



## Merged study visit and expert mission report

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**Visiting region:** *Region of Cluj-Napoca, Region of Prague and Tartu Region*

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# 1. S&T intermediation profile of the hosting region

## 1.1. Overview of the S&T intermediation system

In the case of Catalonia, the structure of the regional innovation system has been designed over the years in order to provide a better support to companies and a more efficient knowledge transfer. A consequence of the growing importance given by the political powers in the region to face the changes on the Catalan productive model and to face the challenges of the new international economic context has been the acknowledgement of the innovation as an essential point to build up the competitiveness of the economy. The most obvious change in this direction has been taken recently with a structural change in the Catalan Government (Generalitat). A new Department has been created, integrating what were the former Department of Industry and Trade and Department of Education: Department of Innovation, Universities and Enterprises.

**The main objectives of the Catalan Research and Innovation (Plan 2005-2008) are:**

- a) increasing the critical view of the Catalan research and development system,
- b) attract talent and provide tools and structures for research and development,
- c) to continue improving the quality of research and the competitive integration of Catalonia in the European research space,
- d) to improve the coordination of the policies of research, innovation, economic, social and cultural development in the heart of the Catalan Government, in order to locate Catalonia as a reference country for the R&D policies

## 1.2. Overview of services in the context of visiting region's needs

The main services presented during the session are the services of CIDEM (the Central public body in Catalonia for support the SME's. These main services provided by CIDEM are the following:

- **Technological springboards**: are support units for the creation of knowledge-based enterprises or technology-based enterprises. Technology springboards are organised as a net. Technology springboards, besides gaining new projects and assess them to turn them into companies, include also a series of initiatives such as: university courses on how to create your own company, former students' reunions to share experiences about the creation of enterprises, contests of business plans, etc.

Main data of this network:

- 10 members
  - 69 spin-offs and outs generated in 6 years
  - 21 patents transferred
  - 443 projects analyzed
- Services:
- General information to researchers
  - Analysis Business idea
  - Legal assessment

- Business Plan
- Support in accessing public and private funds
- Connections and networking with other economical agents
- Incubation services

- **The Innovation Centres Network of CIDEM (PIC)** is composed of several intermediate organisms acting as strategic allies of the CIDEM. Their function is to design and carry out the innovation policy, and to provide SME's with the essential information needed for their business activity. Moreover, it designs up programmes according to the needs of the territory in which the network is acting, and creates synergies among the members of this industrial sector. The PIC Network offers a free personalized service, and its quality has been certified with the ISO 9001.

The services offered by the PIC Network are:

- To help resolving any doubt enterprises or new entrepreneurs may have.
- To design and carry out new policies to promote innovation:
  - Innovation plans.
  - Dynamization of clusters.
  - Pilot projects to facilitate the incorporation of new advanced management tools into the enterprise.
  - Development of pilot tests on emerging technologies in the territory.
  - Promote entrepreneurship.
  - Sensitization actions about aspects related to innovation and technology.

- **Technological Innovation Network:** is made up of research groups able to give services of technological innovation to the companies in Catalonia. The most experienced researchers agree that it is important to stand by and to be ready to reach unexpected results in order to reach innovation. But the most important is to know how to use it. The fact of turning an idea, a discovery, into a business solution is an exciting task; however, it demands a close cooperation between professionals from different disciplines, highly experienced and qualified.

The objective of this network is to promote the R&D subcontracting market in Catalonia in order to increase the innovative capacity of companies. Moreover, the fact of having a Technological Centers Network in Catalonia able to speak the same language than that of companies and where you can find business parameters will be a source of competitiveness for SMEs.

This initiative try to foster tendency that start some years ago, when Catalan companies started to look for reliable R&D suppliers able to help them to develop their research and innovation projects.

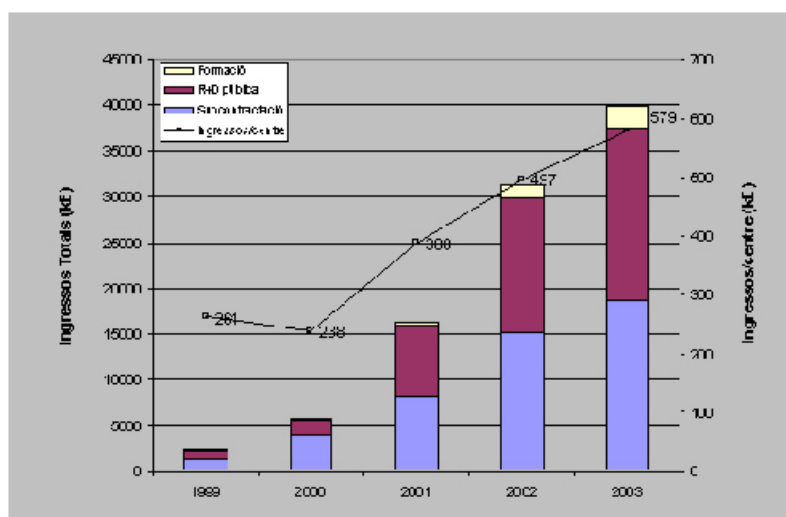
One of the main characteristics of this network is that all its members must go through an accreditation process aimed to prove the quality of the services they offer. This process will be carried out by CIDEM. This accreditation has been determined according to the quality parameters specified by some Catalan companies (normally, these companies are very particular regarding R&D subcontracting).

