

PAXIS

The Pilot Action of Excellence on Innovative Start-ups

The **PAXIS** Manual for Innovation Policy Makers and Practitioners

Analysis and transfer of innovation tools,
methodologies and policy

European Commission
Directorate General Enterprise & Industry





PAXIS

The First Action of Excellence on Innovative Start-ups

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**Published by**

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FOREWORD

Innovation is the key to competitiveness in a globalised economy. It opens the door to sustainable growth and to more employment. The European Commission developed the PAXIS initiative in order to study how best to support innovative start-ups. A learning platform was built including twenty-two European “regions of excellence” recognised for their outstanding results. During the past five years, the PAXIS regions focused their work on those policy approaches and practical schemes which gave the most promising results. Through their collaboration and networking, they have rendered the best of these ideas that are indeed both accessible and transferable.

I am pleased to present the work undertaken by some of Europe’s most innovative regions. These regions have learned from each other, recognising that it is co-operation and not competition, which drives them forward in their search of excellence. In the course of this process, some 1400 contributors identified and analysed over 300 methodologies and good practices.

This manual describes the main good practices identified by PAXIS in the key areas of policy design, innovation financing, start-up development and entrepreneurship. The practices are the result of the work of very different regions, but all aim at helping new companies through the practical difficulties they face during their creation and early growth periods. Despite being at the forefront of innovation, the PAXIS regions did not only serve elites; they were active in involving other regions and new Member States with less developed start-up support schemes.

It is my goal that EU policies in all areas become SME friendly. This manual contributes with concrete ideas centred on nurturing innovative start-ups and SMEs; it is presented in the form of a “recipe-book” for policy makers and innovation experts. The many

schemes that have been replicated successfully in other regions should serve as an inspiration to policy-makers across Europe. It is my hope that these results will not only contribute to the policy debate, but will assist regions and Member States in designing effective policies which stimulate both innovation and the commercial exploitation of the research results.

There is much more to innovation than technology. Europe also needs non-technological innovation in the design of business processes, management and marketing. Our value systems must foster creativity and risk-taking. And above all, we must cultivate entrepreneurship in Europe. To get the best in jobs and growth, innovative companies must also be encouraged - if necessary persuaded - to become international. There remains a lot to do in this respect. Only if regional, national and European policies work together, and only if they pull in the same direction, can we make the most of our enormous collective strength. The Lisbon Partnership relies on the commitment of all the players who wish to see progress towards more growth and jobs. In sharing and promoting their knowledge, the PAXIS regions have offered their contribution to reaching the Lisbon objectives—it is now up to the European, national and regional initiatives in place to take this experience, to build upon it and take it to the next level.



Günter Verheugen

Vice-President
of the European Commission
responsible for Enterprise
and Industry





“Continuation of CIP is important in sustaining networks in which regions of Europe can understand and learn how to benefit from what is already known, and how to transfer the culture of innovation to less developed regions.”

Catherine Byrne, Lord Mayor of Dublin

“If we are to deliver innovations in accordance with the Lisbon goals for growth and employment, we must all take action through greater political commitment on all levels and with a broader and deeper engagement of our citizens.”

*Roger Kaliff, Chairman of the Executive Committee,
SydSam, South Sweden*

“Being part of PAXIS allowed us to exchange views and experiences with other European Regions of Excellence. It confirmed that our regional policies are going in the right direction and provided the opportunity for local actors to improve their support measures for start up creation and innovation.”

*Duccio Campagnoli, Councillor for Productive Activities,
Economic Development and Telematics, Emilia-Romagna Region*

CHAPTER 1:

European innovation at its best





European innovation at its best

I. INTRODUCTION

The future of a knowledge-based European society depends to a great extent on the capacity of European countries and regions to create smart systems that will link and facilitate knowledge creation and innovative enterprises. As knowledge is Europe's greatest 'natural' resource, the creation of innovative systems to ensure the full exploitation of this resource remains a major challenge for Member States.

"Knowledge is the leading capital resource for the current and future growth of the Stockholm region and Sweden. The exchange of knowledge within PAXIS has proven to be truly valuable."

Annika Billström, Mayor of Stockholm

Despite the concern that according to current trends it would take more than 50 years before Europe as a whole reaches the US level of innovation performance¹, there certainly are some European areas that are world-class innovation performers. Strong innovation systems involving important regional players have provided tremendous support to a number of European regions. Amongst these strong innovative regions are Stockholm, Oxford, Cambridge, Munich, Stuttgart Region and the Finnish Uusimaa (Helsinki) Region.

Building on these regional strengths in innovation, the European Commission decided five years ago to launch PAXIS- the 'Pilot Action of Excellence on Innovative Start-ups'². Through networking for the first time, the 22 regional innovation leaders of the PAXIS initiative succeeded in strengthening the European innovation community with the identification, validation, and transfer of outstanding examples of innovation policies and concepts across Europe. The results of this outstanding co-operation model are now made available to all European regions in the form of the PAXIS Manual, which provides excellent examples to learn from.

¹ European Innovation Scoreboard 2005

² EC contribution PAXIS I (2000-2001) €13.5 Mio + PAXIS II (2002-2005) €15.8 Mio

Excellence can be learned

Under the slogan 'Excellence can be learned', PAXIS has achieved remarkable results in terms of both the exchange of good practices among the partners, and in the ability to build on complementary expertise to develop new initiatives in support of innovation. Over 300 innovation good practices were identified and some 115 of which have been or are in the process of being transferred to one or more partner and non-partner regions. A large number of these good practices can be found in this Manual for Innovation Policy Makers and Practitioners.

"PAXIS has brought a stimulus to do and do better. Excellence in innovation is a must."

*Duccio Campagnoli,
Councillor for Productive Activities, Economic Development and Telematics, Emilia-Romagna Region*

Through this exchange of best practice, PAXIS has inspired valuable learning about innovation and networking, both of which are highly complex processes. The value of learning cannot always be expressed in terms of tangible or measurable outcomes as the building of trust and confidence is an on-going process. The PAXIS experience has demonstrated that learning depends very much on the interaction amongst individuals, and is in fact a time-consuming process that requires to be facilitated. There is broad agreement among the PAXIS partners that without generous support from the European Commission this kind of trans-national co-operation would not have been possible.

"Thanks to the participation in PAXIS, a support system for the creation of innovative companies has been consolidated in the Torino Area."

Mercedes Bresso, President of Piedmont Region



Smart enterprises and smart administrations

The exchange of experiences has triggered an important process of reviewing and improving existing structures in support of innovative entrepreneurs and start-ups. Through involving and engaging local policy makers, PAXIS has served to raise awareness of the importance of innovation at the national and EU policy level. It has helped public administrations to acknowledge that trans-national collaboration is a true source of inspiration for all the partners involved. Although this was not always clear from the beginning, PAXIS has shown that there is more scope for working together towards better innovation policies than many expected. To be successful in global competition smart enterprises are needed together with the support of smart administrations that are actually capable of realising the full potential of learning from each other. Without the trans-national cooperation of national policy-makers there would be insufficient critical mass to ensure innovation thrives within Europe.

Although PAXIS might appear to be a restricted club for only a few members, the reality of the experience shows that this initiative has been far from exclusive. The regions of excellence are at the forefront of innovation and they have collaborated with many other players to ensure the objective of capitalising on their inter-regional strengths. At the same time, results have been openly disseminated to give new Member States the opportunity to take a closer look at their innovation systems.

Through the visiting schemes alone, more than 10 regions drawn from the new Member States and Candidate Countries have participated in the learning schemes that PAXIS implemented. As a result the Bulgarian capital Sofia has become an associate member of PAXIS. Following the advice by a PAXIS project, Lithuania, Slovakia and Estonia will actually make 107 million euro available through their newly set-up venture capital funds. These examples show that the impact of PAXIS goes beyond the immediate objectives of this initiative.

“Following the proposal of the PAXIS partners, the Ministry of Finance will support the Structural Funds (2007–2013) with about €60 million for the seed and venture funds creation in Slovakia. This corresponds to 10% of the amount dedicated for the innovation-related measures for Slovakia.”

Martin Bruncko, Chief Economic Advisor of the Slovak Minister of Finance

The PAXIS experience has shown that there is certainly enough evidence available in Europe on how best to improve and develop EU competitiveness through innovation. The main challenge in innovation policy is how to make intelligent use of this material.

Sharing the results

Through this Manual, the PAXIS participants look forward to sharing their key results with the policy-makers and practitioners concerned with improving the innovation performance of their regions. The good practices contained within this compendium reflect the key subjects upon which the regions have focused on covering pre-seed and early-stage financing; incubation; technology transfer and spin-offs; promotion of an entrepreneurial and innovation culture and political awareness. The reader will also find methodologies for the identification of good practices and a chapter with good ideas for European networking.

“PAXIS has allowed us to study and analyse in depth the innovation environment in Rhône-Alpes and more specifically in Grenoble. We have identified good and best practices and had the opportunity to validate know-how and tools developed in our region at European level.”

Geneviève Fioraso, Deputy Mayor of Grenoble in charge of Economic Development and Innovation

The results contained in this Manual show the enthusiasm of the PAXIS participants and that Europe has the human resources, know-how, and the experience to face the challenge of creating better innovation systems for a knowledge-based society. In particular, it has been shown that:

- Excellence can be learned provided that there is a framework for innovation policy co-operation at European level;
- Excellent innovation systems offer a policy mix and must involve all partners in the innovation value chain;
- Regional policy-makers are also European policy-makers and need to think at a trans-national level.

Enjoy your reading and become inspired by 'European innovation at its best'!



II. Sharing and transferring excellence

From the outset, the PAXIS networks and projects developed a concrete planning of their activities, suggesting work areas with both direct and indirect impact on the start-up process of companies at regional level. These topics stimulated collaboration and exchange of expertise among the networks and projects. They also helped involve all innovation actors in the process including regional politicians and development agencies, incubators, academia and investors.

Some of the most important areas of interaction are illustrated in the following table:

	Thematic Networks					Validation Projects					
	HIGHEST	KREO	PANEL	SPRING	START	BIOLINK	ESTER	GLOBALSTART	PROMOTOR	TRACTOR	TRANSACT
Pre seed and early stage financing	Sophia-Antipolis		Dublin	Stuttgart	Veneto Region	•	•				
Incubation models, including Start-ups Internationalisation	Berlin		•		Copenhagen	•	•				
Spin-off/Technology transfer		Emilia-Romagna	Milan		Vienna	•		•			•
Entrepreneurship	Torino	Oxfordshire	•	Madrid	Hamburg				•	•	
Innovation culture, including:			Barcelona	Cambridge					•		•
- Political awareness	Southern Sweden			Cambridge					•		
- Networks of actors		Grenoble	Karlsruhe			•			•		•
Regional Innovative capacity				Stockholm							

The dark green shows main fields and light green shows secondary fields

The above areas of work have created some cross-network thematic areas where common knowledge has been developed further and joint initiatives have taken place, such as Early-Stage Financing and Internationalisation.

A) Pre-seed and early-stage financing

As access to finance remains a major barrier for innovative start-ups, especially in the early phases of business development, pre-seed and early-stage financing are important issues for all PAXIS participants.

The focus on early-stage financing issues has brought about some impressive results with a number of regions substantially investing in setting-up **Business Angel Networks**. The considerable experience of the Oxford and Cambridge PAXIS members has been successfully translated into different regional contexts and entrepreneurial cultures. Based on the PAXIS experience, in Emilia-Romagna the Business Angel Network of Bologna was set up in 2001 by a group of provincial entrepreneurial associations. In 2002, the Business Angel Network Baden-Baden was founded in Karlsruhe. The 2005 Grenoble Angels today already embraces 30 business angels funding eight young companies in the area.

In 2003 Stuttgart also set up its Business Angel Forum and started to share their experiences with Madrid and to transfer their knowledge. At the same time Business Angel Networks have been operating successfully and investing in both regions. The findings from these transfer processes have been generated in a transfer model for Business Angel Networks.

A breakthrough for the new Member States has been achieved through the ESTER project. The project attempted to transfer to Slovakia, Latvia and Estonia the very successful Israeli experience of establishing a **Venture Capital** industry. This effort has led to the development of Venture Capital funding schemes worth more than 107 million euro:

- In Latvia, a 15 million euro venture capital scheme was approved by the Latvian Ministry of Economy and the European Commission;
- In Slovakia, the Ministries of Finance and for the Economy are planning the allocation of 60 million euro partly financed by the Structural Funds for the period 2007-2013;
- The 'Estonian National Venture Capital Fund' model (representing around 32 million euro) has been examined by the ESTER project team with a view to including a 'fund of funds' programme in the scheme.

These examples demonstrate that the real impact of PAXIS lies in leveraging ideas into regional or even national innovation programmes that may be further supported by European funds. More than a lack of funding there is a lack of good ideas how to promote innovation in Europe in the best way and the important value-added of initiatives like PAXIS lies in closing this gap in innovation strategy.



B) Incubation and internationalisation

Due to their direct implication in start-up creation, business incubators and the quality of their services have been primary working area for the PAXIS initiative. The work included the transfer of successful incubator models and practices but also looked at the options for opening European markets to start-ups and internationalisation of businesses.

It has become evident that excellent incubators have to offer excellent services to their start-ups. One outstanding **tool for business evaluation** is being transferred from the Otaniemi incubation centre in Finland to science parks in Berlin and Turin. The so-called InnoTULI initiative discovers and evaluates business ideas, helps in the commercialisation of research results, and may provide a grant to develop a promising idea. The track record of InnoTULI is impressive with 160 ideas being registered each year, and with 80 ideas evaluated and 25 actually companies set-up in 2004 alone.

“The Regions of Excellence network offers a unique chance for our start-ups to enter international markets with the support of the best European competence centres.”

*Volkmar Strauch,
State Secretary, Senate Department for Economy, Labour and Women's Issues, Berlin*

Currently, two incubator practices are being transferred from Emilia-Romagna to Grenoble-Lyon. SIPRO, the Development Agency for the Province of Ferrara, manages a **network of four business incubators** located close to companies in deprived areas (25 businesses with 70 employees). ALMACUBE, the **non-profit business incubator** of the University of Bologna, helps young entrepreneurs with fund-raising and assistance for entering the market. Since 2002, ALMACUBE has hosted around 20 companies involving around 70 people.

Several incubators and science parks participating in PAXIS have jointly developed a new tool called the EurOffice Services. EurOffice helps start-ups and entrepreneurs to **access new markets** and internationalise their business. The EurOffice partners provide start-ups with office space, business and legal advice, exhibition stands and other services. This practical approach to internationalisation has already attracted 11 member regions, including one in Canada. The network is also expected to expand to China in the near future.

C) University spin-outs and technology transfer

Spin-outs are new businesses that take commercial advantage of intellectual property rights and/or proprietary knowledge that have been developed within a university setting. Technology transfer is a broader term that includes both the start-up of spin-out businesses and the transfer of intellectual property rights, typically via patents and licences but also other appropriate means. Both areas enjoy growing activity in universities and research institutions and the PAXIS partner identified a number of interesting approaches.

Karlsruhe, for example, has adapted the SPINNER concept from Emilia-Romagna aiming at developing **technology transfer processes** between universities, research centres and regional businesses, as well as favouring the setting-up of high-tech enterprises. Hopefully, Karlsruhe can also replicate the success of SPINNER: in three years 272 business ideas were submitted, 91 business plans developed and 44 companies set up.

On the other hand, Emilia-Romagna has 'imported' the Rhône-Alpes Genopole business model and has created ER-GENTECH. At the regional level, this industrial research laboratory pools the technological skills and the scientific knowledge in the genomic and biotechnology areas by focusing on **technology transfer and spin-off creation**. In particular, ER-GENTECH has taken the business approach from the Genopole model for the creation of a research platform. ER-GENTECH has also imported the 'business manager' function and its interaction with industry, as well as other activities including the sharing of equipment with universities, research centres, start-ups and other companies.

"The PAXIS initiative contributed to the creation of a new vision on technology-based companies, their importance for giving added value to R&D and to improve the perception that both researchers and entrepreneurs have about this issue."

Alfonso Gonzalez Hermoso, Deputy Director for Research, Madrid

The 'Copenhagen Tech Transfer Consortium' is a strategic collaboration between leading knowledge organisations within the areas of health sciences and biotechnology. The consortium wishes to develop, strengthen and exploit existing competencies within technology transfer. This co-operation now forms an integral part of the newly established technology transfer unit at the University of Copenhagen's Faculty of Health Sciences. Experiences are also being shared and transferred to Heriot-Watt University in Edinburgh.

In close interaction with organisations from some of the Newly Associated Countries (NACs), TRANSACT has developed collaborative methodologies and approaches for the support of university



based start-ups. This long-term networking approach has offered many tangible as well as intangible results. In Prague, a proposal (BRIDGE) with nine partners and a budget of one million euro has been prepared to receive support through the Structural Funds. In Tartu, the application by the University of Tartu, Estonia Agricultural University and Tartu Science Park was granted 864,000 euro under the national SPINNO programme, while in Budapest the IT² project proposal was awarded six million dollars by the National Office for research and Technology.

D) Entrepreneurship

The **training of entrepreneurs** is an interesting area for innovation networks and projects. Some of them work on pre-incubation training and awareness raising, as well as the provision of extended training for existing companies.

FAME which stands for **Find the Appropriate Mentor** aims at assisting start-ups based in European Science & Business Parks to identify outside expertise in relation to their stage of development. A FAME pilot is already running in the Science Park at Sophia-Antipolis (France) while those in Berlin Adlershof (Germany), Torino I3P (Italy), and Helsinki Otaniemi (Finland) have indicated their willingness to further develop and implement it.

An outstanding example of networking success is Barcelona's 'Dia de l'Emprenedor', a festival of entrepreneurship, which gathers 3000 participants from all over Spain and Europe each year. Through PAXIS and the PANEL Network, this initiative has gone Europe-wide under the title '**European Day of the Entrepreneur**'. Together with Eurocities, 38 European cities have co-operated in the preparation of an events manual and a number of new cities such as Sofia, Belfast, Glasgow, Stuttgart, Dublin and Zagreb have been inspired to initiate similar actions. What started with modest seed funding under PAXIS has become a self-sustainable concept that is now implemented by many regions and cities on their own initiative. This portrays PAXIS at its best.

The **Student Enterprise Awards** in Dublin aim at developing an enterprise culture in secondary schools through fostering entrepreneurship and encouraging initiative and originality. Similarly, **Start Cup** from Torino is used by I3P as a main tool to discover a high number of innovative ideas to be carried out by high potential start-ups, and as a tool to increase awareness on entrepreneurship. The cash prize, which is granted through the sponsorship of local bodies, is worth approximately 200,000 euro. **IST Business TRAIN-IT** in Hamburg is a six-day course in how to write a winning business plan. The main goal is also to exploit project results to encourage the creation of business start-ups. This practice is being implemented in 10 regions, including Riga in Latvia and Kaunas in Lithuania among others.

E) Innovation culture and Political Awareness

Raising the awareness on innovation issues at political level has been an important aim of the PAXIS programme. Policy-makers were involved in events and visits and a number of targeted activities have been carried out.

Within the HIGHEST network, one of the priorities was to enhance the political awareness on innovation. SydSam, the partner representing South Sweden, organised a session at the **Committee of the Regions** in Brussels on 16 November 2005. Among the 70 attendees, more than 25 were members of the Committee of Regions from a dozen EU Member States. This was a unique opportunity for the HIGHEST team assisted by their policy-makers from Finland, South Sweden and Germany, together with the Directorate-General for Enterprise and Industry's Innovation Policy Unit to exchange PAXIS results with this EU-wide audience of high level policy-makers.

The **ELITE** initiative (Enlarging and Leveraging Innovation Talents in Europe) is a network composed of high level policy actors from Barcelona, Cambridge, Karlsruhe, Stuttgart, Stockholm and Sofia-Antipolis. An ELITE workshop in Cambridge with the participation of all 22 regions of excellence led to a joint response to the Innovation Action Plan and the staging of an event. This event, which was also held in Cambridge as part of the UK Presidency, included presentations from the Regional Development Agency, the Department for Trade and Industry and the EC. The occasion produced a report with policy recommendations that was sent to the European Council of Ministers. The group is determined to continue working on the innovation agenda and to influence innovation policy at the European level.

High-level representatives of the PAXIS regions of excellence have joined forces with 80 European innovation stakeholders in signing a **European Petition for Research and Innovation**. The signatories of the petition urged the Austrian Presidency and the other 24 EU governments to review the surprisingly low budget that the European Council in December 2006 proposed for innovation activities in the financial perspectives of the European Union (2007-2013). This effort was made in order to re-align the budget with Europe's political ambitions. The petition was handed over to the Austrian Federal Chancellor Wolfgang Schüssel on 31 January 2006 and received good press coverage and support from the European Parliament.



III. Good networking practices from PAXIS

PAXIS regions have achieved a great deal of quantifiable and tangible results, but have also succeeded in delivering a great variety of intangible results. These include awareness-raising at the policy-making level, as well as learning and the carrying out of peer reviews. When considering the different networking methods and dissemination tools deployed, PAXIS has been extremely successful in reaching a target audience well beyond the 25 EU Member States and this includes the Candidate Countries, EFTA and Israel. The PAXIS members have held 157 meetings and seminars reaching approximately 2800 people.

PAXIS contributed to reinforcing the competitive international position of the 'regions of excellence', and supported the strengthening of all economic areas in the enlarged European Union. Its members have, through long-term networking activities with local and regional authorities, policy-makers, public and private organisations, research institutes and universities all around Europe, proved that substantial added value could be generated at European level and that trans-national co-operation is the optimal way to address common innovation challenges. The commitment and enthusiasm of PAXIS' partners provided opportunities to develop common initiatives, participate in networks, and contribute to the opening of new routes for action in the field of European innovation.

"Particularly thanks to PAXIS, the co-operation in European networks has become more and more important for the extended Karlsruhe TechnologyRegion and I am therefore looking forward to further exchanges."

Heinz Fenrich, President of the Karlsruhe TechnologyRegion.

The following examples show some smart approaches to create added value through networking with European partners.

The innovation assessment

In order to facilitate the process of improving its innovation policies, the Barcelona Metropolitan area decided to carry out an **innovation assessment audit**. To obtain an unbiased external view, innovation experts from Munich, Stuttgart, Helsinki and Stockholm were invited for a one-week study visit to Barcelona. In order to compare Barcelona's perception of its innovation system and structures with external benchmarks, the experts conducted interviews with companies, Chambers

of Commerce, government representatives and other innovation players. Three months later, their assessment reports were presented at a 250-person seminar. A lengthy debate, which included the Mayor and regional policy-makers, followed the presentation of the diagnosis. The conclusions from the expert assessments were unanimous: the Barcelona area has generally speaking the right instruments in place, but lacks the coordination crucial to obtaining more successful results. As a result of this 'external audit', the Barcelona Knowledge and Growth Platform was created. It includes the Mayor, the Presidents of Chambers of Commerce, a rector representing the universities, and the President of the region's largest bank. Today, they meet regularly to discuss ways of how to stimulate the cultural and structural changes required for their society to be more innovative.

PANEL has produced excellent examples of networking activities. Numerous trans-regional meetings have been organised, leading to the upgrade of knowledge, capacities and competences, all thanks to the sharing of experiences with other 'regions of excellence'. In addition, after a Visiting Scheme that took place in Munich, Sofia (Bulgaria) became the first associate member of the PANEL network. Through this bridge to the eastern capital, not only have concepts and initiatives been transferred, but concrete policy influence has also been achieved through the visit of the Bulgarian President to Munich in July 2004.

Travelling with policy-makers

Sydsam, South Sweden, arranged for regional politicians and representatives from Chambers of Commerce to visit Berlin and the Wista Science Park. Berlin showcased its innovation system and Science Park while at the same time took the opportunity to learn from SydSam's positive experience in combining research & education, political governance, and business (the so-called 'triple Helix model'). The Berliners were particularly impressed by the close co-operation that the innovation players exercised within the Öresund region. The visitors' presentations were an eye-opener for their Berlin counterparts, who were reminded of the similarities of their regions, and the potential for collaboration. Nanotechnology was identified as a key area of common interest and a visit to Copenhagen followed to explore the possibilities. The visit of South Sweden officials also led to a significant increase in the use of EurOffice, with over 40% of the users coming from the Nordic states.

"PAXIS has enhanced the knowledge among regional decision-makers of the importance of R&D and innovation and the mutual dependence of these two. By exchanging knowledge with our partners in the HIGHEST network, we have been able to further sharpen our regional innovation policy work in the South of Sweden."

Roger Kaliff, Chairman of the Executive Committee, SydSam, South Sweden.



The TRANSACT project created the '**Open Space Technology conferences**' in the new Member States and Candidate Countries. In addition to the project partners, these conferences integrated the most important decision-makers from universities, ministries, government, research institutes and Chambers of Commerce. The topics considered most important for the participants were discussed, and tacit knowledge on regional environment, culture and regulatory framework was shared. Topics ranged from the exploitation of R&D results, to the management of entrepreneurs' needs in Estonia, to the development of the spirit of entrepreneurship in Bucharest. TRANSACT fulfilled one of PAXIS' goals, which has been the lessening of the disparities between regions in Europe and the successful integration into the EU enlargement process of associated countries through exchange and dissemination of knowledge.

Better communication

The biennial PAXIS conferences, the '**European Forum for Innovative Enterprises**', have been characterised as high-level networking events since Commissioners, Ministers and Mayors of key cities were among the participants, helping to bring the debate onto political grounds. The conferences were held in Lyon (2000), Stockholm (2002), and Karlsruhe & Stuttgart (2004) and have attracted nearly 2000 innovation stakeholders. The conferences have also provided the opportunities to bestow the '**Award of Excellence for Innovative Regions**' and at a later stage the '**Award of Excellence in Innovation Transfer**'. This has contributed to the visibility of the work being carried out by the PAXIS partners at a regional and European level. In addition, the Award provided a strong incentive for participation by key political decision-makers.

"All sides profited from the discussions with international partners that PAXIS made possible. Over the last five years, innovation support has become one of our most important regional development activities. Hosting the '4th Forum for Innovative Enterprises' in Stuttgart in 2004 was a highlight and has contributed remarkably to the visibility of the Stuttgart Region in Europe."

Jürgen Fritz, Chairman Verband Region Stuttgart (Association of Stuttgart Region)

PAXIS' members have established a solid and functional communication platform including such tools as a website, a newsletter, promotional material and networking support tools including the **Goal Oriented Project Planning (GOPP) sessions**. GOPP is an innovative tool for project management in which interactive workshops involving all stakeholders within a project are held at various points in the project's lifecycle. The analysis and dissemination of the vast storehouse of knowledge created, and

the overall coordination of the actions undertaken to promote European innovation were amongst the main challenges of the PAXIS initiative.

The 15 GOPP sessions had a strong policy orientation with agendas that included the formulation of policy directions in the form of a PAXIS Policy paper, collaboration with other EU initiatives such as Gate2Growth, positioning of the programme through future initiatives under FP6 and FP7, evaluation of start-up support measures, and the acknowledgement of priority areas important for the European innovation policy.

The organisation of **Visiting Schemes** with the participation of high level local officials and key individuals on innovation from more than ten regions from new Member States and Candidate Countries has supported not only the synthesis and diffusion of knowledge but also all learning processes that lead to new policy options. Through the organisation of Visiting Schemes, the PAXIS regions have acted as hosts for high level representatives from economic areas from Poland, Cyprus, Lithuania, Czech Republic, Bulgaria, Estonia and Romania. Through round-table discussions, study visits to innovative enterprises, and interaction with local and regional innovation actors, the Regions of Excellence supported knowledge transfer activities through identifying actions on how to bridge the gap between the 'old' Member States and the new.

On such occasions, incubation activities, entrepreneurial issues, public-private partnerships, technology transfer policies and financing schemes were presented to the 'learning' guests, leading to the enhancement of the working relationships among the regions. Sofia (Bulgaria) subsequently became an associate member of the PANEL Network, demonstrating that not only PAXIS members benefited from this initiative.

The PAXIS networking activities have been at the heart of the knowledge transfer platform which linked regions, public and private organisations, policy-makers and innovation experts. PAXIS has been important in creating sustainable networks between innovation experts and policy-makers. Underlying the successes is a web of informal networks and personal contacts which have been built over the years of PAXIS activities. As the PAXIS initiative draws to an end, it is expected that many of the contacts made will remain intact to provide an added value throughout the years to come. It is our priority to ensure that enhanced forms of co-operation will emerge under the PRO INNO Europe initiative. We look forward to continuing to build upon the strong foundations that have been laid out under the PAXIS initiative, and we are confident that the energy generated amongst policy practitioners will provide the impetus necessary to secure an innovative and competitive Europe in the future.



“PAXIS has been a fantastic opportunity to work with key stakeholders in Europe. It has not just been valuable for the innovation process itself but also in general for our capability to co-operate in sometimes-complex European trans-national schemes. Our involvement in the project has given us an important additional European dimension and perspective.”

Roger Kaliff, Chairman of the Executive Committee, SydSam, South Sweden

“In these last three years, also thanks to the inputs coming from PAXIS, Emilia-Romagna developed a new Regional Network for Industrial Research, Technology Transfer and Innovation operating along seven thematic technology platforms and launched several new measures for supporting the creation and growth of innovative start ups, among which a financial support scheme, a venture capital fund and techno-parks.”

*Duccio Campagnoli, Councillor for Productive Activities,
Economic Development and Telematics, Emilia-Romagna Region*

CHAPTER 2:

The PAXIS working areas of innovation excellence

PRE-SEED AND EARLY-STAGE FINANCING

INTRODUCTORY NOTE

Rolf Reiner
I.con Innovation (Stuttgart region)

In Europe, the overall volume of private equity investment has shown a steady increase (with the exception of the period immediately following the internet bubble), reflecting successful policies in establishing and strengthening the Venture Capital market(s) in Europe and the individual member States (see Figure 1).

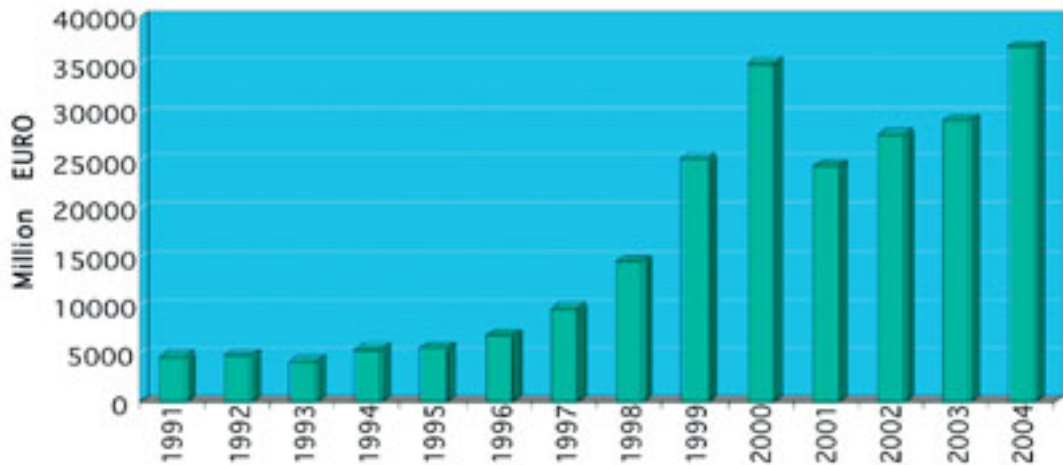


Figure 1: Private Equity Investment Europe

(source: EVCA 2004 and Yearbook. Annual Survey of Pan-European Equity 2003 and 2004)

Contrary to this overall (positive) development, share and absolute figures for early stage investments (seed and start-up stages) are still declining (see Figure 2). Whereas in Europe, both at national and European level most politicians still believe in the myth of a venture capital market

failure for early-stage investments (seed and start-up finance), more mature VC markets (in the USA and even the UK) demonstrate that this segment could not be covered by private investments only, thus offering significant public support (such as the SBIR programme, for example).

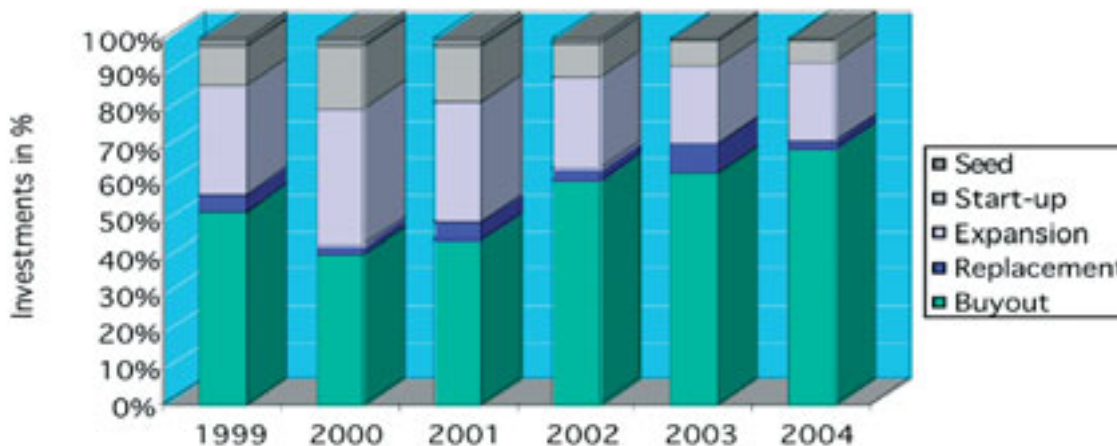


Figure 2: Stage distribution by percentage

(source: EVCA 2004 and Yearbook. Annual Survey of Pan-European Equity 2003 and 2004)

Main policy ideas underlying early-stage financing

In order to fill the early-stage financing gap, a couple of measures aimed at stimulating private investments have been implemented at European and Member State level.

Innovative start-ups exhibit a high risk of failure and may require substantial investment. Private investors may be unwilling to finance them, due to information asymmetries resulting in high transaction costs for assessing and monitoring the risk of innovative companies. Thus, VC-oriented policies only, are not able to solve early-stage financing problems in the medium and long term.

Whereas this problem seems to be evident on European scale, the solutions overcoming the early-stage finance gap turn out to be regional. Early-stage finance is a regional business due to the proximity investors need to the companies in which they are investing. Early-stage start-ups may

profit significantly from hands-on management and the continuous advising and coaching which should be offered by investors or in close co-operation with them.

Regional policies address the development of partnerships with investors through establishing Business Angel Networks, launching publicly (co-) funded early-stage finance and offering incubation and coaching services.

The role of the early-stage financing in PAXIS

Early-stage financing turned out to be of high relevance for all 22 regions participating in PAXIS. Furthermore, the ESTER project was dedicated to establish early stage finance instruments in new Member States, based on lessons learned from experiences in Israel.

Therefore, in February 2004, the PAXIS community established the PAXIS Cross-network Group on Early-Stage Finance, representing all five networks and the ESTER project. The group jointly agreed:

- To formulate and agree upon common recommendations positions towards European innovation funding policies (within and beyond the scope of the initiatives of the Directorate-General for Enterprise and Industry);
- To strengthen the position of innovating regions in the European RTD policy development process;
- To further improve the operation of PAXIS and interaction with the PAXIS Accompanying Measures in the field of early stage financing;
- To contribute to the 3% discussion, fostering and activating the innovation potential of European regions.

The activities of this group were based on a SWOT analysis of the early stage finance situation in Europe, which is summarised in Figure 3.

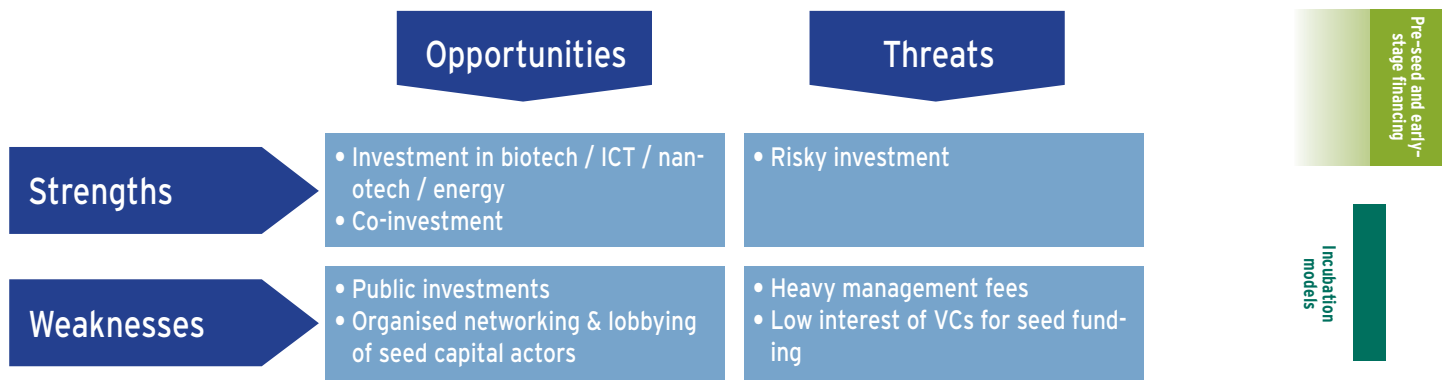


Figure 3: SWOT analysis of early stage finance in Europe
(source: Alain André, HIGHEST Network)

The analysis not only listed strengths, weaknesses, opportunities and threats, but mapped opportunities and threats for public and private activities against existing strengths and weaknesses. This procedure led to the identification of different areas suitable for public intervention.

Whereas heavy management fees (due to smaller volumes of individual investments) and the relatively low interest of Venture Capital companies in early-stage investments turned out to be weaknesses as were low levels of public investments and the lack of organised networking and lobbying of seed-capital actors prospects for future private engagement differed significantly. Increased public investments in R&D and (initially) publicly organised networking of early-stage capital actors should improve deal flow and syndicated investments significantly. Whereas these fields could be classified as ‘market failures’ to be covered by ‘cheap’ public incentives, heavy management fees and low interest of VCs for seed funding require far stronger public intervention. The latter are of general nature, and therefore State Aid measures need to be implemented to overcome these weaknesses, which could otherwise not be converted into opportunities.

Finally, early-stage investments are risky, but offer high profits in case of success. If risk could be managed through appropriate portfolio strategies, syndicated investments and highly skilled VC management teams, the threats of risky investments may be overcome.

Summarising this preliminary overall picture, the field ‘strengths/opportunities’ is already covered by the VC market; the fields of market failures ‘strengths/threats’ and ‘weaknesses/opportunities’

should be tackled by public incentives and public-private partnerships, whereas 'weaknesses/threats' needs strong, long-lasting public intervention (for example via the Structural Funds).

The early stage financing cross-networking group organised two dedicated international conferences (the 'Dublin Conference on Early Stage Finance', 20-21 May 2004, organised by PANEL, and the PAXIS international conference on Innovative Start-ups and Early-Stage Finance, organised by the START network from 17-18 November 2005 in Padua) and the session 'Financing Innovation' at the 4th European Forum for Innovative Enterprises, which took place from 5-7 December 2004 in Stuttgart and Karlsruhe.

Based on the experiences gathered from all the PAXIS networks, the group participated in several expert groups and consultations on national and European level, thus influencing the Competitiveness and Innovation Framework Programme (CIP), and contributing to the European State Aid Rules, which became effective in 2006. The latter will offer new possibilities for State Aid, targeting selected innovation related support for start-up and SMEs. It is now up to Member States and regions to implement measures utilising this new space for innovation funding.

Lessons learned & ideas for the future

PAXIS regions have proven that public initiatives and private-public partnerships are able to reduce the gap in early-stage finance. Good practices from all over Europe, including examples from Gate2Growth, are available through this manual.

In principle, the models identified are contributing to reduce the early-stage financing gap through three types of services:

- Diminish capital needs for start-ups by offering smart incubation models and access to infrastructures and resources
- Proving seed and start-up finance through Business Angel activities
- Establishing seed and start-up funds with strong public participation (e.g. facilitating ERDF funding for early-stage Venture Capital)

Such activities need to be embedded in an overall support system for start-ups, including teaching, advising and coaching entrepreneurs, offering incubation services, etc. It has been empirically proven that the life expectancy of start-ups that have been accommodated in an incubator or have received individual advice is significantly improved compared to businesses that have not benefited



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

from these types of services. Therefore, any early-stage finance model should include the provision of management or business development consulting services complementing investments in the start-up company.

In addition to activities on the regional level, the intermediaries have to network on an international level in order to open international markets both for start-ups and investors. This process may significantly contribute to closing the links between local funding and the international VC industry, contributing to the development of the European VC market.

In general, experiences from transfer processes within and beyond PAXIS networks give evidence, that such a process should follow a list of time-ordered activities in order to minimise the risk of failure:

- Information collecting (e.g. using this manual);
- Stakeholder analysis, including analysis of relations to ongoing activities;
- Cluster creation of possible measures to tackle the (regional) objectives; ranking of these interventions;
- Round table or face-to-face discussions aiming at agreement on the optimal set of modules to be implemented, and allocation of responsibilities;
- Adaptation of the modules selected to fit in the overall regional support system;
- Implementation (possibly supported by expertise from the practice's origin region).

The institutions and individuals who have contributed to the good practices included in this manual are a useful point of contact, knowledgeable about the successful implementation of their models or methodologies, and many have experience regarding the pitfalls and failures of the various approaches they have undertaken as well. Readers of this manual should therefore not limit themselves to implementing the practices described, but should be actively encouraged to contact the persons in charge to learn from their experiences, both negative and positive.

BENCHMARKING RESULTS

In this section the main findings of the benchmarking exercise carried out between PAXIS partners are presented. The purpose of the benchmarking exercise was to identify 'best in class' practices and mechanisms in order to facilitate the creation of innovative firms.

The benchmarking exercise focussed on five main groups of activity derived from the priority action lines of PAXIS thematic networks and projects. The benchmarking groups chosen were:

- **Incubation models**
- **Entrepreneurship training**
- **Early stage start-up financing**
- **Innovation culture and awareness raising**
- **Spin-offs and technology transfer**

These five priority groups or areas were considered of key relevance to facilitate the creation of innovative firms.

For each of the groups, an introduction to the topic is presented by an appropriate expert. Next, the findings of the survey conducted between PAXIS partners by the ATHENA network (PAXIS Accompanying Measure 2) are exposed. Finally, the good practices identified between PAXIS members are briefly described.

Each benchmarking report includes a template in which all answers received are shown, classified according to a component model defined for each topic. For each of these components a set of statements was established; PAXIS partners were subsequently asked to assess the validity of each statement on a scale from 1 (lowest) to 5 (highest).

Introduction

This brief report summarises the findings of the survey of early-stage financing activity that has been conducted on behalf of the ATHENA (AM2) network between PAXIS partners.

The questionnaire is based on a component model specifically developed for this benchmarking exercise. The model considers five components that are regarded by practitioners and academics as critical for the development of successful early-stage financing of enterprises. For each of these components, a set of statements have been established and given to the corresponding PAXIS partners to be assessed.



Pre-seed and early-stage financing

Incubation models

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Synthesis of Results

The chart on the last page shows the answers to the questionnaire from eleven region or area representatives. The table below was constructed from the data gathered, where the averages of the rates given to the different statements are presented.

