

## **Organization of the Black Sea Economic Cooperation**



### **TECHPARK**

**Study of Science and Technological Park Activities as a  
Black Sea Regional Pole of Development**

Final Report

**Project Leader:** Patras Science Park (Greece)

**Participating Members:**

- **Technology Transfer Center, Moscow State Technological University “STANKIN” (Russia)**
- **Human Resources Training Centre at University “POLITEHNICA”, Bucharest (Romania)**

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## **1. Introduction**

The cooperation of BSEC countries has been increasing rapidly during the last years. Black sea comes out to be a crucial region at the intersection of European Union, Balkans, Central Eastern Europe, Asia, NIS countries and Caucasus.

This region is special because of the **high potential in economy, culture and politics**. It presents a unique diversity of cultures and traditions which influence the life in the region. Within the Black Sea region national governments often state the necessity to turn for the economy to become more innovative expanding the opportunity for further improvements in life of its citizens.

Somehow most of the Black Sea countries have a difference both in level of their development and in a phase of economy state. E.g. Greece is a country with an economy incorporated into European market, while countries like Bulgaria only start the integrating processes. Russia and Turkey due to the scale of their economies can stand separately outside of unions. However even they are trying to get closer to Europe.

BSEC has found an instrument which can both play a key role in integration processes among its members and so stimulate further development of its members. This instrument is so-called BSEC PROJECT. This project usually targets a problem common for all BSEC countries and involves at least 3 participating institutions originating from countries – members of BSEC. Among these, is the Project TECHPARK ‘Study of Science and Technological Park Activities as a Black Sea Regional Pole of Development’.

This report presents the final results of the TECHPARK ‘**Study of Science and Technological Park Activities as a Black Sea Regional Pole of Development**’ project. In this respect one may consider this report as executive summary of the

project. In addition this report presents some materials relevant to running the project or to dissemination of its results.

Science and Technology are vital not only for the advancement and utilization of knowledge, but also for achieving steady, sustainable and equitable development, stability and prosperity in all the Black Sea Economic Cooperation (BSEC) Member States. Science and Technology has been identified, from the establishment of BSEC fifteen years ago, as one important field of activity. One of the primary objectives of BSEC organization according to its Action Plan is to develop beneficial cooperation on a regional level among all the BSEC Member States in the sphere of Science and Technology.

Science Parks play an important role in transferring scientific and technological knowledge. Science Parks belong to a set of political instruments that ideally focus on reindustrialization and regional development as well as cater for the promotion and development of new high-tech businesses incubators. One of the most significant roles of the Science Parks is to transform basic science at Universities into commercial innovations.

Nowadays, a dynamic science park in Greece is operating in the Region of Western Greece, the Patras Science Park. Recently, the Patras Science Park (PSP) has become the coordinator of the **Regional Innovation Pole of Western Greece**. PSP aims at the growth, promotion and exploitation of innovation. Its fundamental objective is the 'promotion' of innovative and technological units and enterprises. PSP undertakes to contribute in the creation, operation and development of high technology units and enterprises that are based on the know-how, the innovation and the technology, for the growth of their activities. The operation of such units aims at the fast transformation of research results in enterprising successes and innovations (for further information visit [www.psp.org.gr](http://www.psp.org.gr)).

The objective of the TECHPARK project was to study the scientific and technological park activities as a regional pole of development. In addition, this project aimed at finding out the way Science and Technology Parks can properly organize and strengthen the bonds between the Research, Technological and Enterprise Institutions of the Region they are based on.

Collaboration with other STEPAs in the Black Sea region acted a 'catalyst' for the better organization and transformation of the scientific research and will significantly contribute to the technological development.

## **2. The role of Science Parks**

Science and Technology Parks (STP) are economic and technological development complexes that aim at fostering knowledge-based economies by bringing together scientific research, business and governmental organizations in one physical location, and supporting interrelationships between these groups. In addition to providing space for knowledge-based products, science and technology parks can house centres for scientific research, technological innovation and incubation, training, forecasting, as well as facilities for fairs, exhibitions and market development. They are formally linked (and usually physically close) to centers of technological excellence, universities and/or research centers.

### **The goals of Science and Technology Parks are to:**

- promote R&D by the university in partnership with industry;
- assist in the growth of new ventures;
- promote economic development;
- facilitate the creation and growth of innovation-based companies;
- stimulate and manage the flow of knowledge and technology among universities, R&D institutions, companies and markets; and
- provide an environment where knowledge-based enterprises can develop close interactions with a center of knowledge for their mutual benefit.

### **Science & Technology Parks as Centres of Excellence in the Knowledge-Society**

- Scientific Knowledge and information are considered as key resources in the production process, along with physical capital, labour, natural resources, and other factors in determining economic growth.
- The use of knowledge to innovate is not only a determinant of wealth, it is also the basis of competitive advantage. Science and Technology Parks also participate in innovation, development of new ideas, employment of new technology, manufacturing of new products and delivery of new services.

- Science and Technology Parks bring with it formidable adjustment challenges with implications for firms, individuals, educational institutions and governments. These adjustment challenges may happen in every aspect of organizational structure, management, employment, investment, training, policies and regulations.
- Science and Technology Parks regard human resources as a key source of development, simply because knowledge is embedded in people, and human beings are the creators of knowledge.

### **Principle and Practice**

Science and Technology Parks support their tenants by the provision of property services together with “**hard business services**” (real estate, telecommunication, transportation, human resources, and favourable living environment) and “**soft business services**” (Management assistance) cover the services that are more concerned with company development such as:

- Technology transfer from universities or research centers to knowledge-based companies.
- Knowledge-based business incubation provides entrepreneurs with expertise, management assistance, access to financing, networks and tools they need to make their ventures successful.
- Legal support in business incorporation, taxation, immigration, labor law, intellectual property and conflict of laws, etc.
- Protection of intellectual property.
- Financial incentives to attract knowledge-based companies.
- Debureaucratization to accelerate administrative process as well as relaxation of immigration requirements

### **Technical assistance in STP planning and development**

- Feasibility study of Science and Technology Park development
- Designing master plan

- Infrastructure development and management: drawing up estate development, telecommunication, transportation, etc
- Institutional management
- Fund raising and financial management
- Human resources management

### **Promoting innovation through university-industry partnership**

The application of science and technology (S&T) is an agent of industrial, economic and social development. The promotion of cooperation between the S&T knowledge producers in universities and R&D institutions and the users in industry and in the private sector is vital in the process of innovation and commercialization of R&D. This is especially important at a time of globalization and changing work organization in engineering, science and technology.

The TECHPARK project can contribute towards this direction for the Black Sea area. Synergies between STEPAs in the Black Sea area are extremely important, due to the **strategic position** of this area and the abundance of skilled human resources. A synergy between member states could *promote the exchange of technology information between STEPAs, thus encouraging regional growth of participating countries, attracting investments to the area from other countries and organizations, as well as establishing important cooperation between academic institutes and the private sector of participating countries.*

The overall goal of “TECHPARK” is the promotion of interactions between universities and the productive sector, particular attention is given to the setting-up of science and technology parks to promote S&T innovation and commercialisation of R&D, scientific and engineering education and continued professional training. A focus of this project is the production of information, learning and teaching materials, to promote human resource development, capacity building and institutional strengthening of innovation and development through cooperation between

universities, research centres and industry in science and technology of Black Sea area.

The project “TECHPARK”, has as main objective

- **the study of scientific and technological park activities as a regional pole of development.**

Moreover, this project aims

- **at finding out the way Science and Technology Parks can properly organize and strengthen the bonds between the Research, Technological and Enterprise Institutions of the Region they are based on.**
- **Collaboration with other STEPAs in the Black Sea region will be a ‘catalyst’ for the better organization and transformation of the scientific research and will significantly contribute to the technological development.**

The vital role that Technology Parks of the specific project, is to play as intermediaries of technology diffusion, information dissemination and promoting technology transfer activities which are seen by many governments as a major vehicle for stimulating business growth and economic development, competitive advantage and transnational cooperation for SMEs of the Black Sea area. More particular, it addresses the role that Technology Parks can play in promoting, supporting and sustaining Regional Development by improving the competitiveness of local industry.

Science and Technology Parks of Greece, Romania and Russia have proved to be useful vehicles for research-industry interactions. **Different Science and Technology Parks exhibit different characteristics due to the environments in which they are set up and the actors involved.**

As it has been mentioned, one of the main objectives of the project *is the creation of a network, which will include the participating members of the project and other Science Parks and Research Institutions of the Black Sea area.* This network will contribute to:

 **Explore Potential of Opportunities for Fostering Partnership through the Science and Technology Park Mechanism**

Such a Science and Technology Park network may be newly established with one of the parks playing a leading role. Interest in the prospective development of such a park is to be determined and potential ties with existing programmes

 **Estimate Financial Needs and Develop Sustenance Programme**

When a potential institutional arrangement for the network has been developed, the next step will be to estimate the financial needs necessary to establish the project, and to sustain its future efforts. A wide range of models for the development of such parks exists, and the first task will be to help select a successful one for this effort. Given the international nature of this effort, comparable seed funding is required from multilateral international agencies or bilateral donors, as well as from private industry.

 **Establish a Plan to Develop the Partnership through the Science and Technology Park Network**

When these analyses have been completed, a development plan for the Science and Technology Park Network is to be produced, outlining: the location of the coordinating park; the nature of that facility, its technical focus, funding arrangements; financial viability; and short, medium and long term goals for new and emerging technological development. This plan should then become an instrument for promoting the role of business-science partnerships in utilizing new and emerging technologies for sustainable development – an important goal of both the Beijing Forum and the World Summit on Sustainable Development.

Through the network that will be created, all the participating members will contribute in order to **support stability** and **promote development**, to **focus on practical projects** in areas of common concern, to **respond to opportunities and challenges through coordinated action in a regional framework** and to **develop a climate more conducive to the solution of conflicts in the Black Sea Area**

Except from the participating members in this project, a very important objective of the project is to be integrated into this network the Science Parks and Innovation Centers of all the Black Sea countries (Bulgaria, Ukraine, Georgia, Armenia, Azerbaijan, Moldova and Turkey).

A very good opportunity for the growth of the Black Sea area in Research and Innovation is the creation of the **European Institute of Innovation and Technology**. In the frames of its objectives, will probably be the research in the Black Sea Area. After the existence of a dynamic network consisted of the Science Parks of the area, a future collaboration with the European Institute of Innovation and Technology could contribute to a rapid growth of innovation in this area.

### 3. The specific characteristics of the Region of Western Greece and its problems

#### General information

The Region of Western Greece takes up the northwest section of Peloponnese. It is comprised of the prefectures of Aitoloakarnania, Achaia and Ilia. Its total area is 11.350km<sup>2</sup> and covers the 8,6% of the total area of Greece. At the biggest percentage, its land is mountainous (45,3%), semi-mountainous (25,6%) and flat (29%).

The geomorphology of the Region of Western Greece exhibits exceptional variety. It includes mountains with singularly high elevation (Aroania, Erymanthos, Panahaikon), big natural lakes (Trihonida, Amvrakia) and rivers (Aheloos, Pineios, Alfios, Glafkos).

#### Population

The population of the Region of Western Greece comes up to 740.506 persons. It is the fourth in population region of Greece, in which the 6,75% of the total population of Greece lives.