The centres have professionals and equipments able to carry out, in an effective way, R&D projects and services. These products and services will allow us to increase the competitiveness of the Catalan business community, to open new horizons and opportunities.

### Institutions that participate in the Network (PIC)

- Centre for Innovation and Business Development (CIDEM) - Ministry of Employment and Industry.
- Interdepartmental Commission for Technological Research and Innovation - Board Member for Universities and Research.
- University Autonomous of Barcelona
- University of Barcelona
- University of Girona
- University of Lleida
- University of Vic
- Polytechnic University of Catalonia
- University Pompeu Fabra
- University Ramon Llull
- University Rovira i Virgili
- Institute for Agri-foodstuffs Research and Technology
- Higher Council of Scientific Researches

### Turnover development of the IT Network



The following table presents an overview of services delivered within the regional S&T intermediation system and presents the services that are of interest for the visiting region. The table indicates also the level of priority given to the development of selected service in the visiting region.

Table 1. Services in the Prague S&T intermediation system

S&T intermediation service area and services	PRAGUE REGION	
	Available services	Services missing or needing an upgrade in the visiting region*
<b>Collective actions</b>		
awareness raising activities for enterprises (e.g. study visits and conferences)		
awareness raising activities for the scientific community on research commercialization and IPR		
technology watch - analysis of evolution of the technological needs of the region	3	U
collecting and disseminating information on relevant existing technologies	3	U
coordinating and disseminating information on available S&T services for companies	4	M
<b>Support for technological and scientific cooperation</b>		
Technological audit – analysis and identification of needs of enterprises	5	U
Search for regional and national scientific partners for R&D projects		
Search for international scientific partners for R&D projects	5	U
Search for regional and national industrial partners for R&D projects, and S&T support		
Search for international industrial partners for R&D projects, and S&T support		
Technical and legal support for preparing projects/agreements on S&T collaboration		
<b>Support for new product and service development</b>		
Technical assistance for preparing a feasibility study of the product/service	4	U
Assistance for developing a business plan for the new product/service	5	U
Assistance for prototype development (e.g. fast prototyping etc.)	4	M
Assistance for prototype testing	4	M
Support in product launch or service implementation		
<b>IPR and commercialization</b>		
Initial IPR check for products and services before their development	5	U
Assistance in commercialization of industrial research projects, identification of results requiring IPR protection	5	M
Assistance in depositing patents and management of patent portfolio	4	U
<b>Licensing</b>		
Industrial partner search for licensing		
Preparing and negotiating conventions (license agreements)	3	U
<b>Support to innovative start-ups and spin-offs</b>		
Legal support in creating a start-up		
Legal support in creating a spin-off		
Search for private financial partners for start-up/spin-off creation		
Preparing cahier des charges and budget for spin-off creation		
Monitoring and promotion of start-up/spin-off		
<b>Human capital mobility</b>		
Placement schemes between research and industry		
Search for highly specialized R&D personnel	4	M
Search for highly specialized management personnel (e.g. innovation management, knowledge management)		
<b>Networking and clustering</b>		
Supporting and creating business networks (B2B)	4	M
Supporting and creating networks of SMEs and research base (University, research centres)	4	M
Supporting and creating clusters, and promotion of SMEs and research participation	4	M
<b>Assistance in accessing public funding for RTDI activities</b>		
Search for public funding and monitoring of public tenders	3	U
Assistance in accessing funds from EU Framework Programs		
Assistance in accessing funds from EU Structural Funds		

\* Using 5-step scale indicate which of the available services are of interest for the visiting region (5 – indispensable, 4 - high priority, 3 – important, 2 – not needed in the near future, 1 - not relevant). Indicate **M** where service is missing and **U** where service exists but needs to be upgraded, e.g. 5M stands for a indispensable service that is missing in the visiting region.

Table 2. Services in the Estonian S&amp;T intermediation system

S&T intermediation service area and services	TARTU REGION	
	Available services	Services missing or needing an upgrade in the visiting region*
<b>Collective actions</b>		
awareness raising activities for enterprises (e.g. study visits and conferences)		
awareness raising activities for the scientific community on research commercialization and IPR		
technology watch - analysis of evolution of the technological needs of the region	3	U
collecting and disseminating information on relevant existing technologies	3	U
coordinating and disseminating information on available S&T services for companies	2	U
<b>Support for technological and scientific cooperation</b>		
Technological audit – analysis and identification of needs of enterprises	3	U
Search for regional and national scientific partners for R&D projects		
Search for international scientific partners for R&D projects	3	U
Search for regional and national industrial partners for R&D projects, and S&T support		
Search for international industrial partners for R&D projects, and S&T support	3	U
Technical and legal support for preparing projects/agreements on S&T collaboration		
<b>Support for new product and service development</b>		
Technical assistance for preparing a feasibility study of the product/service		
Assistance for developing a business plan for the new product/service		
Assistance for prototype development (e.g. fast prototyping etc.)		
Assistance for prototype testing	4	U
Support in product launch or service implementation	3	U
<b>IPR and commercialization</b>		
Initial IPR check for products and services before their development	4	U
Assistance in commercialization of industrial research projects, identification of results requiring IPR protection	4	U
Assistance in depositing patents and management of patent portfolio	4	U
<b>Licensing</b>		
Industrial partner search for licensing	4	U
Preparing and negotiating conventions (license agreements)	4	U
<b>Support to innovative start-ups and spin-offs</b>		
Legal support in creating a start-up		
Legal support in creating a spin-off		
Search for private financial partners for start-up/spin-off creation	4	U
Preparing cahier des charges and budget for spin-off creation		
Monitoring and promotion of start-up/spin-off		
<b>Human capital mobility</b>		
Placement schemes between research and industry	2	M <sup>1</sup>
Search for highly specialized R&D personnel	2	M
Search for highly specialized management personnel (e.g. innovation management, knowledge management)	3	M
<b>Networking and clustering</b>		
Supporting and creating business networks (B2B)		
Supporting and creating networks of SMEs and research base (University, research centres)		
Supporting and creating clusters, and promotion of SMEs and research participation		
<b>Assistance in accessing public funding for RTDI activities</b>		
Search for public funding and monitoring of public tenders		
Assistance in accessing funds from EU Framework Programs		
Assistance in accessing funds from EU Structural Funds		