Component	Statement -from 1 (lowest score) to 5 (highest score; strongly agree)	Average
RAISING AWARENESS	The region or area has established means to inform entrepreneurs of financing alternatives.	3,45
	Local government/agencies periodically organise information events to inform entrepreneurs of financing alternatives.	2,82
	Investors actively participate in these information events.	2,91
	New entrepreneurs are well informed of the different alternatives existing to financing his enterprise.	3,27
OPERATION ENVIRONMENT	There are attractive taxation rules for risk capital and equity investments.	1,45
	New companies are supported by a dynamic local business environment	3,91
	There are specific administrative offers (e.g. One-stop shop) for the establishment of innovative or technology based firms.	3,82
	Local government/agencies are proactive in supporting new entrepreneurs.	4,00
TRAINING AND MATCHING	Entrepreneurs have access to free training to develop appropriate skills/experience on enterprises funding.	3,27
	Entrepreneurs have access to advice and expertise for reviewing and evaluating business plans.	3,82
	New entrepreneurs have linkages to networks/consortia of like-minded businesses.	2,36
	Local government/agencies promote means (events, fairs...) to match entrepreneurs and investors	3,27
RESOURCES	Finance is available at all stages of new enterprises development.	2,55
	Seed capital funds or VC funds investing in early staged are available for new entrepreneurs.	3,09
	There is Business Angel Networks (BAN) operating in the region or area.	2,82
	Exist micro-loans or grant programmes targeted to entrepreneurs	4,00
	Are there any Private-Public Partnership funding?	2,45
	Entrepreneurs have explicit guidelines to follow when developing new ideas/companies.	3,64
	A clear process model exists and is used.	2,55

From the information gathered the following general facts can be highlighted:

- Globally the **most developed component** in the regions addresses those aspects related to the **operational environment** in the region or area. This means that local governments and agencies are generally proactive in supporting new entrepreneurs and they offer administrative facilities for the establishment of innovative or technology-based firms. The new entrepreneurs find strong support from the business environment which, in the regions and areas researched, is characterised by its dynamism. However, as a general rule, the investors in innovative or technology-based firms are not granted any special taxation rules.
- The next most developed component addresses those aspects related to the **training and matching** of entrepreneurs and investors. In these regions the new entrepreneurs usually have access to advice and expertise for reviewing and evaluating their business plans as well as to free training to develop appropriate skills and experience on enterprise funding. The proactive attitude of local governments and agencies in supporting new entrepreneurs is translated by the frequency of promotional means such as events, fairs, etc. to match entrepreneurs and investors. Nevertheless, the new entrepreneurs have difficulties in establishing links to networks or consortia of like-minded businesses.
- The third most developed component addresses the aspects related to **raising awareness** amongst potential new entrepreneurs. Again, the proactive attitude of local governments and agencies in supporting new entrepreneurs is shown by the establishment of means of informing entrepreneurs of financing alternatives, although these means are often virtual or on-line in nature rather than the periodic organisation of information events where a closer interaction could be achieved. When these information events are organised, investors actively participate in them, although this is an aspect that could be improved. As a consequence, the new entrepreneurs in the regions are generally well informed about the different alternatives which exist for financing their enterprise.
- The fourth most developed component addresses the **process** concerning the establishment of a new company. In general it is recognised by the survey respondents that in their regions or areas, entrepreneurs have explicit guidelines to follow when developing new companies. But in some regions a clear process model does not exist, is relatively undeveloped, or used only by few entrepreneurs and administrative officers.
- Finally, the **component least developed** in the regions is the one related to the aspects concerning **available resources**. Therefore, although in most of the regions consulted, entrepreneurs have access to micro-loans or grant programmes targeted at entrepreneurs, and,



seed-capital funds or VC funds investing in early-stages scenarios, entrepreneurs experience difficulties in obtaining funding for all the different stages of their enterprise's development. This fact could be partially explained by the limited development of Business Angel Networks in most of the regions and more particularly by the lack of funding stemming from private-public partnerships.

Analysis of the individual statements reveals a number of common areas of strengths and weakness across many of the regions. These are summarised in the table below.

Weaknesses	Strengths
<ul style="list-style-type: none"> • There are no attractive taxation rules for risk capital and equity investments. • New entrepreneurs have difficulties in establishing linkages to networks or consortia of like-minded businesses. • There is a lack of Private-Public Partnership funding. • Finance is not available at all stages of the new enterprise's development. • A clear process model does not exist or is not used. 	<ul style="list-style-type: none"> • Local government/agencies are proactive in supporting new entrepreneurs. • Micro-loans or grant programmes targeted at entrepreneurs do exist • New companies are supported by a dynamic local business environment. • There are specific administrative offers for the establishment of innovative or technology-based firms. • Entrepreneurs have access to advice and expertise for reviewing and evaluating business plans.

A final conclusion arising from the facts presented is that there is a great difference in performance of the public and private sectors in the regions. While local governments and public agencies are generally proactive in supporting new entrepreneurs and offer administrative facilities and means to train and inform new entrepreneurs, these local governments have usually not been capable of developing the means to catch the interest of private investors in financing new companies in their early stages. This is the subject that local governments have to tackle, and where they do not wholly succeed, and the lack of private resources for early-stage financing of new companies should be addressed by the use of public funds.

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

REGION OR AREA		SOUTH SWEDEN	HELSINKI REGION	ALPES MARITIMES	STUTT GART
RAISING AWARENESS	The region or area has established means to inform entrepreneurs of financing alternatives.	Red	Red	Red	Red
	Local government/agencies periodically organize information events to inform entrepreneurs of financing alternatives.	Red	Red	Red	Red
	Investors actively participate in these information events.	Red	Red	Red	Red
	New entrepreneurs are well informed of the different alternatives existing to financing his enterprise.	Red	Red	Red	Red
OPERATION ENVIRONMENT	There are attractive taxation rules for risk capital and equity investments.	Red	Red	Red	Red
	New companies are supported by a dynamic local business environment	Red	Red	Red	Red
	There are specific administrative offers (eg. One-stop shop) for the establishment of innovative or technology based firms.	Red	Red	Red	Red
	Local government/agencies are proactive in supporting new entrepreneurs.	Red	Red	Red	Red
TRAINING AND MATCHING	Entrepreneurs have access to free training to develop appropriate skills/ experience on enterprises funding.	Red	Red	Red	Red
	Entrepreneurs have access to advice and expertise for reviewing and evaluating business plans.	Red	Red	Red	Red
	New entrepreneurs have linkages to networks/consortia of like-minded businesses.	Red	Red	Red	Red
	Local government/agencies promote means (events, fairs...) to match entrepreneurs and investors	Red	Red	Red	Red
RESOURCES	Finance is available at all stages of new enterprises development.	Red	Red	Red	Red
	Seed capital funds or VC funds investing in early staged are available for new entrepreneurs.	Red	Red	Red	Red
	There is Business Angel Networks (BAN) operating in the region or area.	Red	Red	Red	Red
	Exist micro-loans or grant programmes targeted to entrepreneurs	Red	Red	Red	Red
	Are there any Private-Public Partnership funding?	Red	Red	Red	Red
PROCESS	Entrepreneurs have explicit guidelines to follow when developing new ideas/ companies.	Red	Red	Red	Red
	A clear process model exists and is used.	Red	Red	Red	Red







Business Angel Forum Region Stuttgart (BAFRS)

Description of practice

Stuttgart Region (DE)



PAXIS Network or Project

- Novelty
- Existing practice

SPRING

Good Practice Type

- Tool / Product / Service
- Learning / Networking
- Methodology
- Policy Recommendation

Aspect of innovation process addressed by practice

- Pre-seed and early-stage financing
- Incubation models (Incl. Internationalisation)
- Spin-off / Technology transfer
- Entrepreneurship
- Innovation culture / Political awareness
- Other

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Short description

BAFRS aims in reducing the early-stage financing gap for knowledge-based and high-tech start-ups in Stuttgart Region and in improving the number of deals by efficient pre-selection and preparation of pitch events. The forum is organised as a kind of 'club' for well-off (retired) business people. New members need to find at least one active angel to act as guarantor for them. This yields a strong commitment from all BAFRS members to the mission and rules of the network.

BAFRS is a public-private partnership of Wirtschaftsförderung Region Stuttgart GmbH (WRS), City of Stuttgart and i.con. innovation GmbH offering services for a group of angel investors. The main sources for the deal flow of start-ups are member institutions of PUSH! (academies and research institutions) and BioStern, a network supporting biotech start-ups.

Delivery mechanism

Business angels have to sign several contracts in order to enter the network. Communication is organised through a web-based extranet solution and face-to-face contacts. Pitches are organised three to four times a year, offering space for discussion between the angels.

Start-ups are asked to apply through a simple selection procedure (templates are available online) and they will be trained for pitching. The wider network offers further training, materials, courses, etc.

Expected or detected impact in region of origin

Activities resulted in a higher quality of deals, attraction of VC investments for start-ups supported by BAFRS and higher awareness for business angel activities. During the first two years of activities, 2.5 million euro has been invested by members of BAFRS, triggering more than 40 million euro VC investments.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Madrid (ES)

Organisation implementing

madrimasd

Transferability of the practice

Low

Medium

High

Due to its simple structure, the practice may be easily transferred to other regions with only a few modifications.

Main challenges

Identification of stakeholders; policy awareness; sufficient deal flow (in quantity and quality)

Critical success factors

Early involvement of all relevant stakeholders; a person in charge of managing the business angel network; deal flow needs to be strong enough.

Levels of resources required

Low

Medium

High

Enhanced investments in early stages; improved deal flow; creation of an investment culture; higher awareness for high-tech start-ups.

Potential impact in implementing regions

The creation of a Business Angel Network contributes to closing the early-stage financing gap and engages experienced business people in mentoring young start-ups. It improves entrepreneurial cultures and attracts venture capital investors.

For more information

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Oxfordshire Investment Opportunity Network (OION), Thames Valley Investment Network (TVIN), Oxfordshire Early Investment Network (OEI)

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Description of practice

Oxfordshire and Thames Valley Region (UK)



PAXIS Network or Project

- Novelty
- Existing practice

KREO

Good Practice Type

- Tool / Product / Service
- Learning / Networking
- Methodology
- Policy Recommendation

Aspect of innovation process addressed by practice

- Pre-seed and early-stage financing
- Entrepreneurship
- Incubation models (Incl. Internationalisation)
- Innovation culture / Political awareness
- Spin-off / Technology transfer
- Other

Oxford Investment Opportunity Network (OION) and its sister networks, Thames Valley Investment Network (TVIN) and Oxford Early Investment (OEI), are Business Angel Networks, established to link investors to companies with high growth potential, which are seeking business development funds from £10,000 to £1 million. These practices are relevant, therefore, both to early-stage financing and to the promotion of entrepreneurship, especially in innovative fields.

Short description

The primary aim of the networks is to build and nurture local networks of informal investors who share a common interest in the commercialisation of innovative technology. The networks champion the interests of investors by providing them with a strong deal flow of bankable investment opportunities. This provision necessarily involves careful and comprehensive investment readiness training for the young companies seeking investment, resulting in a win/win outcome for both the investor and the company in receipt of the funds. Partners include:

- Investors: private individuals, corporate investors and venture capital trusts, having diverse interests but with the common criteria of a large, accessible market of bankable business propositions with a low entry point.
- Entrepreneurs and their companies seeking investment: mainly spin-outs from local large corporate bodies, local universities and research institutes.
- Intermediaries, such as firms of lawyers, accountants, patent agents etc., are a vital part of the network as they are able to promote it to corporate and private clients, be familiar with companies at this stage of development and/or have experience of the investment process.

Delivery mechanism

The network is primarily for private investors or 'business angels' who can bring experience and contacts as well as capital. Enterprises are selected according to several criteria: high growth potential, Intellectual Property Rights (IPR), proof of principle; access to a growing market; entrepreneurial flair. A technology assessment panel is established to provide additional guidance. OION/TVIN organise eight investor meetings a year; and five companies are showcased at each one following a general format. Other tools include a database of investors (recording interest, annual investment amount and average amount per investment), the website and information packs.

Expected or detected impact in region of origin

Creating a culture in which companies seek finance for growth will establish a flow of high quality investment opportunities for the network, which will have an impact on the local community in the form of new business and job creation. Since 2000, over £17 million has been raised through OION for more than 70 innovative new ventures. TVIN, as the younger network, raised nearly £1.9 million for seven innovative companies in the 14 months to July 2005. OION, TVIN and OEI are judged on their performance outputs and their ability to maintain and develop the services.

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region	Organisation implementing
Emilia-Romagna (IT)	Business Angel Network Bologna
Karlsruhe (DE)	Business Angel Network Baden Baden
Grenoble-Lyon (FR)	Grenoble Angels

Transferability of the practice

<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input checked="" type="checkbox"/> High
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Business Angel Networks can be transferred to other areas. The success of transfer is reliant on both the investor and the company in receipt of investment funds being identified and accommodated, and the quality of services maintained.

Main challenges

KREO partners' main challenge has been to either improve existing business angel networks (BAN) or create new ones based on the successful examples provided by Oxford. A handbook for the Management of a BAN was produced by Oxford Innovation.

- **Emilia-Romagna:** the Business Angel Network of Bologna (the only one existing in the region) was set up in 2001 by a group of provincial entrepreneurial associations coordinated by the Province authority. The objectives of the learning process were to improve performances - in Italy private investment on start-ups was still not a common practice. BAN procedures imported from Oxford were introduced as a result of the exchange .
- **Karlsruhe:** the Business Angel Network Baden-Baden, the first network of private investors in Baden Württemberg, was founded in 2002 by active and retired entrepreneurs in the region between Offenburg and Karlsruhe, with the support of Oxford Innovation. This circle, which in the beginning mainly included investors from the automotive supplier industry, has been gradually extended to interested Angels from other sectors.
- **Grenoble:** set up in 2005 following the Oxford example, Grenoble Angels brings a missing complement to the chain of financing high potential start-ups already existing in the Grenoble area. It was built on a well-identified investors' community existing at local level and matched the fields of activities and expectations (financial, managing and sectorial competencies) of business project holders. It already has 30 BAs and has received 30 projects. Sixteen are being studied and eight have already received BA financing.

Critical success factors

Critical success factors are linked to both the identification and selection of good business projects/ companies and to recruitment of potential investors. OXIN/TVIN have been able to develop a service package for both businesses and investors that widely contributes to the investment network's success in terms of funds raised by companies.

The key elements transferred to the other KREO regions include the well-tested working mechanisms, the focus on the local/regional area, the attention devoted to personal contacts and the careful training of presented start-ups.

Levels of resources required

Low

Medium

High

In the concept phase, resources are needed to adapt the model to local conditions. Running costs are mainly related to the network manager, but self-sustainability is possible with annual membership fees for investors, presentation fees for companies and a percentage on raised funds. Negotiated sponsorship can also be considered.

Potential impact in implementing regions

Development of investment culture among innovative SMEs
Access to private finance from innovative SMEs
Improvement of management skills in start-ups

For more information

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Forum 4i (Innovation, Industry, Investment, International)

Description of practice

Grenoble-Lyon (FR)



PAXIS Network or Project

Novelty

KREO

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

The Forum 4i is an innovative one-day investment event, gathering together investors, high added-value project holders and innovation actors. It is, however, far more than that. Due to its Steering Committee, which meets eight to ten times a year, Forum4i is a place for the conception, planning and set-up of new solutions favouring the development of young innovative companies and the follow-through of innovative projects.

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Short description

Forum 4i has the two-fold objective of financing innovative projects and favouring innovation networking at all levels. The organisation of the forum is a networking system in itself, as it includes a number of actors. As well as the City of Grenoble, it involves public authorities (such as the French Ministry of Research, Rhône-Alpes Regional Council, Isère County Council, Grenoble Urban Community), local development agencies (Anvar, ARTEB, ARN, etc.), financial institutions and fund managing organisations (Caisse des Dépôts et Consignations, Financière de Brienne), research centres (CEA, INRIA, etc.) and incubators (France Incubation, GRAIN).

Delivery mechanism

The event, which takes place every year at the end of May, is structured around three carefully organised sections:

- a Forum of Investment, giving optimal conditions to raise capital
- a Round Table, enabling actors to meet and exchange ideas on topical questions related to the creation and development of innovative companies
- a Technological Showcase, visually showing the innovative and multi-disciplinary activities carried out by public and private research laboratories located in the Grenoble-Lyon area.

Expected or detected impact in region of origin

The following results have been recorded since Forum 4i first began in 1998:

- 121 projects/start-ups participated in the Forum of Investment
- 85 companies are still operating today (70% of the total participants)
- At least 35 companies have participated in the Forum of Investment, raising funds totalling 139,170 million euro
- These companies represent more than 900 jobs in the Grenoble-Lyon area.

Four hundred appointments have been organised within the framework of a one-day event.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Emilia-Romagna (IT)

Organisation implementing

ASTER and Emilia-Romagna Region

Transferability of the practice

Low

Medium

High

Highly transferable practice concerning the concept and implementation process. However, excellent results obtained in the Grenoble-Lyon area strongly depend on context related factors.

Main challenges

Being inspired by the Forum 4i example, ASTER and Emilia-Romagna Region invested in and developed a similar event format, namely RI3 Ricercando l'Innovazione gli Investitori e le nuove Imprese (literally 'Looking for Innovation Investors and new Enterprises'), which is tailored to the peculiarities and needs of the region.

Critical success factors

- Availability of a rich research base, able to provide a background for the creation of innovative companies
- Availability of sources of funding for start-ups (VC, seed funds, etc.) and the capability of the organisers to attract these sources to the event
- Strong networking relationship among the innovation actors at both local and national levels

Levels of resources required

Low

Medium

High

The level of resources required strongly depends on the existing situation in the region (networking in place, VC/seed funds, etc.).

Potential impact in implementing regions

With regard to the highlighted success factors, the Emilia-Romagna region has a strong research base, which is currently particularly active with the creation of new innovative companies, and a strong tradition of networking among the innovation actors, though it is quite weak concerning the financial component. The event intends to be an occasion for reinforcing networking at local level on the specific topic of innovative entrepreneurship, as well as an opportunity to take a proactive approach in shaping a stronger environment for early-stage financing.

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EMERTEC Gestion

Description of practice

Grenoble-Lyon (FR)



PAXIS Network or Project

Novelty

KREO

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

EMERTEC Gestion is a national seed fund located in Grenoble, focusing its investments in three areas, with three different funds, for a total amount of 80 million euro.

Short description

EMERTEC's objective is to invest in equity (seed phase) in high-tech/high-growth start-ups at their first stage of development, primarily in France, but also in the rest of Europe. Three funds have been created so far:

- Engineering sciences, created in 1999 and amounting to 20 million euro (14 million euro invested)
- Energy and environment, recently created and amounting to 12 million euro
- Micro and nano-technologies, being constituted, amounting to 20 million euro and to be increased to 40 million euro

EMERTEC shareholders are CEA Valorisation, CDC PME (a subsidiary of Caisse des Dépôts & Consignations), Caisse d'Epargne et de Prévoyance des Alpes and Groupe NATEXIS.

Delivery mechanism

EMERTEC invests funds in equity participations - generally minority stakes - in high growth potential manufacturing or commercial start-ups at their founding or during the early stages of their development. In order to detect the most promising project, it works in close collaboration with existing and developing public and private research laboratories, which allows it to maintain an adequate technological edge. A close relationship is also formed with the company's founders, as well as the recruited staff, in order to assist founders in formalising their business plans, defining reasonable objectives and thus ensuring the success of financing.

Expected or detected impact in region of origin

EMERTEC has already created 15 start-ups through their first fund and will create about 20 more companies with the new funds.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Karlsruhe (DE)

Organisation implementing

Engage - Key Technology Ventures GmbH

Transferability of the practice

Low

Medium

High

Engage is at the first stage of the venture business; it is in the process of establishing deal flow (in some technology areas) as well as raising its own seed fund.

Main challenges

The main challenge is raising Engage's own private money. Collaboration with EMERTEC included:

- Exchange of EMERTEC's marketing material as well as other printed documents
- Exchange of other non-public materials as a result of existing confidence
- Study visits and presentations were extremely useful for meeting the experts and exchanging knowledge and experience.

Critical success factors

- Creating a structure capable of generating high-quality deal flow in a specific technological area
- Building an experienced team of investment managers who will manage the fund correctly and, at the same time, act as business developers, co-founders and managers of the start-ups where the seed fund invests in the first years (critical phase)
- Raising enough private funds to be able to finance the critical phase of the ventures and benefit from other co-financing schemes
- Leveraging public with private money

Levels of resources required

Low

Medium

High

Private investment capital in tens of millions of euro is needed to achieve certain sustainability. Despite the fact that some public funds are being made available for this purpose, the seed finance gap is increasing. Also highly skilled people are needed to run the funds.

Potential impact in implementing regions

Implementing regions and their actors like Engage need a 'best case' to motivate their own investors. EMERTEC is one of the few remaining seed funds in Europe. Showing that seed funds work is essential to create financing, which will enable the creation of technology start-ups in Karlsruhe.

For more information

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Yozma

Description of practice

Israel



PAXIS Network or Project

Novelty

ESTER

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Short description

The programme is credited with having established the Israeli Venture Capital Industry, one of the largest and most vibrant in the world. It was initiated by the Ministry of Industry and Trade in Israel and targeted private investors in venture capital funds from all over the world, as well as practitioners and investors in Israel. By means of an attractive incentive, the Yozma programme was able to bring to the country some of the best-known and largest investors in the world.

Delivery mechanism

Yozma had a \$100 million endowment from the government to create privately managed funds. It participated with new funds using either 40% of the capital or \$8 million, whichever was the greater. The incentive offered gave the private investors the option to buy the public shares at the original price, which, in the case of success, meant doubling the private investors' profits.

Expected or detected impact in region of origin

The impact of the Yozma programme in Israel was huge. In 1991 there was only \$20 million worth of venture capital (from one fund), whereas in 2005 there were around 60 funds with over \$3 billion under management.

Most of the management companies that were created directly by Yozma have continued their operation and are now managing ten times as much, on average, as they did under the initial Yozma scheme.

Yozma is widely recognised as one of the best (if not the best) practices in the world for fostering venture capital investment.

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Latvia

Organisation implementing

Latvian Investment and Development Agency
Latvian Guarantee Agency

Transferability of the practice

Low

Medium

High

The scheme is readily transferable on condition that the demand side (or the expected deal flow) is supporting the envisaged number of funds. EC state aid regulations make it hard to launch such schemes

Main challenges

The main challenge is raising Engage's own private money. Collaboration with EMERTEC included:

- Exchange of EMERTEC's marketing material as well as other printed documents
- Exchange of other non-public materials as a result of existing confidence
- Study visits and presentations were extremely useful for meeting the experts and exchanging knowledge and experience.

Critical success factors

- Good background conditions - strong demand of risk capital from high-tech entrepreneurs
- Private management of the funds, the state being only a passive investor
- Strong incentive for private investors

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Levels of resources required

Low

Medium

High

Public support should be in the range of 30-70% of the total budget depending on the region where it is implemented.

Potential impact in implementing regions

Creation of a venture capital industry where none currently exists

For more information

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Technological Incubators Programme

Description of practice

Israel



PAXIS Network or Project

- Novelty
- Existing practice

ESTER

Good Practice Type

- Tool / Product / Service
- Methodology
- Learning / Networking
- Policy Recommendation

Aspect of innovation process addressed by practice

- Pre-seed and early-stage financing
- Incubation models (Incl. Internationalisation)
- Spin-off / Technology transfer
- Entrepreneurship
- Innovation culture / Political awareness
- Other

The incubators programme provides for an integrated tool to foster entrepreneurship. It includes consulting, networking, office space and seed money to help entrepreneurs in the high-tech sectors check the technical and marketing feasibility of their idea.

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Short description

The programme aims at giving entrepreneurs in the high-tech sector the opportunity to verify the technology and marketing feasibility of their ideas. This also ensures a continuous supply of ideas to the National Innovation System.

The 24 technological incubators in Israel provide the entrepreneur with space, consulting and the seed financing (around \$300,000) to start his company. The programme was established in 1991 and has so far produced some 1,000 new firms, half of which have continued to operate after the incubation period. Since then, 13 of the incubators have been privatised, although they continue to receive public support. The private investors are usually venture capital funds. When the incubators are privatised, they team up with the local authorities and/or technical universities.

The incubators are aimed at any entrepreneur willing to set up a new company, provided the initiative is grounded in the high-tech sectors. This often limits the target group to the highly skilled and science-educated entrepreneurs.

Delivery mechanism

The programme is now well known in Israel and does not require special actions for disclosure. Entrepreneurs receive all services in the incubator's building.

Expected or detected impact in region of origin

The creation of over 1,000 firms with a success ratio of 50%. The incubators are credited with the production of about 15% of the country's high-tech companies.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Latvia (planned)

Organisation implementing

Latvian Investment and Development Agency

Transferability of the practice

Low

Medium

High

Need for continuous public support

Main challenges

Providing seed funding to risky high-tech businesses (where commercial investors are reluctant to operate)

Critical success factors

Provision of seed capital (\$300,000) together with consulting and networking

Levels of resources required

Low

Medium

High

Background conditions needed:

- a strong entrepreneurial culture
- readiness of public authorities to support high-tech ventures

Potential impact in implementing regions

A similar programme is likely to give entrepreneurs in the high-tech sector the opportunity to develop their ideas into a start-up. If the region is suitable, this will help the economy by the establishment of new and innovative firms.

For more information

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Invest Academy

Description of practice

EUROPE



PAXIS Network or Project

Novelty

Existing practice

SUN&SUP

Good Practice Type

Tool / Product / Service

Methodology

Learning / Networking

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Incubation models (Incl. Internationalisation)

Spin-off / Technology transfer

Entrepreneurship

Innovation culture / Political awareness

Other

Short description

The service was created as a comprehensive training and capacity building support service for entrepreneurs on how to deal with different investors, including a quality check of their business plan.

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

The service is designed to train entrepreneurs to understand sources of financing for their company by building their knowledge of financial sources. Helping them to refine their business proposition and business plan is aimed at attracting funding from investors.

This will be done through a three-phase service where a panel composed of different types of financiers and representatives from business organisations will help the entrepreneur understand that all money is not the same. Grants, loans and equity all entail different investing conditions. Entrepreneurs will also benefit from generic information and advisory services throughout the programme.

The service will be delivered by selected service providers according to a specific list of criteria (familiarity with both the demand and supply side of the finance problem, able to bring benefit to the business plan, strong links with the business angel community, provide the service in a sustainable manner both financially and over time, etc.). These can include business angel networks, incubators, science parks, business schools, etc.

Delivery mechanism

The service will be delivered in the form of a three-phase programme orchestrated by a panel composed of several types of financiers:

- **Phase 1:** Entrepreneurs will benefit from a generic 'course' providing them with information on the process of investing, what investors look for in a proposition, how to value an enterprise, etc.
- **Phase 2:** An adjustment period when the entrepreneur will go back to write or correct a business plan following the information provided in phase 1. The coaching team will then decide with the entrepreneur when the business plan is ready and the entrepreneur can go to Phase 3.
- **Phase 3:** the entrepreneur pitches to the panel who will then advise the entrepreneur on the next steps towards accessing finance.

Before Phase 1, the entrepreneurs will have access to two items to prepare themselves: templates (typical contracts between investors and entrepreneurs, confidentiality agreement, valuation, etc.) and an online tool describing the idea of the programme, presenting testimonies from entrepreneurs who have gone through the programme, providing information about support services available at local level, etc.

Expected or detected impact in region of origin

Not applicable.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions): not relevant

Region

Organisation implementing

Transferability of the practice

Low

Medium

High

Can be implemented in a large number of regions, based on the number of potential service providers.

Main challenges

- Provision of the service (including templates and online tool) in the national language
- Sustainability of the service financially and over time
- Centralisation of information at European level for benchmarking purposes

Critical success factors

- Reliability and competence of the service provider
- Satisfaction of the entrepreneurs
- Frequent monitoring and evaluation according to performance indicators

Levels of resources required

Low

Medium

High

The estimated cost of running the service is between 350,000 and 500,000 euro per year for a target of approximately 100 companies.

Potential impact in implementing regions

Higher number of projects financed due to the higher quality proposed to potential investors

Higher number of entrepreneurs through raising awareness /enterprise creation

Higher number of informal investors through raising awareness of the programme

Regional economic development through higher enterprise creation and also through expected collaboration between local stakeholders and entrepreneurs

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Early-Stage Finance Networking & Early-Stage Finance Events

Description of practice

Alpes-Maritmes



PAXIS Network or Project

- Novelty
- Existing practice
- HIGHEST

Good Practice Type

- Tool / Product / Service
- Learning / Networking
- Methodology
- Policy Recommendation

Aspect of innovation process addressed by practice

- Pre-seed and early-stage financing
- Incubation models (Incl. Internationalisation)
- Spin-off / Technology transfer
- Entrepreneurship
- Innovation culture / Political awareness
- Other

Through early-stage finance events (International Venture Capital Summit, venture workshops, etc.) and networking services, small companies are assisted in their search for finance.

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Short description

In Sophia-Antipolis, start-ups and SMEs can access the early-stage finance phase with the help of:

- 1) **Early-stage events** ranging from small workshops to large summits gathering start-ups, investors, business angels, venture capitalists and large cooperation around the 'access to finance' theme.
- 2) **Networking services** creating business opportunities for start-ups by organising events for large organisations around a precise theme. The objective of these events is for high-level decision-makers from large European cooperations to meet champion start-ups of the region on a particular theme i.e. agro-food, energy/environment, IST, etc.
- 3) **Meet Business Angels** aims to encourage networking between start-ups and business angels.

Delivery mechanism

Events, meetings and presentations with investors, business angels, entrepreneurs and politicians.

Expected or detected impact in region of origin

In May 2005, an event organised around the energy sector brought together 10 projects looking for European partners. A venture contest was organised in November 2005 with 17 start-ups and 10 investors. Fund raising negotiations have begun for two of these companies.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Helsinki Region (FI)
Switzerland
Berlin (DE)

Organisation implementing

Technopolis Ventures
Zurich Science Park
Berlin Wista Management

Transferability of the practice

Low

Medium

High

Meetings and presentations with investors and entrepreneurs can readily be implemented in another region.

Main challenges

Difficult to gather the best innovative start-ups and ideas; being introduced and recognised within investor networks and finance world (BAs, VCs); motivating organisations and investors to participate in events.

Critical success factors

Large network of start-ups, corporations and investors required; international mindset; innovative start-ups; quality ideas and investment levels; coaching and follow-up after events involving start-ups, large companies and investors.

Levels of resources required

Low

Medium

High

Time and manpower to organise events: 10-15 days of work to organise a one-day event with 50 people. Cost 2,500 euro plus manpower.

Potential impact in implementing regions

Develop business opportunities and networking between different actors: start-ups, investors, large corporations and industry. Help start-ups to enter international markets. Increase region attractiveness to foreign investments.

For more information

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Babraham BioConcepts

Description of practice

East of England (UK)



PAXIS Network or Project

Novelty

SPRING

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Business development during seed and early-stage; investor readiness.

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Short description

BioConcepts provides infrastructure, aid access to funding and creates high quality, commercially exploitable projects through mentoring services (including interim management), technical services and facilities.

For a 12-month period, the entry fee is usually limited to 10-20 % of shares in the new ventures (instead of cash payment).

Delivery mechanism

The delivery mechanism is one of direct action.

Expected or detected impact in region of origin

Improved deal flow of new ventures; higher exploitation of research results; reduced need for seed financing.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Stuttgart Region (DE) (planned)

Organisation implementing

TTI GmbH / PUSH!

Transferability of the practice

Low

Medium

High

Due to resources and research facilities needed, transfer is limited to regions with comparable infrastructure.

Main challenges

Exit routines for businesses leaving the incubator and start-up financing for BioConcepts itself.

Critical success factors

Management team for BioConcepts; high quality projects; strong VC activities (for follow-up activities); public funding for an initial phase of up to five years.

Levels of resources required

Low

Medium

High

The model needs a high level infrastructure, an excellent management team, and world class research as a source for the projects

Potential impact in implementing regions

High quality deal flow

For more information

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INCUBATION MODELS

INTRODUCTORY NOTE

Incubation Models and Internationalisation of Start-ups

Pertti Vuorela,
Technopolis Ventures for Helsinki Region

Incubators are an essential tool for economic development in which an increasing number of communities are starting to invest. In the EU there are currently around 900 business incubators operating that are making a significant contribution to job and wealth creation. Some 40,000 jobs are generated each year by incubators alone.¹

Incubators generate start-ups and serve as a driving force for new innovative companies through helping them to succeed on the market. The most effective incubators developed within Europe have formed part of a broader political strategy to include university research activities, research institutes, and private industry within the specific region. To this extent, the most successful incubation models are founded upon regional strengths and private-public-partnerships.

In taking global competition into account, it becomes clear that incubators must prepare to operate at a world class level. Evidently, for this to happen they must streamline their operational practices and coordinate their activities at a European level. The importance of this co-ordination is emphasised further as the R&D activities of the new member states undergo rapid development. The good practices selected in this PAXIS Manual aim to assist both the more experienced regions and countries to develop their models, as well as the less developed regions of Europe. In particular, they make a number of suggestions aimed at strengthening the operational process of the incubation model.

¹ Benchmarking of Business Incubators, Centre for Strategy & Evaluation Services, February 2002

Lessons learned & suggestions for the future

During the PAXIS initiative a number of events related to incubation excellence were carried out, including the 'Business Exploitation' workshops in South Sweden and Otaniemi (Finland), a visiting programme and 'Incubation Trends' workshops in Zurich (Switzerland) and Alpes-Maritimes (France), as well as the PAXIS workshop in Torino. Other PAXIS events focusing on the 'Internationalisation of Start-ups' were organised in Sophia-Antipolis and Edinburgh.

With the aim of strengthening the incubation model, the various PAXIS events have transpired into a thematic benchmarking exercise between regions. This has endorsed participants with fresh ideas to further enhance their efforts to assimilate incubation models within Europe. In complement to this exercise, the EurOffice initiative for enhancing the internationalisation of European Start-ups exemplifies the willingness of national and sub-national actors to integrate and coordinate their programmes with the aim of advancing potential synergies.



Of central significance to the benchmarking study is the finding that the incubators contributing the highest added value to their regional economy, also form an integral part of the broader political strategy for economic progress. Clearly, incubators should not be stand-alone entities but should form part of the organisational and operational processes of other organisations and schemes aimed at promoting broader strategies.

Further to this, our analysis bares strong indication that public sector funding has an important catalytic function, in particular during the investment phase. Due to this dependency, public support for the establishment of incubators is foreseen to remain a crucial factor for their success and viability. Given the important economic significance of incubators, there is a strong argument to minimise reliance on public sector funding through devising operational strategies that will recoup incubator costs.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Towards better incubation models

With regards to the functional aspects of business incubators, it has become generally accepted that the quality of support services forms an essential ingredient to the value added of incubators. Although the provision of physical space is still central to the incubation model, evidence suggests that businesses increasingly require professional support services to assist them in developing their activities to target their niche markets. To be able to provide such professional and specialised services it is suggested that incubators define their target markets and their admission criteria accordingly. Through specialisation, therefore, we could expect higher levels of quality in the management and support services of the incubator that would assist firms throughout their development process, and until they establish secure market positions.

The examples of the ALMACUBE and SPIRO incubation models, the Torino area incubation programme, the InnoTULI tool & Otaniemi support system, and Co-incubation efforts in Biotech by BIOLINK represent good examples of incubation models. To continue to develop the efficiency of European incubators it is important to evaluate the services and impacts they have on their national and regional economy. Such evaluation should be based upon variables reflecting the long-term impacts businesses will have rather than short-term variables such as occupancy rates and failure rates. The number of new jobs created is a good variable for measuring the long-term impact of an incubator, and it could also be used as a proxy for a range of other impacts. Essentially, there is the need to obtain feedback directly from client companies rather than to simply rely on survey data from incubator managers alone.

PAXIS has promoted a good number of practices in innovation policies and just as important, it has provided and encouraged platforms where this wealth of information on successful innovation policies can be shared with others. Despite the policy learning already done, a shift to stronger practical co-operation is still needed.

Main policy ideas and recommendations

The good practices described in this manual are geared towards generating and developing new innovative high-tech companies. To safeguard European competitiveness there is a need to implement a European framework that will ensure the internationalisation of such companies. The EurOffice has been a first step in this direction. Based on the PAXIS experience and the incubator practices illustrated within this manual, and in attempt to consolidate further European business incubators, a number of policy recommendations that target the European level of decision making can be made:

To ensure a standard of quality in the services provided, it is advised to develop a set of common definitions and standards for European business incubators. Secondly, it is recommended that an EU-level survey of European incubators is carried out at least on an annual basis. Thirdly, further investment should be made to strengthen the sharing of good practices between European and North American business incubators.

Based on the work carried out by the European Regions of Excellence, the PAXIS initiative has included a series of different good practices that highlight initiatives taken to develop the Internationalisation of Start-ups. The selected good practices include examples that outline both excellent incubation models, as well as the internationalisation of Start-ups. The examples have been drawn from the HIGHEST, PANEL, KREO & SPRING, and project BIOLINK networks.

Due to continuous European integration and the evolution of a number of policy domains, and especially with the expansion of the European internal market, start-up companies are faced with an increasing need for professional services. Over the next few years, networking amongst European incubators should become an essential activity and a fundamental driving force for the creation and establishment of products and services on the global market.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Incubation models and Internationalisation as tools for Europe - PAXIS experience

Title and developers	Short description and transferability
Babraham BioConcepts, East England	Business development for bio start-ups during seed and early stage, region needs research base & infrastructure
ALMACUBE and SIPRO network of incubators	Support services connected to local regional structures, approach transfer from Emilia-Romagna to Grenoble area
Innovation Centres network, Oxford	Provides services to innovative growth potential start-ups, transfer relies on the regional conditions & organisations
Guide Map for Foreign Entrepreneurs, Dublin	Information & key contacts to entrepreneurs starting-up in region, idea well transferable to other committed regions
Business Opportunity Assessment and Planning	Business development tool in the Pre-incubation programme in Torino area, requires didactical structure & support
Innovative Ideas Scouting and Screening, Torino	From Idea to Company - I2C process activates & evaluate innovative ideas, benchmarked with Otaniemi & Zurich
InnoTULI Business Evaluation (Spin-off BP)	Otaniemi tool supports research results commercialisation & incubation process, transfer needs regional adaptation
Otaniemi NTBF Support System, Helsinki Region	Private-public-partnership Incubation Model is bridging innovation and business, transferred in HIGHEST Network
EurOffice Services package, HIGHEST Network	Internationalisation tool helps start-ups access to European Markets, concept developed in Paxis, 11 regions piloted
Best Incubation Practice Toolkit, Biolink project	Lessons learned in a cooperative incubation project with Europe and Israel, Toolkit mainly for biotech incubators
Co-Incubation, Biolink between Europe and Israel	Increasing growth rate and sustainability of SME biotechs, using strengths of bio incubators, needs CI manager
Networking Across International Boundaries	SME biotechs networking by bio incubators to help in marketing and contacts, can be used also in other fields
Roadshows BP, Biolink between Europe and Israel	Organising networking events to increase collaborations & marketing of SMEs, needs some budget for travel costs
BIO ^M tool for Munich biotech cluster	Offers financing and coaching to start-ups, networking & platform for regional actors, needs incubator co-operation

BENCHMARKING RESULTS

Introduction

This section summarises the findings of the survey of business incubation models undertaken on behalf of the ATHENA project (PAXIS Accompanying Measure 2) among PAXIS partners. The survey was conducted with the help of a questionnaire and through both structured and open-ended interviews with PAXIS partners.

The survey questionnaire was based on a “component model” specifically developed for the benchmarking exercise. The model integrates three components that are regarded by both practitioners and academics as critical for successful incubation of start-up companies. These components are: **the institutional and cultural context; the technological, innovation and social networks; and the functioning of the incubator.**

Synthesis of results

Fifteen regions or areas answered the questionnaire on incubation models. The regions that participated in the survey are all relevant actors in the creation and support of new enterprises. Unsurprisingly, therefore, they assess the situation of their region with regards business incubation with medium to high values. Average values have been computed based on the number of respondents for each single statement.



Component	Statement -from 1 (lowest score) to 5 (highest score; strongly agree)	Average
Institutional and cultural context	In the region/local area, incentives and rewards are available to encourage entrepreneurship	3,93
	A high-skilled workforce is available in the region/local area	4,73
	There is a widespread culture of entrepreneurship	3,60
	Contractual agreements between public research bodies and business companies are frequent	3,50
	Researchers/academics are active in starting their own business	2,77
	Researchers/academics are members of companies' boards	2,83
	In my region, infrastructures facilitate new companies installation	3,64
	Infrastructures (e.g. transport, accommodation) facilitate residential purpose	3,64
Technological/Innovation and social network	Technological/innovation networks (clubs, foundations, etc.) exist	4,00
	Technological/innovation networks (clubs, foundations, etc.) are active	4,00
	Social networks and communities of practice exist	3,75
	Social networks and communities of practice are active	3,42
	Extant networks facilitate access to venture capital	3,31
	Extant networks are a primary source where to find complementary assets and skills	3,64
Incubator functioning	Incubator's managers are full-time employed persons	4,50
	Accommodation	4,75
	Administrative services	4,18
	Advisory and counselling	4,08
	Legal advice on IPR	4,00
	Training and coaching	3,85
	Networking opportunities	3,92
	Agreement / exchange with a university to acquire knowledge	4,00
	Agreement / exchange with a research institute to acquire knowledge	3,33
	The incubator offers access to sources of capital (debt, equity or both).	3,89
	The incubator's ability to convert scientific issues into marketable products is high	3,80
	The incubator has an effective entry policy, with appropriate screening procedures	4,00
	The incubator has an effective exit policy so as to reduce tenants' dependency on support	3,78

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Remarks

In most of the regions that participated in the survey, business incubation is an established or even mature activity; only in a few cases was the development of business incubators just emerging. It comes therefore as no surprise that, on average, the respondents assessed the situation in their respective region with medium to high values and considered that their region may be favourably compared to other competitive European regions. Despite this generally favourable context, some specific challenges emerge:

- Although at a general level respondents estimated that incentives and rewards are available in their region/local area to encourage entrepreneurship, it emerges that **an entrepreneurial culture is still insufficiently present** in the educational and professional environment. This is reflected, for instance, in the fact that researchers or academics are not very active in starting their own companies, nor are they actively involved with companies in the role of board members. This is a particularly striking fact when considering that the regions surveyed host some of the most developed technological parks in Europe, with high concentrations of scientists, engineers and professionals.
- **Technological and innovation networks exist and are quite active** in virtually all the respondent regions, with the notable exception of Israel. This may be an indication that, despite the wide diffusion of information and communication technologies, more isolated areas suffer from their geographical location. A different situation characterises social networks and communities of practice: these are present and active only in certain areas, and notably in the Northern regions of Europe but also in Israel. When they are present, communities of practice represent a valuable source where complementary assets and skills can be found to support the development of new enterprises.
- **Almost all the incubators surveyed have full-time managers**, a factor that it is known to have a positive role in the successful management of a business incubator. Respondents indicated that having a full-time manager is absolutely necessary to provide quality services for tenants. In terms of the services provided, these differ according to the incubators, but the provision of core services (such as access to mentoring, networking, to finance and to ideas and knowledge) are generally ensured at a satisfactory level.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

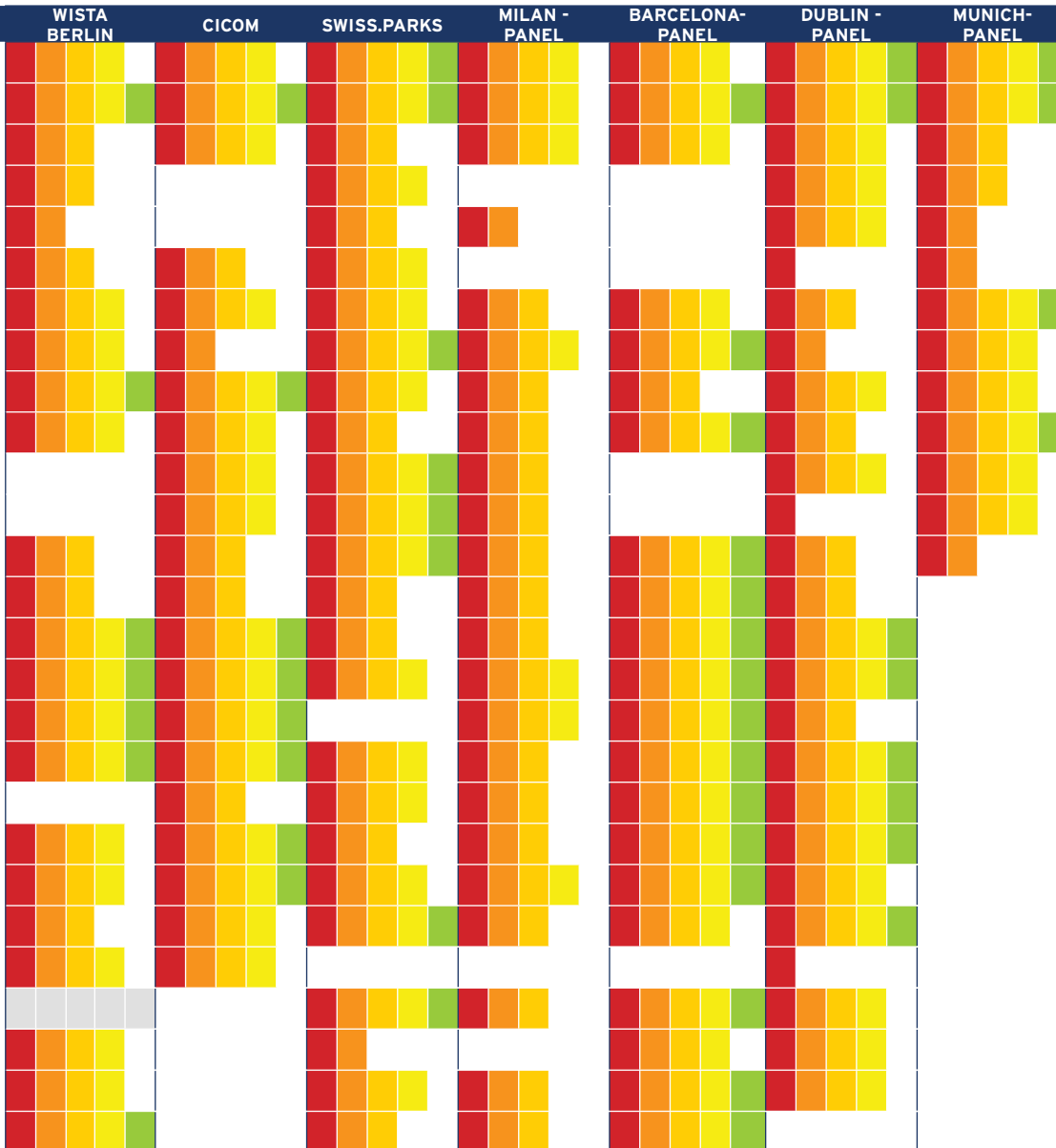
Innovation culture / political awareness

Methodologies

- The **entry and exit policies**, which are critical elements for the functioning of an incubator, are well developed in many, but not all, incubators reflected in the panel. In some incubators, the screening of potential tenants appears to be very selective and based on multiple criteria, including education and skills of the person submitting a project. However, other incubators focus chiefly, if not exclusively, on the growth potential of the candidate company as an entry criteria. The exit policy in not-for-profit incubators often consists only in a maximum stay for tenant companies; only few incubators sanction those companies which do not grow or those that do not show the ability to develop self-help mechanisms and processes.