**Table 1 – Population of the Region of Western Greece**

Prefecture/ Region/ Total country	Population 1991	Population Distribution 1991			Population 2001	Population distribution 2001		Alteration 1991/01	Inhabitants per km2
		Urban	Rurban	Rural		Urban	Rural		
Aitoloakarnania	228.180	75.853	38.357	113.970	224.429	113.047	111.382	-1,6%	41,10
Achaia	300.078	198.664	9.732	91.682	322.789	216.592	106.197	7,6%	98,70
Ilia	179.429	44.517	32.775	102.13	193.288	81.994	111.29	7,7%	73,80
Region of Western Greece	707.687	319.034	80.864	307.789	740.506	411.633	328.873	4,6%	
Total country	10.259.000	6.036.660	1.312.774	2.910.466	10.964.020	7.980.414	2.983.606	6,9%	83,10

**Source: General Secretariat of National Statistical Service of Greece**

### **Infrastructure equipment**

West Greece's infrastructure consists of the main road of Patras- Athens- Thessaloniki- Euzonon, which is one of the European Transportation Network. There are two main highways; one of that of Athens- Patras- Pyrgos- Kalamata and the other one of Agrinio- Arta- Ioannina, complete with Rio- Antirio Bridge. Significant improvements have been made in the infrastructure of the region, although improvements need to be done for the roads of the rural sectors. Transportation by sea is offered by the ports of Patras, Killini and Egio. Transportation by train is achieved via Kalamata- Pyrgos- Patras- Athens. The port of Patras transfers people to Italy and international flights (scheduled flights) are made via the Araxos Airport.

### **Transport Infrastructures**

The Region of Western Greece possesses a strategic geographic position, connecting Peloponnese with the mainland and the region of Epirus. It constitutes one of the main gates of the country, because it is leading to Adriatic Sea and to West Europe in general. With regard to the infrastructures and transports of the Region, it is true that its strategic development of the previous programming periods has led the region to growth in infrastructure and transports

The road network of the Region is particularly extended and constantly improving. The central road artery that connects the city of Patras with Athens constitutes part of the main national axis P.A.T.E (Road of Patras – Athens – Thessalonica – Euzonon) and one of the Trans-European networks.

The national network is extended to 300km, while the provincial road network extends to a length of 3.500km roughly. It is developed through the coast and rural areas, but it is relatively insufficient, quantitatively and qualitatively, in the unfavourable mountainous regions.

Among the big technical work that has been completed in the Region, a leading part plays the work that connects Rio with Antirio via the Kremasti Bridge of length of 2,

5km. this also connects Peloponnese with the Mainland and is particularly important for the commercial transactions of Aitolokarnania. With this work the entire system of transports has been upgraded in the western region of the country. It also serves as a main gate of Greece to Western Europe, via the sea transport that connects Greece with Italy.

The railway network of the region has length over 300 kilometres and crosses the coastal area of the prefectures of Achaia and Iliia and connects them with Athens-Patras-Pyrgos-Kalamata. There is also the funicular crossing Diakopto and Kalavryta. For this reason, there has already begun the modernisation of his big part; however the level of modernisation is not satisfactory.

With regard to the harbour infrastructures, the harbour of Patras dominates within the region because of its strategic place, which constitutes the Western Gate of the country and the Adriatic Sea and Western Europe. The harbour infrastructure can serve big ships of capacity up to 25.000 tons and passenger boats, as well as the length of 220m. It provides a modern service; while in the wider harbour installations is included the Marina of Patras and the fish-wharf. Other important ports of the region are those of Egio, Kyllini, Katakolo, Mesologgi, Astakos and Amfilohia.

The airports that serve the region are three and located in Araksos, Aktio and Andravida. These can operate commercial flights and charters. Their potential though is limited and out-of-date regarding their opportunity for extended flight schedules and their building capacity and other facilities.

Table 2 consists of a number of figures for comparing the position of W. Greece in relation to the overall Greek transportation network, as well as the communications network, health and education. The percentage of cars that use these networks is 51,5% of the national average, whereas taxis and buses use the network less often. The table also shows the average percentage of phone lines used. It is observed that the Prefecture of West Greece lacks in the Health sector.

Lastly, the table shows higher figures in the education sector, in relation with the national average.

**Table 2 – Transportation, Communication, Health and Education in West Greece and Greece in total.**

	West Greece	Greece (total)	Greece (%)
<b>Transportation (2004)</b>	188,5	365,9	51,5
Cars /1000residents	2,7	3	90,5
Taxis /1000residents	1,4	2,4	57,8
Buses /1000residents	107,2	105	102,1
Accidents /1000residents	1,2	1,4	85,9
<b>Communications (2000)</b>			
Basic phone lines /1000residents	430,2	518,4	83
<b>Health (2004)</b>			
Doctors /1000residents	3,1	4,9	63,1
Dentists /1000residents	0,8	1,2	63,5
Hospitals /1000residents	3,5	4,7	74,6
Private surgeries /1000residents	0,8	1,4	55,7
<b>Education (Early 2004/2005)</b>			
Students-Primary School/ 1000residents	59,9	58,6	102,2
Students-Secondary School/ 1000residents	31,1	30,4	102,2
Students-High School/ 1000residents	35,6	33,7	105,8
Graduates	9,8	10,1	96,6

**Source: European Commission (2004), Third Report on Economic and Social Cohesion, February Economic Elements**

### **University & Research system**

The University of Patras since its foundation in 1964 has been committed to pioneering teaching and research. Built in a beautiful campus, it offers a true academic environment, making studies in it a true academic experience.

The University plays a co-ordinating role in developmental initiatives for the benefit of the Region of Western Greece, communicating the constantly generated scientific knowledge and know-how to industry.

On the international scene the University is very active, participating in a large number of European and international Educational and research programmes and consortia and in all major academic associations. Its forefront scientific research has been recognized internationally.

The University of Patras was founded in the city of Patras in 1964 and it began functioning in the academic year 1966-67.

It was established primarily with the intention to concentrate on science, technology, economics, business administration and social sciences. In the proposal for a new University, which was the result of an International Conference in August 1964, it is stated that the role of the University of Patras is to set an example of a highly qualified Institution of higher learning and serve as a stimulus for the microsystems of the entire Greek higher education system.

Priority was given to the fields where highly trained personnel will be needed for the microsystem of the economic development of the country. The above objectives had, in the course of time, to be adapted to new prospects arising from the recognition of the role of knowledge and technology in social and cultural growth and the contribution the University is expected to make towards solving major regional, national and even international problems.

It is the third largest University in the country and the fastest growing one, with 18,500 undergraduate students, 2000 post-graduate students, 670 teaching staff, 369 administrative personnel and 403 teaching and research assistants. The initial emphasis on science and technology has been extended to other academic areas such as health sciences and humanities. Today, its twenty-two Departments with a large number of sectors and consequently a great range of disciplines reflect a balanced academic environment.

The University has established a reputation for innovation and excellence, renowned for research of the highest quality and for a high quality academic environment. The University of Patras has been recognized internationally as a major centre of higher education and as an excellent centre of scholarly inquiry and critical thinking. The above, along with the creation and transmission of new knowledge, enables its students to pursue the greatest development and highest achievement both for their own benefit and for that of society.

### The GDP's trend

In the Region of Western Greece the 5,7% of the Gross Domestic Product (GDP) is produced. However, it is the penult (12<sup>th</sup>) in the classification of all the Regions in Greece relatively to the GDP. In addition, the 53% of the average per capita product of the EU corresponds to its residents, which puts the Region of Western Greece in a problematic position.

The table 3 presents the progress of the real GDP in million euros in the Region of Western Greece and in relativity to the total country. In the Region of Western Greece the 5,1% of the total GDP is produced, while during the last five years, 2000-2005, there has been observed an average rate of development 4,8%, a little higher from the corresponding magnitude for the total country (4,1%).

**Table 3 – Gross Domestic Product (GDP) in fixed prices 2004 (million euros)**

	West Greece	Total Country
2000	7.217	143.649
2001	7.553	148.425
2002	7.840	153.764
2003	8.231	161.029
2004	8.693	168.417
% of the total country (2000-2004)	5,1%	100%
Average Rate of Development (2000-2004)	4,8%	4,1%

**Source: General Secretariat of National Statistical Service of Greece**

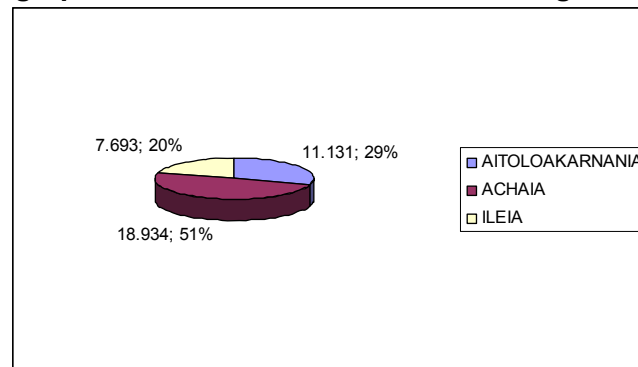
The Table 4 presents the total product of the Region of Western Greece, distributed in the three prefectures. The 50,1% of the regional GDP is produced in the

prefecture of Achaia, the 29,5% is produced in the prefecture of Aitoloakarnania and the 20,4% is produced in the prefecture of Ileias. The highest average rate of development is 5,3% and is observed in the prefecture of Achaia. The corresponding rate for the prefecture of Aitoloakarnania is 3,7% and for the prefecture of Ileia is 3,4%.

**Table 4 Gross Domestic Product (GDP) in fixed prices 2004 (million euros)**

	Aitoloakarnania	Achaia	Ileia	Western Greece
1999	2.056	3.420	1.441	6.918
2000	2.130	3.573	1.514	7.217
2001	2.247	3.772	1.533	7.553
2002	2.323	3.961	1.556	7.840
2003	2.375	4.208	1.649	8.231
% in the Region of Western Greece(1999-2003)	29,5%	50,1%	20,4%	100,0%
Average Rate of Development(1999-2003)	3,7%	5,3%	3,4%	4,4%

**Diagram 1 – Geographical distribution of GDP in the Region of Western Greece**



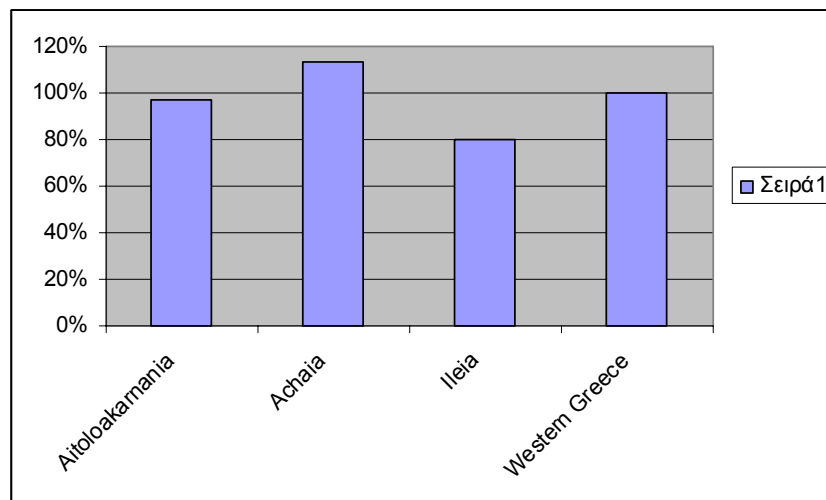
Where 1 denotes the prefecture of Ileia, 2 denotes the prefecture of Aitoloakarnania, 3 denotes the prefecture of Achaia.

