematic or not, but, in any case, it doesn’t exclude ideas without technical content. It is important that the call for ideas is regular (one or twice a year) so that citizens feel it as a standard appointment. In our case we organize two call for ideas (one window in spring and the other in fall) and both remain open for one month and a half. Another important issue consists in the fact that all the process, both during the windows when the calls for ideas are open and when they are close, is monitored through a dedicated web site and through the major social network and forum. We have

a person entirely dedicated to this job. The reason is that we don't know a priori when an idea comes and we must be prepared to catch it when it happens.

Once the window has been closed there is a strong selection of the ideas that is devised into three phases: the first one (directly on the paper submitted) discard almost the half of the ideas. The second phase foresees a personal interview to the inventor to understand better the idea, but, overall, to check his potentiality as an entrepreneur. The first two phases of selection reduce, in our case, the number of ideas to five. On the five ideas selected a formal business plan is performed and after about two months from the closing of the window a final decision is taken.

At this point the real phase of incubation starts. It requires many ingredients: a staff of skilled people for tutoring, control and mentoring of the incubated start up; a physical office or laboratory to host the start up; a technical and business supervision of the start up; well defined check point and go - no go rules. All this requires money and, in our case, it is provided by the Chamber of Commerce of our Region for a period lasting 3 years. But money is also needed to develop the business (investments). Due to this reason we have established a Venture Capital fund for seed money that can provide (entering the share of the Company) the needed support. Finally, once the seed money is finished, when and if it is demonstrated that the idea works, another important support we can supply to the newco is the link or with bigger venture capitalist either with more established company to share with them the new enterprise.

Summarizing the model we tested with good results in the last three years requires the following components:

- A team of expert in communication to organize the advertising of the call for ideas
- A team of expert in technical and business items to select the ideas and follow them during the incubation period
- Contribution from institutional money to pay the two team above
- The presence of seed money for the start up activities
- Network with the industrial or financial infrastructure to finalize the start up after the incubation period.

The result in the last three years is that in ComoNExT are now present 20 start up over 22 selected and four of them are leaving the incubator after their three years incubation period.