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1. Overview of the initiatives/strategies

a) "Strategic Concept of Economic and Social Development of the Timisoara Zone" (2000) – the first strategic direction "Creation of an attractive and moral business and innovation medium" provide a correlation of the research thematic and the training activities with the needs of the region, partnership stimulation in order to facilitate the cooperation between universities and local communities.

The second strategic direction refers to an objective entitled "Stimulation of specific activities and the scientific research institutions in accordance with the needs of the sustainable development of the zone". This objective provides the creation of innovation-application structures in new technological fields (Technology Park, technology transfer center etc.), local partnership creation, using of renewable energies, creation of a Zonal Financial Found for Innovation and Technological Development.

b) "Feasibility study for the creation of a Technology Park" elaborated by Timis County Agency for Economic-Social Development (ADETIM) in cooperation with the academic medium.

c) Project in progress entitled "Regional Innovation Strategy of the 5th Vest Region" (RIS) financed by the European Commission and coordinated by Regional Development Agency V Vest (ADR V Vest).

The project consisted in three stages:
-Creation of a management structure with a large regional participation (12 month),
-Analysis of regional companies needs (12 month),
-Development and implementation of an Regional Action Plan (8 month)

The consultant is the Spanish company INFYDE and the partner regions are the Aragon Region (Spain), the Lazio Region and the Puglia Region (Italy). The project is now in the last stage of realization. Some actions in order to prepare SMEs in the field of innovation were performed, two Annual Regional Forums were organized, 25 SME were visited for an interview to know the attitude in respect to innovation, the relation with universities and institutes, the knowledge of the research offer etc. More than 20 interviews were performed in institutes to find out the relation with SMEs, how the needs of the SME's are known etc.

The launch of three pilot projects, the principal regional strategic directions in the field of innovation and technology transfer and the creation of an Innovation and technology Transfer Centre, are foreseen.

d) Examples of innovative activities.

d.1. A number of SMEs in the region take notice of the fact that a new opportunity is on the Romanian market in changing the metal tubes with plastic tubes in the field of water and gas transportation.
The necessity of qualification and certification of the welders and the welding procedures were used by ISIM (National R&D Institute of Welding and Material Testing Timisoara) to offer these new services as an innovative activity.

d.2. Romanian companies, making export of welded structures in the EU, needed the qualification and certification of welders and of companies according the European standards EN 287, EN 288, EN 729, EN 473. At ISIM, initially with the support of partners from EU (SLV Munchen, DGZFP Berlin), training courses for European Welding Engineers (EWE) and for nondestructive testing operators were organized. These are innovative activities adapted to the needs of Romanian companies. In the mean time, more than 100 in Romania and Serbia were certified according EN 729. The EWE training courses have been exported also in Serbia and the Republic of Moldavia.

d.3.Design and fabrication of innovative welding equipments for companies, financed by projects worked out in the frame of the National Plan for Research, Development and Innovation (PNCDI) coordinated by the Ministry of Education and Research. In this framework an innovative equipment for repairing tramway wheels by welding, to by use in a local transport company, were fabricated.

d.4. Development in ISIM, in cooperation with other national actors in the technical field, of innovative activities for the evaluation of rest live of power plant components.

All these examples are typical for innovative activities: implementation of new ideas in form of practical applications on the marketplace.

2. What are the major difficulties in linking these two sectors?

From the interviews in the companies and in the institutes (RIS Project) it could be seen that the research offer do not touch the SME's needs (reciprocal ignorance).

Interview results – SMEs side:

- Only 29% of the SMEs recognize innovation as principal competition advantage,
- 49% of the SMEs consider that consulting companies are better than universities and research institutes in offering innovation services,
- the innovation activities in SMEs are performed rather when a market demand is available,
- good cooperation of SMEs can be reported with:
  - Cambers of commerce (50% of SMEs)
  - Public administration (33% of SMEs)
  - Consultants (25% of SMEs)
- Principal obstacles in implementation of innovative activities:
  - too high needed investments in research activities,
  - insufficient information about financial sources for innovation,

-insufficient information about support infrastructure of innovation,

- Principal actions in order to solve the problems of SMEs:
  -reduction of the burden of taxes,
  -simplification of the procedures imposed to SMEs
  -stability of legislation
  -implementation of clear rules concerning rights and obligations in commercial transactions
  -better links with research institutes in order to access financial sources
  -cooperation with universities and technology transfer consulting companies for access to innovation founds.