These trends are in line with recent findings of research on business incubation. The elements characterising the organisation and functioning of the incubators confirmed to be the key component for successful business incubation. The average score for this component (4,01) is higher than for institutional and cultural context and the technological, innovation and social networks (3,64 and 3,69 respectively).

REGION OR AREA/COMPONENT		OTANIEMI	SOUTH SWEDEN	I3P TURIN
INSTITUTIONAL AND CULTURAL CONTEXT	In the region/local area, incentives and rewards are available to encourage entrepreneurship	Orange	Orange	Orange
	A high-skilled workforce is available in the region/local area	Yellow	Orange	Orange
	There is a widespread culture of entrepreneurship	Yellow	Orange	Orange
	Contractual agreements between public research bodies and business companies are frequent	Yellow	Orange	Orange
	Researchers/academics are active in starting their own business	Yellow	Orange	Orange
	Researchers/academics are members of companies' boards	Yellow	Orange	Orange
	In my region, infrastructures facilitate new companies installation	Yellow	Orange	Orange
	Infrastructures (e.g. transport, accommodation) facilitate residential purpose	Yellow	Orange	Orange
TECHNOLOGICAL/ INNOVATION AND SOCIAL NETWORK	Technological/innovation networks (clubs, foundations, etc.) exist	Yellow	Orange	Orange
	Technological/innovation networks (clubs, foundations, etc.) are active	Yellow	Orange	Orange
	Social networks and communities of practice exist	Yellow	Orange	Orange
	Social networks and communities of practice are active	Yellow	Orange	Orange
	Extant networks facilitate access to venture capital	Yellow	Orange	Orange
	Extant networks are a primary source where to find complementary assets and skills	Yellow	Orange	Orange
INCUBATOR FUNCTIONING	Incubator's managers are full-time employed persons	Yellow	Orange	Orange
	Accommodation	Yellow	Orange	Orange
	Administrative services	Yellow	Orange	Orange
	Advisory and counselling	Yellow	Orange	Orange
	Legal advice on IPR	Yellow	Orange	Orange
	Training and coaching	Yellow	Orange	Orange
	Networking opportunities	Yellow	Orange	Orange
	Agreement / exchange with a university to acquire knowledge	Yellow	Orange	Orange
	Agreement / exchange with a research institute to acquire knowledge	Yellow	Orange	Orange
	The incubator offers access to sources of capital (Please indicate: debt, equity or both).	Yellow	Orange	Orange
	The incubator's ability to convert scientific issues into marketable products is high	Yellow	Orange	Orange
	The incubator has an effective entry policy, with appropriate screening procedures	Yellow	Orange	Orange
	The incubator has an effective exit policy so as to reduce tenants' dependency on support	Yellow	Orange	Orange



REGION OR AREA/COMPONENT		HADASIT BIO LINK	OXFORD BIO LINK	PADOVA START CUBE	COPENHAGEN-START	KREO-BOLOGNA
INSTITUTIONAL AND CULTURAL CONTEXT	In the region/local area, incentives and rewards are available to encourage entrepreneurship	Red	Red	Red	Red	Red
	A high-skilled workforce is available in the region/local area	Red	Red	Red	Red	Red
	There is a widespread culture of entrepreneurship	Red	Red	Red	Red	Red
	Contractual agreements between public research bodies and business companies are frequent	Red	Red	Red	Red	Red
	Researchers/academics are active in starting their own business	Red	Red	Red	Red	Red
	Researchers/academics are members of companies' boards	Red	Red	Red	Red	Red
	In my region, infrastructures facilitate new companies installation	Red	Red	Red	Red	Red
	Infrastructures (e.g. transport, accommodation) facilitate residential purpose	Red	Red	Red	Red	Red
TECHNOLOGICAL/ INNOVATION AND SOCIAL NETWORK	Technological/innovation networks (clubs, foundations, etc.) exist	Red	Red	Red	Red	Red
	Technological/innovation networks (clubs, foundations, etc.) are active	Red	Red	Red	Red	Red
	Social networks and communities of practice exist	Red	Red	Red	Red	Red
	Social networks and communities of practice are active	Red	Red	Red	Red	Red
	Extant networks facilitate access to venture capital	Red	Red	Red	Red	Red
	Extant networks are a primary source where to find complementary assets and skills	Red	Red	Red	Red	Red
INCUBATOR FUNCTIONING	Incubator's managers are full-time employed persons	Red	Red	Red	Red	Red
	Accommodation	Red	Red	Red	Red	Red
	Administrative services	Red	Red	Red	Red	Red
	Advisory and counselling	Red	Red	Red	Red	Red
	Legal advice on IPR	Red	Red	Red	Red	Red
	Training and coaching	Red	Red	Red	Red	Red
	Networking opportunities	Red	Red	Red	Red	Red
	Agreement / exchange with a university to acquire knowledge	Red	Red	Red	Red	Red
	Agreement / exchange with a research institute to acquire knowledge	Red	Red	Red	Red	Red
	The incubator offers access to sources of capital (Please indicate: debt, equity or both).	Red	Red	Red	Red	Red
	The incubator's ability to convert scientific issues into marketable products is high	Red	Red	Red	Red	Red
	The incubator has an effective entry policy, with appropriate screening procedures	Red	Red	Red	Red	Red
	The incubator has an effective exit policy so as to reduce tenants' dependency on support	Red	Red	Red	Red	Red

ALMACUBE and SIPRO Network of Incubators

Description of practice

Emilia-Romagna (IT)



PAXIS Network or Project

Novelty

KREO

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

The incubation model has been an important theme on which the KREO partners have done research and exchanges. Two specific structures that have played an active part in exchange activities are based in Emilia-Romagna and represent two different working approaches.

Short description

AlmaCube is the non-profit business incubator of the University of Bologna. It was jointly founded in 2001 by the University of Bologna, Fondazione Cassa di Risparmio in Bologna and Fondazione Alma Mater in order to promote and sustain entrepreneurship in the local university system. The incubator does not focus on a specific industry or technological field in order to sustain the multiple disciplines of excellence of the University of Bologna.

SIPRO - the Development Agency for the Province of Ferrara - was set up in 1999 and currently manages a network of four business incubators located in different areas of the Province of Ferrara for supporting early-stage companies from different sectors, with an increasing focus on innovative companies, university spin-offs and corporate spin-offs.

Delivery mechanism

Both AlmaCube and SIPRO provide workspace (office units as well as shared facilities) and support services to their tenant companies. SIPRO tenants may also have access to offices or to individual production plants and warehouses as well as to dedicated services. The selection of companies is made according to a series of criteria and further to the publication of a call for proposals. The AlmaCube incubator is tightly linked to Start Cup, the yearly business-plan competition, which is jointly organised by the University of Bologna and the CARISBO Foundation. Both rely on a network of relationship and support structures at local and regional level.

Expected or detected impact in region of origin

Impact is measured by the number of companies supported and the results reached. AlmaCube can host up to 16 new technology-based start-ups. Presence in the incubator is initially limited to one year, with a possible extension for another year under the discretionary judgement of the steering committee. Since 2002, AlmaCube has hosted around 20 companies. SIPRO has 33 units of different sizes and purposes available both for industrial and service companies. Tenants have access to offices and support for up to a three-year period. SIPRO has provided workspace and support to around 25 businesses employing around 70 people.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Grenoble-Lyon (FR)

Organisation implementing

PETALE

Transferability of the practice

Low

Medium

High

The Almacube and Sipro approach can be easily transferred to other areas. Success is linked to the proximity of industrial clients and research centres.

Main challenges

The Grenoble area has a strong research and industrial base and an extremely high entrepreneurship spirit. A pre-creation incubator (GRAIN) is already very active in the Grenoble area, providing services to business ideas. Pétale was designed by GRAIN after the study visit to Emilia-Romagna to meet the needs expressed by the local innovative start-ups for personalised accompanying services and to improve on their weakness (recruitment, marketing, financing, TT, etc.). It will be launched in January 2006.

Critical success factors

Grenoble and the Alpine area present local conditions and characteristics (high-level research base, industrial dynamism, synergy between the local players of innovation), which are particularly favourable for implementing the examples existing in Emilia-Romagna.

Levels of resources required

Low

Medium

High

The levels of resources required depend highly on the capacity of the incubators to establish relations with other local actors who are able to provide services and support incubator activities.

Potential impact in implementing regions

The potential impact is linked to the promotion of entrepreneurship in innovative fields and the support of university spin-offs, making facilities and services available.

The expected impact of Pétale is that it will assist 24 high potential start-ups per year on the Alpine territory and double the number of high tech start-ups.

For more information

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Innovation Centres operated by Oxford Innovation Ltd

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Description of practice

Oxfordshire (UK)



PAXIS Network or Project

- Novelty
- Existing practice

KREO

Good Practice Type

- Tool / Product / Service
- Methodology

- Learning / Networking
- Policy Recommendation

Aspect of innovation process addressed by practice

- Pre-seed and early-stage financing
- Incubation models (Incl. Internationalisation)
- Spin-off / Technology transfer

- Entrepreneurship
- Innovation culture / Political awareness
- Other

Oxford Innovation has set up and currently manages a network of 12 innovation centres providing a wide range of services to over 300 innovative start-up companies with the potential for growth. The first innovation centre was set up in 1985 in the Oxford area. Since then, the network has grown rapidly to become one of the most successful regional business incubator networks in Europe.

Short description

Innovation centres are based in several areas of the South East of England and provide workspace for small companies in an instructive and supportive environment. Typical features include: professional infrastructure and image for a small company; communities of like-minded entrepreneurs, individuals and companies; selection on entry to ensure business viability and growth potential; practical help and access to a network of information sources and advisers; focus for support measures aimed at fast-growing companies; a virtual office facility.

Delivery mechanism

A full range of business services for entrepreneurs and early-stage technology companies in the following key areas:

- Business support: links with experienced entrepreneurs and professionals (through ICE, ice.oxin.co.uk), innovative approaches (Animate programme), development of toolkits, assistance on PR, marketing and event organisation
- Raising finance: identification of funding sources (Fit4Funding programme), investment readiness services, access to over 200 technology investors and business angels, assistance to access DTI's (Department for Trade and Industry) Grant for Research and Development
- Technology commercialisation: business planning service (market research, technology assessment and competitor analysis), for selected entrepreneurs and innovators, guidance on marketing and early-stage fundraising and, in some cases, sharing of risks and rewards.

Expected or detected impact in region of origin

Innovation centres are profitable and financially viable after two years of operation. Their success mainly resides in their rich network of relationships with all types of actors, location in key areas (in research organisations, science parks, etc.) and complementary support programmes for entrepreneurs (business angel networks, Fit4Funding programme aimed at making start-up companies ready to deal with potential investors, cluster networks, etc.). In the last ten years of activity, 400 companies have benefited from this opportunity (with a survival rate of 89% over the crucial first two years), while the network can currently host over 300 companies.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Emilia-Romagna (IT)

Organisation implementing

I TECH-OFF - Incubator for the ICT and multimedia sector, ASTER (REGIN proposal) and SIPRO

Transferability of the practice

 Low

 Medium

 High

The practice strongly relies on the local Oxfordshire conditions, which include a huge number of support schemes and organisations for start-ups and NTBF.

Main challenges

The innovation centre experience has been of great inspiration for I TECH-OFF - a business incubator devoted to ICT and multimedia developed jointly by ASTER, the University of Bologna and Fondazione Alma Mater. In particular, learning from Oxfordshire was relevant in the feasibility study phase when the specific tool kit developed by Oxford Innovation was used, as well as in the definition of the services to be provided to beneficiary start-ups. Elements of the innovation centre experience have also been used in the definition of a new proposal, REGIN, recently submitted for funding to the Italian Ministry of Research, which deals with the provision of support to business projects and start-ups based on research outputs. SIPRO network of incubators, in the Province of Ferrara, also benefited from the Oxford experience.

Critical success factors

- Availability of a rich research base, able to provide a background for the creation of innovative companies
- Ability to develop a complete set of support, as well as operative support, tools for new companies
- Strong networking relationship among the innovation actors at local and, additionally, national level
- Availability of sources of funding for start-ups (VC, seed funds, etc.)

Levels of resources required

Low

Medium

High

The innovation centre's approach can be transferred to other areas. The high success rate is linked to the strong presence of research structures in the Oxfordshire area and to the provision of a complete support package for new businesses.

Potential impact in implementing regions

With regard to the highlighted success factors, the Emilia-Romagna region has a strong research base and an extremely lively entrepreneurship spirit. I TECH-OFF was launched in 2004 and still needs to prove the innovation centre's success levels. At present, I TECH-OFF is supporting six projects in the incubating process out of 13 proposals received in the first call. Expected impact is on highly qualified employment, creation of wealth as well as the further development of the ICT and multimedia fields in Emilia-Romagna.

For more information

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Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Guide Map for Foreign Investors

Description of practice

Dublin (IE)



PAXIS Network or Project

Novelty

PANEL

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Website with key information for foreign entrepreneurs and investors.

Short description

Objective: Development of a concept to provide crucial information to foreign investors and entrepreneurs coming to a region to help them overcome their disadvantages, regarding a lack of knowledge of the local business scene, the legal and fiscal framework, support agencies, business development facilitators and consultants, etc.

The solution proposed is a website with hybrid character. It should provide both the crucial information and the key contacts that the foreign investor or entrepreneur needs. However, it should also have the functionality of a web portal linking to all the other relevant websites that, for example, promote the region or provide a comprehensive listing of service providers.

A web-based solution is preferred over a paper-based one because of the relative ease of maintenance of the information and because of the accessibility from a worldwide target audience.

Target groups: Foreign entrepreneurs/companies that are considering coming to the region with a focus on knowledge-based SMEs and innovative entrepreneurs. Subsidiary target: influencers (investment journalists, business development companies).

Delivery mechanism

PANEL dissemination actions:

- Public meetings and other forums
- PANEL News (www.panel.tcd.ie/news)
- PANEL website (www.panel.tcd.ie)

Expected or detected impact in region of origin

- Increase in number of foreign entrepreneurs starting up in region
- Acceleration of their start-up
- Improvement of start-up success rate



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Stuttgart Region (DE) (planned)
Dublin (IE) (investigating)

Munich (DE) (integrating ideas into current solution)

Organisation implementing

TTI GmbH / PUSH!
Dublin Regional Authority and Dublin Chamber of Commerce
www.munich.de and City Council

Transferability of the practice

Low

Medium

High

The concept is designed for transfer to any region wishing to facilitate foreign investors and entrepreneurs who want to start-up in the region.

Main challenges

Co-ordinating regional players and getting agreement on providing commitment and strategy.

Critical success factors

Critical success factors:

- Strong committed promoter(s)
- Co-operation between agencies and other bodies
- Funding

Levels of resources required

Low

Medium

High

Resources to set up website and maintain it

Set-up:

- Definition of content
- Technical design
- Graphic design

Maintenance:

- Content management
- Annual facelift

Potential impact in implementing regions

- Increase in number of foreign entrepreneurs starting up in region
- Acceleration of their start-up
- Improvement of start-up success rate

For more information

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Pre-seed and early-stage financing

Business Opportunity Assessment and Planning

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Description of practice

Torino area (IT)



PAXIS Network or Project

Novelty

HIGHEST

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

- Perform a thorough assessment on the innovative business ideas (IBIs) selected in order to participate in the Pre-incubation Program (entrepreneurship training programme)
- Increase the entrepreneurial competencies of the workgroups entrusted to carry out the assessment within the PIP (Pre-Incubation Program) didactical activities

Short description

Objectives: As above plus the following:

- Develop high quality business plans according to the Pre-incubation Program (PIP) activities
- The final business plans, judged by an evaluation committee, may participate in the local Start Cup business plan competition or get access to the I3P incubation programme

Actors:

- Pre-incubation programme organisation, made up of I3P and its network of trainers, tutors and consultants in partnership with local public and private institutions

Target Groups:

- Business students from local universities
- People not currently employed who have significant work experience
- Idea-owners

Delivery mechanism

Training activities (lasting ten weeks) delivered to selected users in the Torino area.

Expected or detected impact in region of origin

- The training activities increase the entrepreneurial skills of the participants
- Develop solid business plans 'ready for the market'
- It is an effective tool to stimulate entrepreneurship in a region



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Helsinki (FI) (for benchmarking activities)
Switzerland (for benchmarking activities)

Torino Area (IT) (not I3P)

Organisation implementing

Otaniemi incubator
Zurich incubators
(Start - Technopark Winterthur)
Lisem, Univer, Tecnogranda Incubator

Transferability of the practice

Low

Medium

High

The model is easily transferable but it requires much support from public and private institutions in terms of academic resources and budget.

- It requires a full-time academic structure

Main challenges

- It is a relatively expensive model
- It requires a heavy support system to organise and manage it

Critical success factors

- Effective educational structure for the pre-business plan activities
- Difficulty to fully involve the idea owners in the PIP activities
- Difficulty to align objectives/vision of the idea-owners and business students
- Difficulty on keeping high commitment and co-operation between idea owners and business student/expert
- Idea-owners need to be protected in terms of non disclosure agreement and IPR

Levels of resources required

Low

Medium

High

Resources:

- Costs: 85,000 euro (estimated)
- People: Up to 10 or 12 people (teachers, tutors, staff, etc.)

Potential impact in implementing regions

Potential impact in implementing regions:

- The competencies acquired in business planning are an asset in the job market
- A high quality business plan may result in a start-up with great potential, thus increasing the economic health of the region
- The public institutions are interested in promoting these kind of activities

For more information

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Innovative Ideas Scouting and Screening

Description of practice

Torino area (IT)



PAXIS Network or Project

Novelty

Existing practice

HIGHEST

Good Practice Type

Tool / Product / Service

Methodology

Learning / Networking

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Incubation models (Incl. Internationalisation)

Spin-off / Technology transfer

Entrepreneurship

Innovation culture / Political awareness

Other

Short description

Objectives:

In the overall I2C process (from Idea to Company) the following issues can be improved/achieved:

- Achieve a solid flow of business ideas with a high technological content
- Screening ideas on a preliminary level for the technological feasibility and business potential of the ideas
- Direct idea-owners to the most effective way: go/no-go, technology transfer

Actors:

- I3P Incubator in collaboration with local organisations
- Evaluation committee for screening ideas
(17 members, 5 of whom are in the restricted committee)

Target Groups:

- Public and private research centres,
universities and innovative firms as sources for innovative business ideas

Delivery mechanism

Direct action in the field (meeting with potential users) supported by a wide promotional activity.

Expected or detected impact in region of origin

Each year, the entrepreneurship awareness in the area is getting higher.

The number of discovered innovative ideas are of a higher quality with greater business potential



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Helsinki (FI) (for benchmarking activities)
Switzerland (for benchmarking activities)

Torino Area (IT) (not I3P)

Organisation implementing

Otaniemi incubator
Zurich incubators
(Start - Technopark Winterthur)
Lisem, Univer, Tecnogranda Incubator

Transferability of the practice

Low

Medium

High

- The mechanism is highly reproducible in a university environment
- The process may either be carried out continuously or during certain times of the year

Main challenges

Awareness of entrepreneurship has to be improved within researchers' environments.

Critical success factors

- Find which, and where, are the major sources of innovative ideas
- Understand the most effective strategy to gather a high number of innovative ideas
- Estimate the trade-off between quantity and quality of the collected ideas
- Create a self-sustainable flow of innovative business ideas directed to company creation/technology transfer

Levels of resources required

Low

Medium

High

Resources

- Costs: 40,000 euro (estimated)
- People: two to three scouts plus the evaluation committee members

Potential impact in implementing regions

The potential is high, especially for incubators working in a university environment, which are looking for a greater number of ideas to input into the company creation (I2C) process.

For more information

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Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Otaniemi NTBF Support System

Description of practice

Helsinki Region (FI)



PAXIS Network or Project

Novelty

HIGHEST

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Otaniemi and Technopolis Ventures New Technology Based Firms (NTBF) Support System offers a wide range of services from evaluation and coaching to networking and growth enhancement. The main steps are discovery, incubation, acceleration and internationalisation. The Otaniemi networking model's common goal for actors is bridging innovation and business.

Short description

The main objectives of the Otaniemi NTBF Support System related to business exploitation of research are:

- to provide a highly efficient start-up support environment, and link scientific innovation and entrepreneurialism
- to provide incubation services and partnering to generate technology-based companies and global success stories.

The main actors operating in private-public partnership are:

- high-tech incubator Technopolis Ventures, research institutes, universities, innovative firms and supporting Helsinki Region private and public partner network, like Finnish Technology Agency TEKES, Helsinki Region TE-centre, Finnish National Fund for Research development SITRA, VC firms and service providers.

The operating model is based on active networking and private-public partnership (description graph available). The private sector is especially involved in the incubation and acceleration. Development services are partially publicly supported.

The target groups are researchers, innovative entrepreneurs, technology-based start-ups and spin-offs that have the potential to grow.

Delivery mechanism

- The transfer is done by benchmarking in the HIGHEST network, especially in the Torino area where the incubator I3P, based on the Otaniemi model, has developed its NTBF system further. In Berlin, the model was the basis for the Berlin Life Cycle Concept.
- The benefits need to be adapted into the regional environment and the actors' networking; the main actors' role is important.

Expected or detected impact in region of origin

Success and performance indicators in Otaniemi, Helsinki Region - bridging innovations and business by:

- proving the Otaniemi high-tech community is a good environment to develop ideas into success stories
- quantity impact: 55 new high-tech start-ups generated in 2004
- quality impact: average growth in incubator 50%, survival rate 95%
- separate study of post-incubation shows a survival rate of 86% after two years.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Torino (IT)
(developed own NTBF support system)
Tallinn (EE) (co-operation agreement)
Berlin (DE) (Built Life Cycle Concept)
South Sweden (benchmarking)
Alpes Maritimes (FR) (benchmarking)

Organisation implementing

I3P Incubator (Politechnico Torino)
Tehnopol (Tallinn Technology Park)
Wista Management (Adlershof Science Park)
SydSam (Incubators & Science Parks)
CICOM (Sophia Antipolis Science Park)

Transferability of the practice

Low

Medium

High

According to the Otaniemi experience the benefits require long-term operation commitment, good private-public partnership and continuous improvement towards excellence.

Low

Medium

High

HIGHEST benchmarking results show that the networking model and additional elements are easily transferable if the basic infrastructure and active main actor exists.

Main challenges

Good operation of the networking model needs a high-tech community with a common goal and committed actors, both private and public, which have to develop the concept on a continuous basis. The main challenges are to find private and public financing instruments for both the actors and the community, including the international support of global companies.

Critical success factors

Bridging innovation and business needs: strong university, industry and regional partnerships, incubator expertise with business development, coaching and internationalisation services, common events and seminars providing contacts, and cluster programmes providing best expertise in their sector.

Levels of resources required

Low

Medium

High

The main actor must have a proven track record of creating NTBF and forming a network of incubators, research institutes, universities and supporting private and public partners. Incubator excellence is needed.

Low

Medium

High

The high-tech community has to have some existing co-operation and a common basis for co-operation. It is not so much about quantity of resources but quality of co-operation and driving force towards community co-operation excellence.

Potential impact in implementing regions

- Creating a high-tech community as a good environment in which to develop ideas into success stories
- Building foundations for bridging innovations and business in co-operation with universities, research institutes, incubators and science parks, and forming development platforms for private-public partnership

For more information

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www.technopolis.fi/ventures/teve/partners_en.html
Flyer Business Exploitation of Research Results - Otaniemi NTBF
Support System and fact sheet available from Pertti Vuorela

Otaniemi High Tech Community

www.otaniemi.fi

Users Torino Area: I3P Incubator - www.i3p.it
Tallinn: Technology Park - www.tehnopol.ee

EurOffice/ Business Welcome Package/ Euro Expo/ Business Connect

Description of practice

Berlin (DE), Helsinki (FI), Alpes Maritimes (FR)



PAXIS Network or Project

Novelty

HIGHEST

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

The EurOffice package provides time-limited office locations to start-ups free of charge in order to help them with initial business contacts in a new location or in view of setting up a subsidiary in another country or region. Its first component, the Business Welcome Package, offers an office with services for up to three months for start-ups. Euro-Expo provides small companies a cost-effective joint platform to attend trade fairs in Europe and around the world, and to network with potential clients more easily.

Short description

Create new companies and branch offices. Help start-ups and entrepreneurs access new markets and internationalise their business by lending them free offices, stands and other services around Europe for a few days. EurOffice targets start-ups and SMEs. The EurOffice offer is especially intended for innovative start-ups and SMEs in leading technologies such as ICT, Biotechnology, Optics, Materials and Microsystems Technology and Media Technology. Members' existing and future start-up companies can utilize the EurOffice services in any location of the EurOffice membership regions. Existing or future innovative start-up companies located in one of the member regions can also apply to use EurOffice. Those companies seeking to expand their business into leading European markets can all benefit from the services EurOffice has to offer.

The EurOffice initiative currently includes 10 leading European regions:

Czech Republic - South Moravia, Estonia - Tallinn, Finland - Helsinki, France - Alpes-Maritimes, France - Lille Metropole, Germany - Berlin, Germany - Bremen, Germany - Munich, Italy - Torino, Sweden - Southern Region, Sweden - Stockholm and Switzerland. Membership is open to other organisations based in other regions.

Delivery mechanism

Website, meetings and presentations, exchange of ideas, documents and concepts, networking. Basic 3-day offer (free-of-charge):

- Furnished office in a business environment with wireless or cable Internet access via LAN;
- A conference room suitable for 6 people with screen / video projection
- Guidance and informational services on the business environment and location

Further services include (availability and costs vary according to region):

- Extension of basic 3-day offer
- Organization of meetings with customers and prospects
- Local database of VIP contacts
- Access to companies and research institutes
- Access to partners, distributors and resellers
- Secretarial services and translation support

Expected or detected impact in region of origin

Greater networking for start-ups; enlargement of science parks; increased regional attractiveness to foreign companies and investments; better understanding for start-ups of markets and positioning. One notable success has been the US-based Google, who utilized the Welcome Office package in Zurich. The Euro-Expo helped Finnish, German and other European SMEs to achieve visibility at the Microsystems Expo, Photonics West, Laser Optics Berlin and many other trade fairs.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Quebec (CA)
Ile de France (FR)
Malmö (SE)

Organisation implementing

INO
CILAS
City of Malmö

Transferability of the practice

Low

Medium

High

EuroOffice is easily transferrable. It already has 11 member regions and is expanding to China.

Main challenges

Highly competitive location (Berlin); heterogeneous facilities; low awareness of the service; unclear view of actual customer costs; limited number of partners.

Critical success factors

Clearly defined project plan (supplied by provider); workable business plan (supplied by company); people needed for networking (provider); physical set-up of offices and equipment (provider); set-up, quality and extension of network (provider).

Levels of resources required

Low

Medium

High

Business environment in technology park, BIC or elsewhere; experienced management team; well-equipped offices; member of the EuroOffice network.

Potential impact in implementing regions

Greater networking for start-ups; enlargement of science parks; increased regional attractiveness to foreign companies and investments; better understanding for start-ups of markets and positioning.

For more information

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Flyer: Opening European Markets
Presentation: Opening markets_Services_Berlin.ppt
Press article: Adlershof Aktuell, March 2003

Users:
Canada (Quebec): INO, Mr Talbot
France (Ile de France): CILAS, Mr de Miscault
Sweden (Malmö): City of Malmö
Germany (München): GruenderRegio M
Czech (Brno): South Moravia Innovation Centre
Sweden (Kalmar): Sydsam
Denmark (Kista): KISTA Science City
Swiss (St Gallen): SwissParks
Italy (Torino): I3P
France (Lille): Lille Metropole
Estonia (Tallinn): Tehnopol
Germany (Bremen): Bremen Innovation Agency



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Best Incubation Practice Toolkit

Description of practice

Europe and Israel



PAXIS Network or Project

Novelty

BIOLINK

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Where a project such as Bio-Link involves several incubators and their tenant companies, lessons gained from the project can be embodied into a Best Incubation Practice (BIP) toolkit, which may have relevance to other fields of activity.

Short description

The project involved 5 biotechnology incubators across Europe and Israel and two research institutes with experience of the sector. Within the incubators, their large number of tenant or client companies and their supporting infrastructures lies a huge body of knowledge, expertise and experience. Codifying this body and adding the lessons learned during Bio-Link has created a Best Incubation Practice Toolkit, not only the 'Do's' but just as important, the 'Don'ts' of successful incubation and commercialisation to nurture and speed the growth of startups and avoid repetition of common mistakes.

Delivery mechanism

The BIP is delivered by dissemination to interested parties at national, regional and local level. This can also be backed up by visits, assistance or consultancy at local or national level by the relevant incubator involved in assembling the toolkit.

Expected or detected impact in region of origin

The expected impact is a long-term benefit to incubators, which, by adopting the toolkit completely or in part, improve their performance.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Europe and Israel

Organisation implementing

Bio-Link partners

Transferability of the practice

Low

Medium

High

BIP can be applied not only to biotechnology where it was created, but also to other disciplines.

Main challenges

Ensuring wide dissemination of the BIP, so that it was carefully targeted at those involved in incubation and startups and offers practical and readily utilised advice and guidance.

Critical success factors

Incubators seeing tangible performance improvements by adopting BIP

Levels of resources required

Low

Medium

High

Extracting best practice was not difficult, but the implementation of co-incubation from which BIP evolved was difficult and demanded concentrated resources and effort.

Potential impact in implementing regions

A long-term, gradual impact resulting from adopting the BIP.

For more information

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Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Co-Incubation (CI)

Description of practice

Europe and Israel



PAXIS Network or Project

Novelty

BIOLINK

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Co-Incubation (CI) is a method of increasing the growth rate and sustainability of SME biotechs. It affects all areas of incubation.

Short description

Co-Incubation (CI) is an entirely novel method of improving the growth rates and sustainability of biotechnology startups, first evaluated and tested in the Bio-Link project. Biotechnology is a global, important and still growing business, vital to the discovery and commercialisation of new drugs and therapies, but it is still a volatile sector. New methodologies for bettering growth and reducing volatility are essential for a stable industry.

Delivery mechanism

Selecting and matching companies with complementary technologies and aims from different incubators, persuading them of the advantages of taking part in CI, proactively managing the CI interactions and then measuring the tangible and intangible results.

Expected or detected impact in region of origin

CI is a long process, so the impact tends to be equally long-term. Each step in the process can take months and continuous encouragement and management. With some projects, the CI starts happening more quickly and results come faster; with others, the CI seeds are planted and nurtured, but the results germinate much later.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Europe and Israel

Organisation implementing

Bio-Link partners

Transferability of the practice

Low

Medium

High

This practice can be transferred to other hi-tech spheres, but might need modifying for different disciplines.

Main challenges

Actually getting the CI process moving and keeping it moving so that it remains at the top of the agenda. Each stage takes months rather than weeks and needs the constant attention of a specialist CI manager.

Critical success factors

Seeing CI taking place and the visible differences it makes to companies when they see and understand the benefits.

Levels of resources required

Low

Medium

High

It demands and needs a specialist manager who can devote large amounts of time to getting CI projects going, and who can then move them forward. Persistence is the key.

Potential impact in implementing regions

Over time, impacts can be strong, but with some projects, the seeds planted now will germinate in a few years rather than months.

For more information

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Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Road-show Seminar

Description of practice

Europe and Israel



PAXIS Network or Project

Novelty

BIOLINK

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Roadshows are a very successful method of networking to increase the collaboration and marketing of SMEs.

Short description

SMEs rarely have any marketing capability or capacity and must rely on networking to investigate markets, promote their technologies and identify collaborations. Such networking is frequently opportunistic or fragmented. Road-show seminars are a very successful method of networking, targeting and bringing together specific groups in concentrated sessions

The objective of a road-show seminar is to enable the participating companies to present their technology and meet representatives from pharmaceutical and biotech companies as well as from venture capital funds. Another objective is to enable interaction between companies from bio-incubators in order to extend their networking potential collaborations and business development.

During a one-day seminar, a number of SMEs will give short presentations on their companies followed by one-on-one meetings with each other.

Delivery mechanism

A one-day meeting of invited SMEs, representatives of government, regulatory authorities, large pharma-companies and venture capital organisations.

Expected or detected impact in region of origin

A strong impact. SMEs learn a great deal about other companies engaged in the same or complementary fields to themselves and can meet face-to-face, something that is often difficult to achieve with the CEOs of these companies. They have an opportunity to discuss aspects of relevance or interest there and then and can continue the discussion/link after the roadshow.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Europe and Israel

Organisation implementing

Bio-Link partners

Transferability of the practice

Low

Medium

High

Can be used in any field of business

Main challenges

Making inward-looking CEOs aware of the advantages of participation; having some budget to assist with travel costs for cash-strapped companies; ensuring that government, regulatory authorities, big pharmaceuticals and VCs attend and offer advice to the SMEs.

Critical success factors

A good attendance of 12-15 companies. Tight limits and control on presentations. Arranging as many one-on-one meetings as possible in advance of the event.

Levels of resources required

Low

Medium

High

A time-consuming process to arrange the event and the programme but not expensive to do.

Potential impact in implementing regions

It is a practice which shows immediate results and is a revelation for many CEOs. The participants at the Bio-Link roadshow in Paris in February 2005 wanted to have more of these events. A good number of participants have followed up on the roadshow and one is considering establishing an office in another Bio-Link incubator to pursue collaborations and a project.

For more information

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Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Otaniemi InnoTULI Business Evaluation

Description of practice

Helsinki Region (FI)



PAXIS Network or Project

Novelty

HIGHEST

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Otaniemi InnoTULI Business Evaluation is a private-public partnership tool supporting entrepreneurs and the incubation process. The discovery and evaluation of business ideas help commercialisation of research results and innovations. The InnoTULI process includes the possibility of grants for idea-development projects at the earliest stage of financing.

Short description

InnoTULI Business Evaluation's main objective is Business Exploitation of Research Results by:

- discovering and evaluating new potential ideas, research-based innovations and business concepts;
- evaluating the potential of the business concept and granted TULI projects to reach the next stage;
- developing and helping further to find the right actions towards commercialisation.

InnoTULI co-operation consortium is operating in public-private partnership. The main actors in Helsinki Region are

- Technopolis Ventures / Otaniemi Science Park as project co-ordinator sponsored by Finnish Technology Agency TEKES and as key sources Helsinki University of Technology TKK and Technical Research Centre of Finland VTT.

The target groups are researchers, innovators, entrepreneurs, start-ups and spin-offs from research organisations having potential new ideas and business concepts.

Delivery mechanism

- Transfer has been piloted in the HIGHEST network via workshops, visits and implementation support
- The process is well documented but needs local testing and adaptation into the regional environment

Expected or detected impact in region of origin

Success and performance indicators in Otaniemi, Helsinki Region:

- **Deal Flow impact:** per annum 160 ideas registered, 80 ideas evaluated and 25 companies set up in 2004
- **Quality impact:** finding best potential ideas for incubation and positive satisfaction statements from companies

Separate studies, for example The Success of InnoTULI cases 2000-2002 and academic papers.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

South Sweden (transferred, tested & implemented)
 Berlin (DE) (design & piloting phase)
 Torino (IT) (system structure phase)

Organisation implementing

SydSam (Malmö Incubator and Kalmar Science Park)
 Wista Management (Adlershof Science Park)
 I3P Incubator (Politecnico Torino)

Transferability of the practice

Low

Medium

High

Experiences from the pilot transfer show that evaluation tools are easy to transfer, but the methodology and networking system requires analysis and implementation of regional structures.

Low

Medium

High

Experiences from the pilot transfer show that evaluation tools are relatively easy to transfer.

Main challenges

InnoTULI Business Evaluation bridges innovation and business, so solid organisational foundations at both ends are needed along with balanced active connections. Set-up, quality and operation of network with an experienced team and having people with an ability for networking are the main challenges (but also success factors) for positive results.

Critical success factors

Setting up the bridge between network and team for successful operation needs: clearly defined and proven concept, networking team with the ability to give concrete help for target group, matching high-tech selection criterias to business development, and objective and reliable evaluation with concrete proposed actions.

Levels of resources required

Low

Medium

High

The evaluation tool needs to be used in business evaluation with support from networking team.

Low

Medium

High

- Team including project manager and contact persons in universities, research institutes and organisations
- Financing of grant for idea development (max. 10,000 euro per case)

Potential impact in implementing regions

- Mechanism to increase business exploitation of research results and improve regional co-operation in evaluating potential ideas, providing support for first steps towards commercialisation and generating new start-ups
- Tool for co-operation between universities, research institutes and science parks, private-public partnership platforms and a practical tool in generating new companies

For more information

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Flyer Business Exploitation of Research Results
- InnoTULI Business Evaluation and InnoTULI
fact sheet available from Pertti Vuorela

Otaniemi High Tech Community
www.otaniemi.fi

Users South Sweden: SydSam
www.sydsam.se



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Scottish Enterprise Growth Toolkit

Description of practice

Edinburgh (UK)



PAXIS Network or Project

Novelty

START

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

This toolkit enables the growth of an individual business to be assessed. This growth assessment then enables the Economic Development Agency or support organisation to allocate and prioritise resources against which companies and organisations are likely to have the biggest impact on the economy.

Short description

This toolkit is aimed primarily at economic development agencies and intermediary organisations providing support to SMEs.

The objectives of this toolkit and this approach to identifying the growth companies and organisations in a particular region are to support greater clarity around where budgetary and staffing resources should be allocated in order to generate the highest possible return for the investment being made.

Currently Scottish Enterprise uses this tool to identify where to prioritise the deployment of its business adviser resource to Scottish companies. While all Scottish companies can receive support through Scottish Enterprise and its partner organisations, those SMEs and organisations with the highest growth potential will receive the widest range of support possible, including business advisory support.

Delivery mechanism

This toolkit is used by the business adviser who will make an assessment on the growth potential of a company based on a series of key questions designed to assess the company's opportunity, capacity and ambition to grow.

Expected or detected impact in region of origin

This approach has significant impacts for Edinburgh Region. To illustrate this, the group of companies, which SE Edinburgh and Lothian has been supporting during 2004/05, demonstrated an average turnover growth of 18.3% and employee growth of 7.7%, compared to 9% and 1% respectively for Edinburgh Region overall.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Veneto Region (IT)
Vienna Region (AT)
Several other regions considering implementing

Organisation implementing

Veneto Innovazione

Transferability of the practice

Low

Medium

High

The toolkit is extremely easy to use; however its success depends on the skill, knowledge and judgement of the business adviser using the tool and on the consistency of scoring between individual business advisers.

Main challenges

In order to adopt this tool, a policy change needs to be made within the Economic Development Agency which allows this prioritisation of resources. This is therefore not something which can be adopted immediately, but needs an influencing role to be carried out to the policy-makers.

Critical success factors

Having skilled business advisers with strong business backgrounds to make a valid judgement on a company's growth potential.

Levels of resources required

Low

Medium

High

Resources required depend on the depth of the company base requiring support. This tool and approach delivers a far more efficient use of existing resources than allocating the same level of resource to all companies regardless of impact.

Potential impact in implementing regions

Any regions adopting this approach should see a difference in the growth of the companies supported and on the region overall.

For more information

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Euro-Entrepreneurs

Description of practice

Barcelona (ES)



PAXIS Network or Project

Novelty

PANEL

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

The aim of this programme is to encourage and prepare entrepreneurs to act at an international level.

Short description

The Euro-Entrepreneurs is an entrepreneurship training programme oriented towards preparing and helping entrepreneurs (with or without a company, and specially SMEs and micro-companies) to act at an international level within the current context of the European Union, so they can take advantage of the new reality that has emerged.

The European Commission has developed numerous documents about the need for achieving internationalisation of small and medium-sized companies, even from the initial stages. Euro-Entrepreneurs is in line with this and illustrates the key points that the EC thinks an entrepreneurship training programme has to have.

To fulfil the objective mentioned above it becomes essential to encourage entrepreneurs to 'Europeanise' their businesses, i.e. having customers or partners in other countries. To achieve this four things are required: a) that the entrepreneurs know all these facilities and means of support that the EC offers entrepreneurs, b) that the entrepreneurs get suitable support to use these facilities, c) that funding instruments are developed, aimed specifically at facilitating the European growth of new business projects, and d) that the entrepreneurs have a 'European commercial mentality'. Euro-Entrepreneurs acts in these four fields.

Euro-Entrepreneurs is a concentrated, targeted and selective programme aimed at those entrepreneurs that want to act at an international level. Furthermore, it distinguishes between two different profiles of entrepreneurs: a) the entrepreneurs that have a business plan that can be quickly implemented, and b) the entrepreneurs that already have an enterprise and want to work at an international level as well. With these particular needs in mind, a specific itinerary for been prepared for each one, both taking less than six months. In both cases there are on-site seminars for teaching the instruments of use for a Euro-entrepreneur that will be very useful to improve their business plan for internationalisation, but in the second case the system is even more flexible. After this phase (implemented in each of the participating regions), those who submit the business with the most potential in each region will take part in the selective group that will have the opportunity to improve their plan in a business school, working shoulder to shoulder with experienced international experts in subjects related to business internationalisation. Furthermore, these entrepreneurs will receive money to do business trips to contrast their ideas, as well as having the opportunity to present their business plan to investors. Finally, for those who establish contracts with customers or partners, there will be the possibility to occupy a space in a business incubator in an EU region.

Delivery mechanism

Brochures, website portal, e-brochures, presentations in entities and institutions.

Expected or detected impact in region of origin

This programme is expected to achieve a greater number of entrepreneurs that work at an international level.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Organisation implementing

Transferability of the practice

Low

Medium

High

This practice is highly transferable to all regions in Europe, which want to increase the number of local companies acting at an international level.

Main challenges

Probably the main challenge is having a strong partnership for a successful implementation, where all participating actors are highly coordinated. Also, there is a requirement for having good sponsors.

Critical success factors

The strength of the partnership.

Levels of resources required

Low

Medium

High

The total cost of the programme would be around 250,000 euro.

Potential impact in implementing regions

The potential impact in the implementing regions is very high because the internationalisation of a company normally means more turnover and more jobs.

For more information

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IT Growth House in Copenhagen

Description of practice

Copenhagen (DK)



PAXIS Network or Project

Novelty

START

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

The IT Growth House in Copenhagen is allocated on the fifth floor of the IT University of Denmark. An innovative environment of 3,500 m² offers the following four elements:

- **A Spin-off Experimentarium**, where students and researchers are guided in the testing and development of business ideas
- **A Growth Environment**, where start-ups and established companies can rent a place close to the attractive IT research and education environment of the university
- **Projects of co-operation** between university researchers and companies
- **Activities of Demonstrations and Exhibitions**, showing innovative technologies to a broad target group.

Short description

The IT Growth House is a unique environment for students, spin-offs, start-ups, companies and researchers with an interest in and a focus on Information Technologies. The place offers services, consultancy and an environment of growth that is stimulating and inspiring for development and research at a high level.

The difference between this place and a traditional science park is the creation of an innovative space for everybody working with information technologies - not only one group of start-ups, spin-offs, researchers, students or established companies, but all these people working together and taking advantage of the diversity of the place. The allocation of this space at the IT University makes the idea even better. Innovation, human resources, knowledge sharing, private-public partnership, start-ups, spin-offs and information technology - it is all here.

The IT Growth House opened 3 March 2005, and has room for innovative companies, start-ups, high technological spin-offs from research and established companies, research projects, offices of research and development from established companies, and students and researchers who want to see if their ideas can be commercialised. By May 2005, the place contained 19 established and new companies.

Delivery mechanism

A condition for the operator to fulfil was to assure a low rent payment, especially for spin-offs and start-ups, and to co-operate closely with the directory of the IT University in order to create exciting and attractive activities. In this way it has been possible to attract both start-ups, students, researchers and established companies, such as offices from Microsoft Technology Lab.