\* Using 5-step scale indicate which of the available services are of interest for the visiting region (5 – indispensable, 4 - high priority, 3 – important, 2 – not needed in the near future, 1 - not relevant). Indicate **M** where service is missing and **U** where service exists but needs to be upgraded, e.g. 5M stands for a indispensable service that is missing in the visiting region.

<sup>1</sup> Only one intermediary is currently developing services for human capital mobility.

Table 3. Services in Cluj S&T intermediation system

S&T intermediation service area and services	CLUJ REGION	
	Available services	Services missing or needing an upgrade in the visiting region*
<b>Collective actions</b>		
awareness raising activities for enterprises (e.g. study visits and conferences)	5	U
awareness raising activities for the scientific community on research commercialization and IPR	5	U
technology watch - analysis of evolution of the technological needs of the region	5	U
collecting and disseminating information on relevant existing technologies	5	U
coordinating and disseminating information on available S&T services for companies	5	U
<b>Support for technological and scientific cooperation</b>		
Technological audit – analysis and identification of needs of enterprises	4	U
Search for regional and national scientific partners for R&D projects	3	U
Search for international scientific partners for R&D projects	5	U
Search for regional and national industrial partners for R&D projects, and S&T support	4	U
Search for international industrial partners for R&D projects, and S&T support	5	U
Technical and legal support for preparing projects/agreements on S&T collaboration	5	U
<b>Support for new product and service development</b>		
Technical assistance for preparing a feasibility study of the product/service	5	U
Assistance for developing a business plan for the new product/service	5	U
Assistance for prototype development (e.g. fast prototyping etc.)	4	U
Assistance for prototype testing	4	U
Support in product launch or service implementation	5	U
<b>IPR and commercialization</b>		
Initial IPR check for products and services before their development	4	M
Assistance in commercialization of industrial research projects, identification of results requiring IPR protection	5	U
Assistance in depositing patents and management of patent portfolio	5	U
<b>Licensing</b>		
Industrial partner search for licensing	5	M
Preparing and negotiating conventions (license agreements)	5	M
<b>Support to innovative start-ups and spin-offs</b>		
Legal support in creating a start-up	4	M
Legal support in creating a spin-off	4	M
Search for private financial partners for start-up/spin-off creation	5	U
Preparing cahier des charges and budget for spin-off creation	4	M
Monitoring and promotion of start-up/spin-off	4	U
<b>Human capital mobility</b>		
Placement schemes between research and industry	5	M
Search for highly specialized R&D personnel	3	U
Search for highly specialized management personnel (e.g. innovation management, knowledge management)	5	U
<b>Networking and clustering</b>		
Supporting and creating business networks (B2B)	5	U
Supporting and creating networks of SMEs and research base (University, research centres)	5	U
Supporting and creating clusters, and promotion of SMEs and research participation	5	M
<b>Assistance in accessing public funding for RTDI activities</b>		
Search for public funding and monitoring of public tenders	3	U
Assistance in accessing funds from EU Framework Programs	5	U
Assistance in accessing funds from EU Structural Funds	3	U

\* Using 5-step scale indicate which of the available services are of interest for the visiting region (5 – indispensable, 4 - high priority, 3 – important, 2 – not needed in the near future, 1 - not relevant). Indicate **M** where service is missing and **U** where service exists but needs to be upgraded, e.g. 5M stands for a indispensable service that is missing in the visiting region.

## 2. Good practices relevant for the visiting region

### 2.1. Good practice assessment

- When assessing relevance and transferability of the practice use 5-step scale where:
  - *relevance*: 5 – key relevance for the whole S&T intermediation system functioning and overall coordination, 4 – relevant for the defined part of the system (e.g. one service area), 3 – relevant for several organisations within the system, 2 – relevant just for one organisation, 1 - not relevant;
  - *Transferability*: 5 - fully transferable; 4 – close to full transferability but few parts need adaptation; 3 –transferable but need of considerable adaptation; 2 – only elements of the practice transferable and 1 - non-transferable.

