

RIS+ CENTRAL MACEDONIA

FINAL REPORT

RIS+ CENTRAL MACEDONIA

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CONTENTS

RIS+ CENTRAL MACEDONIA FINAL REPORT

| | |
|--|----|
| EXECUTIVE SUMMARY | 4 |
| I. PROJECT IMPLEMENTATION PERIOD | 5 |
| II. PROJECT OBJECTIVES | 9 |
| III. PARTNERSHIP AND MANAGEMENT | 12 |
| III1. <i>PARTNERSHIP DEVELOPMENT</i> | |
| III2. <i>PROJECT MANAGEMENT</i> | |
| IV. ACTIVITIES | 15 |
| IV1. <i>MAJOR MILESTONES</i> | |
| IV2. <i>PILOT APPLICATIONS</i> | |
| IV3. <i>INTER-REGIONAL NETWORKING</i> | |
| V. LESSONS LEARNT | 32 |
| VI. <i>CONCLUSIONS FROM THE PILOT ACTIONS</i> | |
| V2. <i>CONCLUSIONS FROM THE 1ST REGIONAL INNOVATION REPORT</i> | |
| V3. <i>NEW STRATEGY DEVELOPMENT: A REVISED ACTION PLAN FOR THE REGION OF CENTRAL MACEDONIA</i> | |
| VI. FUTURE ACTIVITIES | 37 |
| VII. FINANCIAL REPORT | 41 |
| VIII. <i>EXPLANATORY NOTES</i> | |
| VII2. <i>CERTIFICATE OF EXPENDITURES</i> | |
| VII3 <i>STATEMENT OF EXPENDITURES</i> | |
| VII4. <i>EXCHANGE RATES</i> | |
| VII5. <i>EXPLANATORY FINANCIAL TABLES</i> | |
| VII6. <i>FINANCIAL AUDITORS REPORT</i> | |

ANNEX I

ANNEX II

EXECUTIVE SUMMARY

The main objective of "RIS+ Central Macedonia" (the programme) was to fund the experimental phase of selected projects proposed in the RTP Action plan of Central Macedonia. The RTP constituted a collective effort to support innovation in the Region, through the promotion of applied research, co-operation between research institutions and industry, technology transfer, entrepreneurial capabilities, new production processes and effective competition in the global market. The RTP in Central Macedonia introduced a voluntary planning process in the Region, where there was neither the culture nor the will to do so, and where the national approach to regional co-ordination was not at all appropriate. Due to the development of the RTP, innovation became part of the regional planning agenda. *The continuous incorporation of innovative actions in the regional planning mechanisms during the development of RIS+ constitutes the biggest achievement of the programme in Central Macedonia.*

Table 1: Summary of the activities of RIS+ in Central Macedonia

| | GROUPS OF ACTIVITIES | | WORK PACKAGES |
|---|----------------------------------|---------------|---|
| 1 | MANAGEMENT | | 1. Management unit |
| | | | 2. Steering Committee |
| | | | 3. International expert |
| | | | 4. Financial management |
| 2 | PRIORITIES | PILOT ACTIONS | 5. Funding businesses from European R&D programmes |
| | | | 6. Attraction of FDI and technology co-operation |
| | | | 7. Wine SMEs Network |
| | | | 8. Technology co-operation and modernisation of industrial estates |
| | | | 9. Risk management for investment in South-eastern Europe |
| | | | 10. Innovation and Information Technology Centre in Central Macedonia |
| | | | 11. Association for the promotion of agro-technologies |
| | | | 12. Location and premises for R&D, technology and innovation |
| | | | 13. Observatory for Innovation and Development in Central Macedonia |
| 3 | REVISION OF THE RTP | | 14. International Panel |
| | | | 15. Update of the RTP Action Plan |
| 4 | PROMOTION AND NETWORKING ACTIONS | | 16. Brochures, seminars and interregional co-operation |

The operational objective of the programme was funding the experimental phase of nine projects that stemmed out of the RTP's Action Plan. Eight of these projects pertain to the factors that influence the firms' ability to innovate, with the ninth providing information on the Regional Innovation System and covering monitoring, evaluation and feedback activities. The operational objective was achieved through the development of three groups of activity, namely: (1) the management structure, (2) pilot projects, and (3) the promotion of activities and networking (see table 1). All work-packages were implemented on the basis of intra-regional co-operation and working teams. The Steering Committee and the Management Unit provided guidance, monitoring and on-going evaluation for the programme as a whole. The implementing bodies for each pilot project provided their own evaluation of their respective actions.

The overall strategic orientations that supported the development of the programme were:

1. Establishment of mechanisms facilitating access to funding for technology and innovation.
2. Promotion of technological co-operation and networking between businesses.
3. Technology training.
4. Reinforcement of the technological supply system.
5. Dissemination of best practice and continuous update of the RTP action plan.

The Steering Committee (SC) was the internal decision-making instrument that authorised and validated the proposals made by the project director and the management unit. To ensure coherent guidance to both RIS+ and RISI+ programmes that were simultaneously carried out in Central Macedonia, it was deemed necessary to establish a Joint Steering Committee (JSC) for both projects. Therefore, chairmanship of this Joint Steering Committee was assigned to the Secretary General of the Region of Central Macedonia (RCM), although RCM was the beneficiary organisation of RISI+ only. This provided appropriate a valuable political endorsement to the JSC's decisions and opened channels to regional development funds.

Thus, the 15-member Joint Steering Committee of the RIS+/RISI+ programmes in Central Macedonia was chaired by the Regional Administration and included 5 representatives from the national government, 2 from of the regional industrial associations, 2 from the regional chambers, 1 from the trade unions, 1 from the regional development agencies and 2 from the academic community. Its composition had a positive influence on the consensus building process and the applicability and wide dissemination of the programme and its objectives.