It is possible to get public financing in order to encourage start-ups, spin-offs and students to use the facilities for their innovative ideas. To use the spin-off Experimentarium is, for instance, free of charge if the user is recognised by the operator. And start-ups, research projects and offices of research and development from established companies only pay a rent of between 42 and 290 euro, depending on size and kind of activity.

Expected or detected impact in region of origin

This reinforces the cluster synergy on ITK, endorsing the innovative and entrepreneurial aspect of the IT sector, and the collaboration between university and enterprise development.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Edinburgh (UK)

Organisation implementing

Scottish Enterprise

Transferability of the practice

Low

Medium

High

The barriers are the capital, the political will and the will of co-operation. The 'easy' aspect is that if there is a will there is a way, and it is easy to implement the idea - small money, great effect.

Main challenges

The barriers are the capital, the political will and the will of co-operation.

Critical success factors

Political will and administrative capability to create networks

Levels of resources required

Low

Medium

High

The Danish Ministry of Science, Technology and Knowledge and Greater Copenhagen financed the establishing and operating costs with about 3.8 million euro during the period 2005-08.

Potential impact in implementing regions

This reinforces the cluster synergy on ITK, endorsing the innovative and entrepreneurial aspect of the IT sector, and the collaboration between university and enterprise development.

For more information

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Pre-seed and early-
stage financingIncubation
modelsSpin-off /
technology transfer

Entrepreneurship

Innovation culture /
political awareness

Methodologies

SPIN-OFF / TECHNOLOGY TRANSFER

INTRODUCTORY NOTE

Spin-outs & technology transfer: Cornerstones of an innovative Europe

Tom Schamp
Network Manager
Gate2Growth Academic Network

The Lisbon European Council of 2000 established the strategic goal for the European Union to become the most competitive and dynamic knowledge-based economy in the world by 2010. In fact, Europe's researchers are among the world's leaders in many areas of technological research and development but much of their exploitable work never reaches the market place, or does so too slowly. Looking at the recent European Innovation Scoreboard, Europe is lagging behind in number of patents, the working population in the innovative sectors, and research and development (R&D) expenditures, especially if compared to the US and Japan. Moreover, the innovation gap with the US and Japan has been widening for the last decade. Improving this state of affairs is one way for Europe to raise its innovative and competitive performance. Taking an innovation from the laboratory to the point at which private commercial investors are willing to fund it as a start-up requires a variety of inputs that can be supplied through what often constitutes a relatively modest amount of financing. (For a definition of 'innovation', refer to COM (1995) 688.) Taken alone, the private sector tends for sound economic reasons to produce a rate of throughput that is suboptimal from the public policy viewpoint. Responses to the problem across and outside Europe have taken a wide variety of financial, institutional and organisational approaches. Many programmes have been initiated over the last four to five years.

Being resource-efficient and effective in performing R&D start-up conversions is a challenging task and there are many pitfalls. The European Commission is committed to promoting the exchange of experience, ideas and best practice through projects undertaken in the Finance, Innovation and Technology initiative. More specifically, in 2000 the European Commission launched several initiatives in support of sharing and building best practice in university spin-out programmes and academic entrepreneurship - both cornerstones of an innovative European economy. This part gives

an overview of the main outcomes of some of the Pilot Action of Excellence on Innovative Start-Ups (PAXIS) and Gate2Growth projects, including best practice cases from several European countries and a summary of findings from workshops and conferences which are available on the Gate2Growth website (www.gate2growth.com).

The agenda for an entrepreneurial and innovative Europe

Within the scope of this introduction it is not possible to cover all the issues considered to determine the European agenda on incubation, technology transfer, intellectual property (IP) management issues, equity financing or fostering an entrepreneurial culture. Therefore, the scope of this part of the manual is limited to the importance of knowledge generation and the commercialisation of research in other words technology transfer and spin-out activity for the Lisbon agenda, i.e. propelling the competitiveness and growth of the European economy.

1. Generation of knowledge and intellectual property (IP)

First of all, there is a need to focus on the generation of knowledge before its exploitation: Europe lags behind the US in both. However, the focus on exploitation of research results should not detract from the need to fund 'useless' science (i.e. basic research where commercial applications are at least initially unclear) - this was in particular the domain of the public sector. Secondly, there is a need for patenting, because patents are a tool to exclude others from using the same invention. It is essential to ensure that there is no prior disclosure of the idea in any form by the inventor because this would constitute prior art, which would prevent filing. The main purpose of a patent is to provide a negotiating position from which to arrange licensing and cross-licensing deals. It is generally useful to have a person who is the link between the patent attorney and the in-house scientists. It is also advisable to keep abreast of third party applications.

Fraunhofer Patent Centre: (<http://www.pst.fhg.de/>)

- *the Centre manages the IPR for the national network of Fraunhofer Institute for Applied Research*
- *provides a professional patent service for clients from outside the FhG*
- *IP from FhG inventions belongs to the FhG, the centre is not-for-profit*
- *setting up a separate company, VenTraTec, to support spin-out companies for a more entrepreneurial atmosphere and to build better relationships with potential investors of venture capital*
- *local VCs have shown considerable interest in investing in the new company, and in the projects that emerge from it*

(source: Gate2Growth Incubator Forum)



Pre-seed and early-stage financing

Incubation models

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There are many issues relating to patent management in general and organisations' solutions to spin-out funding problems. Traditionally the technology transfer mechanism has been licensing, i.e. not transferring intellectual property rights, but spin-outs and associated equity investments are becoming increasingly important (see text box: Fraunhofer Patent Centre versus VenTraTec).

VC funding is established partly because of the realisation that technology transfer requires increasingly a more proactive approach, involving the provision of additional services, such as virtual management, patent portfolio, and business plan management.

2. Technology transfer & spin-out programmes

European technology transfer today shows similarities with an emerging industry: many valuable product ideas; a highly fragmented landscape; lack of critical mass; wide disparities in terms of performances; and developing practices. 'Technology transfer' defines the process of transformation of the results of research and development (R&D) into marketable products or services. When the transformation takes place and technology transfer is decided, either collaboration between the research organisation and industry is established, or the technology is licensed or a new company is created (e.g. spin-out). But there are many issues involved. Not only do the education and research budgets dwarf the proceeds from technology transfer, and the management of technology transfer often suffers from major deficiencies; once technology transfer is decided it is usually very unclear whether the intellectual property (IP) rights rest with the corporation or with the research organisation or what the aim of the technology transfer is (for instance to maximise profits or the number of spin-outs?).

Business Research Unit, University of Nottingham: (<http://www.nottingham.ac.uk/iris/>)

- technology transfer office of the university operates as a department of the university
- TTO deals with all the externally funded research as well as contacts with industry and technology transfer, regional liaison and IP management
- companies funding research often also fund conversion activities
- no dedicated investment fund but university may decide to invest in a start-up
- recent changes to treat projects in a more systematic way
- create project budget and allocate number of hours from members of the unit to provide targeted services to technology projects

Spin-out programmes in Europe are characterised by a wide variety of institutional contexts and cultural factors, such as the widespread entrepreneurship and organic networks linking researchers and financiers in the US: this is crucially important. Nonetheless, the average research income from industry in both Europe and the US is 7% and research has shown that the US is not necessarily

ahead of Europe on research output in terms of cash invested. In any case, spin-outs are still the exception rather than the norm: licensing and industrial R&D is more important and much research just contributes to the state-of-the-art, so its commercial applicability is indirect. Therefore, 'spin-outs' are appropriate for some projects and not others. Yet having an efficiently managed and sufficiently large spin-out channel is an important aspect of responding to entrepreneurial instincts among researchers. Some guidelines: first, spin-out programmes must provide administrative, financial, technological, legal and marketing guidance under supervision. Secondly, programmes ought to make heavy use of strategic business partners, particularly for technological development assistance, establishing distribution channels and recruiting key staff. To give an example, the University of Nottingham cultivates this more strategic perspective on the spin-out process using systematisation to achieve greater efficiency. The University of Nottingham Business Research Unit (see text box) 'embeds' technically trained business development executives in target departments such as pharmaceutical sciences, medicine and biosciences to generate a regular flow of business ideas. These interact with other, 'market-facing', business development executives who carry out a market assessment. A major current debate at the university is whether the university should concentrate resources on supporting those projects with high growth prospects or whether it should specifically provide a service to academics and support lifestyle businesses. In the eye of the private equity investor the latter option would clearly be a waste of public money.

Overall, five main financing mechanisms for spin-out programmes are identified, including three external financing solutions (public sources, private sector and funding from the parent institution) and two nominally self-financing ones (royalty/licensing revenues and returns on equity investments). Compared to the US, the informal investor community is much less developed in Europe. Also, each financing system has advantages and disadvantages. For instance, licensing and other forms of industrial collaboration are possibly more important than spin-outs if organisations are interested in long-term funding streams and building relationships with powerful technology-driven corporations. Nonetheless, the local venture capital environment is fundamental: it impacts on the number of serial entrepreneurs and Business Angels, but also on the pool of experienced management available from people who have received serial funding. As already indicated, to improve the chances of investment and the potential for success of the start-up, spinout managers need to add product engineering and marketing early, to be prepared for management changes and to invite publicity for the business and technology. In that respect setting up clusters and (regional) networks might prove to be very effective. Setting up networks also makes technology transfer less dependent on one university or institution. In view of this the development of effective networking in Europe needs further support and infrastructure.



Pre-seed and early-stage financing

Incubation models

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Relatively small amounts are needed to keep the project alive during the spin-out process; real investment funding should come from external sources. Spin-outs are primarily a means of underpinning the 'commercial vitality' of an institution, and secondarily a means of providing staff with proper incentives in the form of a greater variety of career openings.

TTI, University of Stuttgart: (<http://www.rhone-alpas-genopole.com>)

- limited company, mainly owned by the University of Stuttgart
- built on two pillars: technology and starter centres selling services and products to the market and incubation facilities for start-ups ranging from pre-seed to growth stages
- scientists may establish a technology and starter centre (TTI profit centre) for sideline businesses
- gives support for book-keeping, billing, legal support etc. at a cost of 7% of the turnover
- provides mentoring schemes and incubation facilities (free use of all university facilities for two years)
- early-stage / pre-market

It seems, as the Technology Transfer Initiative (TTI) of the University of Stuttgart demonstrates (see text box), that there are two broad models of spin-out programme development, which hinge upon initial motivations. We shall refer to these as the growth and lifestyle models.

Under the 'growth' model, spin-outs are pursued aggressively as one means of moving university developed ideas quickly and powerfully into the market place with an incidental benefit of subsequently generating additional revenue to re-invest in the technology transfer process and for wider university purposes. The ancillary benefit is to stimulate and reinforce entrepreneurial activities and attitudes within the university. Venture capital techniques are applied, such as buying in professional advisory services and insisting on performance-related milestones to trigger continued support. A concerted effort is made to instil the disciplines that will stand the spin-outs in good stead when conducting negotiations with venture capitalists later on. Indeed, the achievement of substantial venture capital funding can sometimes appear to be the main objective within this model. Commercial selection criteria are applied right from the start, even when ideas are being developed in particular faculties. Under the 'lifestyle' model, large scale and short-term success in commercialisation is not the primary objective of spin-outs, and there are little or no revenue expectations.

A lot of university research was needed just to improve the state-of-the-art, from which foundation others could build projects capable of technology transfer. Universities need to champion a change in culture towards bridging the equity gap, which needs policy support at the EU and national level.

3. Support measures: recent experience

Introducing an entrepreneurial culture inside a university is a long process and requires substantial reorganisation from the bottom up. A number of universities have implanted entrepreneurial values deep into the structures of their organisation, for example by making individual research units compete for funding, or by embedding business development executives within faculties with a view to more quickly extracting ideas worthy of commercial consideration. Fostering an entrepreneurial environment involves managing (incubation and spin-out) programmes along those lines, but also requires good quality project in-flow from increased entrepreneurial awareness among researchers and strong links with business partners, including financiers, who could add value to projects in the form of specific expertise.

Many reports have studied structural obstacles to entrepreneurship within numerous European universities. Many of the issues relate to technology transfer and the creation of spin-outs. Essentially, European universities belong to one of four categories: the vertical or traditional model, the matrix model, the matrix model with services and the technopole. Many are striving to implement the latter model, where the university consists mainly of autonomous research units competing for funding both from the university itself and from outside sources. The Rhône-Alpes Genopole at Grenoble is presented as an example (see text box). One of the biggest successes of this genopole is ER-GENTECH, an industrial research laboratory pooling together the technological skills and the scientific know-how in the genomic and biotechnology areas of the Emilia-Romagna region and focussing on technology transfer and spin-off creation. In general, science-industry technology platforms are public-private groupings of universities, research centres (laboratories), industries and institutional public actors sharing the common objective of improving applied research and the exploitation of research results, to structure, enhance and develop joint research activities with a sufficient critical mass that enables to operate on a large scale, and to set the best conditions for the launch of start-ups and the new technology-based firms (NTBFs). Another example, well-embedded in the PAXIS network, is the already discussed Technology Transfer Initiative (TTI) of the University of Stuttgart.

Rhône-Alpes Genopole:

(<http://www.rhone-alpas-genopole.com>)

- regional innovative technological platforms and programmes for advanced research (science-industry) and spin-off, tech transfer
- accessible by both public and industrial research
- programmes in functional genomics for the region and owns the equipment of the technological platforms
- business is based on collaboration agreements managed by Foundation Rhône-Alpes Futur, responsible for hiring the technical personnel
- research results are exploited in start-ups, joint ventures or platform co-operation



The European Commission's PAXIS, Gate2Financing and Gate2Growth initiatives were designed precisely to formalise and expedite the exchange of best practice among innovation professionals, including venture capitalists, incubation managers, IP/licensing managers and academic experts. But Europe does more than support networks of excellence and the exchange of good practices. Because professionals involved in technology transfer systematically agree that Europe faces a number of significant challenges concerning the capitalisation of new technologies, the European Investment Fund (EIF), for instance, launched the Technology Transfer Accelerator (TTA) in 2005. The aim of the TTA is to bridge the gap between research and early stage financing through a new financing scheme including targeted risk capital and technology investment vehicle linked centres of excellence from different European countries. The TTA vehicles can promote technology transfer taking place inside research organisations in turn for a share of the technology transfer proceeds either in kind (% of licensing equity) or in specie. The vehicles can be created for a finite time (e.g.; project-based funding or milestone funding) or be evergreen. TTA vehicles can also carry out technology transfer on behalf of the research organisations or scientists, including investment, in return for a share of the technology transfer proceeds. Here TTA takes place outside the research organisation. Or, TTA vehicles might fund portfolios of technology transfer projects, contributed by one or more research organisations (or by individual scientists). In return, the contributors receive a stake in the TTA vehicle (dividend/capital). In this case, the TTA vehicle in itself corresponds to such a portfolio of projects. In sum, rather than re-inventing the wheel through a top-down approach, the TTA is a flexible and agile financial support for independent technology transfer initiatives, taking advantage of existing financial instruments.

Conclusions

In sum, spin-outs are only one of several technology transfer mechanisms and definitely not the easiest way of commercialising research and innovation. So far, the dominant traditional technology transfer mechanisms used have been licensing and contract research. But, there is a strong concern that forcing researchers to seek outside funding and industrial research contracts leads to conflicts of interest. Commonly the main purpose of supporting spin-outs is to sustain the vigour of a commercially oriented R & D organisation. However, the generation of revenue, staff motivation, the development of equipment with wider commercial applications and finally, marketing value, are all valid secondary motivations. Also, attracting the right management team is crucial and, if this could be achieved, attracting finance is less of a problem.

In a spin-out programme, support services are essential - often finance is viewed as less important by the end users. Now that the pendulum of venture capitalists' favour has swung back towards traditional technology companies (including spin-outs), it appears that the sector is seeking to achieve a more balanced business. It was all the more important that companies demonstrate technical expertise, appropriate incentive structures for staff and, most importantly, previous management experience. The supply of pre-seed finance and the provision of expert services are key areas where support was needed if more people were to be encouraged to set up their own businesses. In other words management support, financial/accounting services and IP management are all possibly more important than direct funding.

The multiplicity of solutions offered to assist the spin-out process partly reflects the fact that European universities or research institutes are long-established, inward-looking and often bureaucratic organisations structurally dependent on public sector funding. This can be contrasted with the major US universities that have always had to interact with the private sector in order to survive and flourish. In order for European universities to become better at fostering entrepreneurial results for their research, the public sector also needs to change. And things are changing: over the past decade some research institutions employed a number of policy measures to encourage and help spin-offs. These included a 'right to return' to employment at the research institution in the event of failure, interest free loans to provide entrepreneurs with their 'own' capital necessary to obtain external funding and incubation facilities. Job security, interest free funding, access to its laboratory facilities might also be instrumental in organising a syndicate of venture capitalists willing to invest in the spin-out company. On the downside, there could be some tension between technologists/researchers and in-house financiers, in that the former were interested in short term funding while the latter wanted to maximise long-term returns.



BENCHMARKING RESULTS

Introduction

This section presents the findings of a survey of university spin-out activity that has been conducted on behalf of the ATHENA project (Accompanying Measure 2). University spin-outs can be defined as staff, students and/or third parties using university knowledge to start their own business.

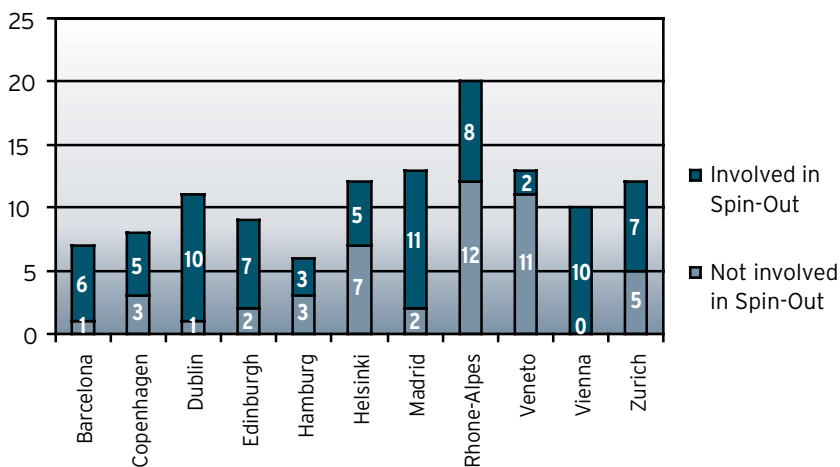
The questionnaire is based on a component model, which identifies success factors that are regarded by both practitioners and academics as critical for the development of successful university spin-out. The component model, therefore, provides a framework to compare spin-out policies in universities across Europe.

The survey was conducted in two stages. A first questionnaire sought to explore general levels of spin-out activity and success in each region. The second stage was a university review, which sought to explore the approach that individual institutions take to support spin-out development.

Benchmarking at Regional Level

The chart below shows the number of universities in each region, and indicates the number of institutions involved in spin-out activity. A high proportion of universities in the regions of Barcelona, Dublin, Edinburgh, Madrid and Vienna are actively engaged in developing spin-out companies.

The number of universities involved in spin-out activity



Benchmarking at University Level

The chart on this page presents the findings of the university level review. Respondents were asked whether the factors in the component model applied to their university and, if yes, to score their universities using a scale of 1-5 (where 1= a low level of development and 5= a high level of development). The following table presents the average scores across all the universities.

Component	Statement -from 1 (lowest score) to 5 (highest score; strongly agree)	Average
INSTITUTION	The university values and supports the concept of commercialising research and developing spin-out	3.61
	The university has clear enabling policies in place to encourage spin-out development	3.72
	Incentives and rewards are available to encourage staff to spend time on spin-out activities	3.44
	University encourages academics to work with businesses (consultancy, contract research, placement schemes)	3.22
PROPOSITION	Business ideas are protected through the use of patents and copyright	3.83
	The university has a legal framework for determining ownership of intellectual property rights	4.44
STARTER	University research/academic staff have technology transfer/exploitation experience	3.00
	University research/academic staff have experience of being entrepreneurial or starting their own business	2.17
	Mechanisms exist to identify the right starter and help individuals develop appropriate skills/experience	3.39
RESOURCES	Finance is available to spin-outs	2.89
	Finance is available at all stages of spin-out development	2.67
	Finance is available from a variety of sources	2.67
	Spin-outs have access to advice and expertise (e.g. Technology Transfer Office)	4.33
	Spin-out firms have access to other resources such as incubation units, equipment and testing instruments	4.56
LOCAL BUSINESS ENVIRONMENT	Spin-out companies are supported by a dynamic local business environment	3.11
	Spin-out companies have access to a skills labour market/ workforce in the local area	4.00
	Spin-out companies have linkages to networks/consortia of like-minded businesses	3.11
	Local government/agencies are proactive in supporting spin-outs	3.56



Pre-seed and early-stage financing

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PROCESS	Spin-out founders have explicit guidelines to follow when developing spin-out ideas/ companies	2.22
	A clear process model exists and is used	2.78

Benchmarking at University Level - Reported Strengths

Analysis of the results reveals a number of common areas of strengths and weaknesses across many of the institutions. The strengths are that:

- Most universities value the concept of commercialisation and generating spin-out companies (6 out of 9 universities rated themselves 4 or 5);
- Almost all universities have a legal framework in place for determining intellectual property rights (8 out of 9 universities with a score of 4 or 5);
- Almost all universities provide access to expertise and advice, such as through Technology Transfer Offices (8 out of 9 universities with a score of 4 or 5);
- Most universities provide access to other resources, such as incubation facilities and testing instruments (8 out of 9 universities with a score of 4 or 5).

Benchmarking at University Level - Reported Weaknesses and Areas for Development

The weaknesses and areas for development revealed included:

- There is a polarisation between universities that encourage academics to work with businesses (5 out of 9 universities with a score of 4 or 5), and those that do not (3 out of 9 universities rating themselves 2 or less);
- Few universities report that the spin-out starters have experience of entrepreneurial activity or running their own business (2 out of 9 universities with a score of 4 or 5);
- Few universities report that finance is available at all stages of spin-out development, and from a variety of sources (4 out of 9 universities with a score of 4 or 5);
- There is little use of explicit guidelines for company starters to follow (3 out of 9 universities with a score of 4 or 5).

STATEMENT/SUCCESS FACTOR		Rhone Alpes Claude Bernard Scientific University	Rhone Alpes CEA Grenoble	Rhone Alpes Joseph Fourier Scientific University
I. INSTITUTION	The university values and supports the concept of commercialising research and developing spin-out	Red	Orange	Yellow
	The university has clear enabling policies in place to encourage spin-out development	Red	Orange	Yellow
	Incentives and rewards are available to encourage staff to spend time on spin-out activities	Red	Orange	Yellow
	University encourages academics to work with businesses (consultancy, contract research, placement schemes)	Red	Orange	Yellow
II. PROPOSITION	Business ideas are protected through the use of patents and copyright	Red	Orange	Yellow
	The university has a legal framework for determining ownership of intellectual property rights	Red	Orange	Yellow
III. STARTER	University research/academic staff have technology transfer/exploitation experience	Red	Orange	Yellow
	University research/academic staff have experience of being entrepreneurial or starting their own business	Red	Orange	Yellow
	Mechanisms exist to identify the right starter and help individuals develop appropriate skills/experience	Red	Orange	Yellow
IV. RESOURCES	Finance is available to spin-outs	Red	Orange	Yellow
	Finance is available at all stages of spin-out development	Red	Orange	Yellow
	Finance is available from a variety of sources	Red	Orange	Yellow
	Spin-outs have access to advice and expertise (eg. Technology Transfer Office)	Red	Orange	Yellow
	Spin-out firms have access to other resources such as incubation units, equipment and testing instruments	Red	Orange	Yellow
V. LOCAL BUSINESS ENVIRONMENT	Spin-out companies are supported by a dynamic local business environment	Red	Orange	Yellow
	Spin-out companies have access to a skills labour market/ workforce in the local area	Red	Orange	Yellow
	Spin-out companies have linkages to networks/consortia of like minded businesses	Red	Orange	Yellow
	Local government/agencies are proactive in supporting spinouts	Red	Orange	Yellow
VI. PROCESS	Spin-out founders have explicit guidelines to follow when developing spin-out ideas/companies	Red	Orange	Yellow
	A clear process model exists and is used	Red	Orange	Yellow



Dublin Trinity College Dublin	Barcelona Barcelona ACTIVA	Zurich Swiss Federal Institute of Technology	Helsinki Helsinki University of Technology (TKK)	Milan Accelerato di Impresa del Politecnico	Vienna University of Applied Sciences Krems
Red	Red	Red	Red	Red	Red
Orange	Orange	Orange	Orange	Orange	Orange
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Green	Green	Green	Green	Green	Green
Red	Red	Red	Red	Red	Red
Orange	Orange	Orange	Orange	Orange	Orange
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Green	Green	Green	Green	Green	Green
Red	Red	Red	Red	Red	Red
Orange	Orange	Orange	Orange	Orange	Orange
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Green	Green	Green	Green	Green	Green
Red	Red	Red	Red	Red	Red
Orange	Orange	Orange	Orange	Orange	Orange
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Green	Green	Green	Green	Green	Green
Red	Red	Red	Red	Red	Red
Orange	Orange	Orange	Orange	Orange	Orange
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Green	Green	Green	Green	Green	Green
Red	Red	Red	Red	Red	Red
Orange	Orange	Orange	Orange	Orange	Orange
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Green	Green	Green	Green	Green	Green
Red	Red	Red	Red	Red	Red
Orange	Orange	Orange	Orange	Orange	Orange
Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Green	Green	Green	Green	Green	Green







Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Science-industry Technology Platforms

Description of practice

KREO Regions

PAXIS Network or Project

Novelty

KREO

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Science-industry technology platforms were one of the focuses of the KREO network activities as a novel approach to support the creation and development of innovative enterprises. Starting with the numerous platforms developing in the area of Grenoble-Lyon, other experiences were also retrieved from other partner regions, and an exchange process was carried out.

Short description

Science-industry technology platforms are public-private groupings of universities, research units (laboratories, research centres, etc.), industries (of any size) and institutional public actors sharing the common objective of structuring, enhancing and developing joint research activities with a sufficient critical mass that enables operation on a large scale. The main objective is the improvement of applied research and the exploitation of research results, setting the best conditions for the starting up and development of NTBFs and innovative enterprises.

Delivery mechanism

Whilst sharing the same basic concept and final goals, the platforms identified in the partner regions have different structures and business models. The following cases have been analysed: Minatec pole, Minatec Ideas Lab, Nanobio, Rhône-Alpes Genopole in the Grenoble-Lyon area; NanoMat and CFN (Centre for Functional Nanostructures) in Karlsruhe; Technology Commercialisation Platforms in Oxford; and of particular interest, DiagnOx, the network of industrial research and TT laboratories, which was created in Emilia-Romagna within the framework of the Regional Programme for Industrial Research, Innovation and Technology Transfer (PRRIITT).

Expected or detected impact in region of origin

Expected or detected impact in region of origin

The platforms allow:

- development of joint research activity, thus structuring and enhancing it
- reaching a critical mass, enabling operation jointly on a larger scale with regard to the single entities involved
- obtaining a more effective exploitation of research results, including the starting up of NTBF and innovative enterprises.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Emilia-Romagna (IT)
 Karlsruhe (DE)
 Oxfordshire (UK)
 Grenoble-Lyon (FR)

Organisation implementing

ASTER and the Emilia-Romagna local area network
 KEIM and the Karlsruhe local area network
 Oxford Innovation and the Oxfordshire local area network
 City of Grenoble and the Grenoble-Lyon local area network

Transferability of the practice

Low

Medium

High

The transferability of the business models (or parts of them) underlying platforms is high, while the transferability of the single platform is more closely dependent on local conditions.

Main challenges

- The adoption of original models based on research excellence and on science-industry collaboration is a key element for boosting local economic development and the creation of new innovative enterprises
- The common awareness and converging interest of research institutions (knowledge/technology holders), industry (knowledge sources and business-orientated actors) and public authorities (promoting/financing innovation as key to socio-economic development)

Critical success factors

- Existence in the region of high-level scientific resources in the specific sectors
- Awareness by the key actors involved of the need to create a critical mass in order to integrate competences and allow the sharing of equipment and facilities
- Will to improve and increase the collaboration potential with further parties, including the private sector (both large companies and SMEs)
- Existence of a favourable (legal and financial) framework for innovation at national and/or regional level

Levels of resources required

Low

Medium

High

The required level of resources highly depends on the chosen model, sectoral focus, etc. It has to be underlined that this approach is based on the convergence of resources from all the actors involved.

Potential impact in implementing regions

- New schemes based on pooling existing regional resources, upgrading existing and developing new knowledge, exploiting research competences through technology transfer and the creation of research spin-offs
- Higher visibility of regional key sectors and possibility of starting up and developing relations at EU and international level, including investment attraction

For more information

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Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Technology Transfer Initiative (TTI)

Description of practice

Stuttgart Region (DE)



PAXIS Network or Project

Novelty

SPRING

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

The TTI model is based on two pillars: technology and starter centres (more than 25 are active under the umbrella of TTI), which sell services and products to the market, and incubation facilities for start-ups ranging from pre-seed to growth stages.

Short description

TTI has been established as a limited company, mainly owned by the University of Stuttgart. Scientists from the University of Stuttgart may establish a technology and starter centre (as a profit centre of TTI) at the university (using university facilities at fixed prices) for sideline businesses. All contractual issues are accepted by the state ministries and could be used by each member of the university accepted by TTI's management. TTI looks after the bookkeeping, billing and legal support in return for 7% of the turnover.

Furthermore, TTI supports start-ups through mentoring schemes and incubation facilities (technology centre). Over a period of two years, start-ups are allowed to use all university resources free of charge, if they sign a mentoring contract with TTI, the university and a full-time professor at the university. After this period, TTI offers space (office and labs) in the technology centre for reduced rents over a period of up to five years, providing advice, coaching and other services from their own staff and the PUSH! network.

Delivery mechanism

The university research staff and the start-ups benefit from the services and mentoring directly within the technology centre.

Expected or detected impact in region of origin

Improved exploitation of research results; reduced capital needs for early-stage start-ups (via free-of-charge usage of university resources); reduced risk for academic start-ups.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Organisation implementing

Transferability of the practice

Low

Medium

High

Depending on the legal situation (regulation for side-businesses of university staff).

Main challenges

Acceptance by public authorities responsible for academic regulations.

Critical success factors

Integration in university; well-accepted and qualified management team.

Levels of resources required

Low

Medium

High

Depending of the availability of incubation facilities and number of start-ups, and technology and starter centres.

Potential impact in implementing regions

Improved exploitation of research results; reduced capital needs for early-stage start-ups (via free-of-charge usage of university resources); enhanced motivation of potential entrepreneurs; reduced risk for start-ups.

For more information

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PUSH!

Description of practice

Stuttgart Region (DE)



PAXIS Network or Project

Novelty

SPRING

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

PUSH! addresses the support of university-based start-ups through all stages of development, based on a public-private partnership.

Short description

PUSH! aims at improving entrepreneurship culture at universities and research institutes in Stuttgart Region and offers all kind of support and infrastructure for academic start-ups. The network covers more than 100 institutions, coaches, advisors and is organised as an association (M.e.V.). It is managed by Wirtschaftsförderung Region Stuttgart GmbH.

University incubators, entrepreneurship education and training, investor relations, technology centres and all kinds of events are part of the services delivered. Access to grant schemes and mentoring is provided through three PUSH! Campus Agencies.

The organisation has been supported by national funding (EXIST programme) and developed towards a sustainable structure (input from SPRING partner regions).

Delivery mechanism

The academic start-ups have access to mentoring contacts, business planning tools, training and courses, online services, coaching vouchers, etc. The scheme is promoted through events and face-to-face contacts.

Expected or detected impact in region of origin

Entrepreneurship education (EE) has become standard for all universities and academies in Stuttgart Region, many of them offering EE as part of their curricula; improved co-operation between universities in EE including exchange of teaching staff; improved start-up activities. (In the meantime, more than 580 business ideas have been supported by PUSH!.)

Awareness at universities and technology transfer offices has grown; improved exploitation of research results; synergies between measures of different institutions.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Organisation implementing

Transferability of the practice

Low

Medium

High

The methodology could easily be transferred to all regions with existing support structures in order to improve overall performance.

Main challenges

Balancing interest between different actors.

Critical success factors

Development of a joint vision yielding an integrated strategy; commitment of partners.

Levels of resources required

Low

Medium

High

The methodology is based on existing activities, improving the overall performance through networking and synergies.

Potential impact in implementing regions

Improved awareness, enhanced partnership, better allocation of resources; improved quality of services.

For more information

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SPINNER - Services for the Promotion of INNOVation and Research

Description of practice

Emilia-Romagna (IT)



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

PAXIS Network or Project

Novelty

KREO

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

SPINNER's main objective, addressing innovative entrepreneurship, research and development and technology transfer, aims at developing technology transfer processes between universities, research centres and regional businesses, and at encouraging the setting-up of high-tech enterprises.

Short description

SPINNER provides support to individuals for the development of business ideas with high technology content, innovative business ideas aimed at applying a consolidated knowledge, industrial research and pre-competitive development projects, and technology transfer plans set by university laboratories or research centres. In particular it provides:

- 1) financing for business ideas and technology transfer projects, and
- 2) services, such as advanced training, tutorship, legal consultancy, assistance to business planning, fund raising and IPR protection.

Delivery mechanism

Assistance is mainly supplied through the network of SPINNER Points that has been set in regional universities, research centres and technology parks, due to collaboration with existing service providers. Beneficiaries, who are selected on a call-for-proposals basis, are undergraduate and postgraduate students, new graduates, university researchers, professors and research laboratory technicians, all of whom live in Emilia-Romagna.

Expected or detected impact in region of origin

The SPINNER project has enabled the creation of a real network, gathering together the main regional research institutions as well as actors involved in innovation, technology transfer and support to new companies. Seven specific offices, the so-called 'SPINNER points', have been set within public research institutions (universities and research centres) present in the region. In terms of quantitative outputs, from March 2001 to July 2004, 272 business ideas were submitted, 152 were approved, 91 business plans were concluded and 44 companies were set up.

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Karlsruhe (DE)

Organisation implementing

Engage - Key Technology Ventures AG

Transferability of the practice

Low

Medium

High

Single components of Spinner can be easily transferred/implemented on a step-by-step basis.

Main challenges

- Raise the necessary funds to finance the elements
- Create consensus among the different partners involved
- engage will offer management competence for the identification, evaluation and further development of marketable ideas and technologies coming from higher education and research institutions
- In the framework of a defined co-operation with higher education and research institutions, engage will support scientists, research groups and institutes in the management of essential parts of the commercialisation process
- One key activity of engage will be to actively consult and mentor technology-orientated spin-offs. Furthermore, engage will also take on the equity management of spin-offs for higher education and research institutions.

Critical success factors

- Integrated approach along the chain
- Contractual agreements
- Systematic process for the cross-institutional identification, evaluation and further development of potentials in close co-operation with the participating universities and non-academic research facilities

Levels of resources required

Low

Medium

High

Provided that services for research spin-offs are available in the area, the resources needed are those to organise the network and establish contact points within research organisations, and to manage the service provision.

Potential impact in implementing regions

The potential impact comprises the development of an integrated strategy, comprising all the elements in the first phase of value creation from public research. Due to the successful transfer process, the services offered by 'engage' are the following:

- 1) For the management of partner institutions
 - Systematic pro-active technology screening to identify potential ideas
 - Evaluating innovative business ideas with respect to market requirements
 - Developing and implementing commercialisation (patent) strategies
 - Raising of funds for exploitation activities and spin-offs
- 2) For research groups or institutes
 - Identifying, evaluating and generating marketable business ideas
 - Identifying application fields or markets; evaluating market surveys
 - Developing commercialisation strategies and commercialisation management for larger R&D projects
- 3) For spin-offs and industry
 - Creation of a business plan and mentoring
 - Set-up of a suitable team and partners
 - Clarification of intellectual property rights and financing structure.

For more information

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Minatec Centre

Description of practice

Grenoble-Lyon (FR)



PAXIS Network or Project

Novelty

KREO

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Minatec is a major European excellence centre for micro and nanotechnology, and represents the first centre of engineering education in France. It has been designed to encourage the circulation of high-level competences and the exchange of ideas. It provides researchers, students and companies with the best possible conditions in which to compete internationally in every aspect of micro and nanotechnology.

Short description

Located in the middle of the Grenoble Science Park, Minatec has been initiated by the CEA Grenoble (French Atomic Energy Commission) and the INPG (National Polytechnical Institute of Grenoble), and was launched at the beginning of 2000 in partnership with the local and regional authorities. It draws on local skills, in particular advanced technology research as well as upstream research activity carried out by the several research structures based in the area. The main purpose is business development and out-licensing of innovation in industry, and the creation of sustainable jobs at local and national level.

Delivery mechanism

Minatec has three defined entities, namely education, research and industrial out-licensing. Its activities relate to national and European supporting networks to research in the field of micro and nanotechnologies; technological surveys through the Micro and Nanotechnology Observatory; industrial property; support for industrial locations; offices of venture capital firms and seed funds. Minatec has developed a range of promotional services: newsletters, seminars and workshops, conferences, visits, events and exhibitions. In addition, promotion and co-ordination will be ensured by the House of Micro Nanotechnologies.

Expected or detected impact in region of origin

Minatec has received strong support from the local community, and is a powerful tool to gather and organise research around an efficient centre. The centre is organised so that the three entities - research, industrial transfer and training - can communicate between each other. The House of Micro and Nanotechnologies enhances this communication by liaising with all the actors both inside the centre and outside. It is expected that about 3,500 engineers, researchers and academics will eventually work here.

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Oxfordshire (UK)
Karlsruhe (DE)

Organisation implementing

Interest from Oxford Innovation Ltd
KEIM



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transferability of the practice

 Low

 Medium

 High

The transfer of the practice is reliant on the existence of high-tech research organisations in the area. Minatec concentrates on the micro and nanotechnologies but transfer of the practice could also be accommodated in other technology areas.

Main challenges

Opportunity to transfer the Minatec model to Oxfordshire, because Oxfordshire Region presents the most pre-conditions for a successful implementation. The Minatec model requires high levels of funding and a willingness to co-operate from industry, academia and local governance, and is a major development aimed at targeted locations within a country. With the Diamond Synchrotron construction in Oxfordshire near to completion, the transfer of some of the Minatec mechanisms is conceivable in the future as the Diamond project matures.

Karlsruhe Region has an especially close relationship with Grenoble because of the links between their researchers and institutions in the micro/nano field. Both regions are used to benchmarking each other. Minatec was/is a source of inspiration and also a strong argument to prove that other regions heavily invest in key technologies; this was surely instrumental when the German Nano Excellence Centre was granted to the University of Karlsruhe.

Critical success factors

Minatec brings together a wide range of skills and proposes to develop synergy between organisations working in basic and applied research, focusing on three key aspects:

- an integrated approach to innovation, from the exploration of technological breakthrough to immediate industrial applications
- a high concentration of skills and resources
- a strategy of international alliances and partnerships, and the dynamic network and collaboration agreements with complementary centres of excellence.

Levels of resources required

Low

Medium

High

The concept and organisation is based on gathering the key players in the area in terms of research, education and industrialists. The transferability of the practice relies more on these components than on the investment. (The investment of 169 million euro by CEA, national government, regional and local authorities depended on the concrete building and especially the construction of the clean rooms.)

Potential impact in implementing regions:

- Boost of research in order to improve competitiveness on strategic stakes, in the framework of a highly competitive international environment
- Accelerate and optimise the innovation process and facilitate technology transfer through various means (joint laboratories, R&D contracts, consortiums, start-ups, etc.)
- Attract high-level students, researchers and engineers in order to answer the growing demand of industries and research centres.

For more information

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Rhône-Alpes Genopole

Description of practice

Grenoble-Lyon (FR)



PAXIS Network or Project

Novelty

KREO

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Rhône-Alpes Genopole is one of the main French genopoles with regional innovative technological platforms and programmes for advanced research. It is a 'network of genomic centres without walls', being a coherent chain of facilities in genomics, providing global technology, accessible by both public and industrial research centres. It is a structuring programme of genomic research and economic development in the Rhône-Alpes region for biotechnologies, facilitating the setting up of research spin-offs.

Short description

The objective is to develop research programmes through the implementation of high-performance technological platforms in functional genomics, thus becoming a regional 'large Instrument' able to serve both academia and the private sector, and to share resources among the involved platforms.

The founding partners are Ecole Normale Supérieure de Lyon, Claude Bernard University, Joseph Fourier University, INRIA and CEA Grenoble. Further partners include CNRS, INSERM, INRA, Hospices Civils de Lyon, CHRU Grenoble, CHU Saint-Etienne, Ecole Centrale de Lyon, INSA Lyon and Foundation Rhône-Alpes Futur.

Delivery mechanism

Rhône-Alpes Genopole business model is based on a 'Collaboration Agreement' managed by Foundation Rhône-Alpes Futur. The equipment of the platforms belongs to the founders while the Foundation is in charge of hiring the required technical personnel. The agreement covers relations with the private sector, including contract and intellectual property management. Research results are exploited through the creations of a start-up, of a joint venture between a platform and an existing company or of an open platform with direct management on an existing society.

Expected or detected impact in region of origin

Eight technological platforms were set up in three years, organised as profit centres and open to the regional and national scientific community. Two of them belong to the European Network of Excellence.

In addition, a functional collaboration agreement was established, a purchase centre is being set up and some models of contracts have been developed in order to develop an indexing contract to authorise suppliers and users. A coherent learning programme for entrepreneurs has also been started.

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Emilia-Romagna (IT)

Organisation implementing

ER-GENTECH

Transferability of the practice

Low

Medium

High

The practice is transferable when a high-level research base in the reference sector is available and a common interest exists to create a critical mass of skills, knowledge and equipment for the exploitation of research results.

Main challenges

ER-GENTECH is an industrial research laboratory pooling together the technological skills and the scientific knowledge of the Emilia-Romagna region in the genomic and biotechnology areas, and focusing on technology transfer and spin-off creation. It was created using the Rhône-Alpes Genopole business model, importing, in particular, the business approach to the creation of the research platform, the 'business manager' function and its interaction with industry, and the sharing of equipment by universities and research centres, as well as by start-ups and other companies.

Critical success factors

- Existence in the region of high level scientific resources in the specific sector
- Awareness by the involved key actors of the need to create a critical mass in order to integrate competences and allow larger investment on technical facilities
- Will to improve and increase the collaboration potential with further parties, including the private sector
- Existence of a favourable (legal and financial) framework for innovation at national and/or regional level

Levels of resources required

Low

Medium

High

The level of required resources is highly dependent on the wideness of the sector covered and on the level of specialisation to be reached, especially concerning the possibility/need to acquire large instruments/equipment.

Potential impact in implementing regions

- The creation of a new tool based on existing regional resources but able to upgrade knowledge and exploit research competences through technology transfer and the creation of research spin-offs
- A higher visibility of the regional bio-tech sector due to the pooling of existing and future resources.

For more information

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GRenoble Alpes INcubation (GRAIN)

Description of practice

Grenoble-Lyon (FR)



PAXIS Network or Project

Novelty

KREO

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Started in Grenoble in 1999 as a result of the Law for Innovation and Research (Allègre Law), GRAIN is the public business incubator for the East Rhône-Alpes area, which encourages the creation of innovative start-ups based on public research activities.

Short description

GRAIN encourages the creation of new companies with high growth potential, integrated into the regional economic system for generating sustainable economic development, new qualified jobs, and the access to new export markets.

GRAIN was founded by CEA, CNRS, National Polytechnical Institute of Grenoble, University Joseph Fourier and University Pierre Mendès France. In addition, Savoie University, Grenoble Chamber of Commerce and Industry, and the French National Institute for Research in Computer Science and Control are currently associated members. Other partners are institutions and economic actors such as the French Ministry of Research and Technology, the Rhône-Alpes Region, Grenoble-Alpes Metropole, the City of Grenoble, the County of Isere and the County of Drôme and ANVAR.

Delivery mechanism

Support, which lasts up to 18 months, is provided to selected projects in order to allow them to evolve to maturity and prepare project holders for their future role as CEOs. To this purpose the first phase is awareness raising, carried out by the GRAIN partners via conferences and training seminars. Once business ideas are detected and selected, a personalised support service package is designed and supplied. A website provides basic information to potential project holders and a yearly seminar is organised gathering the members of the incubator's network: institutional partners, incubated project holders, venture capitalists and companies with success stories, etc.

Expected or detected impact in region of origin

So far, GRAIN has incubated 73 projects, 39 of which were converted into start-ups, Fourteen have been stopped during the incubation period, while the rest are still in incubation at Grain. One hundred and eighty jobs have been created out of the 39 companies and over 25 million euros has been raised from venture capital companies.

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Emilia-Romagna (IT)

Organisation implementing

I TECH-OFF - incubator for the ICT and multimedia fields, ASTER (proposal REGIN) and SIPRO

Transferability of the practice

Low

Medium

High

The GRAIN approach can be transferred to other areas. A high level of success is, however, linked to the strong presence of research structures in the Grenoble area.