**Source: General Secretariat of National Statistical Service of Greece**

The diagram 2 focuses on the differences in the Region of Western Greece and presents the average per capita GDP for the period 2001-2003 for every prefecture,

presented as a percentage of the relative regional figure. According to this diagram, Achaia is the richest prefecture of the Region of Western Greece with respect to the per capita GDP, because it holds the 113,5% of the average figure of the Region of Western Greece, in contrast with Ileia, which falls short of the average figure.

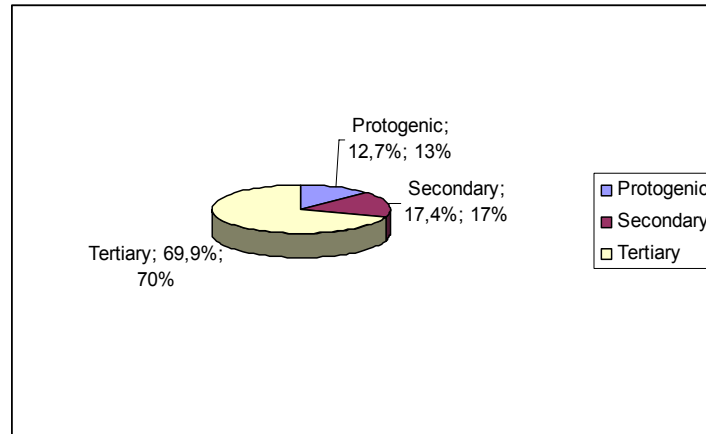
**Diagram 2 – Per capita GDP as a percentage of the Total on the Region of Western Greece  
(average rate 2001-2003)**



**Source: General Secretariat of National Statistical Service of Greece**

### **Productive and sector-based dynamics**

The diagram 3 shows the sectoral structure of the production in the Region of Western Greece. The 69,9% of the total product comes from the tertiary sector, which offers the 49,6% of the labor force. The secondary sector contributes to the 17,4% in the total production of the Region of Western Greece, occupying the 18,8% of the total labor force, while the protogenic sector produces the 12,7% of the regional product, occupying the 31,6% of the total labor force.

**Diagram 3 – Sectoral structure of the product in the region of Western Greece**

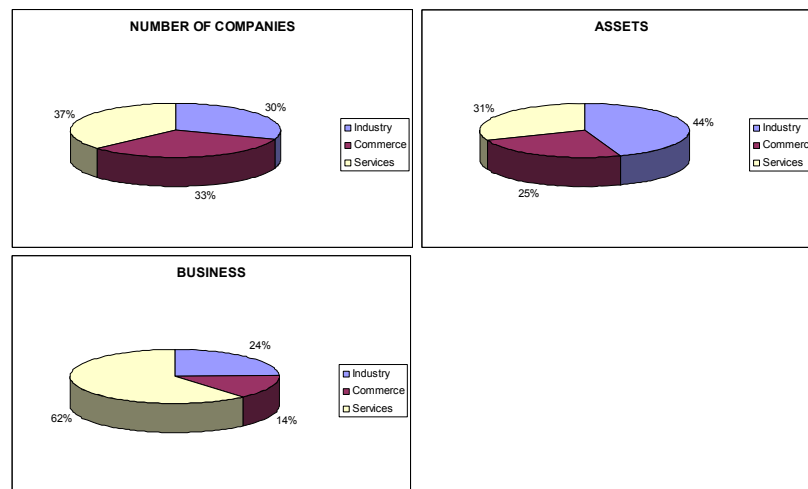
According to the recent data of the prefecture of Ileias primary sector is the biggest, as 27,0% of the GDP is being produced in Ileia.

On the other hand, Achaia Prefecture produces just the 6, 2% of its products coming from the primary sector. In both prefectures, half of their (population human resources) are being employed in the production of agricultural products. However, the degree that the land is fully utilized is decreasing for the period 1998-2002.

#### ***Financial Activity: Prefecture Business Sector (S.A. and LTD.)***

Data comes from ICAP for S.A.'s and LTD's of region of Western Greece. The Data depend upon the 2000-2004 results Diagram 4 shows higher rates for businesses within the service sector (36,8%) in the relation to commercial businesses (32,8%) and industries (30,4%).

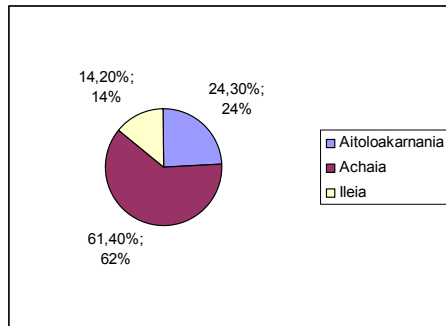
**Diagram 4 – Sector allocation of businesses in Western Greece, related with their active employment and their number of position (2004).**



#### ***BUSINESSES (S.A. and Ltd.)***

The data below can be found at ICAP statistics. The data is found in the balance sheet and the facts' sheets cover the period between 2000- 2004. Diagram 4 shows an allocation of businesses within the industrial, commercial and services sector, starting from the year 2004. It shows that the number of businesses within the service sector (36, 8%) is higher than that in the commerce sector (32, 8%) and the industry sector (30, 4%). Judging businesses from their assets, the picture is completely different, as the industrial sector comes first in figures. Regarding their turnover, the number of businesses within the commercial sector appears to be the highest.

A geographical allocation of the businesses of the prefecture is shown in diagram 5 where Ahaia consists of 61, 4% of the businesses, 63, 2% of the capital and 66, 7% of turnover. Next is Etolokarnania followed by Ilea.



**Diagram 5 Geographical allocation of businesses, on the basis of their number, their assets and turnover (2004) (Source: ICAP)**

Table 5 presents basic data on the businesses of West Greece between the period 2000- 2004. For making general comparisons, the data presented should be used with discretion; however, the figures show an increase in the business workforce within the prefecture. Total Fixed Costs increased from 1.193, 2 m. in 2000, to 2.080, 4 m. in 2004. 32, 3% of that increase sponsors the same capital, whereas 67, 7% sponsors new responsibilities. It is important to mention that a big part of those increases is not due to the expansion of existing S.A.'s and Ltd.'s, but concern the development of new ones. Sales have increased with an annual rate of 10. 4%, reaching 1, 7b. in 2004 whereas the net margin increased with an average rate of 10, 0% reaching 329, 8m. in 2004. At the same period, profits before taxes were increasing with an average annual rate of 2, 3%, which would be higher if there was no important decrease of profits in 2003, in relation to a much more sustainable 2002.

**Table 5 – Balance sheet and Profit/ Loss Account of businesses of West Greece (S.A.'s and Ltd.'s) (in thousands)**

	2004	2003	2002	2001	2000
Assets	2.080.376	1.834.406	1.711.364	1.376.652	1.193.194
Liabilities	2.080.376	1.834.406	1.711.364	1.376.652	1.193.194
No. of Businesses	760	753	740	678	625

**The situation of entrepreneurial sector in Region of Western Greece  
SECTORAL STRUCTURE OF THE ENTREPRISES, 2002**

ACTIVITY SECTION	REGION OF WESTERN GREECE		IPIRUS		IONIAN ISLANDS	
	NUMBER OF ENTREPRISES	TOTAL INCOME (million €)	NUMBER OF ENTREPRISES	TOTAL INCOME (million €)	NUMBER OF ENTREPRISES	TOTAL INCOME (million €)
Agriculture, farming, hunting and forestry	904	46,92	1610	155,14	301	5,33
Fishing	97	35,42	99	21,47	80	15,46
Mine and quarries	38	19,8	112	13,82	32	8,29
Alteration industries	4168	841,83	2517	459,81	1625	111,77
Electricity, gas and water provision	30	1,04	12	2,13	16	0,38
Constructions	6044	315,42	4038	233,66	3002	100,99
Retail and wholesale business-car repair	16972	3419,9	8605	1752,65	7491	1338,87
Hotels and restaurants	5727	288,57	4109	180,46	7842	466,32
Transport, storing and communication	2374	332,9	1536	159,38	1364	144,29
Intermediate Financing Organisms	178	3,25	69	1,26	65	1,17
Real estates, hiring and business activities	4085	174,01	2398	97,71	2099	77,67
Public administration and defense, obligatory social insurance	20	7,5	31	1,41	28	0,9
Education	229	8,87	129	5,92	111	2,9
Health and social care	86	4,45	86	3,23	54	1,51
Other activities of services provision for the public good and other social or personal services	1707	114,88	990	36,59	1105	27,66

Source :  
Secretariat of National Statistical Service of Greece

General

### **Priorities of regional policy**

The main objective of the regional policy of country for the period 2007-2013, constitutes the aid of regional competitiveness, the guarantee for a better level of quality of life and the increase of employment.

More specifically, the priorities of regional policy are expressed through:

- i.* The completion of basic infrastructures of transports and environment that promote regional competitiveness and the viable growth respectively in local level.
- ii.* The completion of interventions of reformation of the productive base in regional level, the mobilization of SMEs, the growth of infrastructures of business dexterity (with the attendance of private sector), the attracting of new investments and, the completion of land-planning in national and regional level.
- iii.* The support of interventions for the protection and appointment of cultural heritage and ecological reserve of each Region, in local mainly level.
- iv.* The support of international competitiveness and economic base of Regions, the appointment and promotion of their comparative advantages and extraversion and, the support of the role of urban centers in regard to the growth of countryside.
- v.* The repeal of isolation, the reinforcement of demographic growth, and productive growth of mountainous, frontier and islander regions and with the aid of infrastructures in health sector.
- vi.* The diffusion of knowledge and innovation (with accent not only in the technological innovation), the facilitation and diffusion of access in the Research and Technological Growth, the improvement of products and services in local level and the encouragement and support of collective developmental initiatives with extrovert characteristics, between that the reinforcement of the relation of tourism and culture for the achievement and maintenance of critical local competitive advantages.

- vii. The modernization and the adaptation of faculties of human potential, the promotion of equal occasions for access in the labour market, the support of Local Initiatives for the Employment.

The present situation of **Research, Technology and Innovation** in the Region of Western Greece, presents comparative advantages but also weaknesses. Thus, after the materialization of the European Framework Programme, the possibilities of Regional sector for research, technological growth and innovation are afterwards focused in the existence of big potential institutions inquiring and technological activity and researchers in sectors of intensity of knowledge, and in the presence of appreciable enterprising activities.

However, the sector presents also weaknesses as the existence of a small number of institutions of offer and demand of inquiring services, the important reserve of banking system for the financing of new enterprises with important degree of innovation and finally, the lack of mechanisms which support the transfer of new technologies and innovation by the inquiring institutions in the enterprises, intraregional, in the interior of the country, but also to the abroad.

In the sector of Research and Development (R&D) there is a serious delay in the connection of research and business dexterity. The Region of Western Greece (RWG) presents low expenses in R&D characterized from relatively small attendance of private sector, and small diachronic increase. There is also observed the low records in the number of patents, indicator that constitutes a metre of output of R&D.