Interview results – research side:

- 30% of the research institutes are big and 50% are medium sized
- the offer of research units:
  -problem solving of companies (applied research, design of equipment, new production equipment etc.)
  -technology transfer of existing solutions (former research activities)
  -problems diagnosis (technology analysis, new market needs etc.).

3.Assesment of the effectiveness of existing services

The analysis of the interviews was relevant for the fact that the institutes do not know the needs of the SME's and the SMEs do not know the offer of the institutes. In addition, the SMEs ignore the innovation financing opportunities (European projects, PNCDI projects, ADR projects etc.). The culture of innovation is in the companies generally unknown.

The efficient structures promoting cooperation between SMEs and institutes/universities are missing.

4. How can innovation policy increase SME/cluster growth?

The understanding of how innovation takes place has changed over the years. The management of innovation is now seen as process insight the companies with outsight assistance.

A study by the European Commission's Directorate-General for Enterprise, "Innovation management and the knowledge-driven economy", aims at a comprehensive review of available management methodologies designed to support innovation, known as innovation management techniques (IMTs). The Universidad Politecnica de Madrid is leading out the study.

See below some ideas from this study:

"Special criteria are employed to assess each of 26 IMTs with respect to its focus on knowledge economy drivers – the consideration that lies at the heart of the study. The analysis permits the most relevant IMTs to be grouped in ten different categories:

- *knowledge management*
- *market intelligence*
- *co-operative and networking*
- *human resources management*
- *interface management*
- *creativity development*
- *process improvement*

- *innovation project management*
- *design management*
- *business creation*

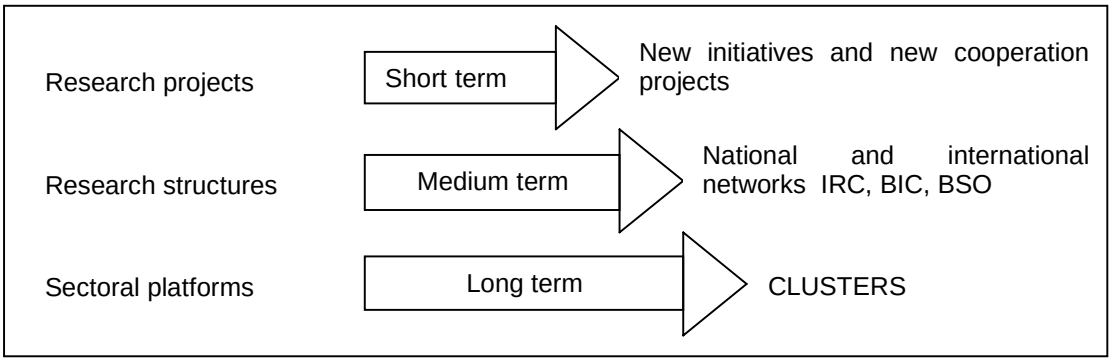
The practical application of the IMTs requires a careful mix that takes into account the individual circumstances of each firm, however.

The study singles out four agents as the main drivers of the innovation management culture:

-academic centres,
-business schools,
-consultancy firms,
-business support organisations (BSOs)"

*From **Innovation & Technology Transfer**, November 2003, published by the European Commission, Directorate General for Enterprise.*

The implementation of innovation culture can be donning stepwise with actions of short, medium and long term:



The challenge is to transpose research in products and services which we can sale.

Possible actions:

- Presentation, within the SME's associations, of the financing opportunities existing in the frame of PNCDI and FP6 of European Union,
- Creation of sectoral platforms (e.g. around ISIM TIMISOARA: details)
- Encouraging the development of consulting firms,
- Organisation of courses on innovation project management in SMEs,
- Consumer needs stimulation for quality products,
- Creation of researcher multidisciplinary networks via virtual institutes which stimulate cooperation,
- Understanding of the fact that innovation takes place in companies with the support of academic medium,
- Creation of Technology Parks as support of firm clusters.