#### Box 1. Technological springboard

HOSTING REGION: CATALONIA	Title of the good practice	Spring-board
	Main goals	are support units for the creation of knowledge-based enterprises or technology-based enterprises
	Short description (150 words)	Technology springboards are organised as a net. Technology springboards, besides gaining new projects and assess them to turn them into companies, include also a series of initiatives such as: university courses on how to create your own company, former students' reunions to share experiences about the creation of enterprises, contests of business plans, etc. Services: general information to researchers, analysis Business idea, legal assessment, business Plan, support in accessing public and private funds, connections and networking with other economical agents, incubation services
	Final beneficiaries	Catalan universities Companies
	Evidence of success	In 2006: 69 technology-based companies started-up, 21 patents, 443 projects analyzed
	Relevance for the S&T system	The TT Network is the channel to facilitate the transfer of innovative technologies from universities to companies, so that they can help them developing their research projects and, therefore, improve the innovative capability of the Catalan business community. At the same time, it helps the science world to find out what are the technological needs of the private sector.
	Type of implementing organisation	Regional Government
	Budget and resources	No data
	Contact person	Depending on the institutions there are different contact details. In this link you can find this information: <a href="http://www.cidem.com/cidem/cat/comunitats/xtrampolins/directori/index.jsp">http://www.cidem.com/cidem/cat/comunitats/xtrampolins/directori/index.jsp</a>

VISITING REGION: TARTU	Relevance for the S&T system	5
	Transferability	5
	Proposed implementing body	
	Milestones and time horizon	
	Resources for designing and implementing the measure	Political support: Expertise: Organisational capacity: Time: Budget:
	Recommended for pilot?	
VISITING REGION: PRAGUE	Relevance for the S&T system	4
	Transferability	2
	Proposed implementing body	
	Milestones and time horizon	
	Resources for designing and implementing the measure	Political support: Expertise: Organisational capacity: Time: Budget:
	Recommended for pilot?	
VISITING REGION: CLUJ	Relevance for the S&T system	3
	Transferability	5
	Proposed implementing body	UBB/UT Cluj and EWE
	Milestones and time horizon	1 year
	Resources for designing	Political support: Cluj/ Hunedoara County Council Expertise: EWE, Technopolis, Leitat

	and implementing the measure	<i>Organisational capacity: UT and UBB Cluj</i> <i>Time: unlimited</i> <i>Budget: under the universities budget</i>
	Recommended for pilot?	<i>No</i>

## Box 2. Technological Center; Leitat

HOSTING REGION: CATALONIA	Title of the good practice	Leitat
	Main goals	LEITAT focuses its activity on Research and Development (R&D) with the key objective and vocation of obtaining technological solutions to face the demands of the companies by evolving and adapting itself to the constant changing market.
	Short description (150 words)	Founded by local textile industries in 1906, LEITAT is a private technological centre (statute: non profit association financed by companies), devoted initially its activities to help the textile industry. Important technological centre in Catalonia, its purpose is to transfer technologies to enterprises, to develop new products or materials for enterprises and to promote R&D and innovation as sustainable growth for the competitiveness. Since 2004, LEITAT is becoming a European technological platform for the future of textile and clothing. Leit at is divided in five specific units: unit of research; licensing and valorisation unit, prototyping; commercial unit and spin-outs support unit. Its research unit works in several technological fields: nanotech and microtechs; electronics; plasma; composites; biotech and TIC. The sectors of commercialization are: textile; aeronautics, civil-engineering, agriculture, automotive industry, safety and leather and footwear.
	Final beneficiaries	Final beneficiaries are : - the regional enterprises (and also enterprises located in European interested by the services provided by Leit at). the Catalonia region : the creation of value in enterprises increases the competitiveness of companies and consequently of region.
	Evidence of success	1 patent. Leit at has three studies of patents but not registered yet
	Relevance for the S&T system	3

	Type of implementing organisation	TT center
	Budget and resources	Total exploitation income : 4.081.855€ Number of employees : 68 persons
	Contact person	Name: Cristina Barragán Organisation: Leitat Address: Passeig 22 de juliol, Terrassa Email:cbarragan@leitat.org Website: <a href="http://www.leitat.com/">http://www.leitat.com/</a>
VISITING REGION: TARTU	<i>Relevance for the S&amp;T system</i>	4
	<i>Transferability</i>	3
	<i>Proposed implementing body</i>	
	<i>Milestones and time horizon</i>	
	<i>Resources for designing and implementing the measure</i>	<i>Political support:</i> <i>Expertise:</i> <i>Organisational capacity:</i> <i>Time:</i> <i>Budget:</i>
	<i>Recommended for pilot?</i>	
VISITING REGION: PRAGUE	<i>Relevance for the S&amp;T system</i>	4
	<i>Transferability</i>	3
	<i>Proposed implementing body</i>	
	<i>Milestones and time horizon</i>	
	<i>Resources for designing and implementing the measure</i>	<i>Political support:</i> <i>Expertise:</i> <i>Organisational capacity:</i> <i>Time:</i> <i>Budget:</i>
	<i>Recommended for pilot?</i>	No
VISITING REGION: CLUJ	<i>Relevance for the S&amp;T system</i>	5
	<i>Transferability</i>	3
	<i>Proposed implementing body</i>	UT/EWE/County Council
	<i>Milestones and time horizon</i>	1 year