In the sector of Information and Communications Technology (ICT), the place of Region is not characterized as satisfactory. The results of a study for the enterprises that are activated in the Region, show that even if, they use systems of ICT, nevertheless few of them advanced in the exploitation of possibilities of RWG for the aid of their competitiveness (growth of action of electronic trade B2B or B2C, creation of web pages, etc)

The RWG is found in low place regarding the infiltration of broadband networks, which constitutes the basic infrastructure for the growth of society of knowledge in the frame of objectives of Lisbon, it also allocates low percentage of investments in research and innovation

Recently, there are powerful ascendant tendencies in the growth of broadband internet.

There have been done important steps to the direction of aspect of employment and in the social dimension in the use of ICT.

## Investment

### **BUSINESS INVESTMENTS**

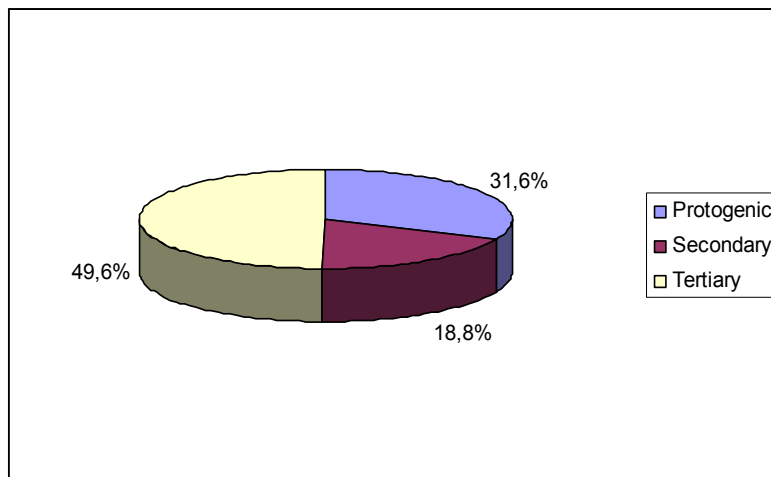
SECTORS	2006	2005
Protogenic	36.120.571€	8.776.942€
secondary	42.920.574€	25.221.828€
Tertiary	18.922.546€	13.966.557€

According to the above table, the secondary sector showed the biggest amount of investments during the years 2006 and 2007. In addition, business investments for the tertiary sector were in the same levels for the years 2006 and 2007. Finally, the business investments for the protogenic sector depicted a huge decrease between 2006 and 2007.

### **The labour market**

The diagram 6, shows that 49, 6% of the workforce is employed by the tertiary sector; whereas 18, 8% of the people are being employed in the secondary sector and a 31, 6% of the employers occupy positions within the primary sector.

**Diagram 6 Sectoral structure of the employment in the Region of Western Greece**



**Source: Eurostat**

According to the data collected from the General Secretariat of National Statistical Service of Greece for the interval 1998-2005, the Region of Western Greece displayed an average rate of unemployment of 11,0%, marginally higher from the total of the whole country, 10,7%. The highest deviations were recorded during the

overall year of 2004 and during the two first trimesters of the year 2005. Since then, the rate of unemployment in the Region of Western Greece looks like converging towards the total rate of the country. In 2005, the rate of unemployment was 9,7%, the same as the national rate.

According to the data of the European Union for the year 2003, the Region of Western Greece displayed the higher percentage of the long-term unemployed persons in the country, 68,4%. For the year 2004, the youth unemployment in the Region of Western Greece reached the 44,4% against the 26,9% which depicts the national level, while the woman unemployment reached the 25,7%, the highest level in the whole country.

Table 6: SWOT Analysis of the Region of Western Greece

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Nodal place of Patras as westerner gate of the country</li> <li>• The Rion- Antirion Bridge and the repercussions in the cohesion of Region</li> <li>• Operation of Inquiring Institutes of International Scope</li> <li>• Academic laboratories and institutions of research, enterprises of transformation and institutions of technology transfer.</li> <li>• Collaboration between university and enterprises with the use of inquiring infrastructures of the universities, the mobility of personnel, and information.</li> <li>• Financing and support of spin-offs for the creation of new enterprises based on technology.</li> <li>• Rich aquatic potential</li> <li>• Tourist and cultural resources, with main factor of world scope Olympia</li> <li>• Environmental resources (estuaries Acheloos, Lagoons, Coasts, forests) protected from international conventions</li> <li>• The possibilities of Region in the three sectors of production</li> <li>• The tradition in the manufacturing activity and in the specialised human potential</li> <li>• The important production of the primary sector that can support relative sectors of transformation</li> <li>• The conjunctive role of Patras Science Park</li> </ul>	<ul style="list-style-type: none"> <li>• Insufficient diffusion of results of inquiring programs in the productive process</li> <li>• Demographic weakening of countryside and intense intraregional inequalities.</li> <li>• Low per capital GNP</li> <li>• Deindustrialization</li> <li>• Intraregional inequalities in infrastructures of high technology, information technology and communication.</li> <li>• Lack of airport, closed motorways and modern railway network</li> <li>• Lack of network of natural gas.</li> <li>• The existence of small number of institutions of offer and demand of inquiring services.</li> <li>• The important reserve of banking system for the financing of new enterprises with important degree of innovation.</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• Upgrade of role of Patras as Western gate of Greece to the countries of EU</li> <li>• Exploitation of inquiring structures of Region</li> <li>• Increase of world demand of qualitative services in the sector of special or alternative Tourism.</li> <li>• Growth of industry, hydroelectric, solar energy.</li> <li>• Creation of clusters</li> <li>• Collaboration with champions of primary sector</li> </ul>	<ul style="list-style-type: none"> <li>• Globalization,</li> <li>• Intense competition in sectors of production by countries of EU afterwards the enlargement 2005.</li> <li>• Rapid reduction occupied in the rural sector</li> <li>• The environmental Devalorisation.</li> <li>• The danger of Natural Destructions of big extent and intensity (earthquakes, fires, floods).</li> </ul>

## **4. Study the current practice of regional innovation centers of Russia and Black Sea specifically**

### **Historical Overview**

Technology parks have not been existing in Russia in Soviet-Era. This could be explained by the fact that small innovation companies were not popular in USSR.

Most of innovation was done through following institutions:

- universities
- research institutes
- independent design bureaus
- design bureaus which were part of manufacturing enterprises

Since the structure of economy started to change in middle of 1980s new approaches were found to create conditions for innovations. One of them was so-called Scientific Centers of Youth's Creative Work.

After the beginning of drastic changes in Russian economy in 1990s it became clear that a new tool to speed the innovation activities were needed. In 1990 there was adopted a law of Russian Republic (as part of USSR) "Technoparks of Russia". The first institutions to look for new forms and tools for doing this were universities.

Russian universities have started looking actively for new structures which could help them in stimulating innovation process. A European experience was studied thoroughly, because of long-term historical and traditional links with European education system.

European partners have responded properly to the interest of Russian universities in technology transfer and innovation methodologies. A number of EU-sponsored

projects have been launched and successfully completed in 1990s which targeted to assist Russian universities in study of modern practices of technology transfer and innovation and in establishment of new innovation structures inside universities. This created first type of techno parks in Russia. First technopark in Russia was created in 1990 at Tomsk Technical University – “Tomsk Scientific and Technology Park”.

In the middle of 1990s technoparks were also organized by large state scientific centers (e.g. Technopark at Kurchatov Nuclear Research Center).

At the end of 1990s during the raise of Russian economy the task for improvement of innovation was also understood in other layers of society. Local administrations (usually at level of City Administration or Region Administration) started organizing techno parks and supporting its functioning (e.g. Technopark at Zelenograd).

The beginning of 2000s was marked with increased attention to technoparks at national level. Tecnoparks came into agenda of Government meetings. President of Russian Federation takes regular visits to technoparks during his visits to various Russian regions.

There was announced that technoparks are one of national economic priorities and that substantial money will be spent by the state to support their activities. This also lead to birth of new type of technoparks – technoparks founded by industry (e.g. Technopark at Tolyatti founded by AVTOVAZ Car manufacturers.).

March 10, 2007 there was published a decree of Government of Russian Federation No. 328-p “Creation of Technoparks in Hi-Tech areas in Russian Federation”.

The latest development is creation of so-called State Engineering Centers. Such centers are organized by the Government of Russian Federation and usually are

affiliated to some specific branch of industry. (e.g. State Engineering Center on Machine-Building at MSTU “STANKIN”).

At this moment it is considered that in Russia there exist about 60 technoparks in 35 regions of Russia. Russia is on 5<sup>th</sup> position in the world regarding the number of technoparks.

### **Structural Overview.**

The institutional names for technoparks differ. The most commonly used are the following:

- Technopark (e.g. “Troitsk Technopark”);
- Scientific-Technological Park (e.g. “Scientific-Technological Park of St. Petersburg State Polytechnic University “Technopark in Lesnoy”);
- OSJ – Open Joint-Stock Company (e.g. “OSJ Technopark-Zelenograd”);
- Innovation-Technological Center (e.g. “Innovation-Technological Center Scientific Park of Moscow State University”)
- Industrial Park (e.g. “Technopark OSJ Kama Industrial Park “Master”);
- Innovational Technopark (e.g. “Innovation Park Idea”);
- Business Center (e.g. “OSJ Tomsk International Business Center Technopark”);
- Innovational Enterprise (e.g. “Innovational Enterprise Technopark at Forestry Engineering Academy”);
- Business Incubator (e.g. “Innovation-Technological Park – Business Incubator “Technology of Urals”);
- Incubator of Innovative Technologies (e.g. “ Incubator of Innovative Technologies “Accord”);
- State Engineering Center (e.g. “State Engineering Center of Machine Building”).

There also acting an Association of Technoparks – which is a non-commercial organization. It unites technoparks from Russian Federation. It sees as its main goals:

- coordination of activities in creation and development of technoparks
- development of scientific and information support for creation of technoparks in Russia;
- staff training for technoparks.

Among *founders* of technoparks there usually functioning following institutions:

- Universities;
- Manufacturing Companies;
- Banks and other financial structures;
- Scientific Centers;
- Research Institutes and Centers;
- Regional administration;
- Regional Innovation Centers;
- Personnel Recruitment Centers;
- Russian Academy of Sciences;
- Russian Government;
- Educational Centers;
- International Research Centers;
- Information Technologies Centers;
- Trading and Commercial Centers;
- Certification Centers;
- SMEs;
- Business Support Structures;
- International companies.

**Basic goals** of technoparks are declared as following:

- to stimulate innovation activities;
- to stimulate creation of new products;
- marketing of new products in Russia and abroad;
- development of regional programs of technology transfer;
- development of modern scientific services;

- expansion of universities' facilities by usage of SMEs;
- creation of jobs;
- using potential of scientists and scientific centers;
- integration of science, education and manufacturing in one complex;
- attraction of investors to projects implementation;
- creation of environment supporting entrepreneurs;
- mediator between entrepreneurs and scientists;
- creation of market of ideas;
- support of young talented students;
- creation of teams capable of productive work;
- search for new perspective and commerciable ideas;
- development of SMEs;
- support of international links for SMEs;
- training of managers to commercialize new innovative products;
- support for creation of spin-off companies;
- increase of income for universities and other research structures;
- to act as a tool for restructuring local industry towards hi-tech orientation;
- to restructure the manufacturing process of big companies towards SMEs;
- preservation and development of scientific potential of researchers;
- assistance to foreign companies in finding links with Russian companies;
- improvement of quality of education;
- assistance in making publications in scientific, informative and advertising areas;
- development of new technologies in specific fields;
- assistance for preparation of new products for mass manufacturing;
- creating of venture capital funds;
- marketing and market analysis;
- attraction of budgetary and off-budget funds;
- development of expertise services;
- development of entrepreneurial strategies;
- consulting;
- bringing interests of technopark participants into regional legislative and executive institutions.