Main challenges

The GRAIN experience has been a source of knowledge for I TECH-OFF - a business incubator devoted to ICT and multimedia developed jointly by ASTER, the University of Bologna and Fondazione Alma Mater, for the definition of services to be provided to beneficiaries. In particular, inspiration was taken from the general working approach and from the services GRAIN provides to project teams in the evaluation of entrepreneurship propensity and team reinforcement.

Elements of GRAIN have also been used in the definition of a new proposal, REGIN, recently submitted for funding to the Italian Ministry of Research. The development agency SIPRO, managing an incubator network in the province of Ferrara, has also established collaboration with GRAIN.

Critical success factors

- Availability of a rich research base, able to provide a background for the creation of innovative companies
- Ability to develop a complete set of support, as well as operative support tools, for new companies
- Strong networking relationship among the innovation actors at local and, additionally, national level

Levels of resources required

Low

Medium

High

An appropriate budget is necessary for the provision of a complete service package for project holders.

Potential impact in implementing regions

With regard to the highlighted success factors, the Emilia-Romagna region has a strong research base and an extremely lively entrepreneurship. I TECH-OFF was set up in 2004 but still needs to prove GRAIN success levels.

At present, I TECH-OFF is supporting six projects in the incubating process out of 13 proposals received in the first call. The expected impact is on highly qualified employment and creation of wealth, as well as the further development of the ICT and multimedia fields in Emilia-Romagna.

For more information

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Benchmark Study

Description of practice

Katholieke Universiteit Leuven (BE)



PAXIS Network or Project

Novelty

GLOBALSTART

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

The University of Leuven developed a methodology for benchmarking TTOs' support of global start-ups at the early stage of their internationalisation process.

Short description

The benchmarking exercise addresses the following objectives on the level of Technology Transfer Offices (TTO) / Regional Development Agencies:

- to map the ongoing entrepreneurial activities in terms of actual spin-off support in place, other TTO activities, performance indicators and factors influencing this performance such as the university's resources and policies, and the regional context in which the university is operating
- to benchmark its performance in terms of spin-off activities with other European and non-European universities
- to make a gap analysis of the existing support versus the required support for global start-ups in their internationalisation process
- to identify the global start-up support structures to be developed at the university or TTO and/or to be outsourced to regional / national / international partners and to identify mobilisation priorities.

Delivery mechanism

The benchmarking exercise resulted in the development of extensive reference material related to the global needs of spin-offs:

- a survey instrument and a benchmark report that allow universities to map their spin-off activities and benchmark it with other universities
- a checklist and reference guide for global start-up support which allow universities to identify missing spin-off support functions.

All these tools and reference material are available for self-assessment and development purposes.

Expected or detected impact in region of origin

A systemic analysis of the actual spin-off support structure in place at the university and its region, and the assessment of its effectiveness in terms of global start-up creation, allow identification of the missing support structures for global start-ups. This is crucial as a starting point for developing a mobilisation plan and defining priorities. As such, an impact on both the emergence and growth of start-ups is envisaged.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Leuven (BE)
Brno (CZ)
Tartu (EE)
Twente (NL)
Elche (ES)
Salamanca (ES)
Wales (UK)
Warwick (UK)

Organisation implementing

Katholieke Universiteit Leuven
Brno University of Technology
University of Tartu
University of Twente
University Miguel Hernández
University of Salamanca
Spinout Wales
University of Warwick

Transferability of the practice

Low

Medium

High

Method and reference material are available in an explicit format. Transferability has been tested with seven cases and proved to be high.

Main challenges

To translate the gap analysis of missing global start-up support function into a mobilisation plan. Mobilisation of regional / national / international partners for completing the missing spin-off support structures.

Critical success factors

The benchmarking exercise requires the participation of the knowledgeable TTO / regional development staff involved in the spin-off creation process. Local knowledge is essential to arrive at a tailor-made mobilisation plan that reflects regional needs / priorities.

Levels of resources required

Low

Medium

High

The resources needed for doing the benchmarking exercise are limited (< one month). The resources needed for the translation of the gap analysis into a mobilisation plan and the subsequent mobilisation are more considerable and depend on the actual spin-off portfolio and support structure in place, and the availability of specialised support in the region (three months).

Potential impact in implementing regions

Better support for global start-ups in the early stage of their internationalisation process.

For more information

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Marketing and Communication Plan

Description of practice

The Netherlands



PAXIS Network or Project

Novelty

GLOBALSTART

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

A plan for Institutes for Higher Education (IHE) to consider, design, improve or promote (global) spin-off support.

Short description

The marketing and communication plan offers to IHEs, and in particular Technology Transfer Offices, the following:

- a theoretical perspective for entrepreneurship stimulation
- guidelines for market research into, and marketing and communication of, (global) spin-off support
- examples of practical tools, varying from the basic to the more sophisticated, for market research, marketing and communication of (global) spin-off support.

Delivery mechanism

The complete plan, including tools, is available as a report and can be downloaded from www.globalstartups.org

Expected or detected impact in region of origin

The plan reinforces the university's image as an entrepreneurial university, which in turn helps to:

- promote and foster support for (global) entrepreneurship in the university's environment
- promote and diffuse support for (global) spin-off among fellow IHEs, intermediaries and local society
- attract resources for (global) start-up companies (i.e. local investors).



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Twente (NL)
 Brno (CZ)
 Tartu (EE)
 Elche (ES)
 Salamanca (ES)
 Wales (UK)
 Warwick (UK)
 Leuven (BE)

Organisation implementing

University of Twente
 Brno University of Technology
 University of Tartu
 University Miguel Hernández
 University of Salamanca
 Spinout Wales
 University of Warwick
 Katholieke Universiteit Leuven

Transferability of the practice

Low

Medium

High

The concept of the practice and the tools can be applied in many formats.

Main challenges

To translate the gap analysis of missing global start-up support function into a mobilisation plan. Mobilisation of regional / national / international partners for completing the missing spin-off support structures.

Critical success factors

Embracing the concept of structural spin-off support and implementing a (global) spin-off support programme requires the IHEs to have an entrepreneurial attitude and the IHE's board to see entrepreneurship support as part of its mission.

Levels of resources required

Low

Medium

High

Based upon a zero-start situation the marketing research process might take between three and six months, followed by another one to three months to start support activities. Promotion of support is, in essence, a non-stop activity

Potential impact in implementing regions

It improves the present status of support for (global) spin-off.

For more information

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Copenhagen Tech Transfer Consortium

Description of practice

Copenhagen (DK)



PAXIS Network or Project

Novelty

Existing practice

START

Good Practice Type

Tool / Product / Service

Methodology

Learning / Networking

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Incubation models (Incl. Internationalisation)

Spin-off / Technology transfer

Entrepreneurship

Innovation culture / Political awareness

Other

Co-operation between knowledge institutions on commercialisation issues.

Short description

Copenhagen Tech Transfer Consortium (CTTC) is a strategic co-operation between the University of Copenhagen, the University of Pharmaceutical Sciences, the Institute of Technology, the Royal Veterinary and Agricultural University, the County of Copenhagen and the Copenhagen Hospital Corporation. In addition, the network's international partner, the Heriot-Watt University in Edinburgh, has

many years of experience in technology transfer. The objective of CTTC is to co-operate in the field of technology transfer and is summed up in its mission statement:

“CTTC is a collaboration between leading knowledge organisations within the areas of health sciences and biotechnology who wish to develop, strengthen and exploit existing competencies within technology transfer and thereby play a central role in the interaction with the private sector specifically and the socio-economic development generally through effective and professional exploitation of new knowledge and new technologies.”

The co-operation within the CTTC network forms an integrated part of the development of the newly established Technology Transfer Unit at the University of Copenhagen's Faculty of Health Sciences, which was established in 2003 in order to implement the requirements and better exploit the opportunities contained in the law on inventions at public research institutions introduced in 2000.

Delivery mechanism

The CTTC has eight overall objectives:

1. Improved interaction between the research institutions and private enterprises, in particular SMEs
2. Efficient exploitation of IPR
3. Training programmes for staff and marketing of the region's research
4. Interaction with the private sector: analysis of private sector needs and possible interfaces with public research, preparation of programme for CTTC and the private sector in co-operation with external actors
5. Optimisation and effective utilisation of research results: development of IPR tools and models, development of CTTC Best Practice Handbook, analysis of the perspectives for establishment of a joint Tech Transfer company - in view of a planned Law on Technology Transfer
6. Training for Tech Transfer staff: development of custom-made commercialisation courses in co-operation with Danish and international experts, development of a staff exchange programme with the private sector (licensing departments) and technology transfer offices in the UK
7. Co-operation with CTTC researchers: seminars/courses for CTTC researchers and staff on IPR, commercialisation and research co-operation, arrangement of thematic sessions/meetings between the private sector and CTTC researchers
8. Marketing: making CTTC and individual member research strengths more visible, establishment of consortium identity.

Expected or detected impact in region of origin

It is the ambition of the network to contribute to the region's overall development through a more professional handling of research results and technology transfer to the private sector, leading to increased investments by both Danish and foreign companies.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Edinburgh (UK)

Organisation implementing

the Heriot-Watt University

Transferability of the practice

Low

Medium

High

Depends on the implementations of the region in question.

Main challenges

To make the right people co-operate

Critical success factors

The main strength of this type of network co-operation is that it provides the possibility to learn from each other - and together - during a period of organisational development and increasing scope of activities. It also provides critical mass, both in terms of utilisation of existing competences within the network, and in terms of achieving economies of scale in various generic activities, such as arrangement of courses tailored to the specific needs of the Tech Transfer staff, etc.

Levels of resources required

Low

Medium

High

The CTTC co-operation is funded by a grant of 800,000 euro from the Danish Ministry of Science, Technology and Innovation under the scheme 'Regional Growth Initiatives'. The Technology Transfer Unit at the University of Copenhagen acts as secretariat for the CTTC.

Potential impact in implementing regions

To contribute to the region's overall development through a more professional handling of research results and technology transfer to the private sector, leading to increased investments.

For more information

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Monitoring tool on mechanisms facilitating spin-offs from universities and research institutions

Description of practice

Copenhagen (DK)



PAXIS Network or Project

Novelty

START

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

This tool is covering all the individual steps of the business foundation process. It gives a picture of the regional situation concerning business foundation by integrating qualitative and quantitative indicators, as well as expert points of view.

Short description

With this tool, developed together with the ERIK network, the impact of knowledge on regional innovation and regional economic growth should be identified. A simplified model for the start-up

process has been established and the most important indicators selected from a defined set of indicators. The self-assessment tool includes valuable instruments to measure regional performances in different areas of the start-up process and to define regional positioning in relation to the other regions participating in the exercise.

Any actor in the regional service and supporting infrastructure for start-ups and spin-offs (for example, the regional government, service providers, intermediary organisations, etc.) can, in principle, be involved in the definition of the regional profile regarding the 'Services and Support to Start-ups and spin-offs' thematic area.

The developed set of indicators to monitor and measure regional programmes, in the context of support to start-ups and spin-offs, helps to gain a more precise insight into regional strengths and weaknesses of regional start-up performance and support services. Clearer pictures are also helping to formulate the main focal points for improvement in the regional start-up support for the future in the respective regions.

The approach facilitates the intra-regional and inter-regional discussion among actors because the mostly predominating feeling of what the 'monitoring process on mechanisms facilitating spin-offs from universities and research institutions' is about is replaced with a systematic approach including the description of the support process for start-ups with individual measures and concrete indicators. This systematic approach has also structured the exchange of existing information and experience among the actors in the participating regions.

The developed Excel tool is easy to apply and allows the visualisation of the regional start-up profile on indicator and step level in the form of a spider diagram. This facilitates self-assessment and allows quick identification of regional gaps in the support of the start-up process.

Delivery mechanism

This toolkit is used by the regional administration to get an initial picture of the growth potential situation of a region, based on a series of indicators designed to estimate the opportunities, capacities and ambitions of a business foundation. It has been transferred to START network partners during work package implementation and tested/implemented by all the network partners. The method, list of indicators and written explanation is available and is straightforward to use.

Expected or detected impact in region of origin

- Number and detail of instruments and institutions at the different levels of the business foundation process is available
- Knowledge of the facts; which instruments and support are impacting academic and research business foundations
- Agreed list of indicators (availability and validity of these indicators): qualitative indicators are necessary for the completion of the quantitative indicators; further development of this set of indicators



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

- Improved exchange of information and experience between the actors of the regions
- Knowledge of strengths and weaknesses within regional business foundation activities, identification of the main improvement possibilities
- Establishing an ongoing self-assessment group for regional business foundation activities
- Initiation of a regional monitoring system for business foundation support
- Benchmarking with other networks/results/regions
- Establishing a 'culture' for further collections of regional data
- Initiation of a periodical monitoring of the foundation profiles (for example, one to two years)

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region	Organisation implementing
Copenhagen Region (DK)	Greater Copenhagen Authority
Hamburg Region (DE)	IZET Hamburg
Edinburgh & Lothian Region (UK)	Scottish Enterprise
Veneto Region (IT)	Veneto Innovazione / Padova University
Several other regions considering implementing	ERIK network partners having co-developed this tool

Transferability of the practice

Low
 Medium
 High

Agreed list of indicators and established Excel tool ready for use. Less time consuming - one only needs to bring together the relevant experts.

It has been tested in more than 20 European regions with the START exercise.

Main challenges

- Raising awareness in political and business environment boards for the importance of regional business foundation in the research and academic sector
- Availability and validity of data has to be secured
- Changing the mind-sets of all players involved, particularly policy decision-makers
- Step by step adaptation of existing programmes

Critical success factors

- Availability of relevant experts with business and regional development background to make a valid judgement on the regional situation and growth potential
- Good access to data and work force
- Sound knowledge on regional situations
- Functioning regional innovation strategy

Levels of resources required

Low

Medium

High

Availability of data; involvement of experts; maintenance and adaptation of the Excel tool; list of indicators as well as method if requested.

Potential impact in implementing regions

- Institutions/regions adopting this process will get a picture of both the related business sector and the region overall
- Step by step change of political awareness and business support amendments
- The strengths and weaknesses of the regional business foundation situation will be highlighted, thus creating transparency
- Following the results of the regional situation reorientation/adaptation of the relevant support structure will significantly increase the number of instruments/institutions striving to fill the gaps and improving the regional business foundation in general.

For more information

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Patenting - measure to support European and international patenting processes of SMEs, universities and research centres in the Province of Milan

Description of practice

MILAN (IT)



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

PAXIS Network or Project

- Novelty
- Existing practice

PANEL

Good Practice Type

- Tool / Product / Service
- Methodology

- Learning / Networking
- Policy Recommendation

Aspect of innovation process addressed by practice

- Pre-seed and early-stage financing
- Incubation models (Incl. Internationalisation)
- Spin-off / Technology transfer

- Entrepreneurship
- Innovation culture / Political awareness
- Other

This tool covers all the individual steps of the business foundation process. It gives a picture of the regional situation concerning business foundations by integrating qualitative and quantitative indicators, as well as expert points of view.

Short description

The main goal of this measure is to increase the development of technological innovations of SMEs in the province of Milan through stimulating the patenting activity, at both European and international level, of SMEs, universities and private and public research centres in the Province of Milan, with support for multi-annual investments and costs devoted to such objectives.

The promoter is the Province of Milan. Financial resources come from the Province of Milan, the Lombardy Region and the Chamber of Commerce in Milan.

The target groups are SMEs and private research centres working in any economic sector, having legal and operative central offices in the Province of Milan at universities and their departments, university consortia and public research centres.

Delivery mechanism

The measure is delivered through annual calls. So far, three calls have been published (in 2002, 2003 and 2005). After verification of admissible formal requisites and consistency of applications, and following the decision of the Assessment Technical Committee, the financial contributions are assigned to the beneficiaries on the basis of order of receipt of applications, within the limits of the financial availability foreseen by the measure's budget and giving financing priority to one application per applicant. After each call evaluation, a fair is organised presenting the inventions patented by the participants in the call. Two successful exhibitions have been organised showing the financed projects to the public and a third one is in preparation.

Expected or detected impact in region of origin

1st call (2002): 253 proposals, of which 228 financed. Total budget 2,115,000 euro.

2nd call (2003): 237 proposals, of which 231 financed. Total budget 1,168,000 euro.

3rd call (2005): 234 proposals, of which 211 financed. Total budget 1,300,000 euro.

Two exhibitions of European patents have been held presenting some of the financed projects.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Milan (IT)

Organisation implementing

Province of Milan, Department of Economic Activities and Innovation

Transferability of the practice

Low

Medium

High

The only requisite is to create a fund to allocate grants to cover part of the patent application costs.

Main challenges

To convince SMEs to patent abroad, to protect their invention (not only locally but also worldwide), and for them to accept the cost of patenting. To get their products marketed successfully.

Critical success factors

Innovative measure, the first in Italy to cover patent costs. Constancy of the initiative, repeated different times helps publicity and awareness of patentable opportunities. The exhibition of some financed SMEs on free terms allows the dissemination of their inventions and their innovative capabilities.

Levels of resources required

Low

Medium

High

It depends on the amount per grant and the number of grants foreseen. The last call had a budget of 1.3 million euro.

Potential impact in implementing regions

Protection of local SMEs' IPRs and worldwide promotion of "made in", hi-tech products. Fight counterfeits. Increase the technological level of SMEs.

For more information

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Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

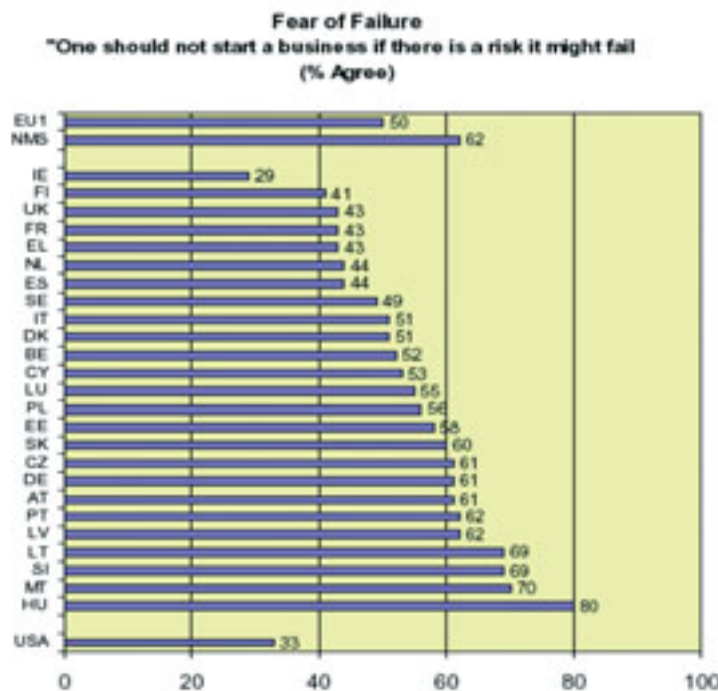
ENTREPRENEURSHIP

INTRODUCTORY NOTE

George Strogilopoulos
Logotech SA for PAXIS Accompanying Measure 1

Europe has a proud history of entrepreneurship. However, when European citizens are asked to name entrepreneurial organisations, they usually highlight large multinational companies. However, five hundred of Europe's fastest growing entrepreneurially-owned companies have created some 130,000 jobs across all industry sectors over the last three years. Not only have these gazelles grown employment by an impressive 14% annually; they have also increased their turnover by the same proportion. The key question that arises in the European debate about entrepreneurship is: Why do so few people in Europe want to become entrepreneurs?

Entrepreneurship is about people, their choices and actions. A recent (2004) Eurobarometer survey reveals what motivates their behaviour. While 45% of Europeans would like to be their own boss, Americans, at 61%, are keener to become entrepreneurs. What are the obstacles in Europe that help explain why 59% of Europeans have never even considered setting up a business? Regular income and job stability are highly valued for Europeans. Combined with the fear of failure, which in Europe is exacerbated by the legal and administrative 'stigma' associated with bankruptcy, the potential related risk of loss of property is perceived as a major obstacle to starting up a new business venture by over 50% of Europeans.



Entrepreneurship is a multi-dimensional activity related to all aspects of the economy. In many European or national surveys, factors such as the lack of financial support act as an obstacle to starting a new business, as do administrative complexities or country-specific effects (e.g. taxes). The impact of these variables has a significant effect on both current and potential (latent) entrepreneurship.

When relating entrepreneurship to innovation, R&D and the creation of new companies, the same barriers are present. The weaknesses of the European entrepreneurial culture are even more visible in academia and in research institutions. However, key regions in Europe such as the PAXIS regions of excellence have demonstrated very high rates of creation of new firms and have developed relevant policy schemes for their support. This is proof that factors such as awareness-raising, training and 'learning by doing' can play an important role in changing attitudes.

Main policy ideas on the area

In 2004, the Commission set priorities for boosting entrepreneurship in the Entrepreneurship Action Plan. This action plan describes 38 sub-actions in five strategic areas: (1) Fuelling entrepreneurial mindsets; (2) Encouraging more people to become entrepreneurs; (3) Gearing entrepreneurs for growth and competitiveness; (4) Improving the flow of finance; and (5) creating a more SME-friendly regulatory and administrative framework. It also sets out the roles of the different actors involved, ranging from the European Commission to national and sub-national authorities and business support organisations. The Commission reports regularly on progress made by both the Member States and at EU-level towards the goals set by the European Charter for Small Enterprises, and in the area of entrepreneurship.

Since a favourable environment for businesses and for small and medium-sized enterprises in particular, is crucial to stimulate Europe's economic growth, the European Commission announced the establishment of 'The European Enterprise Awards' in November 2005. The main objectives of these awards are:

- To recognise excellence in regional and local policies that promote entrepreneurship;
- To identify and recognise successful activities to promote enterprise and entrepreneurship;
- To showcase and share examples of best entrepreneurship policies and practices;
- To create a higher awareness of the role entrepreneurs play in society;
- To encourage and inspire potential entrepreneurs.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

The Commission intends for the winners of the awards to act as role models across the regions of Europe, contributing to create environments where entrepreneurs and entrepreneurship can flourish. The underlying objectives of these awards are very close to the ideas and initiatives developed under PAXIS.

The role of entrepreneurship in PAXIS

Entrepreneurship was one of the key thematic areas in PAXIS. Actions have focused chiefly on entrepreneurial/training issues (management, financing, globalisation, marketing and promotion) for innovation stakeholders. Other actions were aimed at promoting an entrepreneurial spirit amongst all stakeholders involved with start-up creation and development (from young entrepreneurs and researchers to public authorities and 'innovation' networks), supporting start-up creation and development in terms of resources (human resources, finance, etc.) and establishing partnerships on growth/expansion issues.

A large number of regional or inter-regional **events and competitions** were organised in order to promote entrepreneurial culture, provide advice and support to new entrepreneurs and to reveal new ideas and entrepreneurs. Particular effort was invested in stimulating students' entrepreneurial spirit. Examples include Stuttgart's **'Business Chance - Idea Contest'** - a contest for students and scientists presenting their business ideas - and Dublin's **'Student Enterprise Awards'**, aimed at developing an entrepreneurial culture at secondary school level. Promoting entrepreneurship in universities and research centres is the main aim of **Start Cup** in Torino, and of the Munich Business Plan Competition in which business ideas from university and research are catalysed through a business plan competition offering free coaching, training and networking opportunities.

The **European Day of the Entrepreneur**, originally an idea of the Barcelona Metropolitan Area, has become a hugely successful Europe-wide initiative through the PAXIS platform. A manual providing practical implementation guidelines was published for regions wishing to organise these events aimed at fostering the entrepreneurial culture throughout Europe. **Venturefest**, Oxfordshire's International Fair for Entrepreneurs, provides free support and guidance to individuals seeking to start or grow their business, with a particular focus on high technology and knowledge-based sectors. Emilia Romagna has implemented its own version of Venturefest, called 'Ricerca l'Innovazione gli Investitori e le Nuove Imprese'.

Until the mid-90s the term **'innovation management'** was practically unknown to the innovation community. At European level, there is a vast pool of people with ideas, products, services and concepts that could potentially result in a successful commercial launch, but can not flourish without adequate business support and know-how. One of PAXIS' main targets was to promote an entrepreneurial culture to innovation and R&D stakeholders through support in the areas of **management, financing, marketing and business development**. One example is the **'Trinity College Dublin MBA Enterprise Workout'**, which aims at helping and accelerating the development and growth of university-led new ventures seeking finance and development assistance. Many tools have also been developed or improved; such as the **'Fuzzy Self Evaluation Tool'** providing a web-based, pan-European multi-lingual tool that corresponds to the entrepreneur's needs. Furthermore, the **TRACTOR** support methodology and e-learning platform for start-ups provides specific guiding materials for entrepreneurs by integrating consolidated practices from various countries for the creation and development of new innovative companies. Other examples include the **'LIVETECH Multimedia game'**, which helps managers develop good leadership skills and the **'SIAV Action Learning'**, which develops tailor-made methodologies for firms in support of their internationalisation, production and quality, supply chain management, new product development processes, human resources and change management.

Some of the good practices focused on **knowledge and information flow processes**, address one of the most significant barriers for the development of **innovative start-ups**. One initiative in this field is Milan's PNI - **PUNTO NUOVA IMPRESA** (New Company Point), a network of one-stop shops with services, including training and awards, for entrepreneurs in the Lombardy region. **'FAME: Find the Appropriate Mentor'** is a scheme which aims at helping start-ups based in European science & business parks to identify outside expertise appropriate to their stage of development. A FAME pilot is active in the Sophia-Antipolis Science Park, and the Science Parks of Berlin Adlershof (Germany), Torino I3P (Italy), and Helsinki Otaniemi (Finland) are investigating its implementation.

PAXIS placed a strong emphasis on **raising the awareness of policy-makers** on the importance of entrepreneurship. The **'Madri+d decision-making framework on entrepreneurship'** is a model for enhancing the effectiveness of business creation policies and programmes initiated by regional governments. It provides improved means to evaluate the policies and programmes designed to promote the creation of technology-based companies and includes a monitoring indicator tool adapted from Turin's I3P. The 'Collaborative Validation and Transfer of Regional Support Measures for Start-ups Creation and Growth' is a methodology for promoting sustainable entrepreneurship in less developed regions and has already been tested in Slovenia, Bulgaria, Wielkopolska, Lower Silesia



Pre-seed and early-
stage financing

Incubation
models

Spin-off /
technology transfer

Entrepreneurship

Innovation culture /
political awareness

Methodologies

and Latvia. Barcelona's 'Dia de l'Emprenedor' brings together 3000 participants from all over Spain and Europe each year and has influenced many cities and regions like Milan, Madrid, Sofia, Stuttgart, Dublin and Zagreb in initiating similar events.

Lessons learned & ideas for the future

In today's challenging economic environment, the entrepreneurial skills of our people have never been more important. European Union leaders have already placed the creation of an entrepreneurial culture at the heart of Europe's growth strategy. PAXIS has developed a broad spectrum of ideas for conducting **entrepreneurship campaigns** as one of the cornerstones of European entrepreneurship policies. Such campaigns can present role models, success stories and portraits of failures in order to highlight the positive contribution of entrepreneurship to society's needs. It appears that campaigns are best organised at regional and national level, with the European Commission providing a European label, organising supportive events and improving links among the different campaigns organised throughout the EU in order to boost the visibility and coordination of regional and national activities.

Entrepreneurship should start early. Students should be trained about how to structure and grow a company, and to become accustomed to the idea that a company, rather than representing a life-long personal commitment, is simply a legal tool for commercialising ideas. To foster the creation of more fast-growing enterprises (and gazelles), Europe needs to take advantage of its research potential, technological results and patents. This implies that researchers need to think more entrepreneurially and to acquire the practical knowledge of developing a business concept. Training schemes in these area are therefore of the utmost importance. Innovation management techniques should form an integral part of innovation studies. In addition, the financing of innovative firms, the marketing and promotion of new technology products, incubation and R&D management, macro and micro economics, sustainable development, international law and IPR issues, represent the core curriculum essential for survival in today's competitive environment.

BENCHMARKING RESULTS

Defining Entrepreneurship Training Programmes

For the purposes of the ATHENA project (PAXIS Accompanying Measure 2), Entrepreneurship Training Programmes (ETPs) are defined as programmes that aim to enhance the entrepreneurs' skills and competencies to successfully start a business and therefore facilitate company creation in a region. Participants are expected to have a business idea to enter these programmes, which are typically organised by incubators or entrepreneurship centres, or via business plan competitions dedicated to company creation in a short term converting quickly good ideas and projects into business realities. ETPs are differentiated from Entrepreneurship Education Programmes (EEPs) which are dedicated to education and awareness-raising and therefore require longer periods of time.

Entrepreneurship training can not be seen as an isolated tool. It is one element of a complex system in place to foster the creation of businesses that typically includes legal, financial and institutional aspects as well. To be effective, it has to be accompanied by other actions and be part of an integral, comprehensive programme.

Although entrepreneurship training is considered an unquestionable necessity, experts and researchers did not come to agreement regarding what kind of training should be offered and what role it should play in the creation process of new ventures.

A literature review reveals that publications about entrepreneurship training are still relatively scarce, in comparison to the abundant literature on entrepreneurship education. There are only very few approaches for benchmarking entrepreneurship training programmes. The lack of benchmarking studies can be largely explained by the heterogeneity of training initiatives, which makes a comparison of these highly diverse entrepreneurship training programmes a difficult task.

The following notes are intended to present some preliminary results of a benchmarking study that has been undertaken to get an insight into Entrepreneurship Training Programmes offered in the PAXIS regions of excellence and to identify successful practices of training initiatives that could serve as an example for other regions.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Preliminary results of the benchmarking study - regional view

Preliminary results of the benchmarking study that focussed on the supply of training measures in the regions show that Munich, Hamburg, Barcelona, Oxfordshire and Emilia-Romagna regions reach the highest ratings across all items (see Table 1). Although it should be pointed out that the results of this regional survey are not representative, this indicates that there are some significant differences between the regions and that these have to be analysed in detail.

An analysis of single items across the regions show that experts from all regions agree to the statement: 'In my region the demand for training and support to acquire the appropriate skills to start a business is high'. Compared to other items, scores on this statement are relatively high. The results also indicate that in all regions, with the exception of Veneto, entrepreneurs do have access to free training programmes to acquire the appropriate skills to start their own businesses. What is remarkable is that many experts do not agree to the statement that in their regions 'entrepreneurs know about these training programmes and make use of them'. This may indicate that there is a high demand that is not being met by adequate training measures or that training programmes are not clearly communicated to would-be entrepreneurs. This apparent imbalance of supply and demand is an interesting aspect which calls for further examination.

Furthermore, the ratings reveal regional differences concerning the existence of and access to entrepreneurial networks. The results indicate that in four out of nine regions social networks for entrepreneurship promotion and support are not well established and could be improved.

In general regions with higher ratings in specific areas have to be examined in detail to extract possible learning and improvement paths for regions with lower scores. As highlighted above, special attention should be paid to the differences concerning entrepreneurship training.

Preliminary results of the benchmarking study - project level


At the beginning of the benchmarking exercise, ATHENA partners agreed to include quantitative as well as qualitative indicators in the survey to identify good practices. Optimally quantifiable performance indicators provide an indication of the outputs of a training programme and therefore reflect their level of success. However, qualitative data are also necessary to achieve an in-depth understanding of how a specific programme works.

REGION OR AREA		MUNICH	BARCELONA	DUBLIN	MILAN			
ENTREPRENEURIAL CULTURE AND SOCIAL NORMS	The region as a whole values and supports entrepreneurship and risk-taking	Red	Orange	Yellow	Red	Orange	Yellow	
	Knowledge holders are recognized as preferential sources of innovative entrepreneurial talent.	Red	Orange	Yellow	Red	Orange	Yellow	
	There are mechanisms in place in order to reduce risks of self-employment / an entrepreneurial career.	Red	Orange	Yellow	Green	Red	Orange	Yellow
	New companies are supported by a dynamic local business environment.	Red	Orange	Yellow	Green	Red	Orange	Yellow
ENTREPRENEURIAL ACTIVITY AND TRAINING	In my region the demand for training and support to acquire the appropriate skills to start a business is high.	Red	Orange	Yellow	Red	Orange	Yellow	
	In my region entrepreneurs have access to free training to build up appropriate skills to start their own businesses.	Red	Orange	Yellow	Green	Red	Orange	Yellow
	Entrepreneurs know about these training programmes and make use of them.	Red	Orange	Yellow	Red	Orange	Yellow	
	Entrepreneurs have access to advice and expertise for reviewing and evaluating business plans.	Red	Orange	Yellow	Red	Orange	Yellow	
NETWORKING AND EXCHANGE	There are examples of successful networks for entrepreneurship promotion and support (eg. business angel networks, incubator networks etc.)	Red	Orange	Yellow	Red	Orange	Yellow	
	In my region entrepreneurs have easy access to social networks to get in contact with other entrepreneurs, established businesses and institutions (eg. banks, consultancies etc.).	Red	Orange	Yellow	Red	Orange	Yellow	
	These entrepreneurial networks are a primary source where to find complementary assets and skills.	Red	Orange	Yellow	Red	Orange	Yellow	
GOVERNMENT AND POLICIES	Local government / agencies are proactive in supporting new entrepreneurs.	Red	Orange	Yellow	Green	Red	Orange	Yellow
	The region has clear enabling policies in place to encourage entrepreneurship.	Red	Orange	Yellow	Red	Orange	Yellow	
	I can identify those policy makers in my region which set entrepreneurship at the core of their agenda.	Red	Orange	Yellow	Green	Red	Orange	Yellow
	There are diversified promotion programmes for different target groups (youth, female, students, dependent employees).	Red	Orange	Yellow	Green	Red	Orange	Yellow
	There are specific administrative offers (eg. one stop agencies) for the establishment of innovative or technology based firms.	Red	Orange	Yellow	Red	Orange	Yellow	




	VENETO	HAMBURG	MADRID	TORINO	OXFORDSHIRE	EMILIA ROMAGNA			
Pre-seed and early-stage financing	Red	Orange	Yellow	Yellow	Red	Orange	Yellow	Yellow	Green
Incubation models	Red	Orange	Yellow	Yellow	Red	Orange	Yellow	Yellow	Green
Spin-off / technology transfer	Red	Orange	Yellow	Yellow	Red	Orange	Yellow	Yellow	Green
Entrepreneurship	Red	Orange	Yellow	Yellow	Red	Orange	Yellow	Yellow	Green
Innovation culture / political awareness	Red	Orange	Yellow	Yellow	Red	Orange	Yellow	Yellow	Green
Methodologies	Red	Orange	Yellow	Yellow	Red	Orange	Yellow	Yellow	Green





The findings demonstrate the variety of different approaches and formats of the training programmes used throughout Europe to facilitate the creation of new businesses. This heterogeneity of approaches becomes apparent in the set of qualitative indicators that has been measured in this survey. There is a high diversity regarding programmes' objectives, target groups, structure, content and methodology as well as resources and environmental factors.

Success of these training programmes can be measured by quantitative indicators such as the number of companies created, the number of jobs created, or the long-term survival rate of started businesses (expected to be higher than the regional average). But results of this survey indicate that these quantitative indicators appear to have only a limited value in compare training programmes when it comes to their success, because success criteria are highly specific to each programme and its context.



It can be stated that managers of ETPs seem to be aware of the necessity of permanent monitoring and evaluation. A most common approach to assess the quality of the programme is the participants' evaluation of individual trainers, specific subjects or the training process using questionnaires. But information collected in this survey suggests that even monitoring and evaluation processes can be significantly improved. In all cases there is some kind of quality control or evaluation integrated in the programme, but in many cases it remains unclear how this is actually carried out. Only few respondents named or were able to provide surveys or studies on the medium and long-range impact of the training activities.

Preliminary results of this benchmarking study also reveal that the conceptual distinction of entrepreneurship training, entrepreneurship education and awareness- raising is often difficult to find in practice. Very often, initiatives have multiple aims. Business plan competitions may serve as a good example as they usually provide dynamic training programmes orientated towards enterprise creation and are often marketed and presented in the regional media and therefore have a notable effect on raising awareness of entrepreneurs and would-be entrepreneurs.

BusinessChance - Idea Contest

Description of practice

Stuttgart Region (DE)



PAXIS Network or Project

Novelty

SPRING

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Motivation for start-up activities; awareness for entrepreneurship.



Short description

BusinessChance is designed as a contest for students and scientists to present their business ideas; instead of a fully developed business plan, only a four-page template has to be completed. Main objectives are awareness raising and early access to support structures. Public awareness through media partnerships is also achieved.

Delivery mechanism

Call for contest; online template for participation; face-to-face presentation of pre-selected contributions; award ceremony.

Expected or detected impact in region of origin

Enhanced awareness for entrepreneurship; reduced failure rates through early access to support schemes; improved deal flow.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Madrid (ES)

Organisation implementing

madrimasd

Transferability of the practice

Low

Medium

High

All templates, the model and rules could be easily transferred to other regions. Only translation is required.

Main challenges

Creating the best partnership to run the contest

Critical success factors

Accompanying activities (trainings, events, etc.)

Levels of resources required

Low

Medium

High

Costs for printed materials, marketing, catering.

Potential impact in implementing regions

Enhanced awareness for entrepreneurship; reduced failure rates through early access to support schemes; improved deal flow.

For more information

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Venturefest

Description of practice

Oxfordshire (UK)



PAXIS Network or Project

Novelty

KREO

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Venturefest is Oxfordshire's International Fair for Entrepreneurs. It includes a range of seminars, workshops, competitions, pitches from entrepreneurs seeking funding, a major exhibition and networking and social activities.

Short description

The objective is to provide free support and guidance to organisations and individuals seeking to start or grow their business mainly on high technology and knowledge-based sectors. It was set up by Oxford County Council, Oxford Universities, businesses and support agencies, which joined forces in supplying SMEs with a diversity of support, training and networking opportunities. The event is open to all and attracts entrepreneurs, venture capitalists, scientists and professional advisers.

Delivery mechanism

The event includes an exhibition and conferences/seminars structured in four main sessions:

- Fund raising: organisations seeking funding through the UK's investment networks
- How-to: seminars offering specialist advice on key elements for business development.
- Technology showcase: an analysis of some of the innovative technology projects undertaken by the region's universities, research and industrial establishments
- Special events: keynote presentation by a supporter of innovation.

Expected or detected impact in region of origin

Its impact on the region can be seen in the continued increased attendance and the crossover into international recognition. This year's Business Plan competition was won by Omlidon Technologies - a spin-out from ETH Zurich.

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Emilia-Romagna (IT)

Organisation implementing

ASTER and Emilia-Romagna Region

Transferability of the practice

Low

Medium

High

Highly transferability regarding the concept and implementation. However, the richness of the Venturefest strongly reflects the wealth of initiatives and measures in the region.

Main challenges

The event **RI³ Ricercando l'Innovazione gli Investitori e le nuove Imprese** ('Looking for Innovation Investors and new Enterprises') was shaped by ASTER transferring some of the components of the Venturefest. In particular, two parallel sessions for the provision of instructions and advice on the key elements of business creation and development were foreseen in the format. The involvement of innovation champions was also an idea inspired by Oxford.

Critical success factors

- Involvement of a number of actors supplying services and advice to innovative start-ups
- Availability and involvement of funding sources for start-ups

Levels of resources required

Low

Medium

High

The level of resources required strongly depends on the existing situation in the region (networking in place, VC/seed funds, etc.)

Potential impact in implementing regions

Emilia-Romagna disposes of a lively network of organisations providing support services for the innovative start-ups, while the presence of investors needs to be enhanced. The event intends to gather organisations active in start-up support and interact on the policies/actions that favour entrepreneurship. Furthermore, it is expected to shape a stronger environment on early-stage financing.

For more information

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Waking-up Sleeping Projects

Description of practice

Alpes Maritimes (FR)



PAXIS Network or Project

Novelty

HIGHEST

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Promote an economic and social development tool, giving unemployed executives their confidence back. Executives have the opportunity to network with other companies to find a job. Good way to fight isolation.



Short description

Recruit unemployed executives to work in companies on sleeping projects developing new services, products or companies, for a period of six months, free of charge for the recruiting companies. Executives are paid by unemployment benefits.

Delivery mechanism

Exchange of documents, presentations and meetings

Expected or detected impact in region of origin

Create jobs for unemployed executives (80% success rate so far). Accelerate companies' development. Helps social cohesion.

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Aix en Provence (FR)
Bordeaux (FR)
Helsinki (FI)

Organisation implementing

Europole de l'Arbois
Bordeaux Technowest
Technopolis Ventures

Transferability of the practice

 Low

 Medium

 High

Dependent on the unemployment policy of countries. Executives must receive benefits from the government or another organisation. Process well documented and tested by CICOM.

Main challenges

- Good communication between different actors (unemployment agencies, companies, etc). Constant follow-up of executives and companies.
- Resources (financial, human and time) to run the programme.

Critical success factors

Coaching of executives; viability of projects; adequacy between executives, placements and recruiting companies; financial resources of hiring companies; diversity of placements; skilled human resources; coordination and communication among public actors.

Levels of resources required

 Low

 Medium

 High

Programme transfer cost is around 25,000 euro.

Potential impact in implementing regions

Create job opportunities for unemployed executives. Accelerate companies' development by helping them with skilled human resources. Reinforce the public image. Fight unemployment effectively.

For more information

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Mission Sophia, *Antennes*, December 2004 No. 43
Valoriser le savoir du cadre au chômage, *La Tribune*,
March 2005
Un chômeur pour relancer un projet,
Journal du Management

Flyer:

Waking-up sleeping projects

Presentation:

Waking-up sleeping projects.ppt



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Student Enterprise Awards

Description of practice

Dublin (IE)



PAXIS Network or Project

Novelty

PANEL

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Short description

Organised by the Dublin City Enterprise Board, the aim of the competition is to develop an enterprise culture in secondary schools. Through this competition, students establish real life businesses and participate in enterprise competitions at school, county and national level. The programme involves collaboration between the Department of Enterprise, Trade and Employment and the Department of Education and Science.

For the academic year 2005/2006, Dublin City Enterprise Board is providing short courses on idea generation for students and workshops for teachers to foster the possibilities of increased participation. In addition, networking opportunities among teachers and students are enhanced through organisation of Entrepreneur encounters and careers evening.

Delivery mechanism

This programme is the first step in developing entrepreneurship since students gain first hand experience of what it is really like to run a business - from the initial planning stage to selling their products or services.

Students set up a real business, either alone or with others, where they sell a product or service in school or outside; keep accounts; write a business report (guidelines and structure are provided); mount an exhibition. The programme develops the skills necessary to run a successful business, i.e. interpersonal, technical, managerial and entrepreneurial.

There is a special information pack for teachers and school principals, and training is provided by the second-level school support service. The programme follows the school academic term from September (Business decision) to the end of March (National Final)

Short courses for pupils within school timetables have been added to encourage creativity and offer further support.

Expected or detected impact in region of origin

National Final Winners 2004/2005

Intermediate Category

Best Display Award - MESSY Accessories, St. Kilians Deutsche Schule, Clonskeagh, Dublin 14 Junior Category

2nd Place - Bandazia, Loreto High School, Beaufort, Grange Road, Rathfarnham, Dublin 14



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Barcelona (ES)

Organisation implementing

Barcelona Activa

Transferability of the practice

 Low

 Medium

 High

It can be implemented easily and experiences can be shared in networking opportunities at school and organisation level.

Main challenges

Finding effective ways to ensure the participation of many schools in the region has proven a challenge. This is being overcome by providing support in schools as well as encouraging cross-curricular thinking so that a wider range of subject teachers will provide support.

Critical success factors

A good working relationship with teachers has proven the best way to implement changes to this programme. Organisation and networking are critical success factors and individual school visits have proven to be very encouraging.

Levels of resources required

Low

Medium

High

The programme currently costs approx. 8,000 euro p.a. but successful sponsorship could make the programme self-sustaining. It is proposed that over the next three years the budget would rise by 50% p.a. to ensure full participation within Dublin City Enterprise Board. The Board has enlisted the services of a schools coordinator to facilitate the programme.

Potential impact in implementing regions

Feedback from teachers is positive in relation to the learning benefits. Impressive results noted are the teambuilding, negotiation, networking and problem solving skills of the students involved.

For more information

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PNI – PUNTO NUOVA IMPRESA (New Company Point)

Description of practice

Milan (IT)



PAXIS Network or Project

Novelty

PANEL

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

PNI is a network of one-stop shops with services for entrepreneurs spread over the Lombardy region, including training and awards

Short description

PNI service covers a wide range of needs for entrepreneurs who want to set up a new business. It provides free information, guidance and support to identify the skills and weakness in the development of the proposed idea, and to design an effective project. PNI's experts support the users to focus on the critical issues and necessary areas to foster the development of the idea and a consistent corporate programme.