<i>Resources for designing and implementing the measure</i>	<i>Political support: County Council Expertise: Leitat/Technopolis Organisational capacity: EWE Time: unlimited Budget: under the universities and County Council</i>
<i>Recommended for pilot?</i>	<i>No</i>

**Box 3. Universitat Autònoma de Barcelona Research Park (UABRP) Entrepreneurship and Innovation Programme**

HOSTING REGION: CATALONIA	Title of the good practice	Universitat Autònoma de Barcelona Research Park (UABRP) Entrepreneurship and Innovation Programme																												
	Main goals	They were created with the aim of meeting specific needs in important areas of research.																												
	Short description (150 words)	The UAB Science and Technology Park comprises all the research centres and consortia specifically involved in research at the UAB campus. These centres include some that belong to the UAB and others that work in collaboration with other universities and with businesses, and with the Spanish Council for Scientific Research (CSIC). Although the centres work as independent units, they maintain strong links with the rest of the UAB network (faculties, department and services), mutually complementing each other in a unique multidisciplinary environment. Its main areas of investigation include Biotechnology and Biomedicine (including the vital contribution made through the clinical research carried out at associate hospitals), Animal Health, Food Technology and Safety, Environmental Sciences and Technology, Nanotechnology, Microelectronics, Material Science and Engineering, Computer Vision, Artificial Intelligence, Experimental Sciences, Social Sciences, and research in Humanities. This wide range of disciplines all integrated into one area helps to promote multidisciplinary in research.																												
	Final beneficiaries	Faculties, companies																												
	Evidence of success	<table border="0"> <tr><td>Departments</td><td>54</td></tr> <tr><td>Academic and research staff</td><td>2.908</td></tr> <tr><td>UAB research institutes</td><td>5</td></tr> <tr><td>UAB special research centres</td><td>13</td></tr> <tr><td>UAB centres for scientific studies</td><td>3</td></tr> <tr><td>Approved research institutes</td><td>12</td></tr> <tr><td>Interuniversity institutes</td><td>2</td></tr> <tr><td>Research institutes in partnership with the UAB</td><td>12</td></tr> <tr><td>CSIC centres having signed a working agreement with the UAB</td><td>4</td></tr> <tr><td>General technical support services for teaching and research</td><td>10</td></tr> <tr><td>Science and technology support services for</td><td>8</td></tr> <tr><td></td><td>33</td></tr> <tr><td></td><td>41,7 (*)</td></tr> <tr><td></td><td>16,6 (*)</td></tr> </table>	Departments	54	Academic and research staff	2.908	UAB research institutes	5	UAB special research centres	13	UAB centres for scientific studies	3	Approved research institutes	12	Interuniversity institutes	2	Research institutes in partnership with the UAB	12	CSIC centres having signed a working agreement with the UAB	4	General technical support services for teaching and research	10	Science and technology support services for	8		33		41,7 (*)		16,6 (*)
	Departments	54																												
Academic and research staff	2.908																													
UAB research institutes	5																													
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UAB centres for scientific studies	3																													
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CSIC centres having signed a working agreement with the UAB	4																													
General technical support services for teaching and research	10																													
Science and technology support services for	8																													
	33																													
	41,7 (*)																													
	16,6 (*)																													

		research Service-providing laboratories Amount of resources invested in research in 2004 Value of the research agreements assigned in 2004 Number of research agreements signed in 2004	536
	Relevance for the S&T system	4	
	Type of implementing organisation	Public Research centre	
	Budget and resources	No data	
	Contact person	Name: Sònia González Organisation: Universitat Autònoma de Barcelona Address: Edifici A - Campus de la UAB, Bellaterra Email: <a href="mailto:sgonzalezg@uab.es">sgonzalezg@uab.es</a> Website: <a href="http://www.uab.es">www.uab.es</a>	
VISITING REGION: TARTU	<i>Relevance for the S&amp;T system</i>	5	
	<i>Transferability</i>	4	
	<i>Proposed implementing body</i>		
	<i>Milestones and time horizon</i>		
	<i>Resources for designing and implementing the measure</i>	<i>Political support:</i> <i>Expertise:</i> <i>Organisational capacity:</i> <i>Time:</i> <i>Budget:</i>	
	<i>Recommended for pilot?</i>		
VISITING REGION: PRAGUE	<i>Relevance for the S&amp;T system</i>	4	
	<i>Transferability</i>	1	
	<i>Proposed implementing body</i>		
	<i>Milestones and time horizon</i>		
	<i>Resources for designing and implementing the measure</i>	<i>Political support:</i> <i>Expertise:</i> <i>Organisational capacity:</i> <i>Time:</i> <i>Budget:</i>	
	<i>Recommended for pilot?</i>	No	
VISITING REGION: CLUJ	<i>Relevance for the S&amp;T system</i>	5	
	<i>Transferability</i>	3	
	<i>Proposed implementing body</i>	County Council/ UBB/ UT	
	<i>Milestones and time horizon</i>	3 years	

<i>Resources for designing and implementing the measure</i>	<i>Political support: County Council Expertise: Techopolis/ EWE Organisational capacity: County Council Time: unlimited Budget: County Council/ Structural Funds/ National Budget</i>
<i>Recommended for pilot?</i>	<i>No</i>