Among the mostly often used *services* technoparks in Russian Federation the following can be mentioned:

- presentation of managers responsible for coordination of projects;
- accounting services;
- marketing services;
- legal services;
- office space leasing at reduced price;
- office space leasing at reduced price;
- shop floor space leasing at reduced price;
- post-sale products support;
- technological audit;
- business plan development;
- commercial attraction estimation;
- search for financial sources for projects commercialization;
- intellectual property services;
- patenting and patent search;
- investors search;
- technology transfer partners search;
- advertising services;
- assistance for participation in industrial exhibitions;
- internet access;
- internet-based advertising;
- presentation of innovative projects at potential sponsors;
- development of business management strategies;
- financial consulting;
- taxation consulting;
- innovative projects expertise;
- peopleware support;
- leasing of industrial manufacturing equipment;
- manufacturing and prototyping services;
- conference halls leasing;
- meeting rooms leasing;
- exhibition halls leasing;
- assistance in selecting of manufacturing equipment;
- international cooperation search;
- test field and testing equipment leasing;

- partners search;
- web-page support;
- specialized exhibition organization;
- personnel training and retraining;
- foreign companies presentation in Russia;
- office equipment leasing;
- information search services;
- access to established standards;
- customs clearance services;
- guaranteed orders for products;
- design bureau services;
- access to specialized software;
- presentation of interests of Russian companies abroad.

### **Typical structure**

Usually technoparks in Russia are supervised by Rector of university (if they are university-based) or by Board of Directors. This supervision involves overall management and control. Strategic management of technopark is run by Board of Directors. Members of Board of Directors are usually coming from institutions who are founding technopark.

Current management is usually done by Directorate and by Director of technopark. In some cases this is done by specialized management company. Then the structure divides into specialized departments. E.g.:

- Marketing department;
- Manufacturing planning department;
- R&D management department;
- Department of exhibitions and advertisement;
- Innovative technological department;
- International liaison office;
- Industrial expertise and testing center;
- Scientific expertise department;

- Scientific collaboration center;
- Educational and training center;
- Exhibition center;
- Communication department;
- Technical support services;
- IT departmentl
- Economic analysis department;
- Accounting office.

**List of some technoparks in Russian Federation and reference to their region and their web-site.**

Tomsk, Siberia

<http://www.t-park.ru/>

Kazan, Volga

<http://www.tpidea.ru/index.php?lang=eng>

Moscow

<http://www.tpki.ru/>

St.Petersburg

<http://www.technopark.spb.ru/>

Moscow

<http://park.mephi.ru/>

St. Petersburg

[http://www.spbstu.ru/science/tp\\_/tpl\\_about.html](http://www.spbstu.ru/science/tp_/tpl_about.html)

Association of technoparks

<http://technoparki.narod.ru/>

Izhevst, Volga

<http://www.udpark.ru/>

Kazan, Volga

<http://www.kai.ru/univer/technopark.phtml>

Zelenograd, Moscow

<http://tech-park.ru/index.php?name=eng>

Sarov, Volga

[http://www.itechnopark.ru/id\\_58/?PHPSESSID=25087d0a78c0af0914e60056496d388c](http://www.itechnopark.ru/id_58/?PHPSESSID=25087d0a78c0af0914e60056496d388c)

Udmurtia, Volga

<http://www.udpark.ru/>

Niznij Novgorod, Volga

<http://www.innov.ru/technopark/>

Lomonosov University, Moscow

<http://www.sciencepark.ru/eng/index.htm>

Komsomolsk-On-Amur, Far East

<http://www.techkas.ru/index.htm>

Dubna, Moscow

<http://ntpdubna.weblaboratory.ru/eng/>

Urals

<http://uraltechnopark.ru/>

Novosibirsk, Siberia

<http://www-sbras.nsc.ru/tpark/curenglish/welcome.html>

Troitsk, Moscow

<http://www.it-park.org/>

Samara, Volga

<http://www.sseu.ru/s/tehnopark/>

Taganrog, Black Sea

[http://technopark.al.ru/tpark/tparks\\_russia\\_taganrog.htm](http://technopark.al.ru/tpark/tparks_russia_taganrog.htm)

Orenburg, Volga

<http://www.osu.ru/doc/945>

**Technology Parks functioning in Black Sea Region of Russian Federation.**

- Technology Transfer Center of Stavropol Region  
<http://www.stavintech.ru/>
- Technopark of Kuban State University (Krasnodar)  
<http://tp.kubsu.ru/index.htm>
- Technopark at Universal Port of Rostov  
(under construction)
- Scientific-Technological Park of Taganrog  
([http://technopark.al.ru/tpark/tparks\\_russia\\_taganrog.htm](http://technopark.al.ru/tpark/tparks_russia_taganrog.htm))
- Technopark in Sochi  
(under project for Olympic Games)

## **5. Study the current practice of regional innovation centers of Romania and Black Sea area**

The role of research and technological development as the engine of an economy, based on competitive and dynamic knowledge, is linked with the ability of the economy to transform the new information in technological innovation. Creating the European Research and Innovation Environment as part of the European Informational Environment means fulfilling one of the essential steps required by the European Union. The decisive element in this regard is represented by the creation in the 90s of the Science and Technology Parks, mainly in the field of informational technology, but not only there. There are parks, which were developed with the support of the governments of the respective countries, of the local authorities and of the private investors, have been proved to be the engine of an exponential development in the IT field in the areas in which they exist. Romania, as a member of the European Union from January 2007, considers the integration of the scientific and technological Romanian community in the European science and technological system as being a political strategic option. The development of the infrastructure specialized in technological transfer and innovation represents one of the components of high importance of the general investment politics in the field of research-development and innovation. The law makes available a specific tool for the regulation of the founding and functioning procedure of these parks. Banat in general and especially Timisoara is from the point of view of the socio-economical development one of the most dynamic regions of Romania. This evolution can be observed mainly in the field of Informational Technology/IT, a field which, in the last decade had a spectacular development world wide, a fact, which was also reflected in the Romanian economy. Today in Timisoara there are over 300 companies with the main activity field directly connected with the informational technology mentioned in the Trade Register.

## **Science Parks and Innovation Centers of Romania**

### ➤ **South Bucharest Science and Technology Park**

The South Bucharest Science and Technology Park (SBSTP) were founded by five partners:

- ICPE SA – Research and Design Institute for Electrical Engineering
- LOCAL COUNCIL of the 3<sup>rd</sup> District Mayorality – Bucuresti
- “POLITEHNICA” University of Bucharest, Faculty of Electrical Engineering
- GLOBAL LOGISTIC SRL – consortium’s business advisor
- CTTIE – NGO/Technology Transfer Center

The general objectives of the SBSTP are the following:

- Optimising the use of resources (human, material, financial)
- Creating and optimum working environment for the exploitation of research results, stimulating the odds on market research
- Supporting the foundation of new technological transfer-based companies
- Development of technological transfer attracting the relevant private companies
- Creating a favourable environment for foreign investments and development of partnership
- Program-based concentration of financial and investment efforts
- Reconversion of labour force by training/ capacity building programs

General services provided by SBSTP:

- Communication Center
- Consultancy in public interest fields
- Consultancy for implementation of quality environment integrated systems
- Financial and legal assistance
- Marketing
- Center of human resources capacity building/training
- Facilities of small companies management

### ➤ **Floreasca Science and High Technology Park**

The founding members are firms with tradition in high-tech areas like automation, computer science/software development and electronics.

- Automatica

- ICE/Romsys
- IPA
- ITC/ITC Software
- SIAT

The occupants of the park are firms with activity in high tech industries or in complementary activities:

AFFERO, BANCPOST, PC-NET, ROMUS INDUSTRIES, ROMQUART, ROMGRUP, SOFTNET GROUP, and many others.

### **Opportunities**

- Excellent gate connecting to the EU and other high tech areas
- The park is appropriate for:
  - High Technology Transfer
  - Implementation of high tech programs in Romania and Eastern Europe
  - Development and coordination of complex programs requiring system engineering, automation, software, and IT&C expertise
  - Research and Development

### ➤ **MINATECH-RO**

#### **Science and technology park for micro- and nanotechnologies**

The Science and Technology Park for Micro and Nanotechnologies MINATECH-RO is the first non-software ST infrastructure in Romania, focused on R&D for *micro and nanotechnologies*. The initiative of the establishment belonged to a national consortium, coordinated by the National Institute for R&D in Microtechnologies (IMT-Bucharest), and including the “Politehnica” University of Bucharest (PUB) and the private company S.C. ROMES S.A.

The **activities** of MINATECH-RO are complementary to the technology transfer projects developed by CTT-Baneasa and mostly focused on business incubation:

- Technological *transfer*: realization of prototypes, demonstrators or experimental models; small scale/pilot production after realizing the prototype

- Technological *services*, micro-physical characterization, simulation and computer aided design
- Learning/training by preparation of *courses* and stages (with practical training) in the micro systems, micro- and nanotechnologies and micro engineering domains
- Assistance and consultancy activities for SMEs and small innovative enterprises: information in micro-engineering, microsystems, micro- and nanotechnologies, access to databases, documentation, etc
- Facilitating the access of Romanian innovative SMEs to European networks and partnerships; dissemination of information (organizing conferences, workshops, editing publications, etc.)

➤ **The Science and Technology Park Timisoara (e-Technology- Park Timisoara)**

**The main objectives of the park are:**

- Developing the scientific, technical and economical potential of the region
- Developing the industrial department of the high technologies from the IT field
- Supporting the founding of new companies in the IT field, especially by creating an environment for incubation
- To facilitate the technological transfer of the new IT results to the companies interested in using the products or the packages of products and services with commercial value and their capitalization on the local or foreign market.
- Implementation facility in the industrial sector and the capitalization of the top IT research results on the market, mainly of the research made in the local universities and research institutes, especially the research of the three proposing institutions (UVT, UPT, IeAT)
- Creating some alternatives on the job market in the field of the advanced technologies, including the support of industrial reorganization
- To integrate the undergraduates and graduates of the higher education institutions in the socio-economic environment
- Settlement of the specialists with high professional results in the field of research and higher education

- Initiating and developing the cooperation between the university and research environment with the industry
- To raise private funding for education and research
- To attract the foreign companies for investing in research, technological transfer and production, creating new working places in the field of the advanced technologies
- Stimulating the companies for their active participation as representatives of the private sector to the development and capitalization of IT research and innovation by the execution of high technicality commercial products
- Stimulating the innovative and technical-scientific potential of the software staff, of the university staff, of the researchers and of the undergraduates.

