

INNOVATION THROUGH BUSINESSES AND UNIVERSITY/RESEARCH INSTITUTES COOPERATION – TIMISOARA STUDY CASE

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In the general context of economical globalization, the crucial role for economical development is innovation. Economic growth of national economies depends on their effectiveness in creating, diffusing and implementing new knowledge. The Bologna Charter on SME policies, adopted in June 2000, recognises the vital contribution of innovation to SME competitiveness, the central role played by SMEs in national innovation systems and the importance of improving access to information, financing and networking in facilitating the innovation process. In this respect, Romania cannot afford to stay out of different initiatives able to facilitate technological transfer and development of new, dynamic small companies acting in the field of high-tech.

As one of the most important university centres in Romania, Timișoara has the necessary human resources for developing one of the most dynamic economical fields – the software industry. There are four faculties acting in the field: 3 faculties of the „Politehnica” University (Automation and computer science, Electronics and telecommunications and Electrotechnics) and one of the West University (Mathematics-informatics). Those faculties are producing about 500 graduates each year, most of them being immediately employed by the important companies acting in the field (Siemens, Alcatel, Zoppas, Caatoosee, Solectron, etc). However, there are still graduates that cannot be absorbed by the market, as well as graduates that prefer to start their own business in the field.

The developed countries – USA, Canada, Germany, France, etc – have coherent policies for attracting IT specialists, the ones from Romania being between the most looked-up on the international labour market, together with those from India and Bulgaria. As a result, we can notice a very annoying migration of the young graduates from this field towards countries in the Western Europe and America.

At the same time, the salaries paid by the software companies are much higher than the average income in higher education. This fact makes it very difficult to keep a high qualified teaching staff in universities, which is essential for maintaining the quality of the educational process.

The local authorities, in co-operation with the universities management teams have the duty to elaborate and to implement policies for the strategic development of the communities they represent, they have to apply coherent programs able to stimulate the retention of the valuable human resources inside the community.

On the other hand, local authorities' support for business start-up represents a key factor for creating more jobs and reducing the unemployment rate inside the community. However, the high indirect costs (staff, administrative, the numerous taxes and other financial duties), as well as the unclear and unstable legislation system are frequently discouraging entrepreneurial initiatives. This is the reason why, the implementation of different local programs envisaging creation of new businesses is very necessary.

Consequently, a partnership between the Timisoara City Hall and „Politehnica” University of Timisoara proposed a project for setting up a „University Business Incubator”, in the view of giving support to the start-up and development of small companies working in the software industry.

The main scope of realizing the incubator is to keep in Timișoara as many young university graduates of high technology specialisations as possible, especially in the software field. The general objective of the project is to provide assistance for the young graduates in order to establish small companies in the field of software production. The software business incubator and technological transfer centre in Timisoara is intended to stimulate the beginning of research and production activities for young graduates or PhD students leaving the Timisoara universities.

This initiative is according to the general economical and social development strategic concept for the Timisoara area – 2000 (a strategy for 7-10 years). The strategic direction II states:

- as objective 1, subobjective 1.1, measure 4: *“Setting up structures for innovation / application of new technologies (technology transfer centres, technological parks, virtual parks, etc)”*
- as objective 2, subobjective 2.2, measure 1: *“Setting up of business incubators in order to encourage the start-up of companies”*

The initiative is also part of the national policies envisaging encouragement of the development of technological parks and technology transfer centres, that are promoted in the last period by the Romanian Government, according to international practices in the field.

The project has been initiated by the Timișoara City Hall, which – knowing the remarkable results in the field obtained by Germany – asked in 2001 for the know-how from German experts. The subject has been included in the cooperation program running with IBD/GTZ (the programme of the German government for economical promotion and labour force development). In November 2002, as a result of the discussions between the Timisoara Mayor and Mr. Manfred Mayer, State Counsellor at the Bavarian Chancellerie and the coordinator of the Software Campus in Munich, a seminar for presenting the German practices in the field has been organised. During this seminar, the most important software companies from the region underlined the necessity to implement this concept in Timișoara. Starting with the spring of 2002, the activities for implementing the project „SOFTWARE BUSINESS INCUBATOR AND TECHNOLOGY TRANSFER CENTRE – TIMIȘOARA” started, in cooperation

between the Timisoara City Hall and „Politehnica” University of Timisoara. At the beginning of March 2003, the Timiș County Council also adhered to this partnership.