## 2.2. Suggested pilot actions

### 2.2.1 Suggested Pilot Action for Tartu

#### Box 4. Technological Springboards

Title of the pilot	Technological spring-boards
Main goals	Additional way to connect higher educational institutions with industry and enterprises. To facilitate the product development process taking part in enterprises with the help of competence existing in universities. Through this activity students gain knowledge about the companies and it may help them to be more entrepreneurial in the future.
Short description (150 words)	Teams consisting of interdisciplinary students and mentor will solve the problems or tasks given to them by enterprises. These tasks and problems may be connected with analysing the business plan/idea, design of the product, entering the markets, or other phases of product development. If the additional competence is needed some external experts or other universities will be involved.
SUPER-SME good practice	Yes
Final beneficiaries	Enterprises, and involved students and intermediaries
Success criteria	Number of springboards in a year (including analysis of 5 business plans) Cooperation activities between universities
Duration	3
Milestones	Create the structure of springboards by the September 2008 Springboards activities – September 2008 until August 2010
Proposed implementing organisation	Technological Institute of Tartu University Entrepreneurship Center
Budget and resources	Budget: 150 000 euros

## 2.2.2 Suggested Pilot Action for Prague

### Box 5.: Association/network of S&T intermediaries in Prague

Title of the pilot	<b>Association/network of S&amp;T intermediaries in Prague</b>
Main goals	<ul style="list-style-type: none"> <li>- to promote continuing education, professional standards and co-operative communication among S&amp;T intermediaries in Prague</li> <li>- to initiate market research regarding intermediary services and ensuring data availability</li> <li>- to develop a concept of Business Intelligence</li> <li>- to communicate the needs and goals of S&amp;T sphere with regional authorities</li> <li>- to represent S&amp;T sphere in the Regional Council for Innovations foreseen in the Regional Innovation Strategy for Prague</li> </ul>
Short description (150 words)	<p>Association would have “founding” members and then other members with an obligation to pay a regular membership fee that will serve as a financial source to cover part of association’s activities. A general condition of the membership will be proven and established contacts (i.e., information flow, consultancies, project implementation, transfers) between the research base and the business sphere. Members could be specialized technology transfer organizations, non-technological intermediaries, BICs, interface units at universities etc.</p> <p>Its mission will be to develop intermediary services, mainly those specialized on specific branches.</p>
SUPER-SME good practice?	No
Final beneficiaries	<p>Direct beneficiaries:</p> <p>Intermediaries</p> <p>Indirect beneficiaries:</p> <p>SMEs, universities, research centres located in the Prague region</p>
Success criteria	<ul style="list-style-type: none"> <li>• increase in co-operation between R&amp;D sphere and SMEs,</li> <li>• set-up of a well-arranged system of intermediation services (offer)</li> <li>• number of SMEs using intermediation services (demand)</li> <li>• establishment of Regional Council for Innovations</li> </ul>
Duration	Establishment by 2008, then operating indefinitely, depending on demand for services, financial resources etc.
Milestones	<ul style="list-style-type: none"> <li>• Establishment of the association/network (rules, fees, code of conduct, long and short term work plan etc.)</li> </ul>

	<ul style="list-style-type: none"> <li>• Set-up of management structure (if applicable)</li> <li>• Preparation of a general offer of services</li> <li>• Development of communication tools (website, communication strategy, marketing of services, awareness raising activities and so on)</li> <li>• Development of educational activities (trainings, seminars)</li> <li>• Set-up of a framework for evaluating actions and work plans</li> <li>• Establishment of national and international contacts</li> <li>• Diversification of services (“sector horizon”)</li> </ul>
Proposed organisation	implementing new association of legal persons
Budget and resources	Unknown

### 2.2.3 Suggested Pilot Action for Cluj

#### Box 6: Cluster on Solar energy

Title of the pilot	Solar Energy Network/Cluster Contherm-Technical University Cluj (UT)
Main goals	To create a network between companies and universities in the Solar Thermal and Photovoltaic system with the aim of R&D and commercialisation
Short description (150 words)	The UT Cluj has started the R&D on Solar Energy but with no focus on commercialisation of results. Contherm has started to develop their own products but needs more R&D support.
SUPER-SME good practice?	<b>Tombak Solar/ Catalan Innovation system/ Biotech Cluster Catalonia/ Clusters Catalonia/ Innovation Pole Central Macedonia (Greece)</b>
Final beneficiaries	SMEs Universities
Success criteria	A contract establishing the network/ Product Launched
Duration	Ongoing ( unlimited duration)
Milestones	-Signing a letter of intention between stakeholders -Media Announcement -Signing a Contract between stakeholders -Management team approved -Technical Team approved -Intermediary and Final R&D results -Prototype tested -Solar Keymark obtained -Product launched

Proposed implementing organisation	Contherm/ UT Cluj/ EWE
Budget and resources	HR resources put at the disposal by stakeholders/ Budget: own resources/ Structural Funds/ Other EU and national programmes/ Loans

### **3. Main conclusions from the visit and next steps**

#### **3.1. Visiting region**

##### **3.1.1 Region of Tartu**

The study visit gave a good overview of the intermediation system in Catalonia. There were many presentations describing the public support system of Catalonia – S&T environment, issues concerning entrepreneurship and technology parks. On the bases of those presentations several differences and similarities in S&T intermediation systems between Estonia and Catalonia appeared.