The initial partners of the contractual joint venture for creating the park are: the University of the West, Politehnica University Timisoara and The Institute e-Austria Timisoara, on the one hand and The Prefect's Office, the County Council of Timis and the Council of Timisoara, on the other hand. The initial funding will be done by the partners of the contractual joint venture. One should consider the fund raising from the following sources:

- Local authorities (Council of Timisoara, The Timis County Council)
- Romanian government (financed by the Ministry of Education and Research, Ministry of Communication and Informational Technology, Ministry of Development and Forecast)
- Austrian government (Ministry of education, Science and Culture, Ministry for Economic Affairs and Labour)
- The European Community (FP6, PHARE etc);
- The World Bank
- Sponsoring and investment from the private sector

➤ **Romanian Design Foundation (FRD)**

The Romanian Design Foundation (FRD), founded in 1996, is a non-for-profit organisation dedicated to promoting excellence in design and innovation in Romania. It manages a database of over 1200 Romanian designers and innovators, individuals

as well as companies. The Romanian Design Foundation has a track record of excellent collaborations with European, US and Black Sea organisations.

FRD Center, in partnership with The Romanian Design Foundation (FRD), has an extensive network of local contacts in design, innovation, manufacturing, services, education and research, business, marketing, administration, non-governmental organisations, professional associations etc.

➤ **Association of Industrial, Technological, Scientific Parks and Business Incubators (APITSIAR)**

The Association of Industrial, Technological, Scientific Parks and Business Incubators (**APITSIAR**) was set up in 2005, in the City of Brasov, upon the initiative of seven founding members.

*Its main objectives are: to promote and protect the members interests, to act for sustainable development of industrial, technological, scientific parks and business incubators, to draw investments, to provide proper assistance for its members as well as for the investors and also to represent them before national and international institutions and authorities.*

Currently, the association has 22 members, all around the country, in Bucuresti, Brasov, Dambovita, Gorj, Prahova, Giurgiu, Hunedoara, Constanta, Ialomita, Botosani, Alba, Mures.

Some of the specific objectives are:

- Promoting the industrial, technological, scientific parks and business incubators and national and international level, together with ARIS (Romanian Agency for Foreign Investments).
- Meetings with the European Commission Delegation for a frame program of Structural Funds for industrial, technological, scientific parks and business incubators.

- Meetings with the Ministry of Administration and Interior and the Parliament of Romania, to improve the Law of Industrial Parks and Technological and Scientific Parks.
- Attracting the FDI in the industrial parks.
- Development of collaboration among industrial, technological and scientific parks.

Nominally, the Research Centres which are included in this association are:

- S.C. BOTOSANI INDUSTRIAL PARK S.A.
- DEJ
- S.C. Mecanica CEAHLAUS S.A Company (Piatra Neamt)
- S.C. PARC INDUSTRIAL MURES S.A. (UNGHENI)
- S.C. HUNEDOARA INDUSTRIAL PARK S.R.L. (HUNEDOARA)
- S.C. CUGIR FREE ZONE INDUSTRIAL PARK S.A.
- SC NITROPARC SRL FAGARAS
- S.C. GORJ INDUSTRIAL PARK S.A.
- S.C. INDUSTRIAL PARK MORENI S.A.
- S.C. GALATI FREE ZONE INDUSTRIAL PARK S.A
- S.C. PARK TECHNOLOGIC AND INDUSTRIAL GIURGIU NORD S.A.
- S.C. FETESTI INDUSTRIAL PARK S.A.
- S.C. ROMPETROL INDUSTRIAL PARK S.A.
- S.C. INDUSTRIAL PARK Carfil S.A.
- S.C. METROM INDUSTRIAL PARK S.A.
- S.C. Brasov Logistic Park S.R.L.
- ICCO Group – Industrial Park Brasov
- S.C. Dima Consulting Group S.R.L.
- S.C. EUROLAND SEMANATOAREA INDUSTRIAL PARK S.A.
- S.C. Metav S.A.

It is obviously from the above that Romania allocates a big number of Science Parks, research Organizations, and Institutes, that through the research and support they offer to SMEs, they contribute to the growth of the wider region of Romania.

Through the project “TECHPARK”, which aims at the creation of a network consisted of Science Parks and Research Institutions, Romania allocates the infrastructures in order to participate actively in this network and contribute to its growth and finally the

cooperation of all the institution of the Black Sea area so as to be created a strong bond between them.

## 6. Performance of Regional Innovation Centers

In the last few years, in Greece, have been created structures that support innovation and business dexterity, while it has been strengthened considerably the system of transport and exploitation of knowledge (eg creation of Offices of Mediation in the Universities, Technological Institutions and Inquiring Centres, reduction of cost of consolidation of licenses).

Great differentiations characterize the country's regions, which are lagging behind (apart from Attica) compared to those of EU25. According to the *Innovation Scoreboard 2007* data for the innovation performance of the 13 regions in Greece in relation to the regions of the EU<sub>25</sub> member states, in total of 203 regions, as far as Greece is concerned, Attica has the best position, ranking at the 86<sup>th</sup> place, while the remaining regions are following by far. Specifically, Central Macedonia region holds the 164<sup>th</sup> position, Crete region the 183<sup>th</sup> and Western Greece, Epirus, Central Greece and Eastern Macedonia and Thrace follow in the 182<sup>th</sup>, 191<sup>th</sup>, 192<sup>th</sup> and 197<sup>th</sup> position respectively, with the last five positions in the table belong to the regions of Peloponnesus (199<sup>th</sup>), Thessaly (200<sup>th</sup>), Western Macedonia (201<sup>st</sup>), North Aegean (202<sup>nd</sup>) and finally South Aegean (204<sup>rd</sup>). It is worth underling that the regions of countries that belong in the same level with Greece, present better performances, like the characteristic examples of the regions of Czech Republic, Hungary and Poland that are among the first 65 positions.

In addition, based on the above, the Greek regions present the following characteristics:

- Crete concentrates almost the 18% of the public research centers expenditures and the 8% expenditures of Higher Education Institutions (HEI), which is reflected in the powerful research centers concentration in the region. Crete though lags behind in the businesses sector (0,66%).

- In the HEI – public research centers sector, Western Greece presents an effective activity, whereas, Epirus, Eastern Macedonia – Thrace and Thessaly, are still developing. In the HEI sector North Aegean region should also be mentioned. From these regions, Western Greece, Eastern Macedonia and Thrace and Thessaly, present business sector activity more than 1%.
- On the other hand, the businesses sector, apart from Attica and Central Macedonia, presents an active research activity in Central Greece and Peloponnisos which constitute the broader industrial area around Attica.
- The Western Macedonia, South Aegean and Ionian Islands regions present performances in all sectors below 1%.

On the other hand, the international experience shows that a region, in order to be competitive, should concentrate on **key parameters**. One of these parameters are the existence of the adequate infrastructure for the knowledge production and exploitation, like Universities and research and technological centers, as well as intermediate transfer and exploitation mechanisms of research results, like science and technology parks, incubators, liaison offices, etc. In addition, effective networks that promote the increase of new knowledge, either solely or / and in clusters with the contribution of the public and private sector must perform in parallel.

In fact, the regional dimension consists one of the main planning parameters. The national policy for the promotion of Research, Technology and Innovation is based on the improvement of the Greek companies' competitiveness and the national economy in general. In this framework, most of the programmes that have been promoted were targeting at encouraging the companies to implement RTD projects as well as get a link between research and production. In parallel, actions for the improvement of R&T infrastructures of the public and private sector, of human resources and entrepreneurship have been designed. One of these programmes was the development of Science and Technology Parks and Incubators for spin-off companies, as well as the support of the Regional Poles of Innovation, which are supported by Greek STEPAs.

Their aims, but also the institutions of their administration and collaboration (universities, local councils, private organisms, etc) appear to be adapting depending on the particular characteristics of the region of installation of each Science Park. However, an institution that could meet the needs of all the Science Parks in Greece, promote the exchange of information of technology and extend considerably the market of companies that support and engrave common results, Hellenic Science & Technology Parks Association (HESTEPA) was founded on July 2006.

HESTEPA aims at growing narrower collaborations between existing but also future Greek organizations. In particular, its goals are:

- The facilitation of communication between its members
- The formulation of proposals for the appointment and promotion of national policy with regard to the institution of Science and Technology Parks.
- The promotion of the role of Science and Technology Parks in the local and regional growth
- The creation of networks of collaboration with other institutions and particularly with the enterprises that are hosted in Science and Technology Parks as well as with institutions of enterprises
- The intensification of mechanisms of diffusion of technology with the collaboration of Science and Technology Parks, including the Academic Institutions, government owned institutions and enterprises.
- The participation in International organizations with relevant goals.
- The attendance in national or international committees, councils, conferences, reports etc that have relation with the aims of HESTEPA.
- The organisation, attendance and concretisation of programs of training and education.
- The collection, organisation and diffusion of information relative with the interests of its members.

- The organisation of meetings, congresses and the publication of special forms that promote the objectives of its members.
- The provision to other organizations of services in subjects that are related with the objectives of its members.
- The attendance in programs and actions that support the objectives of its members.

Western Greece is an area where an important advantage of the Region of Western Greece (RWG) is actively involved. This potential is created inside the Organisations of Knowledge Production (OKP) and constitutes the hope of development of RWG via innovative activities. After the collapse of traditional industrial sectors in this particular region, this seems to be the sole route to development.

The regional structure is characterised by powerful centres of technological development and support which are, however, rather isolated from the local production network, with the exception of the sector of microelectronics and computing where an interesting dynamic cluster of new businesses with international interests and investments is on the rise. The field of transports and logistics around these is also important as potential employment creation. In addition, the fields of Medical Technology, Environmental Technology and aqua resources management are particularly active. What also becomes evident is the potential of creating new companies of technological interest in the region, mostly in the city of Patras, with PSP having the leading role.

The OKPs of RWG are the solution for many sectors of high technology. More precisely, in the RWG exists a capable number of OPKs, which have shown exceptionally important research and development (R&D) activities. On various occasions these have led to immensely successful efforts in manufacturing products and providing services of high quality technology. The most important OKPs of the RWG are namely:

- **University of Patras** ( with many specialised Departments)
- **Open University** (in distant learning)
- **Technological Institute of Patras and Mesologi** (development of applied technology).
- **Research Institutes**
  - CTI** (specialised in the field of Information technology))
  - FORTH/ICEHT** (in the area of Chemical Technologies and Energy)
  - ISI** (Industrial Systems Institute)
  - INBIT** (Biomedical Technology)
- **Regional University Hospital** (Medicine)
- **Companies of High Technology** (ATMEL, INTRACOM, companies PSP, etc)
- **PATRAS SCIENCE PARK** (PSP)
- **BUSINESS INNOVATION CENTER** (BIC)

To the above institutions one could add because of their location the recently established University of Peloponnese and ATEI of Ionian Islands, as well as the Academic Faculty of Agrinio, which belongs to the University of Ioannina.

Innovation and invention support services or structures or “**Innovation Centres**” are established and operated to stimulate, encourage, and assist inventors, entrepreneurs, and innovative companies, in the development and commercialization of new inventions and technology-based products or processes. Inventions, and the individuals who create them and bring them to market as new products or processes, are recognized as key factors in a country’s economic development. Successful inventions result in products and processes, and products and processes will create jobs and national income that enable improvement in the quality of life. The development and operation of innovation support services or innovation centres is an undertaking that, if looked at from the national perspective, should contribute to the maximum use of creative resources among the entire population rather than

supporting only those that could be found in the technically-sophisticated part of the population.