The proposed concept envisaged creation of working locations, with the necessary technical infrastructure, as well as a minimal services package and common facilities (secretarial, consultancy for starting a business, photocopier, retro/video projector, computer, software) for the small companies founded by students or young graduates in the field of software.

The location for the incubator has been identified and offered by the „Politehnica” University of Timisoara in its own premises located at the third floor of the building on the Republicii Blv, nr. 9. The location is near the city centre, while the activities running at the other floors (Distance Education Study Centre, Department for Continuing Education, software laboratories of the university, other IT companies – Zoppas, counselling and advocacy) are making the location even more attracting.

The total surface used for the incubator is about 400 m², from which:

- 20 m² for the reception (secretary, telephone, fax, photocopier)
- 20 m² for the administration
- 360 m² for the new companies.

The university also offers a 40 m² room for organising seminars, meetings or conferences.

The architecture of the building (based on concrete structure) allows creation of a flexible structure of 20 m² compartments. It is intended to rent one, maximum two modules for a company, making it possible to host 9 to 18 small software companies.

In order to provide the optimal conditions for the functionment of the incubator, the following works were necessary:

- technical infrastructure (Internet connection, telephone network connection, computer network) – all those works being financed by the „Politehnica” University of Timisoara;
- rehabilitation and recompartment of the existing surface – 400 m² – works financed by the Local Council, County Council and IBD/GTZ;
- purchase of equipment and necessary software licences (telephone-fax, photocopier, projector, etc.) – financed by the „Politehnica” University of Timisoara or obtained through donations from different companies.

As the objective of the project is to give assistance for starting a small business in the field of software development, it is intended to partly subsidize the costs. The rent costs for the offered space inside the business incubator is to be subsidize partly by the partners, the companies having to pay only 1.5 euro/m²/month (compared to the real costs of 6 euro/m²/month). The costs of premises for the common spaces (reception and administrative office) will be covered by the partners, the companies having to pay only for the utilities corresponding to their own spaces). The heating system of the building

has been recently rehabilitated by the „Politehnica” University, so that the cost of the utilities is presently relatively low.

From the international practices it has been seen that only the availability of an adequate space is not enough to stimulate the start of the young graduates or PhD students’ activity. The proposed incubator should become a part of the local strategy to encourage the IT development, which is envisaged to be developed in parallel and in connection with the incubator. In this sense, the incubator will offer some other services (reception, secretary office, relation with the clients, consultancy for business start-up – marketing, legislation, taxes, insurances), common equipment (photocopier, retro/video projector, computers, software), rooms for meetings and conferences.

The administration of the incubator will be done by a commercial society created for this exclusive purpose, that follow to be established by the associates. It is estimated to be necessary to hire an administrator and a secretary, as a minimum of personnel for starting the activities. The administrative and staff costs are at the minimum and will be supported by the partners.

The total of the necessary costs for the realisation and functioning during the first three years of the *SOFTWARE BUSINESS INCUBATOR AND TECHNOLOGY TRANSFER CENTRE – TIMIȘOARA* are estimated at about 169,350 euro, allocated on cost categories according to the following table:

		Compa- nies	County Council	Local Council	P.U.T.	IBD / GTZ	TOTAL
1	Space renewal		16,250	16,250	6,000	7,500	46,000
2	Rent for 3 years	11,520	23,040	23,040	28,800		86,400
3	Equipment				2,750		2,750
4	Utilities costs (300 EUR/month, 3 years)		5,400	5,400			10,800
5	Other services		2,700	2,700			5,400
6	Manager (350 EUR/month)		3,150	3,150		6,300	12,600
7	Secretary (150 EUR/month)		1,350	1,350		2,700	5,400
	TOTAL	11,520	51,890	51,890	37,550	16,500	169,350

The value of the local cofinancement is taken in equal parts by the local authorities (32,88% Timisoara Local Council and 32,88% Timis County Council), the „Politehnica” University of Timișoara taking 23,79% of the costs (the majority from reducing the renting costs of its premises), while IBD/GTZ will be taking 10,45% (contribution to the staff costs and too the space renewal). Those values are increased by the incomes from the rent paid by companies located into the incubator, which is 1.5 euro/m²/month.