PNI was established by FORMAPER, a subsidiary company of the Milan Chamber of Commerce, in co-operation with the Lombardy Regional Authorities, the Association of Lombardy Industrial Entrepreneurs, the Trade Association of the Province of Milan, and the Regional Board of Lombardy Chambers of Commerce.

Delivery mechanism

PNI provides the following services free:

- All bureaucratic, legal and administrative information necessary to start-up an entrepreneurial initiative with the help of purpose-built software that outlines all the procedures to be followed for setting up 4,000 different businesses.
- Quantitative data on the entrepreneur target market using databases containing information about current businesses in the country.
- Information on financial sources at the EU, national and regional levels.
- The committee offers help to new entrepreneurs in developing a project through one-to-one interviews.
- Potential investors that apply for the grants allocated by regional laws can receive a tailor-made consulting service to draft the business or corporate plan necessary to apply for financial support.

Awards

Each year the Evaluation Committee distributes:

- eight awards (of 3,555 euro each) for the best entrepreneurs/independent workers
- nine awards (of 1,500 euro each) for the best enterprise/independent labour ideas

Expected or detected impact in region of origin

PNI is a regional network of support points for the new entrepreneurship. Each provincial chamber of commerce has an office that offers free services of information, training, orientation and tailored consulting provided by qualified staff.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Milan (IT)

Organisation implementing

Formaper
(special firm of the Milan Chamber of Commerce)

Transferability of the practice

Low

Medium

High

The key point of the PNI system is its organisational structure with an efficient central coordination. Moreover, each office has developed close links within the territory, in particular with local entities and actors involved in entrepreneurship.

Main challenges

To consolidate this type of network: assuring sustainable qualified services, identifying in advance the entrepreneurs' training and information needs, being constantly updated in terms of qualified staff and innovative tools to deliver the services.

Critical success factors

Organisational network structure with an efficient central coordination; qualified staff to deliver free services for potential entrepreneurs; range of services covering all new start-up stages and tailored assistance; commitment of key people in the region.

Levels of resources required

Low

Medium

High

Services are free, but the levels of resources are not considered low. Synergies and exchanges among all one-stop shops allow for sharing costs and give more efficiency in delivering services.

Potential impact in implementing regions

It could be an effective way of channelling potential entrepreneurs' needs and opportunities, helping to increase the number of new firms created and increasing the employment rate.

For more information

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Munich Business Plan Competition

Description of practice

Munich (DE)



PAXIS Network or Project

Novelty

PANEL

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Business ideas from university and research are catalysed by a business plan competition with complementary coaching, training and networking elements over a period of nine months.

Short description

The MBPW (Münchener Business Plan Wettbewerb GmbH) stimulates and supports the foundation of innovative and fast-growing technology ventures and service enterprises. The following issues constitute the focus for the MBPW initiative:

- 1) Mobilisation of innovative business ideas from universities, colleges and research institutes, and from the entrepreneurial environment
- 2) Implementation of evaluated business ideas through company start-ups on the basis of a business plan
- 3) Establishing a supportive business location and creating new future-orientated jobs.

Since 1996, the MBPW is organised annually and is at the heart of Munich's innovation scene bringing the essential players together with its many activities, action lines and events offering them a continuous and regular platform to interact.

Delivery mechanism

Participants have to apply themselves; pro-active marketing.

The competition is divided into three stages (Ideas Creation, Development Stage and Excellence Stage) taking nine months to complete. The stages serve as the learning process for setting up a business plan, the requirements in content and extent increasing each time. An expert jury evaluates the business plans. The participants win prize money totalling 77,500 euro.

The MBPW provides different activities to support the participants: in a series of lectures the participants receive information on the establishment of a company; on crash courses the participants can prepare their business plan; on jours fixes (founder contact forums) participants receive advice from experienced entrepreneurs, specialised lawyers, chartered accountants etc (there is a databank of about 400 consultants/coaches), so the participants have the chance to make the first contacts with potential financiers and future business partners; and in Entrepreneurship Forums, participants present the business plan in front of investor panels (elevator pitches).

Expected or detected impact in region of origin

From 1996 until June 2004, more than 3,400 people in over 1,450 teams took part, 381 companies were founded (324 still existing at that time) and 2,901 jobs were created. The companies were financed with a total sum of 318 million euro, mostly venture capital.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Organisation implementing

Transferability of the practice

Low

Medium

High

A clear, well-developed and proven methodology of the MBPC is available.

Main challenges

Funding; critical mass of ideas with business potential.

Critical success factors

Close linkages to universities and research; involvement of local economy and politics with support, money, time and expertise.

Levels of resources required

Low

Medium

High

Budget mostly used for personnel: two to four full-time positions; events, marketing, and prize money. Totalling approx. 750,000 euro p.a.

Potential impact in implementing regions

Increase in the number and quality of university and research-based start-ups. It is felt this is having a unifying effect on the innovation scene.

For more information

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Trinity College Dublin MBA Enterprise Workout

Description of practice

Dublin (IE)



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

PAXIS Network or Project

Novelty

PANEL

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Short description

It aims at accelerating the development and growth of new, university-led ventures seeking finance and development assistance. It involves teams of MBA students working with the promoters of new campus businesses. It started in 2002 and takes place once a year during May, June and July. It provides real company projects for trying out new business planning and strategy skills.

It provides real value in business development services to new incubating companies with one year of planning experience.

Twenty projects applied in 2005 on behalf of 40 potential entrepreneurs. Two qualified at the end. The programme is integrated with Enterprise Ireland Seminar on Enterprise Ireland's Support Programme.

Delivery mechanism

The Workout parties involve tech transfer staff from third-level institutions, MBA director and teams, project promoters and an assessor appointed to each project

Contact between MBA team and project promoters following presentations by promoters to MBA class, tech transfer representatives and MBA director. MBA forms teams by self-selection and bid for individual projects by way of formal presentations. If the panel are satisfied, the assessor is appointed and the workout gets under way.

The workout consists of three formal meetings (scoping, interim and final meeting) on which the MBA team are assessed and marked. These are attended by members of the above panel. There is also a significant amount of informal meetings. Finally, two days after the final meeting, a written report is delivered to the group and forms part of the assessment of MBA team's work.

Expected or detected impact in region of origin

- Increase in number of companies spinning out from third-level institutions
- Increase in number of companies successfully raising seed and venture capital



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Organisation implementing

the TCD MBA Enterprise Workout has many points in common with the following: Match competence per Io start-up, BIC La Fucina in partnership with Milan State University, Province of Milan (IT), Quasi-Empresas, Barcelona (ES)

Transferability of the practice

Low

Medium

High

- Incubators
- Third-level institutions
- MBA students

Main challenges

- Projects must be sufficiently developed prior to the involvement of MBA students • MBA students need to balance the needs of the workout and their other commitments on the MBA programme
- Promoters need to be aware of the time commitment and interaction needed from them
- The commitment of the tech transfer staff and the MBA director is critical
- The third-level institution must ensure that there is a plentiful supply of good projects

Critical success factors

- The TCD MBA Enterprise Workout has become a core part of the curriculum of the MBA programme rather than an elective subject
- There is a strong commitment from both the Trinity College Dublin Business School and the Technology Transfer Office - this is key for success
- It is a win-win situation for the participants - project promoters and MBA students

Levels of resources required

Low

Medium

High

The main resource is people/time.

- Facilitators
- Staff from the TCD Business School and the Technology Transfer Office
- Project promoters
- MBA students

Potential impact in implementing regions

- Improves chances of company success in raising seed or venture capital
- May increase the number of Knowledge Based SMEs in the region
- Environment better for entrepreneurship

For more information

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Start Cup

Description of practice

Torino Area (IT)



PAXIS Network or Project

Novelty

HIGHEST

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

- A competition for high-tech projects aimed at setting up innovative companies in local area incubators
- Let outstanding entrepreneurial ideas stand out so as to fill the gap which divides the academic research from the industry and investment environment.

Short description

Objectives:

- The Start Cup is used by I3P as main tool to scout for a high number of innovative ideas to be carried on into high potential start-ups
- It is also an important tool to increase awareness on entrepreneurship in the universities, research labs and the environment as a whole.

Actors:

- Politecnico of Torino and the University of Torino are the main environments for gathering high potential business ideas/plans
- Organisers are I3P, Innovative Companies Incubator and LISEM with the sponsorship of public and private institutions.
- The evaluation committee for the ideas and business plans is made up of professionals such as entrepreneurs, technical, financing and marketing experts, venture capitalists, etc.

Target Groups:

- Researchers from the whole university environment in Torino and Piemonte Region
- Aspiring entrepreneurs with high-tech and innovative business ideas/plans

Delivery mechanism

The competition is organised annually in Torino Area and supported by extensive promotional activity. Target groups are informed by direct marketing (call, mail, meetings, etc.).

Expected or detected impact in region of origin

- It is an effective tool to find research results in the local technology environments
- It is an effective tool to stimulate the entrepreneurial attitude of people



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Helsinki (FI) (for benchmarking activities)
Switzerland (for benchmarking activities)

Torino Area (IT) (not I3P)

Organisation implementing

Otaniemi incubator
Zurich incubators
(Start - Technopark Winterthur)
Lisem, Univer, Tecnogranda Incubator

Transferability of the practice

Low

Medium

High

The model is easy to reproduce but it requires financial support from public and private institutions.

Main challenges

- It is an expensive model which requires sponsorship from public and private institutions
- As a scouting tool for company creation, it works on a deadline basis, not in continuous time

Critical success factors

- An effective promotional campaign should be performed throughout academic/research/industrial environments
- Competition participants should be stimulated on entrepreneurial topics in order to obtain a high number of companies set up at the end of the process
- The Start Cup competition winners need to be followed up by incubator staff in order to help them in setting up the company

Levels of resources required

Low

Medium

High

Resources

- Cost: 100,000 euro (estimated), for the organisational activities, from promotion to the award ceremony.
The prize money, which is granted by sponsorship of local bodies, is about 200,000 euro
- People: Two to three staff for organisational aspects plus an evaluation committee (up to ten members) for assessing the business ideas/plans.

Potential impact in implementing regions

- It is appropriate to stimulate entrepreneurship and increase the company creation growth rate
- It's appropriate for incubators that want to increase their scouting effectiveness

For more information

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madri+d Decision-making Framework on Entrepreneurship

Description of practice

Madrid (ES)



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

PAXIS Network or Project

Novelty

SPRING

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Improved policy-making framework

Short description

The aim of this decision-making model, improved in the framework of SPRING, is two-fold. Firstly to enhance the effectiveness of business creation policies and programmes initiated by regional governments and, secondly, to provide improved means for evaluating the policies and programmes designed to promote the creation of technology-based companies.

It is aimed at regional policy-planners working on policies designed to promote the creation of technology-based companies, through either the regional government or any other official body in Madrid concerned with encouraging entrepreneurship.

Several European partners have been involved in fine-tuning these tools as part of PAXIS, namely Torino Area, Cambridge, Stuttgart and Stockholm.

It includes a monitoring indicator tool adapted from Torino I3P which is aimed at:

- facilitating the appearance and development of technological scientific companies;
- enhancing business co-operation;
- spreading the innovation culture.

Delivery mechanism

The delivery mechanism is a policy recommendation on the type of issues taken into account when defining or re-defining regional policies on entrepreneurship.

Expected or detected impact in region of origin

This model has helped to ensure that PRICIT IV (The Regional Plan for Scientific Research and Technological Innovation), covering the period from 2005-2008, has both strengthened and improved the internal decision-making process and the assessment of results. The model is not easy to transfer to other regions, although this is not the case for the three tools cited above providing support for the decision-making process.

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Madrid (ES)

Organisation implementing

Madrid : improvement of regional Science and Technology policy in the field of Entrepreneurship

Transferability of the practice

Low

Medium

High

The process is difficult to implement in other regions since the outcome must be adapted to regional regulations and characteristics.

Main challenges

Raise awareness among decision-makers and help them when dealing with different perceptions in stimulating start-ups (universities, public bodies, firms and associations, research centres).

Critical success factors

- Awareness amongst decision-makers
- Strong ties to regional actors
- Access to statistics from different sources i.e. not just national or central statistics bureaus but also universities and regional organisations

Levels of resources required

Low

Medium

High

Different methodologies must be implemented with a strong regional commitment.

Potential impact in implementing regions

Help evaluating the effectiveness of NTBF support actions, initiatives or programmes put forward by the regional authorities, and help in improving the quality and developmental impact of these actions.

For more information

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EFQM monitoring Entrepreneurship Support Tool

Description of practice

Madrid (ES)



PAXIS Network or Project

- Novelty
- Existing practice

SPRING

Good Practice Type

- Tool / Product / Service
- Methodology
- Learning / Networking
- Policy Recommendation

Aspect of innovation process addressed by practice

- Pre-seed and early-stage financing
- Incubation models (Incl. Internationalisation)
- Spin-off / Technology transfer
- Entrepreneurship
- Innovation culture / Political awareness
- Other

Improved policy-making framework

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Short description

Developed by Fundación para el Conocimiento madri+d, the tool is intended to monitor NTBF support implementation in the universities, public research and technology organisations (PRTO) in any region. The methodological/indicator tool is the result of examining the different models and criteria that the DGUI (General Directorate for Universities and Research of the CM) put into effect with its participation in the PAXIS PRIACES project and the PAXIS telematic networks SPRING I and II.

The indicator tool has its origin in the EFQM model. The responsibility and arrangement for continuous monitoring was agreed upon by regional authorities of the SPRING network (Madrid, Stockholm, Cambridge and Stuttgart). The monitoring, follow-up, assessment and comparison with other regions using the methodological indicator tool gives to any region tangible data about the possibility of improving such a support, and accounts for future cross-fertilisation between partner regions too.

Delivery mechanism

The delivery mechanism is a guide on the type of issues to take into account when following up on the implementation of entrepreneurship support.

Expected or detected impact in region of origin

Discovering which support instruments regions need for NTBF creation.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Madrid (ES)
Stuttgart (DE)
Stockholm (SE)
Cambridge (UK)

Organisation implementing

Fundación para el Conocimiento madrid
WRS
Kista Science Park
EEDA

Transferability of the practice

Low

Medium

High

It is easy to transfer to other regions, but the collection of information requires exhaustive work.

Main challenges

To measure the regional institutions against the entrepreneurship policies implemented.

Critical success factors

Strong ties to regional actors
To find a good collaboration within regional innovation actors

Levels of resources required

Low

Medium

High

Initial resources required are low, but if the index is to be produced regularly (every quarter, twice a year, or even annually), one organisation must be responsible for obtaining and analysing the data for the indicators.

Potential impact in implementing regions

- Raise awareness among decision-makers and help them deal with different perceptions in stimulating start-ups (universities, public bodies, firms and associations, research centres).
- Focus data collection efforts on what is most important for any given region at any given time.
- Know whether or not the region is making progress towards the planned/desired objectives.
- Help evaluate the effectiveness of NTBF support actions, initiatives or programmes set out by the regional authorities, and help improve the quality and developmental impact of these actions.

For more information

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Collaborative Validation and Transfer of Regional Support Measures for Start-up Creation and Growth

Description of practice

Spain, Greece, Austria and Germany



PAXIS Network or Project

- Novelty
- Existing practice

PROMOTOR +

Good Practice Type

- Tool / Product / Service
- Methodology
- Learning / Networking
- Policy Recommendation

Aspect of innovation process addressed by practice

- Pre-seed and early-stage financing
- Entrepreneurship
- Incubation models (Incl. Internationalisation)
- Innovation culture / Political awareness
- Spin-off / Technology transfer
- Other

Methodology for promoting sustainable entrepreneurship in less developed regions.

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Short description

Develop and test a methodology for promoting the entrepreneurship in NACs, based on the experience implemented in less developed regions in 15 EU countries. After implementing the methodology, 25 new firms were expected to be created. The proposed methodology should be customised and implemented in two regions of Poland, and one each in Slovenia, Bulgaria and Latvia.

Delivery mechanism

Regional promoters receive a handbook as well as support for the customisation of the methodology.

Expected or detected impact in region of origin

The formalisation of practices and implementation of this permits an increase in the knowledge and learning from more 'in the field' experiences, which will allow more effective and efficient local implementations for the future.

Additionally, the contribution to a new enterprise programme enhances the communication and relationship between firms and entities from Eastern and Western Europe.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Slovenia
Bulgaria
Wielkopolska (PL)
Lower Silesia (PL)
Latvia

Organisation implementing

Primorski Technology Park
Univeristy of Sofia
Poznan Science and Technology Park
Wroclaw Centre of Technology Transfer
Latvian Technology Centre

Transferability of the practice

Low

Medium

High

Based on one unique and consolidated approach, it was customised to five different regional localities.

Main challenges

- Adapt a methodology for individual and independent firms
- Get not only the involvement but also the commitment of external key stakeholders in relevant regions

Critical success factors

Importance of fine-tuning activities with already existing instruments. Reach the alignment of measures for reinforcing the synergy of activities.

Levels of resources required

Low

Medium

High

More results are action-orientated. The synergy with complementary measures increases their efficiency and rationalisation of efforts.

Potential impact in implementing regions

The methodology has already been adopted as a regular instrument to be used in four out of the five regions in which it has already been tested.

At the end of the project, 35 firms have been established, and 38 are in the process of establishment. These figures demonstrate that the approach proposed will achieve tangible results.

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Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Fuzzy Self Evaluation Tool

Description of practice

France



PAXIS Network or Project

Novelty

SUN&SUP

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Short description

The creation and development of high-tech start-ups is widely recognised as a significant factor of innovation and technological progress in society. Technological entrepreneurs open up new markets, create niches, and force larger competitors to actively scan and monitor their technological environment in order to avoid falling behind.

Given this importance of high-tech start-ups as a whole, the success of a single venture, though, is highly uncertain. Scientific reports estimate the survival rate for the first year after creation at 60% and at only 10% after ten years. Especially with regard to the high-tech segment, these difficulties can be partly attributed to a lack of managerial abilities in the founders, who stem from a rather technological background, such as a university. It is therefore crucial to provide support with regard to these managerial difficulties.

The goal of this service, therefore, is to provide a web-based, European, multi-lingual, self-evaluation tool that corresponds well to the entrepreneur's needs.

Delivery mechanism

European web-based self-evaluation tool.

The tool:

- gives a holistic view of the start-up, integrating all the relevant activities and linking them among each other;
- considers uncertainty: high-tech start-ups are strongly marked by uncertainties - both with respect to the market and to the technology;
- is transparent: credibility is crucial for an online tool to be of added value for the entrepreneur. (The tool will therefore not be a black box, but explain the evaluation in detail);
- gives instructive feedback: the evaluation will be broken down into a very operational level for easy interpretation and further action taking, including suggestions on how to improve the business case.

The tool can be used by IRCs, Euro Info Centres, development agencies and other innovation intermediaries supporting the development of high-tech SMEs.

Expected or detected impact in region of origin

Impact is expected throughout Europe by enhancing developmental chances and survival rates of high-tech start-ups. The growth of entrepreneurial ventures has proved to make significant contributions to wealth creation in the economy.



Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

France

Organisation implementing

University of Compiègne

Transferability of the practice

Low

Medium

High

Web-based tool

Main challenges

- Highly complex start-up situation, varying over sectors and stages of development
- Creation of a sufficient database
- Credibility towards the user
- Language issues for application throughout Europe

Critical success factors

- Credibility
- Performance of underlying models
- Funds

Levels of resources required

Low

Medium

High

Develop the “front office” tool and the data as information for the entrepreneur.
Webmaster with high level of experience in the field of innovative systems.

Potential impact in implementing regions

Impact is expected throughout Europe by enhancing developmental chances and survival rates of high-tech start-ups. The growth of entrepreneurial ventures has proved to make significant contributions to wealth creation in the economy.

For more information

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TRACTOR support methodology and e-learning platform for start-ups

Description of practice

N/A

PAXIS Network or Project

Novelty

TRACTOR

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

TRACTOR provides specific guiding materials for entrepreneurs, integrating consolidated practices from various countries about creation and development of new innovative companies in a scheme, which is supported by an open source internet platform that facilitates an e-learning environment.

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies



Short description

TRACTOR helps entrepreneurs in the validation of their business ideas and in the construction of solid business plans. It helps also start-ups, evaluating their management processes, analysing the maturity level of the company and identifying the areas of improvement.

Delivery mechanism

The e-learning platform is provided by the incubator as a common area where entrepreneurs interact with consultants, experts and other users, accede to courses, services and tools, share opinions, consult information, etc.

Expected or detected impact in region of origin

N/A





Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Pays Basque (FR)
Biscay (ES)
Slovenia

Organisation implementing

ESTIA
BEAZ
PCMG (Small Business Development Centre)

Transferability of the practice

Low

Medium

High

The e-learning platform can be adapted to the specific needs of any incubator. It is based on open source software and has multilingual capacities.

Main challenges

To adapt the platform to the incubator's environment and to recruit experts and agents. The platform is a complementary tool that helps to create a learning community where entrepreneurs can exchange experiences and good practices.

Critical success factors

This methodology must be combined with other regular training and consulting activities developed by the incubators, normally in a face-to-face situation. The continuous updating and maintenance of the platform content is essential for the final success.

Levels of resources required

Low

Medium

High

The application of the e-learning platform and the methodology requires an adaptation to the specific needs of the incubator in a region.

Potential impact in implementing regions

The concept itself has big potential. The possibility to access online tools and content at any time, in combination with the business coach/mentor support has been highly valued by potential users, especially when starting up a business.

For more information

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LIVETECH Multimedia game

Description of practice

N/A

PAXIS Network or Project

Novelty

TRACTOR

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

As time moves on and the team of a start-up grows, the manager has to develop good leadership skills, as well as skills to build up the team and improve communication across the company. This game allows them to become aware of the need to manage personal relationships.

Short description

LIVETECH aims to help start-up managers to distinguish between different leadership styles, understand cultural values, change their own behaviours and thus create better learning environments allowing conversational skills to develop in the company.

Delivery mechanism

LIVETECH is an innovative multimedia game available online or on a CD-Rom. It is an attractive way of learning and a good tool for provoking group discussion. In practice, the help of counsellors and mentors is recommended.

Expected or detected impact in region of origin

N/A

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Pays Basque (FR)
Biscay (ES)
Scania (SE)
Slovenia

Organisation implementing

ESTIA
BEAZ
LUND University
PCMG (Small Business Development Centre)

Transferability of the practice

 Low

 Medium

 High

It is a stand-alone tool that deals with situations and problems that may occur in any type of company, regardless of the region or country of origin.

Main challenges

Start-ups are usually very concerned with hard resources (financing, marketing, buildings, etc.) and they are not aware of the importance that soft factors have in their final success: communication, team building, leadership, etc.

Critical success factors

The multimedia module must be part of a bigger effort to train the entrepreneurs in a variety of soft skills. Instead of self-learning, the participation of counsellors and mentors is recommended for a correct understanding of the approach.

Levels of resources required

 Low

 Medium

 High

It can be provided on a CD-Rom or via the Internet, stored in a web server.

Potential impact in implementing regions

The expected impact is high as it is considered an innovative and attractive way of learning that allows entrepreneurs to become aware of the need to manage personal relationships. It can be combined with other methods of training.

For more information

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Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

FAME: Find the Appropriate Mentor

Description of practice

Sophia-Antipolis (FR)



PAXIS Network or Project

Novelty

SUN&SUP

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Helping start-ups and young entrepreneurs based in European Science parks to develop with the support of a mentor..

Short description

FAME is aimed at helping start-ups and young entrepreneurs based in European science parks, develop with the support of a mentor. A mentor is a wise and trusted counsellor or teacher, but is not a consultant. Start-ups should be more than a year old.

FAME is using the CICOM web platform to allow entrepreneurs to fill in an application form. Start-ups are matched to mentors who are experienced in their particular domains and are based near them.

Mentoring relationships are based on the long term (until the start-up is completely autonomous). FAME should be labelled or sponsored by European Programmes to increase its credibility towards start-ups, entrepreneurs and mentors.

Delivery mechanism

Service offered by science parks; word of mouth within SUN&SUP network and others; website for the service and flyers; mentoring contract with confidentiality and non-disclosure clauses; feedback forms.

Expected or detected impact in region of origin

Help start-ups and young entrepreneurs meet new challenges, develop and succeed; increase the rate of start-ups succeeding; increase business opportunities; opening doors for start-ups as they work with mentors with experience and contacts in the industry.

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Alpes Maritimes (FR)

Organisation implementing

CICOM Organisation

Transferability of the practice

Low

Medium

High

Relies on having good networks. Web platform for application forms. Five people required to analyse applications and do the matching with mentors.

Main challenges

Maintain mentors' interests in the start-ups they are coaching by giving them a financial stake in companies when they are up and running. Providing a financial interest is a way of maintaining a quality service.

Critical success factors

Good matching between start-ups and mentors; it must be a 'win-win' situation for both parties; involves a long-term commitment; relies on successful personal relationships and building trust.

Levels of resources required

Low

Medium

High

Financial resources needed to pay five people from the Advisory Board for the time-consuming job of analysing application forms, entrepreneur/mentor matching and follow-up.

Potential impact in implementing regions

Help start-ups and young entrepreneurs meet new challenges, develop and succeed; increase rate of successful start-ups; increase business opportunities; develop networking.

For more information

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SIAV Action Learning

Description of practice

Veneto Region (IT)



PAXIS Network or Project

Novelty

START

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Short description

The Action Learning methodology finds solutions to specific requests/needs of firms. It implements the transfer of reasoning logical schemes and application methods thus helping enterprise operators to manage their work.

Methodology:

- Project work inside the firm: operative, pro-active
- Inter-company seminars:
- Issues where methodology has been applied: Internationalisation, Lean Production, Quality Processes, Environment, Supply Chain, Product Development, Human Resources.

Objective: transferring the methodology to firms for supporting their growth. This has been applied to many different sectors, issues of intervention and levels (entrepreneur, strategy, staff and operative workers).

Partners: According to the different projects, SIAV collaborates with several partners at local/regional, national and international level.

Targets: firms in the Region of Veneto and in the areas where partners of the different projects are located.

Funds: The training programmes are within projects and financed by the EC, ESF, national and regional funds (with the only contribution of the enterprise being the hours worked by the staff involved in the training programme).

Delivery mechanism

Phases of the interventions of Action Learning:

- 1) Getting the commitment of the enterprise: first contact, personal visit and involvement of entrepreneur.
- 2) Organisational analysis: one consultant together with one SIAV expert set the project plan in terms of activities, scope and participating people.
- 3) Seminars for the group of firms implementing similar projects: we gather about six enterprises to listen to the seminars about the macro issue concerning the project compare experiences together.
- 4) Concrete project work inside the firm.
- 5) The same group of six firms meets again in order to benchmark.

Expected or detected impact in region of origin

Support to hundreds of enterprises in the Veneto Region: the feedback received is all satisfactory concerning the improvement directly provided by the training intervention. Over 12,000 firms associated to Confindustria Veneto SIAV are potential beneficiaries.

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

ATHENA Project has considered the methodology as a good practice to insert in its evaluation analysis activities.

Organisation implementing

Transferability of the practice

 Low

 Medium

 High

- High level of transferability because the process developed is a methodology
- It has been already used by SIAV within several projects financed by the EC, by the Italian Ministry of Labour and by Veneto Region.

Main challenges

Supporting the development of the enterprises of Veneto Region, from the organisational and management point of view, in order to achieve an enhancement for the whole system as a Learning Region.

Critical success factors

- Transferability.
- Efficiency in terms of time (few experts for each firm), in terms of results (creation of operative project works specific for the single firm) and in terms of immediate use.
- The role and competencies of the moderator/facilitator.
- The amount of time is in total 2-4 mandays. Commitment of the staff and the entrepreneur
- Flexibility for different enterprises and all sectors, and to all industrial processes and functions- Measurability: the change is measured from the beginning of the process, immediately after and at the end.

Levels of resources required

Low

Medium

High

Depending on the different projects.

Potential impact in implementing regions

Any regions adopting this methodology shall benefit from consolidated and highly appreciated training interventions.

For more information

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IST Business TRAIN-IT

Description of practice

IZET Innovationszentrum Itzehoe, Metropolitan Area of Hamburg (DE)



PAXIS Network or Project

Novelty

START

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Short description

IST-Business TRAIN-IT® was an Accompanying Measure in the IST Programme of the European Commission. It aims at exploiting results to create start-ups and spin-outs and to expand existing business. In TRAIN-IT, the key issues of business planning are addressed: Market research, financing, financial forecasts, marketing and advertising, IPR and patents: The target group are entrepreneurs in Information Society Technologies. In eight years, TRAIN-IT has established a network of more than 40 international renowned experts and new additions are made all the time.

Means:

- Optimisation of entrepreneurial success and survival
- Six-day hands-on training course (one-stop shop)
- Follow-up support tracing the creation and development of business plans and companies.

Features of the proven TRAIN-IT concept are:

- Lecture sessions: professional input by internationally renowned experts and entrepreneurs
- Individual coaching sessions with experts: personal feedback and advice, discussion of problems and issues
- Writing sessions: opportunities to reflect and incorporate new information into the business plan draft in sophisticated pc training rooms.
- Presentational exercise: development and improvement of elevator pitch through feedback from experts and the group, video recording analysis
- Twelve months of follow-up support.

Delivery mechanism

Direct telephone marketing / personal contacts

Brochures, website www.train-it.org / www.train-it.net

Announcements in newspapers, newsletters, on several Internet platforms

Regional, national and international mailings, presence at regional/national conferences and start-up trade fairs

Expected or detected impact in region of origin

Job creation within the technology sector;

Foundation of technology-based start-ups in the fields of micro technologies, IT, life sciences and their applications.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Belfast (UK)
 Veneto Region (IT)
 Malopolska Region (PL)
 Kaunas Region (LT)

Riga Region (LV)
 Region of Oslo Airport Gardermoen (NO)
 Tartu and South Estonia
 Kuopio Region (FI)
 Lübeck, Metropolitan Region Hamburg (DE)
 Mälardalen Region (SE)

Organisation implementing

Synergy learning
 Veneto Innovazione S.p.A.
 CITTRU, University of Krakow
 Kaunas University of Technology Regional Business Incubator
 Latvian Technological Centre
 SNP Gardermoregionen
 Tartu Science Park
 Technology Centre Teknia Ltd.
 Technikzentrum Lübeck
 Teknikbyn, Västeras Technology Park

Transferability of the practice

Low

Medium

High

The basic modules of the course are not country-specific. Individual requirements of technologists/start-ups in the region will be met by regional experts during individual coaching sessions.

Main challenges

Cultural differences in respect to learning behaviour have to be considered.

Critical success factors

Excellent experts for individual coaching sessions.

Successful entrepreneurs as 'living examples'.

A challenging working environment to foster the process of the business idea development with respect to risk awareness, market potential and funding possibilities.

Learning from the group in a fruitful entrepreneurial atmosphere.

Levels of resources required

Low

Medium

High

- At least seven speakers and six coaches
- PC-training room
- Two members of staff for seven days and at least four weeks of preparation and twelve months follow-up
- Total costs for organising and conducting one course including follow-up: 60,000 euro.

Potential impact in implementing regions

- Creation of start-ups and jobs
- Acceleration of the sustainability of companies started
- Creation of an entrepreneurial network through experts and TRAIN-IT alumni throughout Europe.

For more information

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Pre-seed and early-
stage financingIncubation
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INNOVATION CULTURE / POLITICAL AWARENESS

INTRODUCTORY NOTE

The development of a European innovation culture does not only depend on innovative entrepreneurs. For innovative companies to thrive they need a demand for innovation: a market for innovative goods and services. At the same time, the awareness of policy-makers on innovation issues and their much-needed contribution to the development of an innovation culture, which is stimulating for both companies and customers, needs to be raised.

A market for innovation

In fact, the creation of new markets and the acceptance of new products by customers are of paramount importance for innovation. The market's impact on innovation should grow in the future and it is expected that markets will become more receptive to introducing new products.

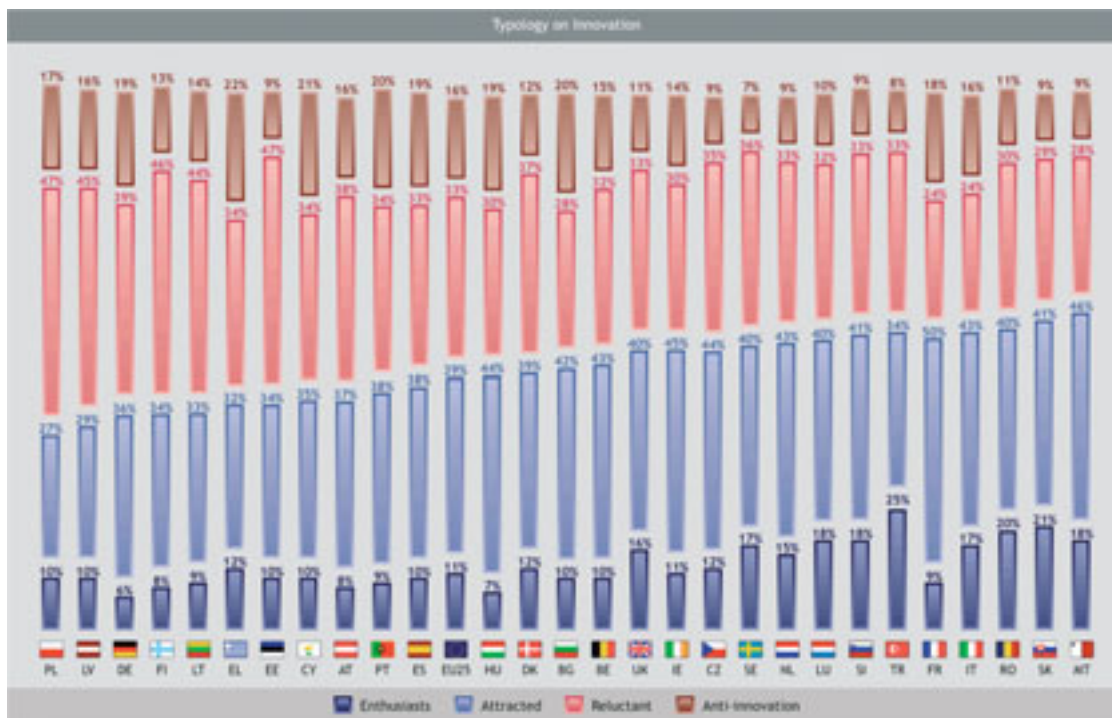
Sophisticated consumer demand should be an important driver for innovation products and services. One thesis is that firms primarily benefit from sophisticated consumer demand in their domestic market, while an alternative view is that export-oriented firms can build on sophisticated consumer demand in their foreign markets.

The 2005 Innobarometer¹ provides a measure of innovation demand based on a survey of 30,000 Europeans in the 25 Member States plus Bulgaria, Romania and Turkey. A set of questions was asked in order to identify to which extent European citizens feel attracted by innovative products or services. Their replies characterise the demand for innovation from customers, an element that is generally only approximated through inappropriate indicators.

The European market seems to be quite diverse when it comes to national citizens' preferences for opting for innovative products or services. The typology analysis reveals four groups which can be distinguished in terms of their attitudes towards innovation: the 'anti-innovation' group makes up 16% of interviewees in the EU, the 'reluctant' group comprises 33% of the sample, the 'attracted' group corresponds to 39%, and finally the 'enthusiasts' represent 11% of respondents. Slovakia, Malta,

¹ [ftp://ftp.cordis.lu/pub/innovation/docs/innovation_readiness_final_2005.pdf](http://ftp.cordis.lu/pub/innovation/docs/innovation_readiness_final_2005.pdf)

Slovenia and Luxembourg, as well as Turkey and Romania, boast among the highest proportion of 'enthusiasts', corresponding to close to one in five citizens. The highest proportions of 'anti-innovation' respondents are in Southern Europe and notably in Greece (22%), Cyprus (21%), Portugal (20%) and Bulgaria (20%).



Innobarometer 2005: Typology on innovation

When it comes to the substitution of a tried and tested product or service, citizens are more or less evenly split between those who eagerly rush out to buy what has just come on the market instead of making their usual purchase (45%), and those who prefer to stick to what they know (47%). The socio-demographic profile of respondents who "quickly try the innovative product or service at least once" is similar to that of the respondents confirming that they are "attracted to new or improved



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products or services". This parallel would suggest that those who are drawn to innovative products tend not to restrain themselves and make the desired purchase.

Concerning the working population categories, those with a somewhat higher earning potential, i.e. managers or white-collar workers, have a greater tendency to be supporters of innovative products or services. It would therefore seem quite logical that price could be an influencing factor. The results show that a price premium for innovative products or services could be a barrier for some: 45% of EU citizens state that they would only replace a product or service they use for an innovative one if the latter would cost the same.

The Innobarometer survey has shown that consumer preferences vary across European countries and within national markets. However, throughout the EU, respondents of a similar socio-demographic profile systematically demonstrate a high degree of openness to new products or services. Companies and policy-makers alike should be made aware of these patterns in order to tailor their innovation strategy accordingly.

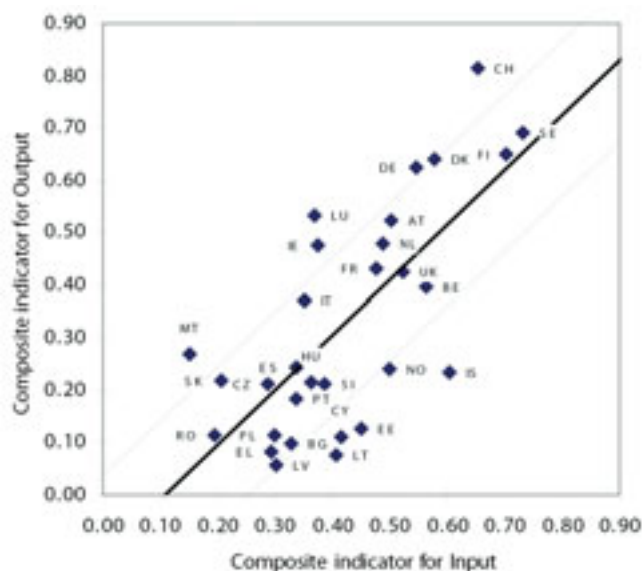
As shown in an earlier chapter of this manual, PAXIS has put great emphasis on entrepreneurship. Good practices on raising the awareness of citizens on innovation are still rare. Nevertheless, how consumers or the public can be interested in innovation and new technologies in the form of science and research, is illustrated by a PAXIS good practice from Berlin, the so-called 'Long night of Sciences' - an open-door event involving about 60 academic and research institutions in Berlin and its surroundings. The participating institutions open on a full moon night from 5pm to 1am for presentations, discussions and demonstrations on their latest findings, and focusing on subjects such as water or football. The Long Night in 2005 attracted over 116,000 mainly young people (50% of the visitors are under 30 years old, another 36% are under 50). The event is not only an excellent opportunity to raise interest for innovations amongst citizens: it also demonstrates that Berlin is a scientific competence centre. The Long Night was organised for the first time in 2001 and is financed by the participating institutions and local partners.

Improving innovation efficiency

The concept of innovation efficiency is a key dimension of innovation policy. Innovation efficiency can be measured as the ability of businesses to translate innovation inputs into innovation outputs. The ratio between the index for inputs (education, investment in innovation, etc.) and outputs (business turnover coming from new products, employment in high-tech sectors, patents, etc.) provides a measure of this relationship for national innovation systems.²

The concept of 'pro-innovation' (representing the 39% of European citizens 'attracted' by innovations and the 11% of 'enthusiastic' citizens) is of interest as it could be an explaining factor for the differences in the transformation of innovation inputs into innovation outputs. Indeed, the European Innovation Scoreboard 2005 (EIS) provides the first clues of this relationship.

For the first time, the EIS developed an input/output approach which allows an approximation of how countries transform their innovation enablers. Switzerland, Germany, Luxembourg, Ireland and Malta are examples of countries which show much better performance on outputs, therefore successfully transforming their assets into innovation success. Iceland, Estonia, Lithuania, Cyprus and Norway are examples of countries showing much lower performance on outputs than on inputs. One possible explanation for these observed differences might be the receptiveness of a country's population to new products and services, as was measured by the European Commission Innobarometer survey in 2005.



² European Innovation Scoreboard 2005, <http://www.trendchart.org/scoreboards/scoreboard2005/>



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Innovation efficiency

The case of countries with the highest proportion of pro-innovation citizens (Malta, Slovakia, Romania, Italy and France) is characteristic as these countries all have better results for the output indicators of the European Innovation Scoreboard than for the input indicators, if compared with the European trend.

More generally, among the ten countries that have the highest share of pro-innovation population, nine have an output/input rate above the EU trend. Conversely, seven countries among the ten, where the population readiness for innovation is the lowest, have a below average output/input ratio. Significant exceptions in this last category are Germany and Austria, where results may indicate that the drivers for innovation do not lie in the public demand but rather come from the business.

To facilitate this process to their best of their abilities, policy-makers need to have a better understanding of the innovation issues in their country or region. PAXIS has provided many examples and possibilities for actively involving policy-makers through seminars, study visits, peer reviews, etc. Another tool worth mentioning here is the 'Instrument of collaborative approach' which integrates the relevant players into the innovation planning process, thus ensuring their commitment and the sustainability of the support mechanism chosen. In the areas of university start-up support for example, this approach included both the 'supply side' (ministries, professors, venture capitalists, etc.) and the 'demand side' (graduates, students, post-graduates, etc.).

In conclusion, it can be said that a European innovation culture embraces all companies, citizens and policy-makers alike. Each of them needs to be aware of the key role that innovation and knowledge are playing for the future of Europe and how they can take part in this process. However, for Europe's citizens the focus needs to be on a greater awareness of innovative products and services. For European policy-makers, the challenge is to recognise that there is more to innovation than research. They need to understand how research results can be translated into successful innovative products and what policy-makers can contribute to this process of greater innovation efficiency.

BENCHMARKING RESULTS

Introduction

This report summarises the findings of the survey on Awareness Raising on Entrepreneurship conducted out by the ATHENA project (PAXIS Accompanying Measure 2) amongst PAXIS partners. The survey used questionnaires for capturing both qualitative and quantitative data on awareness-raising policies implemented in the regions involved. The questionnaire was organised into two sections. The first part - **Strategic Regional Review** - explored the approach of the regional organisations and institutions in charge of entrepreneurship promotion. The second part - **The Qualitative and Quantitative Data Questionnaire** - gathered information to position regions in relation to the components required for the promotion of entrepreneurship (culture and social environment, personal attitudes and skills, barriers to entrepreneurship and networking activities).

Results

The chart below presents the answers of the regions responding to the questionnaires (9), as a summary of the statements. The average of the rates given to the different statements is presented in the following table (scoring from 1 to 5).

Component	Statement -from 1 (lowest score) to 5 (highest score; strongly agree)	Average
I. NATURE OF CULTURE AND SOCIAL NORMS	The Region as a whole (regional institutions, intermediary organisations but also citizens) values and supports entrepreneurship and risk-taking	3.56
	Knowledge holders (students, researchers,) are recognised as preferred sources of innovative entrepreneurial talent	3.89
	There are mechanisms in place in order to reduce risks of self-employment / entrepreneurial career (special incentives, insurances, social security)	2.33
II. GOVERNANCE AND POLICIES	The region has clear enabling policies in place to encourage entrepreneurship	3.89
	I can identify those policy makers in my region which set entrepreneurship at the core of their agenda	3.56
	There are diversified promotion programmes in relation to different target groups (youth, female, students, dependent employees)	4
	The Regional Government pursues a proactive and internationalised approach (peer reviews, trans-national policy learning, scouting abroad etc) for supporting entrepreneurship	3.22



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III. BARRIERS TO ENTRE- PRENEURSHIP	The lack of finance for running a new business is a main barrier to entrepreneurship in my region	2.44
	'Would be entrepreneurs' lack of personal skills needed to start and run a business	2
	'Would be entrepreneurs' can easily access to expertise and tailor-made advice for the initial stage of business development	4
IV. EDUCATIONAL SYSTEM	In my region, there are excellent centres (research institutions, universities) for entrepreneurship research and/or promotion	4.44
	Celebrative events (business plan contests, entrepreneurship days) are commonly implemented within knowledge basins to raise awareness among students/	4.33
	There are means to match entrepreneurial training and real business-case (i.e. students developing on-the-job assignments, internship, business games, grants to	3.33
V. NETWORKING AND EXCHANGE	The level of trust and co-operation between both existing and would be entrepreneurs in my regions is well developed	2.89
	There are examples of successful networks for entrepreneurship promotion and support (i.e. business angels networks, incubator networks etc.	3.56
	There are international initiatives/programmes for entrepreneurship promotion (twinning with other regions, mobility initiatives etc)	2.89

Conclusions

The following considerations can be extracted from the responses delivered by the Paxis regions:

- The most developed component in all regions is the **'Educational System'**, translated as supply-side intervention both in terms of dedicated infrastructures and soft factors (like events and training activities). This is in line with the fact that, in general, employment and entrepreneurship are recognised as priorities for local governments. It is notable that in the regions widely acknowledged as front runners on entrepreneurship, the matching of training activities and the use of real business case studies is more developed than elsewhere. This has to be compared to an intervention approach which capitalises on the presence of a strong entrepreneurial base and promotes its added value through role modelling, tutoring and mentoring.
- In the **'Governance and Policies'** component, the respondents interviewed have recognised the visibility of policies related to entrepreneurship in the regions and the presence of diversified

promotion programmes in relation to different target groups. Regional development agencies and private organisations in charge of entrepreneurship stimulation have offered programmes focusing on building from a research base, gender entrepreneurship, promotion of entrepreneurial spirit in secondary schools and business angel networks. It should be noted that the international horizon has not yet been tackled; an inward-looking tendency prevailed in most regions.