The Universities and the Research Institutions of the region propose and develop new technologies adopting innovative approaches. Even though a huge experience is accumulated and acquired, technological and innovative value remains property, usually unexploited, by the researchers that worked in the particular programs. Moreover, there is not exist particular providence how the knowledge and all the innovative results will be disseminated to the enterprises. The problem of the diffusion of research and technological results is more difficult than their usage for production

In this direction, the role of Science &Technology Parks is essential. Their mission is mainly to bridge the gap between academic society (Universities, Research Centres etc) and the Industry. In other words, the main role of STEPAs is their activation as “lighthouses of knowledge” for the diffusion of innovation and technology, so as the industry can use directly part of the enormous available scientific of knowledge. Thus, they contribute effectively to the fast transformation of innovative results of research and technological development in successful enterprising undertakings.

## 7. Future aspects of this project and how they can be implemented

The development of the knowledge-based economy puts an increasingly high emphasis on the need to produce, exploit, transfer and apply knowledge. There seems to be a general agreement about the need to develop and strengthen networking activities between neighbor countries, such as countries at the Black Sea Area.

Building a knowledge-based economy requires well coordinated, synergetic efforts of stakeholders, as well as policy makers at all levels from local, regional, national to EU. Besides many **shared responsibilities**, there are distinct areas of individual responsibility and division of labour.

**European Union** has raised the awareness of the importance of science, technology and innovation (STI) and provides incentives and supports investment in research, infrastructure and transfer of technology and knowledge. Efforts have to be made in the coming years to maximize the synergies between the EU instruments (such as the 7<sup>th</sup> Framework Programme for RTD, the CIP and the Structural Funds, BSEC). The **national level** can focus on improving the framework conditions and capabilities by establishing a stable and predictable economic and political climate whilst **regions** should focus on the integration of R&D and innovation into regional development strategies.

The primary responsibility for upgrading knowledge-based competitiveness remains with the enterprises – linked to the research community which should be equally interested to play an active role in the process. Though regions are increasingly identified as important players in the knowledge-based economy, they often lack competences and information on modalities and policy instruments to fully exploit their potential. Traditionally regions did not possess a strong R&D base, both now RICs and science parks have become popular and their number is constantly

increasing. They have an important role to play in defining any STI policy at regional level. However, regions differ from each other in terms of resources (human, social, technological and financial capital) and other factors of competitiveness including those of cluster externalities, local knowledge spill-overs and other multiplicative effects. All these issues should be taken into account when policy mechanisms and actions are being designed and implemented. STI indeed need **multi-level policy governance** with **intense cooperation** and **competition**.

TECHPARK's main objective is the creation of a network consisted of Science Parks, Innovative Centers, Institutions and Universities between the participating members of the project. Through this network it will be developed beneficial cooperation on a regional level among all the BSEC Member States in many fields, will be enhanced the cost-effectiveness and efficiency of scientific research and technological development, will be reduced the time frame and the route between the laboratory and the market and will be accelerated the transformation of research results into innovative products and processes that contribute to economic growth and increased prosperity.

As we have already mentioned, Science Parks play a very important role for the development of the region they are located. A collaboration with STEPAs in the Black sea will be a "catalyst" for the better organization and transformation of the scientific research and will significantly contribute to the technological development

## 8. Undertaken Activities

At the TECHPARK proposal a list of main activities was planned. Here is the list of corresponding actions which were undertaken in fact.

Planned action	Undertaken action
<ul style="list-style-type: none"> <li>Survey the present activities and structure of the participated Science Parks</li> </ul>	<ul style="list-style-type: none"> <li>The survey of the main activities of the Science Parks was performed. It showed both main activities of the envisaged Science Parks as well as their typical and specific infrastructure.</li> </ul>
<ul style="list-style-type: none"> <li>Study the effectiveness of cooperation among innovation centers, the academic and the business community</li> </ul>	<ul style="list-style-type: none"> <li>Survey has presented the transformation of innovation process routes during the last decades, defined the needs for it and solutions found.</li> </ul>
<ul style="list-style-type: none"> <li>Perform studies for the development of new innovation structures</li> </ul>	<ul style="list-style-type: none"> <li>A survey has shown new innovative structures which have been recently developed in order to meet new challenges of the BSEC economies.</li> </ul>
<ul style="list-style-type: none"> <li>Perform studies for the future development of networking activities between regional and international units</li> </ul>	<ul style="list-style-type: none"> <li>The survey has proposed an establishment of the long-term cooperation through the foundation of Black Sea Association for Scientific and Technological Parks. Initial preparation work for foundation of Association has been done.</li> </ul>
<ul style="list-style-type: none"> <li>The network will organize a 2 day conference to present the results of the above studies</li> </ul>	<ul style="list-style-type: none"> <li>A 1-Day Seminar on Technology and Science Parks was held in Moscow (Russian Federation) on June 2, 2008.</li> <li>A special session was organized in Patras in the frames of "Innovation and Entrepreneurship Week" which was held in Patras (Greece) June 30 – July 4, 2008.</li> </ul>

However TECHPARK consortium, besides these activities, has performed the following actions.

<ul style="list-style-type: none"><li>• A visit of Project Coordinator was performed to a Partner site (to MSTU "STANKIN")</li></ul>
<ul style="list-style-type: none"><li>• A visit of Partner (MSTU "STANKIN") was performed to a Project Coordinator site (to Patras Science Park)</li></ul>
<ul style="list-style-type: none"><li>• Presentation of the TECHPARK project has been done at Greek-Russian Business Dialogue which was held in Moscow on June 1, 2008.</li></ul>
<ul style="list-style-type: none"><li>• Presentation of the TECHPARK project has been done at a Business Council Greece-Russia which was held in Athens on February 19, 2008.</li></ul>
<ul style="list-style-type: none"><li>• A project has been presented to some government officials of BSEC countries.</li></ul>
<ul style="list-style-type: none"><li>• Information about project has been disseminated through relevant, local and national media.</li></ul>
<ul style="list-style-type: none"><li>• Information on the project was presented also to some bodies outside of BSEC countries</li></ul>

Some more of the information about these actions is also presented in the "Dissemination" section of the report.

The establishment of Association of Black Sea Science Parks has following background:

- Most of BSEC countries accept innovation as a key solution for their development
- All the BSEC countries need to accelerate their economical development with drastic measures
- As a rule BSEC countries have a good potential for an innovative economy (human potential, level of science etc.)
- Most of the problems met by BSEC countries economies interfere with each other, this creates a need for experience exchange in finding effective solutions
- A large amount of population in BSEC area creates a potential for successful economy development
- There exists still some diversity among the economies, cultures and tradition of BSEC countries which make their collaboration even more challenging as this creates a ground for complimentary cooperation. This will tighten the links among BSEC countries.

## Dissemination Activities

### *General approach*

Since the beginning of project the information relating to it was widely disseminated. Participants tried to inform the community about the project and the results it achieved. All allusions as a rule were mentioning BSEC as an organization sponsoring the project. All presentations had a reference to BSEC and its logo (see fig.1).



Fig. 1. Fragments from some TECHPARK presentations, bearing a reference to BSEC

In some cases Coordinator (Patras Science Park) gave in its presentations brief information about BSEC, its main goals.

*Oral presentations*

First mention of TECHPARK was done by its Coordinator during the "**Innovation Week**" in Patras in June 2007. No separate presentation was done, but a Coordinator made a public statement about the forthcoming project and its goals.

Next presentation was done after the 1<sup>st</sup> half-year of a project. It presented the interim results of the project. The presentation was done at a **Business Council Greece-Russia** which was held in Athens on February 19, 2008.

Two presentations (one by Coordinator – Patras Science Park, another by MSTU "STANKIN") were done the way they created a plenary session devoted to Innovation (fig. 2).





Fig. 2. Presentations of TECHPARK at Business Council Greece-Russia which was held in Athens on February 19, 2008

Besides the session project participants were introduced to Mr. Alexej Gordeev, Minister of Agriculture of Russian Federation who is also responsible for cooperation of Government of Russian Federation with Greece (fig. 3.).



Fig. 3. Participants of TECHPARK project being introduced to Minister of Agriculture of Russian Federation Mr. Alexej Gordeev

Next presentation of the TECHPARK results was done at **Greek-Russian Business Dialogue** which was held in Moscow on June 1, 2008. The presentation was done by Coordinator – Patras Science Park (see fig. 4.).



Fig. 4. Presentations of TECHPARK at Greece-Russia Business Dialogue which was held in Moscow on June 1, 2008



Fig. 5. Prof. Petros Groumpos, Coordinator of TECHPARK project together with Deputy Minister of Foreign Affairs of Hellenic Republic Mr. Petros Doukas and other members of Presidium right after presenting the TECHPARK project in Moscow

Special presentations were done also at relevant seminar in Moscow and conference in Patras (see section *Seminars and Conferences*).

#### *Seminars and Conferences*

According to Project plan a 1-Day Seminar on Technology and Science Parks was held in Moscow on June 2, 2008. The seminar was co-organized by TECHPARK project and MSTU “STANKIN” (fig. 5.). (Copies of presentations are attached).



Fig. 5. 1-Day Seminar on Technology and Science Parks was held in Moscow on June 2, 2008

During the seminar Coordinator of project and Participant made presentations of the project and of its final result. Afterwards there was a roundtable discussion of the problems for development of Technology and Science Parks and the ways to overcome it.

Another event was a special session organized by TECHPARK project during the "Innovation and Entrepreneurship Week" which was held in Patras (Greece) June 30 – July 4, 2008. A session was entitled "Projects of BSEC – TECHPARK project". Final results of the project were presented to public (fig. 6.)



Fig. 6. A Week of Innovation and Research where a TECHPARK presentation was done, July 2008

Besides project's participants also a **General Secretary of BSEC Dr. Kostas Masmanidis** gave his presentation about BSEC and Black Sea Regional innovation policy. Also Ms. Eutikhia Bakopoulou – a representative of Economic and Trade department of Embassy of Greece in Moscow made her presentation demonstrating developments of economic relations between 2 countries of BSEC: Greece and Russia (fig. 7 and fig. 8).



Fig. 7. General Secretary of BSEC Dr. Kostas Masmanidis gives his presentation about BSEC and Black Sea regional innovation policy



Fig. 8. Ms. Eutikhia Bakopoulou – a representative of Economic and Trade department of Embassy of Greece in Moscow made her presentation demonstrating developments of economic relations between 2 countries of BSEC

### Public Newspapers

A special effort was done to present information regarding TECHPARK project in public media. This was done through following approach.

A series of publications was done in media published by project participants: a “Patras Science Park Newsletter”, a “Stankinovsky Vestnik” (Herald of MSTU “STANKIN”). There information was given on project in overall as well as on special events performed in terms of TECHPARK project.

Another series was done in local and national newspapers. Usually information presented there was about some specific events related to the project.

ΜΕΤΑ ΑΠΟ ΕΓΚΡΙΣΗ ΣΧΕΤΙΚΗΣ ΠΡΟΤΑΣΗΣ

## Συντονιστής του έργου Techpark το Επιστημονικό Πάρκο

**Συντονιστής του έργου TECHPARK ορίσθηκε το Επιστημονικό Πάρκο Πατρών, στο οποίο συμμετέχουν το Επιστημονικό και Τεχνολογικό Πάρκο “Stankin” της Μόσχας και “Politehnica” του Βουκουρεστίου, μετά από την έγκριση σχετικής πρότασης που υπέβαλε στον Οργανισμό Οικονομικής Συνεργασίας Κρατών Μελών της Μαύρης Θάλασσας (ΟΣΕΠ).**

Παράλληλα εξετάζεται πρόταση του Ε.Π.Π για την ίδρυση Διεθνούς Κέντρου Έρευνας και Καινοτομίας του συγκεκριμένου Οργανισμού στην Πάτρα.