Universities in Estonia are not as entrepreneurial as some universities in Barcelona area. One very interesting case for Estonia was the visit to Univesitat Autónoma de Barcelona Research Park and their program for entrepreneurship and innovation. From this program several services essential to starting and innovative companies are provided.

The UAB Research Park (UABRP) is a joint venture between Higher Education Institutions and research and development institutions. UABRP hosts a large number of national research centres and institutes and the concept of Business Incubators is quite interesting. The incubators are located inside the research units and at the same time there is joint management and marketing of the UABPR's Business Incubators. Also the cooperation activities with some of the industry sectors and research hospitals are well established. Therefore this university is focused on turning ideas into innovations. In Estonian universities entrepreneurial attitudes are not endorsed sufficiently.

One other difference is the dedication to development of clusters. Clusters are considered to be very important for the development of the region in Catalonia. Besides the development of clusters the Catalan region is also active in branding clusters. They increase the public knowledge and awareness about the clusters systematically. In Estonia the development of clusters is not considered as important and therefore the activities in this area are quite hectic. The branding activities are not considered to be important.

The process of product development from idea to prototype is also more supported by different services and financial resources in Catalonia. In Estonia the concept development phase is under-financed. There is not enough seed capital. Also the phase of prototype testing is not covered enough by financial resources.

The similar problem in both countries is the fear of brain drain. It might be caused by the development phase of the countries' economy.

In conclusion the development of the intermediary system is more advanced in Catalonia than in Estonia because in Catalonia the processes needed to solve existing problems started earlier than in Estonia. At the same time the factors/problems hampering the innovation process are quite similar in both regions.

Key solutions and good practices coming from the study visit and relevant for Estonia are the following (a longer description of these solutions and practices is presented in sub-section 2.1 and 2.2.):

- Technological spring-boards,
- Technological Center, Leitat,
- Universitat Autònoma de Barcelona Research Park (UABRP) Entrepreneurship and Innovation Programme.

### **3.1.2 Region of Prague**

The study visit to Catalonia has furnished us with good information about the S&T situation in the respective Spanish region. We have learned about the wide cooperation of the universities with the industry, we have been informed how successfully the new inventions and technologies are transferred from the academic sphere into praxis, we have seen how the science-technological parks work, we have acquitted ourselves with the successful branding clusters. It is obvious that the cooperation between the research and business sector is excellent in the Catalonia region. We have especially admired what has been achieved in the Universitat Autònoma de Barcelona Research Park. The acquired pieces of knowledge, their experience and findings will help us in our efforts with improving further the S&T situation in the Prague region.

In the Czech Republic, the universities and science institutions are passing through the significant transformation: Their pedagogic and research activities must be rebuilt in a way to assist more and wider to the needs of industry – therefore, they have started their active entrepreneurship and innovation programmes. At the head of these efforts are the Czech Technical University in Prague - CTU and the Academy of Science of the Czech Republic – ASCR.

The Business and Innovation Centre of CTU was founded in May 1991, as the first such centre in the Central and Eastern European Countries. In 1992, it was accepted as a full member of the European Business and Innovation Centre Network (EBN). The Centre is a member of the Science and Technology Parks Association of the Czech Republic and of the Economic Chamber of Prague. The Centre has also very close co-operation with the Association of Women Entrepreneurs and Managers of the Czech Republic and with the Central Bohemia Regional Development Agency. It also has working links with a number of other organisations. The Centre has been entitled to use the Logo of Quality E. C. BIC from 2004.

BIC-CTU supports, through its relatively complex and high-quality innovation infrastructure and services, innovation entrepreneurship in Prague and in the Central Bohemia Region. It initiates and intermediates technology and knowledge transfer from CTU to companies and helps with the transformation of R&D results to commercial practice. BIC takes part in a wide range of national and international projects. BIC-CTU has three departments: Dept of Transfer of Technologies and Innovations, Dept of Patent Service, and Business Incubator.

Very important activities have been started by the Czech Technical University in Prague, in cooperation with the Institute of Chemical Technology Prague, and the Czech University of Life Sciences Prague - namely the establishment of a Science and Technology Park Central Bohemia. The foundation of the CTU Business Incubator is

the first step on this way. Unfortunately, these efforts are not financially supported by the City of Prague. Neither banks are interested in the venture, at present investing their funds mostly in the construction of houses and flats.

The technology transfer is an important activity of Technology Centre. It contributes to commercial exploitation of research results and to implementation of innovation in practice with the aim to increase competitiveness of the industry while observing the principles of sustainable development. Technology Centre focuses on cooperation with research institutes and industrial enterprises, especially the small and medium innovative ones.

As concerns the branding clusters in Prague and in the Central Bohemia Region, not too much organized attention has been paid to their development. No special policy has been introduced to create such clusters on an organized basis. This does not mean that such clusters do not exist: However, companies create commercial links and alliances according to their needs and alignment and according to their own consideration and business programmes.

Nonetheless, other type of clusters does exist, based on the cooperation of the university faculties or departments with industry and business.

As the matter of fact, in the City of Prague, as well as in the Central Bohemia Region, the economic and professional situation of companies, even of the small and medium ones, is good, many have started a cooperation or partnership with the international companies, and the Czech firms do not exert an accentuated pressure on the academic institutions to provide them with a new or specific know-how. Even the Czech ministries – that of industry and business or that of education – until recently did not lay too much weight on the need of a more profound cooperation between universities and industry.