The calculations took into consideration an average use of the space dedicated to the small companies of about 60%, that is:

- 5 modules of 20 m²/module during the first year;

- 10 modules of 20 m²/module during the second year;
- 16 modules of 20 m²/module during the ththird year.

This minimum rate of usage is covering the initial risks of the associates. The supplementary incomes to be attracted from donnors or through governmental or international projects haven't been took into consideration, even that this will be one of the tasks of the administrator.

Another initiative joining together the local authorities and "Politehnica" University of Timisoara is the project called "Scientifical and Technological Park – IT Park Timisoara". The partnership for this project is formed by 2 universities ("Politehnica" University of Timisoara and the West University of Timisoara), 2 local authorities (the Timisoara Municipality Local Council and the Timis County Council), as well as a research institute (e-Austria).

The basic ideas about such a project arised through a cooperation between the "Politehnica" University of Timisoara and Oulu Polytechnic / Oulu Institute of Technology, started in 1995, through a Tempus Phare project, finncanced by the European Training Foundation. Since then, the cooperation extended through other European projects, that gave the possibility for student and staff exchanges, for practical placements in companies and cooperation in the production of on-line teaching materials and other multimedia applications.

In November 1996, a group of teachers from the "Politehnica" University of Timisoara, including prof.dr.eng. Ioan Cartis, Rector, prof.dr.eng. Nicolae Robu, Vice-Rector and prof.dr.eng. Alimpie Ignea, Dean of the Faculty of Electronics and Telecommunications Engineering have visited Oulu Polytechnic. On this occasion, a bilateral agreement of further cooperation between the two institutions has been signed.

On the same occasion, the Romanian group visited Oulu Technological Park and other Finish companies working in the field of the information technology. They have been learning about the concept of Technological Parks, about their set-up and administration. Further discussions on this subject took place during the visit at the Oulu City Hall.

As a result of this visit and other international contacts, "Politehnica" University of Timisoara establishes as one of its priorities in the community cooperation, to get the implication of the Romanian local and regional authorities in setting-up a Technological Park in Timisoara. Unfortunately, at that moment there was no proper legislation adopted by the Romanian Parliament, in order to give the legal background and the facilities that are necessary for establishing such a park. Finally, at the beginning of 2000, a law has been adopted by the Parliament, making it much easier to realize such a project.

The Timis County Council, the Timisoara City Hall and the Regional Development Agency have agreed to participate to such a project and they have included the project on the Phare list for European support, with an ammount of 2.4 MEuro.

In October 2000, a workshop took place at Timisoara City Hall, moderated by Regionomica Berlin. A decision arrived that the Technological Park should be focused on Information and Communication Technology. The City Hall found a possible location for the Park, quite near the University campus. "Politehnica" University of Timisoara was ready to allocate some space in its own premises for starting a business incubator for new small private companies (project already finalised as showned above). At the same time, the university cooperated in planning the park with its expertise and knowledge about other similar parks in Europe, such as Oulu Technological Park and the Technological Park "Sophia Antipolis" in Nice, France.

A consortium has been established for preparing the Pre-feasibility study for the Timisoara Tachnological Park project. This consortium involved the Timis County Council, Timisoara City Hall, the Regional Development Agency, Timisoara Development Agency, "Politehnica" University of Timisoara, the University of West in Timisoara, the Timisoara Chamber of Commerce, Industry and Agriculture and some other research organisations. For the feasibility study, where the participation of European experts was needed, Timisoara City Hall received from the Karlsruhe City Hall, the offer of participation of some German consultancy companies. At the same time, there were signals regarding the intention of some German institutions to make an investment in the planned park. The feasibility study was prepared until January 2001.

After the aproval of the feasibility study, the consortium has been legally established in order to form the company charged with the administration of the park. The administration council of this company is formed by one representative from each legal entity in the initial consortium.

At this moment, the park is in construction, the oficial opening of the main premises being due to this autumn.

We appreciate that the finalization of these two initiatives, together with other similar ones to be promoted in the near future is of great benefit not only for Timisoara, but for all the west part of Romania. The main profits could be:

- the development of high technology applications;
- stimulation of the software deevlopment companies;
- diminuation of the unemployment;
- stimulation of young graduates to stay in Romania and in the region;
- encouragement of the development of the small companies, the driving force of a healthy economy.