- In the **'Nature of Culture and Social Norms'** component, the vast majority of the respondents acknowledged a lack of mechanisms to reduce the risks of self-employment / entrepreneurship options. This is more a reflection of a persistent and deeply-rooted risk-averse culture in Europe than a real gap in the set of instruments to be made available (reduction of risk and entrepreneurship as mutually exclusive). In all the regions 'traditional' knowledge holders (researchers and students) are considered the preferential beneficiaries for positive actions towards knowledge-based entrepreneurship.
- Regarding the **'Networking and Exchange'** component, the results reveal a low level of co-operation mechanisms between would-be entrepreneurs and already existing ones. This was a leitmotif re-appearing throughout the entire exercise. The exchange and co-operation among new entrepreneurs and the business environment is one of the weaknesses of policies in place in the regions.
- **'Barriers to entrepreneurship'** is the least developed component in the regions analysed. The respondents have all emphasised the lack of personal skills and attitude to successfully run a new business. Again, this issue is related to culture. The regions have also highlighted the lack of financial tools and instruments to favour entrepreneurship (in particular for the seed phase), another well known deficit in Europe. The more balanced response on access to expertise and tailored-made advice for new entrepreneurs' reveals the relative emphasis placed by the regions on the supply of services rather than on awareness-raising actions.

Analysis of the results by individual statements reveals convergences of scoring both in terms of positive and negative responses. These convergences are summarised in the next table.



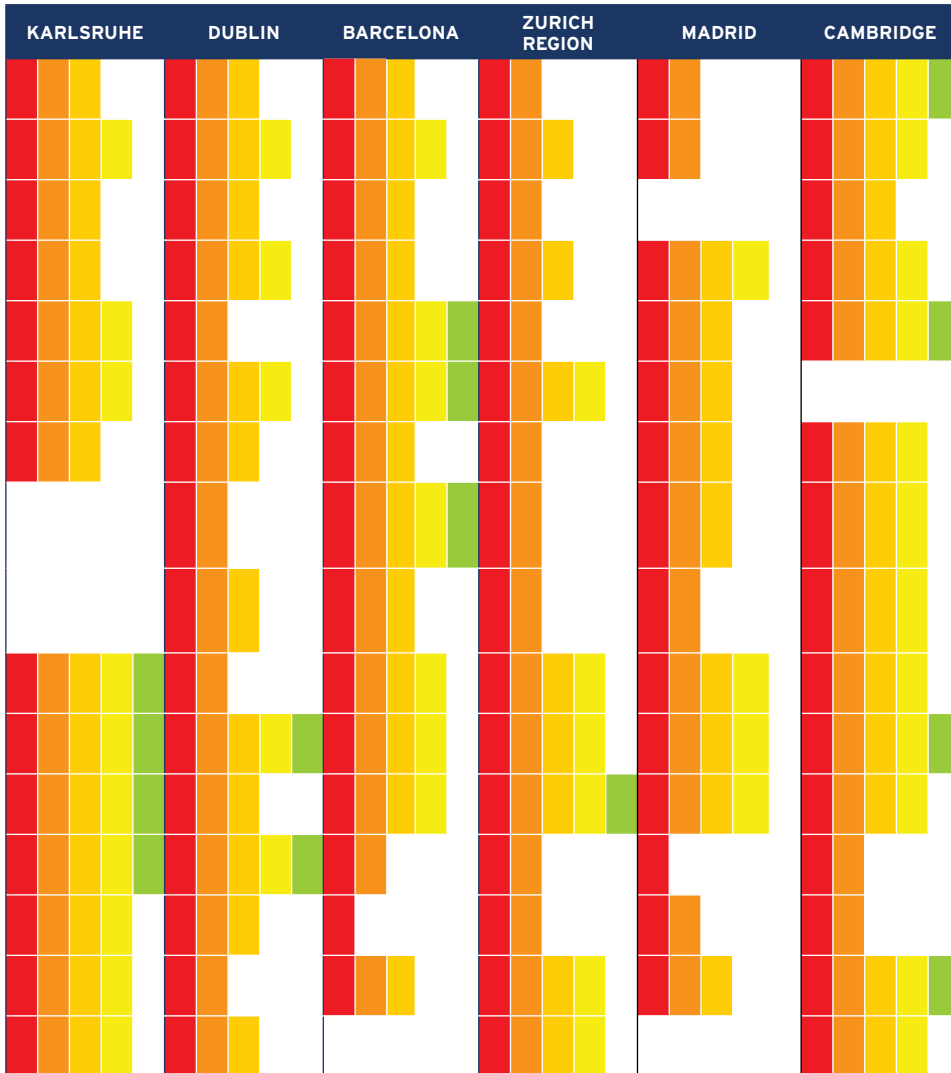
-/-	+ / +
<ul style="list-style-type: none"> • There are no mechanisms in place to reduce risks of self-employment / entrepreneurship career • 'Would be entrepreneurs' lack of personal skills to run a new business • Lack of finance for running a new business is a main barrier to entrepreneurship • Low level of trust and co-operation between both existing and 'would be' entrepreneurs • There are few international initiatives for entrepreneurship promotion 	<ul style="list-style-type: none"> • Knowledge holders as the preferred sources of innovative entrepreneurial talent • The region has clear enabling policies in place to encourage entrepreneurship • There are many diversified promotion programmes in relation to different target groups • 'Would be entrepreneurs' can easily access expertise and tailor-made advice at business development stages. • Very high presence of excellent centres for entrepreneurship promotion • High numbers of celebratory events commonly implemented within knowledge centres.



Entrepreneurship is one of the top priorities in policy makers' agendas. Specific awareness-raising initiatives have been set in place in the regions but sometimes these are still mixed up with actions aimed at self-employment and training. The exercise has highlighted the persistence of a risk-averse attitude and a lack of entrepreneurial spirit across the interviewed regions. Policies tend to concentrate more on services and training than on well-defined awareness-raising actions.

A strong co-operation and partnership among existing businesses, successful entrepreneurs and public centres/educational institutions is a key factor for effective awareness-raising initiatives in regions which are widely recognised as front runners in knowledge based entrepreneurship. Respondents recognise the importance of networking and exchange activities among 'new' and 'old' entrepreneurs together with role-modelling and platforms for exchanging experience and advice.

STATEMENT/SUCCESS FACTOR		EMILIA ROMAGNA	SOUTH SWEDEN	OXFORDSHIRE	
I. NATURE OF CULTURE AND SOCIAL NORMS	The Region supports entrepreneurship and risk-taking	Red	Orange	Yellow	Green
	Knowledge holders are the preferential sources of innovative entrepreneurial talent.	Red	Orange	Yellow	Green
	There are mechanisms in order to reduce risks of self-employment / an entrepreneurial career.	Red	Orange	Yellow	Green
II. GOVERNANCE AND POLICIES	The region has clear enabling policies in place to encourage entrepreneurship	Red	Orange	Yellow	Green
	I can identify those policy makers in my region which set entrepreneurship at the core of their agenda	Red	Orange	Yellow	Green
	There are diversified promotion programmes in relation to different target groups	Red	Orange	Yellow	Green
	The Regional Government pursues a proactive and internationalized approach	Red	Orange	Yellow	Green
III. BARRIERS TO ENTREPRENEURSHIP	The lack of finance for running a new business is amain barrier to entrepreneurship	Red	Orange	Yellow	Green
	'Would be entrepreneurs' lack of personal skills needed to start and run a business	Red	Orange	Yellow	Green
	'Would be entrepreneurs 'can easily access to expertise and tailor-made advise at business development stage	Red	Orange	Yellow	Green
IV. EDUCATIONAL SYSTEM	There are excellent centres for entrepreneurship promotion	Red	Orange	Yellow	Green
	Celebrative events are commonly implemented within knowledge basins to raise awareness	Red	Orange	Yellow	Green
	There are means to match entrepreneurial training and real business-case	Red	Orange	Yellow	Green
V. NETWORKING AND EXCHANGE	The level of trust and cooperation between both existing and would be entrepreneurs is well developed	Red	Orange	Yellow	Green
	There are examples of successful networks for entrepreneurship promotion and support	Red	Orange	Yellow	Green
	There are international initiatives for entrepreneurship promotion	Red	Orange	Yellow	Green





The Day of the Entrepreneur

Description of practice

Barcelona (ES)



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

PAXIS Network or Project

Novelty

PANEL

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

The different workshops, conferences and prizes that there are in this event are oriented to boost and highlight the value of entrepreneurship and the innovation culture.

Short description

The Day of the Entrepreneur is an initiative of Barcelona Activa organised in conjunction with regional and state governments, along with other business promotion organisations and Catalan universities.

The main aim is to recognise the role of entrepreneurs in Barcelona in the social and economic development of the city, be they big or small. By means of different activities (presentations, talks, workshops on management skills and competencies, expert advice, capsules about the key factors for creating and consolidating a successful business, awards, business networking - 'face to face', support services for new businesses, the 'Dinner of the Entrepreneur', etc.), the aim is to inform society of the importance of business creation, as well as boosting entrepreneurship. This event offers the opportunity to entrepreneurs to exchange experiences, acquire useful and practical knowledge, improve their skills, make contacts, discover new business opportunities and be awarded prizes for their efforts.

The sponsors in the last edition of this best practice were La Caixa (financial entity), which covered the cost of the daytime event, El periódico (newspaper), which covered the cost of the media, and T-Systems (private company), which covered the cost of the evening activities.

Delivery mechanism

Brochures, advertisements in newspapers, e-brochures.

Expected or detected impact in region of origin

It has a high impact in the region. More than 3,000 people attend this meeting and there are more than 1,800 participants in the activities for entrepreneurs. This means that many entrepreneurs make contacts, find business opportunities, etc. that they are then able to follow up.

Ninety-seven percent of those surveyed would come again to another event. There were ten appearances in press and seven on TV.



Pre-seed and early-stage financing

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Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Milano (IT)
Sofia (BG)
Europe (The European Day of the Entrepreneur)

Organisation implementing

Transferability of the practice

Low

Medium

High

It has been exported to other regions and is the origin of the European Day of the Entrepreneur.

Main challenges

The co-operation among different actors; to get a very high attendance.

Critical success factors

The co-operation among different actors; to get a very high attendance.

Levels of resources required

Low

Medium

High

La Caixa (financial entity, bank), El periódico (newspaper), T-Systems (private company) were the sponsors of the last edition of this best practice. All the costs were covered between them.

Potential impact in implementing regions

The potential impact in implementing regions is very high, as has been shown in Barcelona.

For more information

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Regional Competence Centres

Description of practice

Stuttgart Region (DE)



PAXIS Network or Project

Novelty

SPRING

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

The Competence Centre programme addresses enhanced co-operation between businesses, academic research and municipalities in order to improve the innovation potential of SMEs.

Short description

Overall objective of the programme is the support of cluster development and creation with a strong focus on innovation. Each Regional Competence Centre is supported by a municipality and has its own management resources.

Delivery mechanism

First step has been a call for proposals. Winning proposals got co-financed during the establishment of the centre. The centres' managers are supported by a team of experts at Wirtschaftsförderung Region Stuttgart GmbH. Meanwhile only specific projects performed by the centres are eligible for funding, all basic services and infrastructures have to be financed by their own sources.

Expected or detected impact in region of origin

Improved co-operation between companies and academics; enhanced awareness of innovation needs; improved involvement of public actors in cluster development; 40 million euro private investment triggered by 2 million euro public funding; establishment of new hubs for innovation in several municipalities all over the region.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

East of England (UK)

Organisation implementing

EEDA

Transferability of the practice

Low

Medium

High

The programme addresses the innovation needs of SMEs, which turned out to be similar all over Europe.

Main challenges

Activation of public institutions to promote cluster-related activities (awareness, readiness, qualification).

Critical success factors

Participation of businesses, acceptance of public actors to become active in cluster development support; qualification of people managing the centres.

Levels of resources required

Low

Medium

High

The programme addresses public-private partnerships and offers only a few incentives (initial funding of activities) but overall support.

Potential impact in implementing regions

Enhanced co-operation between industry and academic institutions; improved innovation capacity of SMEs; access to international projects (through centre managers); creation of new hot spots for innovation in different locations (through the link to municipalities).

For more information

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Long Night of Sciences

Description of practice

Berlin (DE) / South Sweden



PAXIS Network or Project

Novelty

HIGHEST

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Interaction with public and raising awareness on innovation, sciences, research and development and technologies.

Short description

The 'Long night of Sciences' is an open door event involving about 60 academic and research institutions in Berlin and its surroundings. The participating institutions open in a full moon night from 5pm to 1am for presentations, discussions and demonstrations on their latest findings and focussing on subjects such as 'Water' or 'Football'. The Long Night in 2005 attracted over 116,000 mainly young people (50% of the visitors are under 30 years old, another 36% is under 50). The event is not only an excellent opportunity to raise interest for innovations amongst citizens. It also demonstrates that Berlin is a scientific competence centre thus making the region more attractive for researchers, scientist and innovative entrepreneurs. The Long Night was organised for the first time in 2001 and is financed by the participating institutions and local partners.

Delivery mechanism

Organisation of a night of sciences to disseminate information and raise awareness on innovation and science.

Expected or detected impact in region of origin

Raise regional attractiveness; increase public interest for sciences, innovation, R&D activities in regions; revitalise vocations.



Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

South Sweden
Lund (SE)
Zürich (CH)

Organisation implementing

Sydsam
Sydsam
SwissParks

Transferability of the practice

Low

Medium

High

Very easily transferable.

Main challenges

Encourage the public in coming to the event by having an interesting programme.

Critical success factors

Strong co-operation between all actors; good marketing for the event to encourage people to participate; active organisation committee; sponsorship.

Levels of resources required

Low

Medium

High

Strong scientific environment; organisation committee; good public relations; interesting programme.

Potential impact in implementing regions

Raise regional attractiveness; increase public interest for sciences, innovation, R&D activities in regions; revitalise vocations.

For more information

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Presentation:

Opening market services Belin.ppt, July 2005

Flyers and brochures:

Long night of sciences.

Press article: announcements in TV & radio

PAXIS
The Pilot Action of Excellence on Innovative Start-ups

Dublin University Collaboration

Description of practice

Dublin (IE)



PAXIS Network or Project

Novelty

PANEL

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Network steering policy and practices between universities, entrepreneurs and investment agencies.

Short description

The interaction of DCU's Invent, UCD's Nova and TCD's Innovation and Entrepreneurship Programme has produced a cohesive mechanism for interfacing the major third-level institutions of higher education with industry and government in the Dublin Region. This collaboration has led to the establishment of several internationally linked new research centres with specific mandates for technology transfer, entrepreneurship programmes which cross institution boundaries, and common procedures for spinning off companies and for negotiation of funding for support programmes from state agencies.

DCU - Dublin City University

UCD - University College Dublin

TCD - Trinity College Dublin

Delivery mechanism

The network, informally called the Dublin Technology Partnership has, over a decade, steered policies and practices so that interaction between the three universities, their entrepreneurs, funding and investment agencies and companies, and the businesses of the Dublin Region proceeds on agreed lines. The negotiation of contracts for inter-university collaboration with industry, the closely-linked IP policies, exchanges of information and contributions to entrepreneurship, negotiations of new programmes and codes of practice with state agencies, conferences on university-industry interaction, and responses to state policy initiatives are usually agreed on a common basis. There is no requirement for any member to comply with decisions of others, so the arrangements are sufficiently flexible to allow for local circumstances.

The partnership interacts closely with venture capital firms and the Irish Venture Capital Association. Executives from these firms operate on campus, seeking projects to invest in but without obligation for either party. The three universities share information received from networks such as PANEL, Gate2Growth, Plato and SUN&SUP.

Expected or detected impact in region of origin

The principal result has been to confer on the region the growing reputation for a cohesive response to regional and national needs. This will permit scalable regional and national infrastructure in which innovation can be pro-actively encouraged on a common basis on research-led campuses.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Organisation implementing

Transferability of the practice

Low

Medium

High

Main challenges

The main challenge is to preserve good communications between the management of the three incubators while competing for resources within the Region of Dublin. Each university has special areas of education and research - for example, DCU in work placement and co-operation, and distance learning.

Critical success factors

Levels of resources required

Low

Medium

High

Potential impact in implementing regions

One of the most important stimuli for investment in knowledge transfer in regions such as Dublin has been the strong role the universities play in setting the environment for foreign direct investment. A strong coordination of practices and an innovation culture have stimulated local investment in university activities as a result of successful interaction with international companies.

For more information

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Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Political Awareness on Innovation

Description of practice

South Sweden



PAXIS Network or Project

Novelty

HIGHEST

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Short description

To raise awareness amongst local and regional politicians on the need for innovations for regional development and to see the priorities in regional innovation strategies.

Delivery mechanism

Discussions at conferences and seminars between politicians, business and university people and follow up at various HIGHEST meetings, with East England Development agency and the START Network in the PAXIS project.

Expected or detected impact in region of origin

SydSam, South Sweden, is a member organisation of six independent regions. The innovation strategy is decided in close collaboration with its members. Strategy is included in all development programmes of individual regions. Base for the new pre-seed system.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Helsinki Region (FI)
City of Berlin (DE)

Organisation implementing

Culminatium
Technologiestiftung Berlin

Transferability of the practice

Low

Medium

High

Regional innovation strategies are very local. Create one strategy per region and transfer procedures, contents, and needs for strategy.

Main challenges

To get the triple helix concept (public sector, university, business sector) to work, all three sectors must be involved. Main challenge is to find interested and sustainable partners from industry and business, especially SMEs.

Critical success factors

Top politicians should take a leading role in the process.

Levels of resources required

Low

Medium

High

Cost is not the greatest problem but to get enough time from leading politicians for this kind of dialogue in their busy schedules.

Potential impact in implementing regions

The highlight needs to be on coordinating implementing structures at regional levels, and locating the money needed in the early phase of innovation processes.

For more information

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Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Instrument of Collaborative Approach

Description of practice

Europe



PAXIS Network or Project

Novelty

TRANSACT

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

The collaborative approach by integrating relevant players into the planning process, (starting with their participation in the conferences and involving them into ‘action teams’), has proven to be an appropriate approach for the above mentioned aspects, but can be used for other aspects as well.

Short description

The collaborative approach included the development of a specific conference form, based on open space technology, thus granting a demand driven transfer process. It aimed at integrating all relevant players of one region into the planning process, thus ensuring their commitment and the sustainability of the support mechanisms chosen, elaborated and implemented. It helps to facilitate planning, share knowledge and to enable concrete actions. Furthermore it has proven to match knowledge on local conditions with experience on successful support mechanisms (including awareness, training, networks of strategic partnership, financing instruments and efficiency of the measures).

The target group in TRANSACT included all relevant players concerned by university start-up support, consisting of both sides: potential suppliers like professors, ministries, VCs, etc. as well as potential users like students, graduates and postgraduates.

Delivery mechanism

Direct action: joint planning and implementation.

Expected or detected impact in region of origin

Motivation; dynamic processes.

In addition, partners from the old Member States profit from this exchange as it motivates them to do a critical review of their existing practices and an evaluation under different aspects and perspectives.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region	Organisation implementing
Prague (CZ)	Czech Technical University in Prague, Technology and Innovation Centre
Tartu (EE)	Tartu University, Institute of Technology
Budapest (HU)	Budapest INNOTECH Ltd., University of Budapest
Bucharest (RO)	Bucharest University of Agronomic Sciences and Veterinary Medicine, Bucharest

Transferability of the practice

Low
 Medium
 High

Adaptations to the specific preconditions in the partner regions had to be made.

Main challenges

Overcome inertia due to traditional structures, especially inside the universities due to university financing.

Critical success factors

Concrete action plans and implementation.

Levels of resources required

Low
 Medium
 High

Potential impact in implementing regions

Motivation; processes with high potential; strengthening and enlarging networks; structural changes ensuring commitment of relevant players.

For more information

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Innovation and Growth Index

Description of practice

Kista, Stockholm region (SE)



PAXIS Network or Project

Novelty

SPRING

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Measuring and benchmarking innovation and growth.

Short description

The objectives of the Kista Innovation and Growth Index are:

- Internal effectiveness: to quantify the implementation status of the vision of promoting the growth of Kista as a science city and to help assess progress for innovation and growth from year to year.
- External benchmarking: to be able to compare innovation and growth factors in Kista and Stockholm with other regions in Sweden, in Europe, and the world.
- Determination of action plan: to have a mechanism for red-flagging potential problem areas at an early stage so that an action plan can be agreed upon and put in place.
- Marketing: to be able to provide information and key indicators as marketing material for organisations located in Kista.

Partnerships involved: discussions with selected actors in the region took place to choose which indicators best represented what innovation and growth mean to Kista. The background for setting up these discussions was based on the triple helix, i.e. actors from industry, government, and research and education were all involved.

Delivery mechanism

The delivery mechanism is a tool where the different indicators for the region are presented and analysed. The aim is that this tool should be distributed to all actors in the region, as well as those relevant actors outside the region.

Expected or detected impact in region of origin

- Bringing actors together who represent different branches of the triple helix in Kista
- Open discussion about innovation indicators and what they mean
- Support for the transition in the process stages of building a cluster, from public sector to private sector-driven involvement

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Madrid (ES)

Organisation implementing

madri+d: exchange of process knowledge and indicator selection

Transferability of the practice

Low

Medium

High

The process can be implemented in different regions but the outcome must be adapted to the regional discussions and characteristics, so the index itself is not transferable, but the process of setting it up is.

Main challenges

Getting everyone to agree on certain basic indicators is an ongoing discussion, especially if the indicators are to be compared between regions and across Europe.

Critical success factors

Strong ties to regional actors.

Learning from other clusters which have already set up an index.

Access to statistics from different sources, i.e. not just national or central statistics bureaus but also universities and regional organisations.

Levels of resources required

Low

Medium

High

Initial resources required are low, but if the index is to be produced regularly (every quarter, twice a year, or even annually) one organisation must be responsible for obtaining and analysing the data for the indicators.

Potential impact in implementing regions

Promoting awareness of innovation and growth issues.

Promoting networking between different actors in a region by setting them around the same table with a common goal.

Opening the discussion of who should contribute to solving red-flagged areas.

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Enterprise Hub Model

Description of practice

Cambridge (UK)



PAXIS Network or Project

Novelty

SPRING

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Model providing support to innovative business by building on a region's R&D strengths and technology clusters.

Short description

The aim of this model is to provide support to innovative businesses with high growth potential, building on areas, and spreading the benefits of areas of the region with specific strengths in science / R&D, knowledge-based enterprises, high growth clusters and technology development.

The key driver behind an enterprise hub is to build on economic and regional business success and research. Enterprise hubs are designed to:

- Empower knowledge-based enterprises (KBEs) to start-up, grow and innovate.
- Stimulate universities and research-based organisations to share their knowledge with regional businesses.
- Provide KBEs with access to finance, investment readiness programmes, innovation support, business infrastructure and 'grow on' space fit for the purpose.

Delivery mechanism

The services provided are tailored to deliver state-of-the-art training and support to help ensure that the region's hi-tech companies remain at the forefront of their industry and continue to invest in and deploy advanced manufacturing techniques and technologies to sustain the region's advanced economy.

Issues to address:

- Better collaboration between partners in the private and public sector to support business creation.
- Better signposting to sources of support, particularly innovation and technology development.
- A strategic approach to supporting and promoting the development and funding of innovation.
- Marked improvements in business to business networking.
- Professional development of those supporting new business formation Opportunities to identify, mentor and network the next generation of entrepreneurs.

Expected or detected impact in region of origin

The two Enterprise Hubs launched in early 2003, have proven successful, and have resulted in a continued development of these models. These were in Babraham (focusing on life sciences), and in Stevenage (cross-sectoral with a focus on aerospace and pharmaceuticals). The Stevenage hub is being recognised and accredited by UK and EU bodies.

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Stuttgart (DE)
Stockholm (SE)
Madrid (ES)

Organisation implementing

Competence Centres
Kista Science City

Transferability of the practice

 Low

 Medium

 High

The Enterprise Hub Model or elements of the model can be transferred but might have to be adapted to address local conditions.

Main challenges

- Developing a relevant but clearly organised and sufficiently influential, partnership at the earliest stage.
- Adopting and agreeing a headline objective/vision.
- Recognition at a very early stage of all elements/aspects of the enterprise hub concept.
- A strong, appropriately skilled project leader.
- Identify business and target market demands and needs.
- Meaningful engagement and commitment.

Critical success factors

- Players should demonstrate the ability to pull together in partnerships and the ambition to devise a strategy for the improvement of the regional economic performance. The existence and development of networksClients of the hub will satisfy qualifying criteria and intend to operate viable growing businesses.

In the ideal EEDA Enterprise Hub Model, all projects will ideally have the following key features:

- Focus on knowledge based Industries, target high growth sectors and clusters
- Offer an innovative environment with a comprehensive range of tailored support services
- Bring together an inclusive local partnership from the target sector to identify needs and opportunities
- Build on success and upon existing networks/infrastructure.

Levels of resources required

Low

Medium

High

Potential impact in implementing regions

The aim is to increase the rate of growth of innovative start-ups and greater commercial exploitation of a region's HE and private sector R&D, and technological and scientific capability. It should also contribute to increased survival rates in the region, attracting greater public and private sector investment into the region, and contributing to enhanced growth rates and GVA .

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Influencing Policy for Innovation and Entrepreneurial Culture

Description of practice

Cambridge (UK)



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

PAXIS Network or Project

Novelty

SPRING

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Short description

The regulatory environment, market knowledge, and the ability of suitable financial and human resources are key issues that need to be addressed for innovation culture to be expanded successfully. In order to address some of these issues and to allow an innovation culture to be developed, the network could actively take a role in influencing innovation policy .

The SPRING network has helped facilitate European regions of excellence to recognise common issues and then building on this understanding to come up with innovative solutions.

Delivery mechanism

THE SPRING network has influenced innovation policy on a number of occasions:

- An event was staged in Cambridge that involved all 22 regions of excellence and high-level actors. A resulting action was a joint response to the Innovation Action Plan. This response included a written report and discussion with the Director of DG Enterprise, Dr. David White.
- The ELITE initiative (Enlarging and Leveraging Innovation Talents in Europe) is one of the outputs of the SPRING network. It is made up of high-level policy actors who are determined to continue working on the innovation agenda and influence innovation policy. The first meeting of this network was staged in October 2005. Specific suggestions covering market failures in innovation finance have been made.
- Discussions on innovation issues were organised to the EC.
- In October 2005, as part of the UK presidency, an event was staged in Cambridge, involving presentations from the Regional Development Agency, the Department for Trade and Industry, the SPRING network and the EC. The purpose of the event was to discuss themes on intellectual capital, financing, entrepreneurship and spreading of innovation culture. A report was put forward to the November Competitiveness Council suggesting policy recommendations based on the SPRING themes.

Expected or detected impact in region of origin

- Knowledge exchange and interaction among regions on ways of spreading an innovation culture
- Successful addressing of suggestions and regional issues
- Meeting with innovation actors
- Establishment of contacts in all areas of science and innovation.
- Establish links between the regional and international agendas.
- Improve understanding of the innovation and enterprise agenda, and science policy.
- Maximise the region's potential for accessing funding for R&D, innovation and science projects
- Use the knowledge to build capacity in the region.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Organisation implementing

All regions of excellence have participated in influencing the innovation agenda and worked towards developing an innovation culture.

Transferability of the practice

Low

Medium

High

It just needs dedicated people who have worthy recommendations to put forward.

Main challenges

It is difficult to encourage an innovation culture to those who don't recognise the importance of innovation.

It is hard to bring together the key people for the necessary discussion and debate.

It is important to communicate the recommendations to the correct people.

Critical success factors

- Involvement of high-level policy-makers,
- Focused on specific themes agenda.
- Developing strong partnerships with the other regions when coordinating joint responses.

Levels of resources required

Low

Medium

High

In order to influence innovation policy strong commitment and partnerships are required.

Potential impact in implementing regions

For more information

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SPRING Intellectual Capital Model

Description of practice

Madrid (ES)



PAXIS Network or Project

Novelty

SPRING

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Measuring and benchmarking intellectual capital and entrepreneurial culture.

Short description

The objectives are to design a versatile tool that is adaptable to the needs and characteristics of each regional university and research and technology organisation (RTO), and to develop indicators concerning intellectual capital so that they can be feasibly analysed and controlled by administrators and users. The potential target groups are regional universities and RTOs.

Delivery mechanism

The delivery mechanism is a tool where the different indicators for the region are presented and analysed. The aim is to distribute the tool to all regional actors.

Expected or detected impact in region of origin

- Support for the policy-making process, especially in the field of entrepreneurship
- Bringing together actors who represent different branches of the triple helix in Madrid
- Open discussion and analysis of intellectual capital indicators

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Madrid (ES)

Stockholm (SE)

Organisation implementing

Fundación para el Conocimiento madri+d: IC research and indicator selection
Kista Science City

Transferability of the practice

Low

Medium

High

It is easy to transfer when the indicators that affect the characteristics of each regional university and RTO have been detected.

Main challenges

Getting everyone to agree on certain basic indicators is an ongoing discussion, especially if the indicators are to be compared between regions and across Europe.

Critical success factors

- Strong ties to regional actors
- Learning from other clusters having already set up an index
- Access to statistics from different sources i.e. not just national or central statistics bureaus but also universities and regional organisations.

Levels of resources required

Low

Medium

High

Initial resources required are low, but if the index is to be produced regularly (every quarter, twice a year, or even annually) one organisation must be responsible for obtaining and analysing the data for the indicators.

Potential impact in implementing regions

Promoting awareness of innovation and growth issues.
Opening the discussion of who should contribute to solving red-flagged areas.

For more information

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Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies


METHODOLOGIES

INTRODUCTORY NOTE

The PAXIS experience has demonstrated that efficient learning structures serve an important function in securing economic progression and competitiveness. More specifically, PAXIS has shown the exchange of good practices amongst innovation practitioners to be an effective technique for enhancing the efficiency of the learning process. Through carrying out an in depth evaluation of the impact various cases of innovation practice have had across Europe, the PAXIS members have ensured that the examples presented within this manual provide a paradigm that will continue to improve and positively impact the quality, development, and success of innovation practices across and within widespread European regions.

The members that have contributed to this catalogue of good practices have maintained the belief that there is always a good reason to explain the success of a particular innovation practice. It has, therefore, been the prerogative of this exercise to characterise the essence of the many success stories inherent to the European Union. Essentially, this characterisation has drawn upon different elements that have emerged from the study to engender aspects that describe the people involved, guiding concepts, implementation strategies, procedural processes, as well as support systems that have been claimed to be essential to the success of an initiative. As can be observed, in many cases it has been a combination of these elements underpinned by certain 'local' or 'regional' values and practices that has secured the success of a particular innovation action. Indeed, the recognition and integration of these regional elements into the PAXIS manual have served to epitomise the uniqueness and significance of the PAXIS project.

The challenge lying ahead is to ensure that the value of this knowledge is realised and exploited through transferring it across European regions. This demands that an adaptation strategy will remain sensitive to the local conditions in which the transfer of knowledge is being carried out. Specific conditions should be well premeditated and questions revolving around the factors considered to be essential to the successful adaptation process should be raised. For instance, of prime importance would be an evaluation of the commitment and willingness of the 'learning region' to actually import new ideas, principles, and working processes. Ideally, the exchange of best practice would be founded upon the conviction that both regions will stand to benefit through co-operation - the concept of a



synergy should thus lie central to any collaboration effort. Effective planning should also involve a clear perception of the methodology to be employed, the effort that is required in terms of resources, and an accurate account of specified deliverables.

In an effort to enhance co-operative efficiency, the PAXIS thematic networks have engaged in a number of activities aimed at standardising the working methodologies of a transfer of knowledge process. These methodologies have been based on study-visit models, SWOT analyses, key innovation players, and human capital interaction schemes amongst other elements.

The best practice examples illustrated in this chapter include the cases of the KREO Network, the PANEL Network, TRANSACT, SPRING and PROMOTOR+. Whereas the TRANSACT model has applied a common methodology for the identification and categorisation of good practices, the PANEL Network complements this work through its development of the “PANEL Matrix” concept aimed to render the identified good practices more comparable and to facilitate their transfer. The TRANSACT model incorporates various aspects of university-start-up support initiatives that could materialise through joint planning and implementation strategies. SPRING has been able to map the potential of developing regions through identifying companies that have been able to expand vivaciously during their early stage of conception. The SPRING model has been developed to assist in the identification of the essential pre-conditions for growth and market characteristics. On the other hand, PROMOTOR+ has developed the use of “comparable” models to assist in the evaluation of characteristics across regions based on the customisation of needs specific to local conditions. In effect, this model aims to facilitate the transferability of support schemes across regions.

We hope that the cases outlined in this section provide at least some evidence of the great potential that exists in the practicality and ability to transfer best practice methodologies from one region to another and across Europe.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Methodology for Innovation Practices Exchange

Description of practice

KREO Regions

PAXIS Network or Project

Novelty

KREO

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

KREO network aimed at supporting the development of an environment for the starting up of innovative firms through the creation of a networking framework for the analysis, exchange and transfer of successful practices in the participating Regions of Excellence. To this purpose, an ad hoc methodology was elaborated, tested and reviewed.

Short description

The principal objective of the KREO methodology has been:

- To allow a better knowledge on each region's innovation features and performances, enabling an evaluation of the specific framework conditions characterising the regions
- To facilitate the emergence and sharing of tacit knowledge among partners
- To improve co-operation among the KREO regions in the good practices exchange
- To allow the codification of acquired knowledge for the benefit of the local and European policy-makers, as well as for other European regions.

Delivery mechanism

Call for contest; online template for participation; face-to-face presentation of pre-selected contributions; award ceremony.

Expected or detected impact in region of origin

The application of the common methodology codified overall regional features and more than 100 identified good practices, while it produced active inter-regional networking with the direct involvement of local key actors and policy-makers.

The methodology provided the basis for learning, transfer and implementation of schemes/tools/ideas in the fields of science-industry technology platforms, and incubation and pre-incubation models.



Transfer of practice

Region(s) implementing the practice (receiving regions):

Region	Organisation implementing
Emilia-Romagna (IT)	ASTER and the Emilia-Romagna local area network
Karlsruhe (DE)	KEIM and the Karlsruhe local area network
Oxfordshire (UK)	Oxford Innovation and the Oxfordshire local area network
Grenoble-Lyon (FR)	City of Grenoble and the Grenoble-Lyon local area network

Transferability of the practice

Low
 Medium
 High

The methodology is highly transferable to other regions that wish to create a framework for the exchange and transfer of good innovation practices.

Main challenges

In the elaboration of the methodology, effort was devoted to define in a quantitative way the qualitative data collected. It was not possible to have available for all regions the desired common indicators in order to compare regional performances. It also proved difficult to define a methodology that allowed the measuring of the effectiveness of the collected good practices in respect to the specific regional conditions.

Critical success factors

- Direct involvement and networking of local key actors, allowing more 'context aware' analysis and comparison of practices, emergence of tacit knowledge and stronger influence on policies.
- Availability of intermediary organisations as facilitators of networking and creators of opportunities for the local network
- Trust among the networking regions and recognition of the importance of mutual learning

Levels of resources required

Low Medium High

In order to be effective, networking needs to be carefully organised and it is resource intensive. The methodology can, however, be applied to the broader regional context or to more limited innovation areas.

Potential impact in implementing regions

- Upgrade of knowledge, capacities and competences, due to sharing of experiences
- Enhancement of existing initiatives and launch of new ones, inspired and influenced by the experience of the other regions
- Creation of a framework for the mobilisation of local key actors involving them in a learning process at European level
- Development of new common projects and schemes.

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PANEL's Benchmarking Methodology for Regional Start-up Support Measures

Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Description of practice

PANEL Regions of Barcelona (ES), Dublin (IE), Milan (IT) and Munich (DE)

PAXIS Network or Project

Novelty

PANEL

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

Short description

Package of identification, categorisation and evaluation methodology to facilitate transfer of (certain aspects of) good practices developed in one region to another region with the help of a set of PANEL Support Matrices.

PANEL Support Matrix Scheme

After setting up the scheme of procedures, a PANEL Support Matrix for a target region can be completed and compared to the existing structures in the four PANEL Regions of Excellence.

Four expert reports summarise and supplement the start-up support areas listed above and conclude with four sets of innovation policy recommendations.

The methodology can be used for any aspect of the innovation process to identify, in detail, the most suitable programme for a specific problem out of a list of 92 collected good practices.



Delivery mechanism

First contact is via the Internet, then through expert reports and later on personal contacts in meetings, workshops with experts of specific measures and regional consultants.

Expected or detected impact in region of origin

- Raising awareness of what is available in regional start-up support measures
- Focus on best practice measures on a European scale
- See what regions of excellence have developed
- Ideas for new measures suitable for target or partner region.

The developed methodology was used on four innovation and entrepreneurship areas linked to start-up support:

Higher Education Institutions and their Support Activities for Entrepreneurship (28), Incubation and Business Innovation Centres (21), Motivation towards Entrepreneurship (24), Early-Stage Financing of Ventures (19). (The numbers in brackets are measures identified in each area.)



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region	Organisation implementing
Barcelona (ES)	Barcelona Activa, Strategic Plan of the Metropolitan Area of Barcelona
Dublin (IE)	PANEL Dublin Consortium led by Trinity College Dublin
Milan (IT)	Province of Milan
Munich (DE)	GründerRegio M

Transferability of the practice

Low
 Medium
 High

Procedures and methodologies could be used to consult any target region that wants to improve on its innovation capabilities through complementary support of its start-up companies.

Main challenges

Find agreement on commonly used procedures, definitions and templates.

Critical success factors

Perseverance; readiness to adapt to better schemes and models.

Levels of resources required

Low Medium High

Innovation and start-up support experts covering a broad area of regional activities leading to an overview on what is going on in the target region.

Potential impact in implementing regions

Closing of support gaps for start-up companies in target region's support landscape through a pool of effective measures and procedures to make existing initiatives more comparable to each other and to the PANEL pool; it comes together with a list of experts to contact.

For more information

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TRANSACT Transfer Methodology

Description of practice

Germany



PAXIS Network or Project

Novelty

TRANSACT

Existing practice

Good Practice Type

Tool / Product / Service

Learning / Networking

Methodology

Policy Recommendation

Aspect of innovation process addressed by practice

Pre-seed and early-stage financing

Entrepreneurship

Incubation models (Incl. Internationalisation)

Innovation culture / Political awareness

Spin-off / Technology transfer

Other

The transfer methodology developed in TRANSACT was, within the project, designed to cover all aspects of university-based start-up support, but can also be used for other innovation aspects.

Short description

The TRANSACT Transfer Methodology is a Flexible methodology which aims to facilitate transfers of start-up support models or parts of them from one university/region to another, and also in situations where the preconditions are different.

Partnerships involved included experts of start-up support; experts of local/regional/national preconditions; potential users of start-up support; universities; ministries, etc.

In TRANSACT the target group was universities, but the methodology can be used for other target groups as well.

Delivery mechanism

Direct action: joint planning and implementation.

Expected or detected impact in region of origin

Motivation; dynamic processes.

Also partners from the older Member States profit from this exchange, as it motivates them to do a critical review of their existing practices and make an evaluation based on different aspects and perspectives.



Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

Transfer of practice

Region(s) implementing the practice (receiving regions):

Region

Prague (CZ)

Tartu (EE)

Budapest (HU)

Bucharest (RO)

Organisation implementing

Czech Technical University in Prague, Technology and Innovation Centre

Tartu University, Institute of Technology

Budapest INNOTECH Ltd, University of Budapest

Bucharest University of Agronomic Sciences and Veterinary Medicine

Transferability of the practice

Low

Medium

High

Adaptations had to be made to the specific preconditions in the partner regions.

Main challenges

Overcome inertia due to traditional structures, especially in universities due to university financing.

Critical success factors

Concrete action plans and implementation.

Levels of resources required

Low

Medium

High

Human resources; financial backing; workspace.

Potential impact in implementing regions

Motivation; dynamic processes; strengthening and enlarging networks; structural changes; ensuring commitment of relevant players.

For more information

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Pre-seed and early-stage financing

Incubation models

Spin-off / technology transfer

Entrepreneurship

Innovation culture / political awareness

Methodologies

INDEX OF GOOD PRACTICES

Ref	TITLE of GOOD PRACTICE	ORIGIN
1	Business Angel Forum Region Stuttgart (BAFRS)	Stuttgart Region
2	Technology Transfer Initiative	Stuttgart Region
3	PUSH!	Stuttgart Region
4	The Day of the Entrepreneur	Barcelona
5	BusinessChance - Idea Contest	Stuttgart Region
6	Babraham BioConcepts	East of England
7	Regional Competence Centers	Stuttgart Region
8	Venturefest	Oxfordshire
9	SPINNER-Services for the Promotion of INNOVation and Research	Emilia-Romagna
10	ALMACUBE and SIPRO network of incubators	Emilia-Romagna
11	Science-industry technology platforms	KREO regions
12	Innovation Centres operated by Oxford Innovation Ltd	Oxfordshire
13	Oxfordshire Investment Opportunity Network (OION), Thames Valley Investmnet Network (TVIN), Oxfordshire early Investment Network (OEI)	Oxfordshire Thames Valley
14	Minatec centre	Grenoble-Lyon
15	Methodology for innovation practices exchange	KREO regions
16	Rhône-Alpes Genopole	Grenoble-Lyon
17	Forum 4i (innovation, Industry, Investment, International)	Grenoble-Lyon
18	EMERTEC Gestion	Grenoble-Lyon
19	Grenoble Alpes Incubation (GRAIN)	Grenoble-Lyon
20	Yozma	Israel
21	Technological Incubators programme	Israel
22	Long Night of Sciences	Berlin
23	Waking-up of sleeping projects	Alpes-Maritimes
24	Early Stage Finance Networking & Events	Alpes-Maritimes
25	Scottish Enterprise Growth Toolkit	Edinburgh
26	Euro -Entrepreneurs	Barcelona
27	Dublin University Collaboration	Dublin
28	Student Enterprise Awards	Dublin
29	PANEL's Benchmarking Methodology for Regional Start -up Support Measures	PANEL regions
30	PNI - PUNTO NUOVA IMPRESA (New Company Point)	Milan



NETWORK/ PROJECT	GOOD PRACTICE TYPE	Early Stage Financing	Incubation	Spin-off & Technology Transfer	Entre- preneurship	Innovation Culture/ Political Awareness	Methodologies	novelty	existing	No of Transfers	Ref
SPRING	Tool	1						x		1	1
SPRING	Methodology		x	2	x				x		2
SPRING	Methodology			3	x				x		3
PANEL	Methodology				x	1			x	5	4
SPRING	Tool				1				x	1	5
SPRING	Tool	9	x						x	1	6
SPRING	Methodology			x		2			x	1	7
KREO	Tool	x			2				x	1	8
KREO	Tool	x		4	x				x	1	9
KREO	Tool		1	x	x				x	1	10
KREO	Tool			1					x	4	11
KREO	Tool		2		x				x	1	12
KREO	Tool	2			x				x	3	13
KREO	Tool			5					x	2	14
KREO	Methodology						1	x		4	15
KREO	Tool			6					x	1	16
KREO	Tool	3				x			x	1	17
KREO	Tool	4							x	1	18
KREO	Tool		x	7	x				x	1	19
ESTER	Methodology	5			x				x	1	20
ESTER	Methodology	6	x		x				x	1	21
HIGHEST	Tool					3		x		3	22
HIGHEST	Tool				3			x		4	23
HIGHEST	Learning/ Networking	8						x		3	24
START	Tool		12		x				x	2	25
PANEL	Learning/ Networking		13		x				x		26
PANEL	Learning/ Networking	x	x	x	x	4			x		27
PANEL	Methodology				4				x	1	28
PANEL	Methodology						2	x		4	29
PANEL	Tool				5				x	1	30

31	PATENTING - Measure to support European and International Patenting Processes of SMEs, Universities and Research Centres of the province of Milan	Milan
32	Munich Business Plan Competition (MBPW)	Munich
33	Trinity College Dublin MBA Enterprise Workout	Dublin
34	Guide Map for Foreign Investors	Dublin
35	Political Awareness on Innovation	South Sweden
36	Start Cup	Torino Area
37	Business Opportunity Assessment and Planning	Torino Area
38	Innovative Ideas Scouting and Screening	Torino Area
39	Otaniemi Inno TULI Business Evaluation	Helsinki Region
40	Otaniemi NTBF Support System	Helsinki Region
41	EurOffice PACKAGE	Alpes Maritimes, Helsinki & Berlin
42	Madri+d decision making framework on entrepreneurship	Madrid
43	SPRING IC model	Madrid
44	EFQM monitoring Entrepreneurship Support Tool	Madrid
45	Benchmark study	Belgium (KU Leuven)
46	Marketing and Communication plan	Twente
47	Collaborative Validation and Transfer of Regional Support Measures for Start-ups Creation and Growth in Five NAC Regions	Spain, Greece, Austria & Germany
48	Fuzzy Self Evaluation Tool	France
49	INVEST ACADEMY	
50	TRACTOR support methodology and e-learning platform for start-ups.	Tractor partners
51	LIVETECH Multimedia game	Tractor partners
52	TRANSACT Transfer methodology	Europe
53	Instrument of collaborative approach	Europe
54	Best Incubation Practice Toolkit	Europe & Israel
55	Co - Incubation	Europe & Israel
56	Road-show Seminar	Europe & Israel
57	FAME: Find the Appropriate Mentor	Sophia-Antipolis
58	Innovation and Growth Index	Stockholm
59	Enterprise Hub Model	Cambridge
60	Influencing Innovation Policy (including ELITE)	Cambridge
61	Monitoring tool on mechanisms facilitating spin-offs from universities and research institutions	Copenhagen
62	SIAV Action Learning	Veneto Region
63	IST Business TRAIN-IT	Hamburg
64	Copenhagen Tech Transfer Consortium	Copenhagen
65	IT Growth House in Copenhagen	Copenhagen

TOTAL

TOTAL (Statistics)



NETWORK/ PROJECT	GOOD PRACTICE TYPE	Early Stage Financing	Incubation	Spin-off & technology Transfer	Entre- preur- ship	Innovation Culture/ Political Awareness	Metho- dologies	novelty	existing	No of Transfers	Ref
PANEL	Tool			12					x	1	31
PANEL	Learning/ Networking			x	6				x		32
PANEL	Learning/ Networking	x		x	7			x		2	33
PANEL	Policy Recommendation	x	3		x			x		2	34
HIGHEST	Learning/ Networking					5		x		2	35
HIGHEST	Tool		x		8			x		2	36
HIGHEST	Tool		4		x			x		2	37
HIGHEST	Methodology		5		x			x		2	38
HIGHEST	Tool	x	11	x				x		3	39
HIGHEST	Tool		6	x				x		5	40
HIGHEST	Tool		7					x		9	41
SPRING	Policy Recommendation				9	x		x		1	42
SPRING	Tool					10		x		1	43
SPRING	Tool				10	x		x		3	44
GLOBALSTART	Methodology			8				x		7	45
GLOBALSTART	Tool			9				x		7	46
PROMOTOR+	Methodology				11			x		5	47
SUN&SUP	Tool	x		x	12			x			48
SUN&SUP	Tool	7			x			x			49
TRACTOR	Methodology		x		13			x		3	50
TRACTOR	Tool				14	x		x			51
TRANSACT	Methodology						3		x	4	52
TRANSACT	Tool					6			x	4	53
BIOLINK	Tool		8	x	x	x			x		54
BIOLINK	Methodology	x	9		x	x		x			55
BIOLINK	Learning/ Networking	x	10	x	x	x		x			56
SUN&SUP	Tool				15			x			57
SPRING	Tool					7		x		1	58
SPRING	Tool	x	x	x	x	8			x		59
SPRING	Tool	x	x	x	x	9			x		60
START	Tool			11				x		4	61
START	Methodology				16				x		62
START	Tool	x		x	17				x	11	63
START	Learning/ Networking		x	10		x		x		1	64
START	Tool		14	x	x	x		x		1	65
65		9	14	12	17	10	3			133	
		13,8%	21,5%	18,5%	26,2%	15,4%	4,6%				





CHAPTER 3:

**PAXIS networks
and projects -
Information
and contacts**





HIGHEST

Helping Innovative Firms Growth and Entrepreneurship using emerging IST and other Technologies.