Αναλυτικά, στην συνάντηση καριφής του Οργανισμού (ΟΣΕΠ) που πραγματοποιήθηκε στην Κωνσταντινούπολη στις 21-22 Μαρτίου, και στην οποία συμμετείχαν εκτός των 12 κρατών μελών του Οργανισμού και Κράτη ως συνεργαζόμενοι Φορείς ( ενδεικτικά: Γερμανία, Γαλλία, Ιταλία, ΗΠΑ, Ουκρανία, Ρωσία, Σλοβενία, Τσεχία, Ουγγαρία, Πολωνία, Σλοβακία, Ελλάδα), η πρόταση του προγράμματος TECHPARK που υπέβαλε το ΕΠ.Π και του οποίου η υλο-

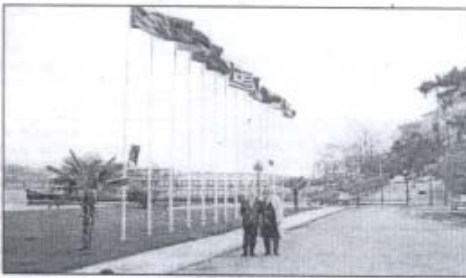
ποίηση αρχίζει την 1η Ιουνίου 2007.

Η συγκεκριμένη πρόταση που παρουσίασε και υπεστήριξε ο πρόεδρος του ΕΠ.Π.

Επιχειρηματικών Κέντρων της περιοχής τους και γ) στην ανάπτυξη ενός δικτύου (Ένωσης) Επιστημονικών και Τεχνολογικών Πάρκων της Μαύ-

ας Θάλασσας, με την προϋπόθεση ότι η Ελλάδα έχει αποδείξει μέσω του διπλού ρόλου της (ως κράτος μέλος της Ε.Ε και του ΟΣΕΠ) πως συμβάλλει καταλυτικά στην αύξηση σχέσεων Ε.Ε-ΟΣΕΠ, και ως έπεται, ότι στην Πάτρα έχει υπογράψει από το ΥΠ.ΑΝ η ίδρυση Ερευνητικού Κέντρου Δυτικής Ελλάδας (Ε-ΚΕ.Δ.Ε) που θα φιλοξενηθεί αρχικά στο ΕΠ.Π, και παράλληλα έχει υπογράψει μνημόνιο για την ίδρυση Κέντρου Καινοτομίας του Πανεπιστημίου του North-eastern στο ΕΠ.Π.

Το γεγονός ότι στην Πάτρα λειτουργεί ένα δυναμικό ΕΠ.Π ήταν ένας σημαντικός λόγος για να ιδρυθούν τα συγκεκριμένα Ερευνητικά Κέντρα που προαναφέρω. Η δημιουργία ενός Διεθνούς



**Ο Πρόεδρος του Επιστημονικού Πάρκου Πατρών Καθ. Πέτρος Γρομπός με τον Υπεύθυνο Διοίκησης Προγραμμάτων του “Οργανισμού Οικονομικής Συνεργασίας Κρατών Μελών της Μαύρης Θάλασσας” Κωνσταντίνο Ζαΐμη**

Πέτρος Γρομπός αφορά: α) στην μελέτη των Επιστημονικών και Τεχνολογικών Πάρκων, ως Περιφερειακών Πόλων Ανάπτυξης, β) στην μελέτη του τρόπου με τον οποίο, το Επιστημονικό Πάρκο μπορεί να οργανωθεί και να ενταχιστεί τους δεσμούς μεταξύ Ερευνητικών Κέντρων και

Ερευνητικού Κέντρου με την ταυτότητα του Οργανισμού Οικονομικής Συνεργασίας των Κρατών Μελών της Μαύρης Θάλασσας, θεωρώ ότι θα συμβάλει αποφασιστικά στην οικονομική ανάπτυξη των κρατών μελών του Οργανισμού και των συνεργαζόμενων κρατών και φορέων, με αποτέλεσμα την βέλτιστη οικονομική ανάπτυξη σε περιφερειακό και διασυνοριακό επίπεδο”. Η συγκεκριμένη πρόταση κριθηκε εξαιρετικά ενδιαφέρουσα και τα μέλη πρότειναν την υποβολή της, εγγράφως, για να την μελετήσουν και να αποφασίσουν.

From a Greek newspaper

### СЕМИНАР, ПОСВЯЩЕННЫЙ ТЕХНОПАРКАМ

03 июня 2008 г. в МГУ "СТАНКИН" прошел семинар, посвященный развитию технопарков в Российской Федерации. Семинар был организован совместно Центром Трансфера Технологий МГУ "СТАНКИН" и Научным Парком г. Патры (Греция) при технической поддержке СЦНИТ МГУ "СТАНКИН".

Семинар проводился в рамках совместного научно-исследовательского проекта по программе Черноморской Экономической Ассоциации. Тема проекта: "Изучение Деятельности Технопарков Черноморского Региона" ("Study of Science and Technological Park Activities as a Black Sea Regional Pole of Development") "TECHPARK".

Участниками проекта являются: Научный Парк г. Патры (координатор), МГУ "СТАНКИН", Центр Подготовки Персонала (Бузарест, Румыния).

Целью проекта - изучение опыта работы технопарков стран Черноморского региона и выработка рекомендаций по их развитию.

Семинар открыл проректор по учебной работе профессор Ю.В.Подурава, который представил слушателям семинара выступая, отметил долговременный опыт сотрудничества между СТАНКИНом и Патрами, отметил актуальность поднимаемой темы обсуждения.

От Центра Трансфера Технологий МГУ "СТАНКИН" выступил доцент И.Л.Ермолов. Тема его доклада: "Россия в обороте новых технологий: платформа для сотрудничества с Грецией".

В докладе рассматривалась трансформация путей развития инноваций от экономических решений 1980-х г.г. к современности. Были отмечены основные проблемы и изменения, произошедшие за этот период. Отдельно была описана тенденция развития технопарков. В РФ в данный момент имеется около 100 технопарков, а также множество других структур, осуществляющих схожие функции. И.Л.Ермолов остановился на специфике

развития технопарков в России и отметил возможные пути взаимодействия с Грецией в этой области.

Затем выступил с докладом профессор Петрос П.Грумбос, директор Научного Парка г. Патры. По сути эта структура является классическим технопарком.

На базе Научного Парка г. Патры существуют около 30 инновационных предприятий. Основная область их деятельности: информационные технологии, электроника, биотехнологии, фармацевтика и другие.

Научный Парк является предприятием, 100% акций которого владеет государство. Его целью является поддержка развития инновационных компаний на начальном периоде их развития.

Научный Парк г. Патры входит в состав 7 технопарков, действующих в Греции, а также входит в международную и европейскую ассоциации технопарков.

Проф. Петрос П.Грумбос рассказал о деятельности проекта "Изучение Деятельности Технопарков Черноморского Региона", отдельно остановившись на специфике Черноморского региона, в котором проживает около полумиллиарда населения и который обладает мощным потенциалом развития.

В своем докладе профессор Грумбос отметил высокий уровень развития деятельности технопарков в России и поддержку их развития руководством РФ.

В заключение доклада профессор Грумбос ответил на вопросы аудитории.

Профессор Грумбос встретился с проректором по учебной работе проф. Ю.В.Подравым. В ходе встречи обсуждались вопросы сотрудничества в области совершенствования подготовки студентов и аспирантов. Достигнута договоренность о подписании совместного договора между сторонами.

**P.S.** Организаторы благодарят Е.В. Аллатову (каф. РИМ) за техническую помощь в подготовке семинара.




Publication from a Russian newspaper

## **9. Some conclusions**

Basing on the actions undertaken during the project following conclusive results can be presented.

The survey has found out that as a rule Science Parks are based on following main "parents":

- universities, who see in Science Park a bridge to connect it with industry, as well as a sufficient tool to shorten the path of new innovative discoveries or developments from university laboratory to the industrial workshop.
- Industry, who accepts Science Park to be a source of innovative ideas. SMEs are especially interested in Science Parks as those give them the opportunity for more favorable growth.
- National or regional executive powers, who see Science Park as a body to which they can shift their lapsed duty for governing the innovative process within the country.
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However, other bodies are participating in foundation and activities of Science Parks. This is more diverse in CEE countries.

Among the main type of activities performed by Science and Technology Parks it's necessary to accept that their major role is in creating favorable conditions for companies (especially SMEs) for their start-up and further development. It tries to free them from burden of most of bureaucratic and office-based work.

The survey has found out that the main weakness creating obstacle for cooperation among innovation centers and academic and business community is the lack of information in the society regarding the activities of Science and Technology parks. Both sides do not often know of the possible collaboration opportunities and of the mechanisms.

Some of mechanisms and tools which could serve for better collaboration among innovation process participants are not used properly. E.g. some Technology Parks have very poor web-sites, non-systemized or which were not updated recently. This creates a problem for bringing up information about Science and Technology Parks to their users.

Another unexpected problem was that web-sites of a lot of Science and Technology Parks did not have information in English language. This creates a conclusion that these institutions are not providing any international activities. This looks to be rather astonishing as most often Science Parks are frontiers for international cooperation in their area. Hence more collaboration among Science Parks from different countries is needed.

One more problem is unclear status of some Science and Technology Parks. Some of them are parts of university structure, another are commercial enterprises, other are completely driven by regional administration.

Also the very term Scientific and Technology Park is used very widely. During the project it was found out that a some of so-called Scientific and Technology Parks are not exactly Scientific and Technology Parks but some times are exhibition agencies or personnel training agency or research institute. This needs clarification for the future.

During the studies Consortium explored that there continues the permanent search for new innovation structures and schemes.

Some of the new interesting initiatives found:

- creation of Technology Park by a large company to sustain its SME-suppliers (Technology Park in Togliati, Russian Federation)
- intention to create a Technology Park in Sochi (Russian Federation) which would have a specialization on construction for Olympic games
- creation of State Innovation Center for Machine-Building Industry in Russia (expected to be in Moscow)

- some others.

It is expected that more schemes and structures for innovation may arise in near future.

After completion of the TECHPARK project its participants recognized the necessity for further collaboration. As it was mentioned before essential part of Technology Parks in BSEC countries has a weakness in lack of international collaboration and cooperation.

However such cooperation could substantially improve the performance of these Technology Parks as they could actively exchange experience among each other, discuss the problems they explore and share possible solutions for these problems. BSEC countries experience some problems in innovations which are common among BSEC countries, moreover some of them have started overcoming these problems. Hence such collaboration could make a very strong positive influence for Science and Technology Parks activities in the BSEC region in the future.

Because of this TECHPARK consortium suggests to establish **Black Sea Association for Scientific and Technological Parks**. Initial preparation work for foundation of Association has been done. Statutes for such association and its possible structure have been developed.

All public presentations of TECHPARK as a rule caused an interest among the audience. Usually people from the audience were asking questions after presentations. Some people contacted partners of TECHPARK during the coffee-breaks and expressed their interest in project and what it has studied.

Several companies have also expressed their interest to start an innovative project together with TECHPARK partners (the feasibility of such proposals is under consideration now).

Media published reports about such presentations, people were also very interested in new schemes of innovations which were presented during TECHPARK presentation.

This all is evident of both importance of the project results and of the Technology and Science Parks in general.