### **3.1.3 Region of Cluj**

The presentations holded in the study visit were of great interest for the participants from Cluj. It showed that there are still efforts to be made in the regional and nation innovation system in order to be developed. It gave to participants a view on the whole innovation system but also showing particular cases of successes and learning what has not worked. There are good examples which could be easily transfer and other due to the particularities in the Romanian innovation centres which are should be adapted.

Even if the participants form the Cluj county were from different sectors, all of them found ideas and actions which could be implemented. Therefore, in the follow up meeting in Cluj actions were identified to be taken as next steps.

- Aries Transilvania will analysed the functioning of Fundited in order to develop similar services
- Brinel will start creating a TT centre
- Cluj County Council will identify new priorities for the County Innovation Strategy
- Electroalfa will participate in technological audits
- EWE will develop a so called “Innovation House which would like to be a Innovation raising network in Cluj and Hunedoara.

-And as pilot action Contherm and Technical Universities Cluj will develop the network Cluster in Solar Energy.

Moreover, as a next step it is foreseen to organise a workshop in Hunedoara to present the developments made in the Cluj innovation system and proposed an action plan for them.

### **3.2. Hosting region**

In general, the services offer in term of support knowledge and technological transfer is wide and good quality, but the Catalan technological system is fragmented.

The Catalan technological transfer model is based on similar European regions model with two main objectives: to enhance the business creation channel based on the exploitation of academic knowledge and to optimise the market-pull channel (the set of agents that support businesses projects through the transmission of the technology and knowledge contained in the university and research centre system). Several networks have been significantly enhanced the coordination of existing agents. The Catalan model is based on consolidation of links between S&T agents.

An interesting point for us has been to understand one Catalan measure to support the valorisation of research inside the university with the case of the Autonomous University of Barcelona (UAB).

The second studied case was the Leitat technological centre. One interesting point regarding Leitat is the position of this technological centre as private centre financed by companies and functioning as company selling S&T services to enterprises.

- In order to improve the efficiency of further meetings it would be crucial to have a previous process of communication between the host and visiting regions to highlight the areas of interest before the actual study visit takes place. In this manner the hosting region will be able to deliver a more efficient approach toward the information provided as well as the use of relevant experts and experiences in the domain of interest of the different mentees.

Annex 1.

Summary table: overview of good practices for Tartu.

Acronym / short title	Main goals	Final beneficiaries	Relevance for Tartu	Transferability for Tartu
Spring boards	support units for the creation of knowledge-based enterprises or technology-based enterprises	entrepreneurs	5	5
TT Center	vocation of obtaining technological solutions to face the demands of the companies by evolving and adapting itself to the constant changing market	the regional enterprises	4	3
Entrepreneurship & innovation programme	Meeting specific needs in important areas of research	entrepreneurs	5	4

\* 5-step scale where 5 – key relevance for the whole S&T intermediation system functioning and overall coordination, 4 – relevant for the defined part of the system (e.g. one service area), 3 – relevant for several organisations within the system, 2 – relevant just for one organisation, 1 - not relevant

\*\* 5-step scale where 5 - fully transferable; 4 – close to full transferability but few parts need adaptation; 3 –transferable but need of considerable adaptation; 2 – only elements of the practice transferable and 1 - non-transferable

Summary table: overview of good practices for Prague

Acronym / short title	Main goals	Final beneficiaries	Relevance for Prague	Transferability for Prague
Spring-board	support units for the creation of knowledge-based enterprises or technology-based enterprises	Entrepreneurs	4	2
TT Center	vocation of obtaining technological solutions to face the demands of the companies by evolving and adapting itself to the constant changing market	the regional enterprises	4	3
Entrepreneurship & innovation programme	Meeting specific needs in important areas of research	entrepreneurs	4	1

\* 5-step scale where 5 – key relevance for the whole S&T intermediation system functioning and overall coordination, 4 – relevant for the defined part of the system (e.g. one service area), 3 – relevant for several organisations within the system, 2 – relevant just for one organisation, 1 - not relevant

\*\* 5-step scale where 5 - fully transferable; 4 – close to full transferability but few parts need adaptation; 3 –transferable but need of considerable adaptation; 2 – only elements of the practice transferable and 1 - non-transferable

Summary table: overview of good practices for Cluj

Acronym / short title	Main goals	Final beneficiaries	Relevance for Cluj	Transferability for Cluj
Spring-board	support units for the creation of knowledge-based enterprises or technology-based enterprises	Entrepreneurs	3	5

TT Center	vocation of obtaining technological solutions to face the demands of the companies by evolving and adapting itself to the constant changing market	the regional enterprises	5	3
Entrepreneurship & innovation programme	Meeting specific needs in important areas of research	entrepreneurs	5	3

\* 5-step scale where 5 – key relevance for the whole S&T intermediation system functioning and overall coordination, 4 – relevant for the defined part of the system (e.g. one service area), 3 – relevant for several organisations within the system, 2 – relevant just for one organisation, 1 - not relevant

\*\* 5-step scale where 5 - fully transferable; 4 – close to full transferability but few parts need adaptation; 3 –transferable but need of considerable adaptation; 2 – only elements of the practice transferable and 1 - non-transferable