Description:

HIGHEST is the Incubator & Science Park Expertise Thematic Network. It is a consortium of leading science parks and business incubators across Europe.

Objectives:

The objectives are to contribute as second generation to the overall EU Innovation and SME 'show case' by providing all relevant successful experiences, success stories, as well as advices and recommendations on the use of peculiar mechanisms, critical success factors, in specific environments.

Topics

- political awareness on innovation
- business exploitation of research results
- from idea to company
- early stage finance
- internationalisation of start-ups
- acceleration of company development with the help of unemployed executives

Main results:

Review of the innovation system in each partner region. The description and analysis of local mechanisms to facilitate the creation and development of innovative start-ups led to the identification of the following models:

- Cross-fertilisation approach for Alpes Maritimes
- Experienced incubator networking model for the Helsinki region
- Scientific approach to the interaction of innovation support actors for South Sweden
- A strong local network supporting Turin excellence
- Ideal combination of science, industry and education for Berlin
- A well-balanced combination of competencies for Switzerland

- Development of a benchmarking methodology based on the use of thematic questionnaires to compare the mechanisms in place in partner regions. Analysis of questionnaires findings and identification of good practices for cross-region experimentation. This methodology can be easily implemented in other regions
- Regular monitoring of progress toward the achievement of main objectives by means of a set of indicators.
- For each good practice selected design of a “Good Practices Fact sheet” that provides a SWOT analysis and illustrates the critical success factors.
- Active promotion of the network activities and PAXIS overall programme during dissemination events, seminars, forum and visits to institutions at the local, regional and national level.

Tangible results:

- Exchange of ten good practices, covering all the priority areas of the network.
- Transfer of two policy schemes, namely in the field of political awareness on innovation and of acceleration of company development.
- Implementation of two visiting schemes involving representatives of organisations managing innovation initiatives from Cyprus, Lithuania, Poland and Switzerland.
- Set-up of EurOffice initiative and design of the “Waking Up Sleeping Projects” initiative (see good practices section)
- Committee of Regions’ acknowledgment of the relevance of work done by HIGHEST in the field of political awareness (900 policy makers reached).
- Organisation of the 1st PAXIS workshop on Internationalisation of start-ups, Sophia-Antipolis.
- Communication and dissemination actions included: Contributions to Excellent News and CORDIS Special issue on SMEs, as well as a set of blue and green flyers for the network, HIGHEST regions, HIGHEST good practices and HIGHEST priorities.

Lessons learnt:

A key feature of the fruitful co-operation between HIGHEST partners has been the fact of ‘speaking the same language’, to be intended as the sharing of a common approach to day-to-day work with enterprises, in particular as concerns the importance of proximity to enterprises. Communication among partners has been greatly simplified by this mutual understanding based on a hands-on, practical way of conducting their respective organisations’ activities.

Transparent relationships between partners are critical to the successful mutual learning. Also very relevant is the positive role model that a network co-ordinator can play, especially as concerns developing and encouraging collaborative relationships outside the network, as well as with institutional actors and entrepreneurs. Good network management, with a high level of involvement and motivation, permits to remain focused on the objectives of the project and achieve important results.



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KREO

Karlsruhe, Rhône-Alpes, Emilia-Romagna and Oxfordshire Thematic Network for the Support of Innovative Companies

Description of the TN:

The KREO Thematic Network groups together four leading regions in innovation and provides a framework and a sustainable environment for the analysis, exchange and transfer of successful practices supporting the creation and development of innovative firms, with a particular focus on research spin-offs.

Objectives:

- To contribute to the improvement of start-up support schemes and the emergence of new approaches to the creation of innovative firms, enhancing more particularly research centres and university spin off mechanisms.
- To promote transnational co-operation for the identification and development of favourable framework conditions within each regional system.
- To favour the dissemination of information, including at the political level, both within and outside the network.

Topics

Networking at regional and inter-regional level including the creation of working groups, the organisation of seminars/workshops and study tours. KREO deals with four thematic areas:

- New approaches in the creation of innovative firms
- Research centres and universities spin-offs supporting mechanisms
- Real and virtual networks for supporting innovative companies
- Learning programmes for entrepreneurs

Main results:

One of the key success factors of KREO is the involvement of local key innovation actors to ensure awareness, commitment and conversion of project results into real implementation. The establishment of long-term relationships among the regions involved is the basis for permanent sub-network of excellence active in the collection and transfer of good practices.

- **A common methodological framework** for sharing information on the regional innovation systems, identifying good practices, formalizing knowledge and transferring it.
- **Local area network animation:** direct involvement and engagement of local key actors, including policy makers, along specific investigation fields
- **Trans-regional networking:** organisation of seminars, workshops and study tours providing insight and practical guidelines for the implementation of good practices within the regions involved.



Tangible results

- The methodology: a **manual of procedures** for the Network functioning; starting from regional scoreboard, a **common framework** for the analysis of the regional innovation systems, a comprehensive **questionnaire** for the description and analysis of good practices, a **study visit model** for the transfer methodology and a **database** of local key innovation players.
- Networking: KREO has identified a **common knowledge base** where yearly a description of partners' regional framework has been updated including more than 100 practices identified, 43 of which deeply analysed. A **local area network animation** has been cultivated, where more than 150 local key players have been involved in several meetings (150). The **Trans-regional networking activity** has included 15 KREO meetings and 4 trans-regional study visits. Several events, such as the Forum 4i, Nanofair, RI3, VentureFest, have profited from the contribution of the KREO partners.
- Transfer of good practices: several successful collaborations and transfers among the regions have been achieved in the field of Science-industry technology platforms (Rhône-Alpes Genopole, Minatec Pole, DiagnoX); incubation and pre-incubation models (Innovation Centres, Spinner, SIPRO, AlmaCube, GRAIN, Minatec Entreprises); Business Angel Networks (OION, TVIN, Baden Baden BAN, Ban Bologna); Venture Forums (Forum 4i, VentureFest, Newcome, RI3); academia spin-off mechanisms (Engage, spin off policies/regulations).

Lessons learnt

- **Excellence:** the availability of a framework of collaboration among Regions of Excellence makes available information on local successful or emerging innovation practices and allows collaboration in defining strategic directions. The Award of Excellence is a powerful tool to build confidence and a catalyser for regional debate and for shaping policy makers agenda around innovation.
- **Learning and exchanging knowledge:** as each regional innovation system has distinctive features, transfer of knowledge can not be based on imitation. Rather, networking proves successful in providing inspiration and a framework to tailor each other experiences on the specific needs and conditions of each region
- **Regional/local dimension:** the direct involvement and networking of local key actors (including policy makers) allows a more "context aware" analysis and comparison of practices, the emergence of tacit knowledge and a stronger capillary impact, both for what concerns practices transferability and influence on policies. In this context, the facilitation function is particularly important.

- **KREO network level:** a diversified partnership composition (from institutional authorities to technical organisations) affects the process in terms of **initial difficulty to build a common understanding** on objectives and priorities, **learning generated** (complementary know how and perspectives may enrich findings), level of **endorsement of practices** by the regional decision makers (stronger in those regions where the partners are close to the decision-making level).

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PANEL

Providing Access and Networking of Entrepreneurial Links

Description

Empowered by almost 100 good practices in the support of start-ups the PANEL Thematic Network forms a Virtual Incubator ready to serve and support transfer of benchmarked measures into tomorrow's innovative regions.

Objectives

- Develop commonly agreed methodologies and procedures to identify, evaluate and benchmark start-up support measures in the partner regions
- Create together new concepts to facilitate foreign investments and the internationalisation of our start-ups

Topics

The action lines identified are:

- Incubation models: Institutions of higher education and their support for young spin-offs and to entrepreneurs (Milan)
- Entrepreneurial training: Euro-Entrepreneurs training concept (Common measure)
- Start-ups Internationalisation: Guide map for foreign investors (Common measure)
- Start-up finance: Encouragement of financing during seed phase of new ventures (Dublin)
- Networks of actors: Networking and benchmarking of Business innovation and incubation centres (Munich)
- Awareness raising: Motivation and mobilisation of young people for entrepreneurship (Barcelona)

Main results

- PANEL agreed on a methodology to identify, evaluate and compare good practices in innovation support
- The PANEL Matrix was introduced as a universal tool applicable to good practices identified within four different key innovation areas:
 - Higher Education and its Support for Entrepreneurship
 - Networking of Business Innovation and Incubation Centres
 - Motivation of People towards Entrepreneurship
 - Early Stage Financing of New Ventures

- The PANEL team developed two concept papers:
 - The Guide Map for Foreign investors, an interactive tool to facilitate the access of relevant information for investors via the members internet websites (Trinity College Dublin)
 - The Euro-Entrepreneur, a training scheme for entrepreneurs at different states of their business development to acquire the necessary skills for going international and to facilitate access to new foreign markets (Barcelona Activa)
- The involved regions adopted a broader and more international view when it comes to the design of competitive new measures and strategies to support start-ups and innovation
- Exchange of good practice measures between the partner regions
- Transfer of more than 30 ideas, practices and contacts in the field of innovation support

Tangible results

- PANEL News. It is a mirror of PANEL work through the years. All in all eight issues were published and reached with an edition of around 6000 copies per issue more than 30.000 innovation key players in Europe
- More than 36 one-day workshops were attended by PANEL members and partners in other PAXIS partner regions or within the PANEL network regions, while 22 one-day events out of the 36 were organised by PANEL members.
- Four expert reports were published
- Four click-able PANEL Matrices mirroring the state of the art of good practices in the above cited four key innovation areas of the PANEL regions - accessible by internet via www.cordis.lu/PAXIS
- PANEL published four sets of policy recommendations in the four key innovation areas targeted at policy makers in Europe to help shaping the European Innovation Area as part of the European Research Area (see PANEL News 8)

Lessons learnt

- European collaborations have to develop over time to build up trust and mutual acknowledgement on each partner's assets, even when all share the Label of Excellence.
- Regions of Excellence are capable to work together in co-operation and for their mutual benefit
- It is all about the right people driving Europe closer together to make it more effective and competitive
- Target of innovation support measures is always the entrepreneur and his/her company, they provide the most valuable feedbacks and inputs



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SPRING

Speed-up of Regional INnovation and economic Growth

Description

The SPRING network regions brought together four regions to develop their own systems for support of entrepreneurs and New Technology-Based Firms (NTBFs).

Objectives

SPRING is a network supporting the evolution of intelligence aiming at:

- Increasing cross fertilisation between the four partnering regions: Stockholm, Stuttgart, Cambridge and Madrid;
- Benchmarking learning methods and mechanisms to stimulate and develop innovation and entrepreneurship;
- Extracting from the identified successful tools/models running in the four regions lessons with regards to good practices in the policy field; and
- Promoting the good practices examples at a wider European level.

Topics

The SPRING partners agreed upon four focus areas, as relevant to enhance Innovation and Entrepreneurship. These areas are:

- Entrepreneurship
- Early stage financing
- Spreading innovation culture
- Intellectual Capital

Main results

The SPRING network regions have developed their own systems for support of entrepreneurs and NTBF. The most important policy implication is to capitalise and exploit the large number of practices and tools that have been identified and initiate a large transfer and implementation process.

The SPRING project contributed to the creation of a new vision on technology-based companies, their importance for giving added value to R&D and to improve the perception that both researchers and entrepreneurs have about this issue. The network methods and practices exist although practical dissemination is still lacking. An implication is that there needs to be more emphasis on transfer and knowledge sharing in future EU initiatives.

Cross-fertilisation:

- Creation of an international think tank on innovation ELITE:

Bench-learning:

- Entrepreneurial faculties established

Successful tools and methods:

- SPRING IC model - book being printed
- Innovation and growth index - up-coming report
- Applied and proven enterprise hub/cluster competitiveness platform
- Proof of concept pre-seed and seed financing instruments
- BAN madri+d created.
- Improved decision making framework on entrepreneurship support

Promoting good practices at European Level

- Competition for innovative business ideas and spin-offs
- Established the European day of the entrepreneur in several regions
- Shaking and moving SPRING thematic areas into the UK presidency of the EU

Tangible results

The SPRING project has led to a greater engagement of a much wider audience of professional people from all over the regions, much improved information flows, enhanced interactions and networking - a better coalescence of common purpose.

Lessons learnt

- Networking is time consuming and requires an experienced facilitator with a holistic vision
- Building trust and confidence within a network is a never ending story
- The Award of Excellence and its accompanying events were very helpful to open up the atmosphere in the political arena, and stimulate an appreciation for regional efforts in innovation and start up support.

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START

Start-Up related know-how transfer

Description

START is a network of five regions of excellence that have joined together to exchange and benchmark best practice in strategies to support innovative companies.

Objectives

The objectives of START are to:

- Develop an effective network environment in which partners can share and discuss best practice
- Identify and map mechanisms in each region that support the development of innovative companies
- Exchange and transfer best practice mechanisms between partners
- Strengthen the entrepreneurial climate in partner regions

Topics

Each region focuses on a specific field of expertise within the business start-up process, which are:

- Monitoring process on mechanisms facilitating spin-offs from universities and research institutions (Vienna region)
- Incubation networks and clusters (Copenhagen)
- Internationalisation, growth strategies and the survivability of innovative, young companies (Edinburgh)
- Training programmes for entrepreneurs (Hamburg)
- Pre-seed funding and additional early stage support (Veneto)

Main results

- As a new network in 2003, the START partners have successfully developed a shared understanding of the project objectives, and have formed an effective network environment which is conducive to the exchange and analysis of best practice.
- All partners have engaged in an active exchange of best practice approaches across all five topic areas. More than thirty approaches have been identified and assessed during the course of the network.
- The START partners have developed a structured approach to identifying, gathering and analysing best practice. Vienna region, in particular, has developed a transferable benchmarking tool (which has been shared with other PAXIS regions) for comparing mechanisms to support university spin-out.



- The network has undertaken eight cross-regional workshops in Veneto, Edinburgh (2003) and Copenhagen, Hamburg and Edinburgh (2004), and Edinburgh, Copenhagen and Veneto (2005).
- 'Experts', such as incubator managers, venture capital organisations, and training programme managers, have been involved in the network from an early stage. All START workshops have included presentations from experts in each region, and have sought to facilitate discussions between practitioners and policy-makers.
- The START partners have actively engaged in cross-network activities. Edinburgh region led the establishment of an Internationalisation Theme Group, which brings together policy-makers and practitioners from across the PAXIS networks and projects. Veneto region has been active in the development of a cross-network Early-Stage Financing.
- The network has publicised details of its activities within partner regions and the wider PAXIS community. Two full-colour brochures have been produced, and a number of articles have been published in Excellent News. More recently, the START network (Edinburgh region) hosted the final PAXIS Conference, which provided the opportunity to outline START activities and achievements.

Tangible results

- Scottish Enterprise Growth Toolkit: a checklist which enables business advisors to identify companies with high growth potential. The toolkit is being tested by Vienna and Veneto regions.
- Scottish Enterprise Proof of Concept Fund: a publicly funded scheme aimed at early-stage university spin-out companies. This approach is being tested by Veneto region.
- Copenhagen IT Growth House: an incubator for new start-up IT companies in Denmark which draws inspiration from examples in other START regions, including the Scottish Enterprise Proof of Concept Fund.

Lessons learnt

- Involvement of practitioners in the project from an early stage, to ensure that the findings are relevant and useful
- Allowing sufficient time for partners to learn about best practice. Face-to-face meetings and direct visits were found to be more useful than documents and presentations in helping partners learn about practice in other regions
- A good knowledge of the policy environment and delivery network in partners' own regions is essential for partners to be able to identify what might or might not work in their region.
- The nature of best practice transfer has not tended to be characterised by 'whole scale' transfer of models from one region to another, but by the identification of "tools' or 'elements' that participants feel might work in their regions.

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BIO-LINK

Linking bio-incubators to enhance start-up creation and development towards a best practice incubation model for Europe

Description:

The project gathered a team of successful bio-incubators across Europe to develop a model of co-incubation for start-ups in biotechnology. Two research institutes specialised in innovation issues took part in the project.

Objectives:

The project aimed: to test co-incubation schemes for biotechnology start-up companies in view of defining a co-incubation model; to share the expertise of mature incubators with a new incubator from a developing region (Sardinia, Italy); to improve management capabilities through the exchange of experiences.

Main results:

- The project developed a new concept of co-incubation for start-ups in biotechnology and tested it on real companies. The co-incubation model covers the selection of candidate companies, the analysis of potential matching, the organisation of contacts between companies and/or incubators, and the elaboration of technology or business agreements.
- Five management seminars were held across Europe and Israel. These proved helpful to enhance capabilities of incubator managers through the exchange of experience between leading incubators, including incubators not part of the consortium, that implement different methods.
- Design of a Best Incubation Practice Toolkit. The toolkit includes recommendations for an optimal incubation model (an 'all-in-one model' covering ten critical items) as well as detailed prescriptions on how to implement co-incubation. It also provides an in-depth analysis of key success factors for co-incubation and of the likelihood of co-incubation success.
- A highly successful road-show was organised in Paris with 15 companies presenting to one another and meeting each other.
- The UWC/JIIS report 'Comparative Incubation Models' was published in the Journal of Technology Transfer.
- Results of BIO-LINK work were widely disseminated to European and US biotech community during regional, national and international events.
- The network expanded considerably, not only by direct efforts, but because of interest in BIO-LINK by outside parties.

Tangible results:

- Best practice Co-Incubation: The novel methodology was tested on 32 companies. Co-incubation proved a long process with results mostly to come in the long-term; and better suited to more mature companies and service companies. It needs a dedicated co-incubation manager and a long-term time-horizon to achieve results.
- Best practice Seminars: The five one-day seminars to broaden the knowledge and skills of incubator managers, portfolio companies and the business communities associated with incubators provided excellent networking, besides improved capabilities.
- Best practice Road-shows: BIO-LINK organised a one-day event where selected companies presented to one another and met one another face-to-face. Guests included government, regulatory authorities, big companies, and VCs. Road-shows achieved concentrated networking for SMEs and resulted in requests for more road-shows and rapid follow-ups post road-show.
- Best practice Toolkit: The results of the exercise of sharing experience in bio-incubator management were analysed and presented in a Best practice Incubation Toolkit.

Lessons learnt:

An enormous amount of knowledge was exchanged about biotech incubation, biotechnology in other European and US locations and different business models.

It proved difficult to translate a theoretical model of co-incubation into an actual one and the lesson is instructive on the very functioning of business incubators. Business incubation is a well-established, although evolving, business concept whereby a range of services are offered to would-be entrepreneurs or start-up companies to set up their business and develop it. The human, physical and financial resources available in one incubator are normally just sufficient to conduct current activities. In such a context, co-incubation finds its first and immediate obstacle in finding the resources for an additional activity, namely that of carefully screening the candidate companies for co-incubation and then following them throughout the entire process.

Moreover, managing the equilibrium between co-operation and competition between incubators is a key issue, because start-ups in different incubators are potentially competitors in the market for financing and accessing the advice of leading scientists and experts.

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ESTER

Early Stage Investment Triggering in Eastern Regions

Description

ESTER builds, among others, on the work of the IFISE project, which ran from 2000-2002 as part of the PAXIS I initiative. The ESTER and IFISE projects identified the success factors of the Yozma and Technological Incubators Programmes in Israel, and used these to create a model for the development of venture capital schemes and incubation facilities. The ESTER project focuses on transferring the principles extrapolated from the two programmes to the new member states of Latvia, Estonia and Slovakia.

Objectives

The objectives of ESTER are to:

- Plan for effective sources of seed and venture capital in Estonia, Latvia and Slovakia
- Submit formal proposals for the launch of new programmes to the relevant authorities in the three countries and the European Commission.

Main results

- The ESTER project team has been effective in adapting the principles of the Yozma Programme to suit the conditions of the new member states of Latvia, Estonia, and Slovakia. Proposals for new venture capital schemes have been developed in all three countries. In some cases, the project team has moved beyond the original objectives of drafting proposals, to becoming involved in the development and launch of the funds.
- The ESTER partners have completed detailed analyses of the business environment, and potential growth sectors, in each country.
- In Latvia, a venture capital scheme has been launched which has received funding from the European Development Fund and the Latvian government to match private venture capital funds. The proposal for the scheme was developed by ESTER partners early in the project, using the experiences and principles of the Yozma programme and a few other European VC schemes. A second proposal was drafted by ESTER together with the Ministry of Economy in Latvia. The scheme became a law in 2003, and was launched in 2005. The funds will cover all areas of Latvia and will be available to all manufacturing businesses, to encourage a high deal flow. Also in Latvia a technology incubators scheme designed by an ESTER partner is due to be accepted before the end of year 2005.
- In Estonia a proposal has been developed for a venture capital fund that is about creating several privately managed funds. This goes against the main trend in Estonia that recommends



- a single publicly-managed fund.
- In Slovakia, the ESTER partners have obtained the allocation of a budget between 30 to 40 million euro to a venture capital scheme. The ESTER partners are trying to provide assistance in the design of the scheme within the time remaining on the project.
 - The results of the project have been widely disseminated both within the PAXIS community and elsewhere. The project has been presented at more than 15 international workshops, including the TRANSACT Project conferences in Prague (January 2004) and Budapest (March 2004), a workshop for the Cross-Network for Early Stage Financing in Dublin (May 2004) and the European Day of the Entrepreneur in Sofia (November 2004). Two dissemination workshops for the project were held in Tallinn and Riga in September 2005.

Lessons learnt

- The importance of understanding local conditions and identifying the economic strengths of each country when designing venture capital funds
- Initiatives, such as venture capital schemes, should be owned by local people wherever possible. Local people are familiar with the local economy and are best positioned to adapt principles from elsewhere to suit local conditions.
- The deal flow in new accession states is much lower than in the rest of Europe. It is, therefore, important not to be too restrictive with the types of companies that can qualify for funding.
- Research undertaken by the project partners suggests that there is a low level of awareness of the investment opportunities available in the new accession states. These information asymmetries may provide an opportunity for intervention by European and/or national governments and agencies.

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ESTER

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GLOBALSTART

New concepts to stimulate Global Start-ups through a university spin-off programme

Description

The GlobalStart project aims to respond to a new phenomenon in start-up creation the notion of 'global start-ups' by adapting existing tools and creating new ones to meet the needs of this new type of company.

Objectives

Overall the main objective is: To offer good support to (potential) global start-up companies. In order to fulfil this, a number of sub-objectives have been identified:

- Create a trans-national spin-off programme (to be continued after project completion).
- To increase the ratio of Global start-ups to ordinary start-ups by 20% within existing spin-off programmes.
- Implement a regional infrastructure involving key local innovation players.
- Develop a business support system for start-ups in a global environment.
- Validate GlobalStart as a methodology for trans-national co-operation and communication.
- Disseminate the methodology developed as a 'best practice'.
- Facilitate the transfer of the schemes tested to promote and support innovative start-ups to Newly Associated States.
- Add value to the single initiatives of each partner.

Main results

- A definition on a theoretical level of what a global start-up is;
The activities have been undertaken at a three different levels. The first two were a thorough study of current tools to identify the shortcomings in existing support and how they might be adapted or new ones created in order to suit the specific demands of global start-ups
- **Regional level:** the partner responsible for collating the information on regional initiatives is Wales and the map created was then compared to all partners' regions. As a result of the research carried out, GLOBALSTART has raised the awareness with the regional stakeholders.
 - The project has been able to identify gaps in the services provided for global start-ups
 - The project has validated the usefulness of the existing services
- **University level:** the partners responsible the content and collation of the study is Leuven though all other partners have been responsible for data collection.
 - existing start-ups were characterised, identifying those that were global (or potentially global)

- Defined new dynamics in the globalisation process
- Developed new contacts and linked the regions to the already existing networks, tools and processes
- Identified the existing gaps and weak points for the support of global start-ups in all partner Universities
- **Venture level:** the partner responsible for information collation is Twente and among all the partners, 23 start-up companies have been analysed with the aim of identifying the needs as well as the kinds of companies which would be targeted for support - defined by the project consortium as 'potential global start-ups'

The NAC partner regions have been crucial for highlighting how an effective regional innovation system can be set up from scratch.

Tangible results

GLOBLASTART has created a website (<http://www.globalstartups.org/>) in order to disseminate the tools developed within the project. These tools will be tested by the other partners in order to package them and would be suitable to be used by any other region interested in the support of global start-ups:

- Mapping of regional services: tested by Wales and already implemented by Tartu to identify local shortfalls
- University level: All partners
- Venture level: 23 start-ups in all partner universities

Parts of systems for support of entrepreneurs and New Technology-Based Firms (NTBF) have been transferred between the partners.

Lessons learnt

- To promote internationalisation/globalisation as a key growth area among incubators, support system agents, entrepreneurs and financiers
- Global start-ups and internationalisation are key issues for EU as economies and markets not are restricted by political and administrative boundaries. To foster global/international ambition among entrepreneurs as well as global benchmarking between regional and local innovation systems is therefore important.

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PROMOTOR +

Description

The Promotor+ Validation Project pursues entrepreneurship promotion and the development of innovative SMEs in regions of New Member States. With this aim, Promotor+ defines, implements, validates and diffuses a comprehensive methodology for the promotion and support of New Technology based firms, tailored to local conditions and the needs of recipient regions. The project focuses on mechanisms for mobilising risk capital, specific programmes for academic and research spin-off promotion, corporate spin-offs and regional clusters.

Objectives

Promotor+ has defined and validated a concise and structured methodology applicable by NAC regions for promoting entrepreneurship, aiming to:

- Create an homogenous methodology for establishing regional programmes to stimulate the creation of profitable start-ups, mainly technology-based Start-up a scheme to enhance, generalise and validate the success of previous experiences concerning regional programmes to support NTBFs in less developed regions, to be tested and diffused among New Member State regions
- Gain large political support for the VP itself, allowing a continuum by regional authorities themselves and a large diffusion of the Pro+ methodology among NAC and EC policy makers.

Main results:

- The Pro+ Methodology. A well codified, tested and validated methodology (clear process and schemes) for the promotion of start-ups which has been successfully applied (and customised) by recipient regions. The practices adopted come from EU regions with similar local conditions to those of New Member States, rather than regions of excellence or highly developed ones.
- Implementation of two successful sessions of the business plan competition. The business contests launched within the project have been very effective in gathering and sustaining new business ideas: in the first round, Promotor+ has supported the identification of 60 business projects, leading the registration of 27 new companies. These good results together with an extension of the project duration, allowed a second round of this competition, which was again extremely successful.
- Communication activities. The interaction between the partners, local authorities and intermediaries has been extensive, guaranteeing a long-term collaboration beyond the project duration. The recipient regions have been asked to give feedback to provided a platform of objectives and a set of activities, ensuring correspondence with actual conditions and needs.

- The strengthening of networking and relationships among innovation stakeholders, the reinforcement of positive values around innovation policy and regional champions are also important results achieved by the project.

Tangible results:

Considering the local conditions of some New Member States and the general lack of familiarity with the tools and mechanisms used for the promotion and encouragement of new business creation, the project results are particularly appreciable since:

- **35** business ideas brought in to the market (25 New firms constituted during the project's life: 3 Bulgaria; 4 Lower Silesia (Poland); 10 Wielkopolska (Poland); 3 Slovenia; 5 Latvia; 2 business ideas absorbed by already existing firms (Slovenia); 8 recently founded firms' entrepreneurs supported (Bulgaria).
- **38** business entities in the foundation process committed to be established before 2006: 4 Bulgaria ; 26 Lower Silesia (Poland); 4 Wielkopolska; 4 Slovenia
- **116** entrepreneurs supported in the set up of their business

The Pro+ 'ready to use practice' has been proven to be effective also in regions with local conditions considered 'not-excellent'. Entrepreneurship promotion and the establishment of a comprehensive policy action in its favour, backed by appropriate monitoring, have confirmed to be the primary interest of NAC regions' policy-makers.

Lessons learnt

- The effectiveness of the transferability process has been validated and has proven to work better where local conditions are similar.
- Customisation was the key to better match the potential of the recipient region. Donors paid attention to verify the suitability of the proposed methodology after implementation and proposed corrective actions.
- Awareness-raising activities and involvement of the local stakeholders to get a sustainable and long term effect in the promotion of entrepreneurship have shown to be a full time commitment.
- A careful planning of activities has been a good recipe for difficult local conditions and facilities restriction.
- Cultural and language barriers have affected the learning process and the implementation activities.



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TRACTOR

New practices in creating and consolidating innovative Start-ups

Description

Tractor was born with the objective of creating a favourable environment to the business creation and to the consolidation of young companies by means of providing some accompanying processes that combine physical support and consultancy with the so-called e-learning.

Objectives:

TRACTOR aims to facilitate the creation and consolidation of new innovative start-ups. This project integrates consolidated practices about creation and development of new innovative companies in the involved countries (Sweden, France, Slovenia and Spain).

Specific objectives of TRACTOR are:

- The transfer from tacit to explicit knowledge of existing and new practices supporting entrepreneurs.
 - To stimulate the learning process among partners/actors in supporting entrepreneurs.
- To achieve those objectives, TRACTOR establishes an e-learning environment and provides guiding materials and web based support for entrepreneurs.

Main results

TRACTOR has developed and tested a methodology and tools to improve the learning environment for entrepreneurs.

TRACTOR provides specific guiding materials for entrepreneurs, integrating consolidated practices about creation and development of new innovative companies in Spain, France, Sweden and Slovenia, in a TRACTOR scheme, all of which is supported by an open source internet platform that facilitates an e-learning environment.

TRACTOR provides a methodology and tools for mentoring, networking, and training.

Tangible results

TRACTOR e-learning platform (www.sme-innova.com/tractor). An e-learning platform that provides the following:

- A structured way of providing support for the creation and consolidation of start-ups.
- A common framework for interaction of agencies and incubators with the entrepreneurs.
- Mentor assistance to reflect and with the introduction into the business community.
- Entrepreneurs learn from 'similar people'.
- ICT can be a great opportunity but we also stress the importance of humane interaction.
- A complement to other face-to-face support activities.

- It's flexible. The platform can be adapted to the needs of the incubator: Add new contents, create forums, etc.
- Multilingual capacities.
- Based on Open Source software.
- Interactive Multimedia Game (LiveTech) that aims to raise the awareness of the importance of leadership, team working and communication issues when managing a start-up. The game is the result of interviews with managers of start-ups and with business advisors.
 - It's composed of 40 stories that reflect typical problems and situations when managing a team: Recruiting employees, Motivation, Awareness of a leader's functions, Delegation and Communication and Implementation tests. During the implementation of the results, 36 students, 35 entrepreneurs, 45 Start-Ups and 38 advisers and mentors tested the TRACTOR platform and the multimedia game LiveTech.

Lessons learnt

Information and Communication Technologies (ICTs) may become a great help for facilitating the interaction between the entrepreneurs and their consultants, but they will never be a substitute for personal contact. This means that ICTs are a very useful intermediate tool, but they will never constitute the goal by themselves.

Another important lesson learnt by the partners came from the initial failures of the project, this was conceived as too ambitious with a lack of focus and concrete objectives and being too short of time to test the results.

The knowledge and experience acquired will permit the partners to continue with new initiatives after PAXIS, like the INNO-Initiative and the 7th FP. In the same way, the collaboration and networks created with the partners, PAXIS members and other external agents will bring to TRACTOR partners new opportunities for research and business.

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TRANSACT

TRANSfer of existing and successfully proven supporting schemes for technology-based start-ups to innovative **ACT**ions in Newly Associated Countries (NACs).

Description

TRANSACT is the Validation Project which aimed at the transfer of existing and successfully proven supporting schemes for technology-based start-ups to innovative **actions** in Newly Associated Countries (NACs).

Major Objectives

As a PAXIS transfer project the TRANSACT aims were the:

- Identification of existing successful models or instruments
- Development of a suitable transfer strategy to the NACs
- Successful implementation of those concepts.

Main results

TRANSACT used a collaborative approach for the planning and implementation process for start-up support measures that is flexible concerning topic and target group. By integrating all relevant key players into the process from the early planning to concrete actions the project partners were able to ensure their commitment and thereby sustainability.

On the five conferences, which took place in Stuttgart, Prague, Budapest, Tartu and Bucharest, the project partners were able to draw the attention of more than 350 decision makers from universities, ministries, governments, science parks, research institutions, chambers and end-users to the topic of entrepreneurship support. Due to this, the partners' network inside and outside the university was extended respectively strengthened.

Having integrated all relevant players, the partners were able to narrowly define and focus on the start-up support approaches they were going to offer concerning the demand and needs of the end-user side and the existing experience within the network. This helped to ensure that only demanded, highly effective and applicable tools are offered.

Together with these strengthened networks, the partners elaborated ideas and proposals for follow-up or complementary projects, two of which were already granted.

In Bucharest an Academic Incubator was started. A first call for business ideas raised 15 ideas, a second one 20. Regarding their further development into a business plan and their feasibility, two of them were chosen for support inside the business incubator. They will later on serve as role models. Not only could TRANSACT raise the awareness among decision makers and ensure their commitment, but it was also able to do this from the end-user perspective. It was successful as a result of awareness



raising campaigns, articles in newsletters, co-operation with student initiatives, and the 1st TRANSACT international business simulation competition 'students as would-be entrepreneurs' were reached. The two winning teams were awarded a prize sponsored by L-Bank, Staatsbank für Baden-Württemberg, for themselves and for their University. The prize for the University was used to contribute to start-up support measures.

All the partners offer training programmes, which were adapted according to their would-be entrepreneurs' needs and wishes.

Being embedded in PAXIS and due to the good results and its dissemination activities on local, regional, national and European level TRANSACT became known, achieved a high reputation and was able to establish a brand 'TRANSACT' under which start-up support activities in the partner universities will be delivered.

In order to give interested third parties the opportunity to get a deeper insight into the transfer process, four case studies have been written and published. They were distributed at several conferences and are available on the internet.

Lessons learnt

TRANSACT proved that it is possible to overcome inertia in institutions and thereby opened the way to foster initiatives in favour of start-up creation. Taking part in the planning process helped motivate and actively involve the necessary players thus ensuring their commitment.

Transferring start-up support approaches, especially awareness raising methods and training, was seen as most important by the partners, and TRANSACT initiated the first step in the partner regions for cohesion through closing the gaps of disparities between regions in Europe.

In its conferences and the initiated discussions it supported the exchange and dissemination of knowledge and the transfer of best practice.

By the activities that were tested and established, the entrepreneurial culture at the partner universities was enhanced and new business ideas were promoted.

Concerning the transfer process, the philosophy behind the process and the structure is well elaborated, being based on a demand driven by the partners from the candidate countries and taking into account the local/regional framework conditions which may facilitate or hamper the transfer of schemes. This process ensured the commitment of the different players. The success of this approach was also recognised by invited experts from other projects, for example the coordinator of GLOBALSTART: After having experienced the moderation of a hard, but highly effective TRANSACT workshop, the decision was made to extend the degree of active participation in GLOBALSTART workshops as well. It can be summarised that the added value of the TRANSACT transfer methodology lies in its universality of application. This means that it can be used not only in transfer processes concerning start-ups, but also in other topics and target groups.

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SUN&SUP -- Listening to European Start-ups

The SUN&SUP consortium began their activities in the beginning of 2003 in the framework of the PAXIS Initiative. By means of two networks, a network of start-ups (SUN) and a network of start-up service providers (SUP), the project had the ambition to elaborate tangible improvements to existing services and suggest new services to support start-up creation and development at European level. Furthermore the project aimed to sustain the start-up network and thus establishing a pan-European player 'the voice of European start-ups' representing the interest of young innovative companies and acknowledging their role in economic growth and employment creation.

The project started with establishing both networks, SUN and SUP, which are actively running and count about 15 members each. The networks represent 17 European countries, various technology sectors and different stages of development.

Early in 2004, a quantitative survey on European start-up needs was carried out with more than one hundred young innovative companies in order to identify the most apparent needs of enterprises regarding start-up support services linked to the company's development stage.

For financing and investment readiness issues, the questionnaire highlighted that early stage and later stage companies have the same top 3 priorities, namely:

- Mentoring in sources of financing,
- Dialogue with and understanding of investors
- Finding business angels

In the field of sales and marketing, the most critical points identified for early stage companies are:

- Mentoring in market research and support in assessing markets;
- Access to financial support for commercial expenses;
- Management of training for those having only a technical background;
- Help in choosing and developing a business model.

For later stage companies, the most critical points identified are:

- Identification of entry points within large European companies;
- Identification of key salespersons for other countries;
- Access to mentors in sales management and market research;
- Access to financial support for commercial expenses.



On the basis of the survey's results and after validation by the SUP members two task forces have been set up respectively in the field of **financing and investment readiness** and in the field of **sales and marketing**. Each task force worked on a detailed description of the topic it had been build for. Start-ups and service providers worked together in order to define new tools and concepts and to detail their implementation.

Main results

The good practice start-up support services developed by SUN&SUP are detailed in this best practice manual: FAME (Find the appropriate Mentor), Invest Academy, and the Fuzzy Self Evaluation Tool. All aim to provide pan-European mentoring and support which answers to the real needs of entrepreneurs.

In addition to the development of services, the SUN&SUP networks initiated an ambitious policy recommendation. Due to a WTO agreement being renegotiated in Geneva, European SMEs cannot compete on equal footing with American SMEs. By facilitating the access of innovative SMEs to markets in the whole European Union, a European Small Business Act would foster the emergence of the 1000 new large companies necessary to meet the Lisbon Agenda and take up the challenges of globalization. To this end SUN&SUP has launched a petition which raised strong interest and collected more than 1000 signatures all across Europe.

In France a pilot action is running since the beginning of 2005: the SME Pact. It aims at the same objectives of the policy recommendation but without a need of a European directive. Focused on SMEs with a strong growth potential, it is a voluntary commitment made by large public or private entities to reinforce their relations with innovative SMEs.

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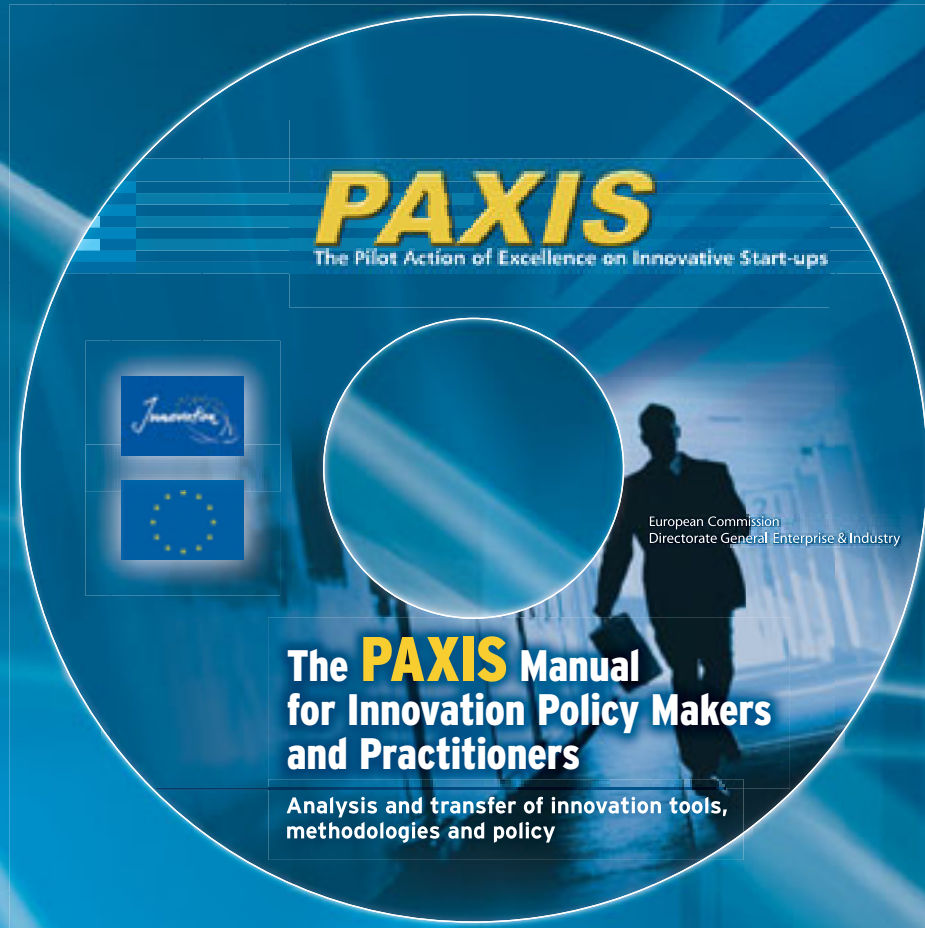
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Pre-seed and early-
stage financing

Incubation
models

Spin-off /
technology transfer

Entrepreneurship

Innovation culture /
political awareness

Methodologies

PAXIS

The Pilot Action of Excellence on Innovative Start-ups

<http://cordis.europa.eu.int/innovation>

<http://cordis.europa.eu.int/paxis>



European Commission
Directorate General Enterprise & Industry