Services for innovating firms: the role of science parks and incubators

A Joint CMI, EIB, WBI Workshop
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Conclusions of the workshop (Final version)

The objective of the workshop was to respond to the concerns of science park and incubator managers from the Mediterranean partner countries (MPCs) in order better to identify and assess the services required by the innovating firms, whether within their internal structures or outside these structures (when they have to interact with firms beyond these parks, both nationally and internationally).

On account of the large number of participants from seven MPCs and their high level of expertise in the innovation field, various discussions during the workshop covered matters of common interest and went beyond the objective of the workshop as laid down by the organisers and indeed, went to the heart of what makes innovation policy function in MPCs.

The conclusions of the workshop can be set out as follows:

The construction of the Euro-Mediterranean Innovation Area (EIA)

This area brings together 720 million inhabitants and has a great potential deriving in particular from the dynamism of its young people. Various countries in the region cover almost the entire range of strategic sectors, with promising avenues for the future, not only high technology but also the traditional sectors.

Even if the knowledge economy is still insufficiently developed, a community of reflection, based in particular on the network of universities and researchers has been established. Such a pooling of know-how is a generator of growth for the EIA area.

Lastly, inter-institutional cooperation is gaining strength. Whether we consider government bodies, financial institutions or international organisations, a network of relationships based on accumulated experience in the field of innovation policy is also taking shape. This should make it possible to create around the firms an environment that is favourable to putting into the market, the new products and processes that will ensure their future.
This ecosystem of innovation policies needs however to be carefully structured. In the long run, competitiveness clearly requires a stronger development of research and development (R&D) expenditure, the seedbed for innovation (even if it is not the only one). If we want the deal flow of innovative projects to increase, this upstream intervention is important but it is not enough. Appropriate action is needed at every stage in the innovation chain. Within this framework, the support instruments (incubators, science parks) will have to evolve in terms of the services they offer to the economy.

The challenges

Improving the effectiveness of these support instruments raises a number of questions relating to:

a) the long timespan required for managing innovation. Many programmes will only see their results become apparent in the long term. Similarly, the success of science parks is often the fruit of a sustained effort, sometimes extending over one or two decades. Since political leaders are expected to show results in the short term, some fine tuning is needed between the short applied-research programmes and those requiring long-term support.

b) the strategic position of human capital. The availability of expertise is crucial to ensure that the various policy instruments can be applied under optimal conditions. This also applies to the managers of incubators and science parks as suppliers of services to businesses. Given the fragility of innovative firms it is absolutely essential that they have access to help from appropriate professionals. From the viewpoint of innovative entrepreneurs it is important that training in business subjects be more widespread. The high level of graduate unemployment in the partner countries shows that not enough attention has yet been paid to these gaps.

c) the quality of the integration of incubators and science parks in the global and local economies. These structures sometimes function as enclaves without any close local connections. When this is the case, science parks and incubators cannot successfully fulfil their function as a bridgehead for the development of clusters and networks.

d) the supply strategies the suitability of which can be a problem. The development of large-scale R&D programmes is common practice in the southern Mediterranean countries. It is to be hoped in this context that the push from research (technology push) will be sufficient to generate innovation. Experience shows, however, that success comes rather from market pull mechanisms. It is therefore important that the new ideas be detected a long way upstream in order to increase their viability in the light of the potential demand.

The generation of new products and processes thus often resembles an obstacle race. The growth of the deal flow clearly depends on the fluidity of the innovation chain. The examination of the barriers to innovation is a major issue. There are many of them. The obstacles include:

- the legal framework (the creation of a business may for example be subject to numerous regulations which discourage the potential candidate);
• university/industry relations (the rules governing publications may, for example, be difficult to reconcile with the confidentiality needed for the registration of patents and the exploitation of licences);

• competition rules (an inadequate application of the rules of anti-trust law can have very negative effects on inventors exposed to predatory or monopolistic behaviour);

• the financing of innovation (the measures which make it difficult for secondary or derivatives markets to develop need to be looked at closely alongside other initiatives);

• intellectual property rights (the cost of acquiring patents can be a barrier, their exploitation can be affected by the absence of incentives and the rules on the sharing of royalties can be demotivating);

• norms and standards;

• the restrictions on foreign investment, which can affect the processes of open innovation and make it difficult to acquire technology abroad.

Directions to be taken

Irrespective of the differences in the situation and the specific features of each economy, the key service supply functions need to be strengthened and pooled. Building up the EIA will help, as will the creation of framework conditions that are propitious for innovation.

The partner countries particularly insist on a reinforcement of mobility in the Mediterranean region (particularly for researchers and players in innovation) and demand services and international cooperation in specific domains. They are also calling out, in particular, for services and international partnerships in specific fields. This demand may relate to the necessary assistance or aid and may target specific actors: entrepreneurs from certain countries, businessmen from particular sectors such as textiles, businesswomen, young local or expatriate entrepreneurs particularly in a university context. Specific types of services and tools may be involved. Co-incubation is one example: the young startups in the southern Mediterranean countries are faced with the difficulties of risk analysis and need for coaching and mentoring services. These services may be available in these countries but are generally provided by non-professionals who do not have the required qualities for this type of job. International co-mentoring provided by peers and in particular by the big firms is also sought after because of the guarantees inherent in the partners’ experience. Reference can also be made to team-building, networking on collaborative RDI (research, development and innovation) projects or the mobilisation of diasporas. By offering these services, science parks and incubators can increase their level of performance substantially.

The most urgent demand is for the creation and formalisation of coaching and support services that involve training activities which may include, amongst others, Diasporas.

Access to early stage financing for innovative projects:

A major challenge for young businesses is what is known as their "passage through the valley of death", in other words the period corresponding to the young startup’s earliest days.
during which it is particularly vulnerable. During this early stage it generates little or no profit but has to face sizeable financing requirements resulting from the launching of production and market introduction operations.

Having access to a package of specialist services is crucial for the young business. However it is hard at this stage for it to involve the banks since they are very reluctant given the risks to be covered. Only networks of firms can get involved and help to create confidence. Innovation audit and analysis services are crucial in this context. They can be financed under international programmes but require in every case local relay points. The objective is to be able to offer these services at a low cost.

Since this need is important and is felt by every young innovative business, some thought should be given to the feasibility of a Euro-Mediterranean initiative which could take the form of a regional start-up fund or of a brand-new public-private instrument aimed at filling the gap which still exists between the early stage and the Venture capital. The new instrument should (i) sustain the take-up of an pipeline of early stage innovative projects therefore investing in the segment from 0 to 100,000 Euro and (ii) support or strengthen business angel networks.

The conditions for success

Improving financial assistance cannot be effective unless it forms part of a comprehensive effort to strengthen innovation policy, to secure its results and to make science parks and incubators part of a favourable environment:

To achieve this it is essential to:

- promote the entrepreneurial culture. In addition, to a stronger effort to promote social recognition of the entrepreneur’s role in the society, the education system and higher education in particular have a major role to play in spreading entrepreneurial culture. Questions such as dual training (both in the university and also in a firm) and the introduction of specialist training modules in courses should be considered further in this context;

- clarify the interests and commitments of each party involved. Innovation takes place at the meeting point of initiatives implicating various actors: entrepreneurs, research centres, consultants, legal services and financial systems. If this cooperation is to succeed, the roles and duties of each actor must be clearly delimited;

- increase the turnover of established firms within the incubator. As a matter of fact, many young startups tend to stay in their incubators for too long. Therefore; entry for new candidates is slowed down. It is crucial that reasonable incubation periods (from three to four years) are kept as a rule of thumb;

- encourage an increased professionalisation of the teams, around the entrepreneurial function. It is desirable, for example, to recruit the managers of science parks and incubators from the world of industry. It is risky to entrust these tasks to people from the academic world who have only limited knowledge of market matters.
Questions opened for discussion:

The discussions at the workshop often went beyond the framework of science parks and incubators given the highly varied profile of the participants. The discussions identified a number of questions which are seen as strategic for those with decision-making powers and responsibility in the field of innovation policy. The questions which could form the subject matter for debate at future meetings are the following: How can the approach to evaluation be customised, given the specific features of the actors, the countries and the problems faced? How do we take account of both the strategies linked to information technologies (open innovation) and those linked to the traditional sectors (science parks and clusters)? How do we fit the operational strategies for structures into the general incentive framework (gardening)? How can we make comparisons with the experience of the countries from the northern shore of the Mediterranean? How can we promote the movement of individuals and expertise in the Euro-Mediterranean Innovation Area?

Some food for thought:

The following four initiatives provide some food for thought as we move ahead on this important agenda:

1) creation of a Mediterranean network (under the aegis of the CMI) of those in positions of responsibility in incubators and science parks (Med Inc). These stakeholders are the real force for change and constitute the working community of the EIA;

2) introduction of arrangements to facilitate access to the European markets, particularly as regards the search for partners;

3) reinforcing the role of incubators in mentoring and auditing innovative projects at regional level;

4) creation and formalisation of coaching and support services with training activities, which may include diasporas

5) deepening the analysis of useful and appropriate evaluation processes.