The specific role of each of the members of the RIS+ Steering Committee was to explicitly raise the urgent needs of each particular sector of the local economy, to involve the agencies they represented in the development of the programme, to provide consultancy services to the management unit, and to monitor the work progress and the distribution of financial resources.

Following the continuous evaluation of the on-going evolution of the programme's activities, the JSC proposed the modification of the programme's original work plan by dropping two projects and introducing three new ones.

Direct communication channels were established with the Structural Fund Monitoring Committees, both at regional and national levels through the participation of representatives of the entities responsible for allocating the Structural Funds in the Steering Committee.

The pilot actions and feasibility studies that were carried out during the development of the programme are briefly described below:

- 1. Funding Businesses from European R&D programmes.** The major result of this action was the creation of an R&D Support Unit in the Technology Park of Thessaloniki. This support mechanism will be further developed and extended through the mainstream structural funds, at the regional and national levels. The major accomplishments during the operation of the Support Unit include the organisation of three events to introduce European R&D programmes, consultations to 25 businesses for the preparation of R&D proposals, and joint preparation of three R&D proposals.
- 2. Foreign Direct Investments and international technological co-operation.** The feasibility study that was carried out for the purposes of this project provided a critical evaluation of FDI services in Scotland and Ireland, which were considered as best practice, and examined their organisational structure, mission, services and motives for potential entrepreneurs. Based on a analysis of the productive environment in Central Macedonia, the infrastructure and the favourable geographical position of the Region, the feasibility study proposed the legal status, the organisation and the services that will be provided by the FDI Unit in RCM.
- 3. Wine SMEs Network.** This pilot project investigated the scope of existing intra-regional technological co-operation between wine producers, as well as the opportunity to introduce innovative production and marketing methods. The project focused on two major fields: ecological wine production and on-line wine marketplaces. Among the project's major accomplishments were a methodological guide for the conversion of traditional vinicultures to ecological ones, a master plan for the wine industry in Northern Greece and a study that examined the economical conditions for creating a regional wine producer cluster.
- 4. Technology co-operation and modernisation of industrial estates.** This project was designed to develop the technological co-operation among industries established within the Industrial Estates of RCM. The major objective was to support the regional industrial system so that economies of scale appear in the form of business partnerships, new financing tools, innovation relay centres and mobility of highly skilled personnel. The secondary objective was the enhancement and integration of the localised, within the Industrial Estates, industrial system and the promotion of new structures that would lead to the formation of high technology and innovative clusters. The project's main finding was that the most urgent priorities for establishing an inter-entrepreneurial support system are raising awareness and supplying real services with concrete sectoral focus.
- 5. Risk management for investments in South-East Europe.** This project aimed to support regional businesses to expand their activities in the Balkan area. The specific project objectives were to foster Greek investment in South Eastern Europe through better information and understanding of the investment environment and provide training on management and investment methods in a risky business environment. The project's pilot phase was focused on the Former Yugoslav Republic of Macedonia (FYROM) the most prominent neighbouring country in terms of Greek investments. Among the project's major achievements was the organisation of three business meetings, signing a MoU between the Associations of Industries of Northern Greece and FYROM and producing an investors guide for FYROM.
- 6. Innovation and Information Technology Centre in Central Macedonia.** The aim of this pilot project was to prepare all the necessary actions for the establishment of a Business Innovation Centre in the city of the Thessaloniki. It should be noted that, during the past few

years, several attempts had been made by the Region of Central Macedonia to create a BIC, but these remained unsuccessful. The aim of the BIC would be to support technology and management services for business and regional productive system, and to diffuse innovation and decentralise the regional technology system of Central Macedonia.

- 7. Promotion of Agro-Technologies.** The objective of this project was to promote agro-technologies, demonstrate best practice applications to businesses and the public sector, and to contribute to the creation of a regional pole of excellence in the field of agro-technologies. The pilot application followed the model of industrial information technologies already implemented in Central Macedonia. It created associations between technology providers and users for the application of agro-technologies: improvement of plant varieties, plant diseases, ecological agriculture, hydro-production technologies, genetic improvement of animal breeds, and biotechnology applications.
- 8. New premises for R&D University Institutes.** New established institutions in the field of research, technology, and technology transfer have created an important demand for location premises. The lack of adequate premises for such activities has become a major barrier for the development of research and technology activities. The objective of the project was to examine, and possibly open-up new areas, for the location of public-private associations for technology supply, research institutes of the Aristotle University of Thessaloniki, and technology transfer institutions.
- 9. Innovation observatory in Central Macedonia.** The project's objective is to monitor and evaluate the RTP and the follow-up actions and to collect, process and disseminate information on innovation issues in the Region of Central Macedonia. Its secondary objectives include the promotion of the RIS+ actions, the dissemination of best practice for regional innovation support, and the provision of information on innovation, regional competitiveness, and company development to the public and private sector in Central Macedonia.

The update of the Action Plan. One of the most important project objectives was the update of the RTP Action Plan and the elaboration of a revised strategy for the regional innovation and development. The experience acquired by the development of all RIS+ actions and pilot applications contributed the elements of this strategy for Central Macedonia, tailored to incorporate the new needs that appeared and utilize the new regional capabilities. Based on all the lessons learnt from the RIS+ project, the new Action Plan for the region of Central Macedonia codifies a revised strategy for regional innovation and development based on three major pillars:

- The first pillar is "high tech clusters". The focus point for the revised action plan is now turned from the individual firm to the cluster and especially the knowledge-based clusters as a key element in changing the regional production structure.
- The second pillar is the concentrated effort to improve the co-ordination between technological supply and demand through the enhancement of the regional technology transfer system.
- The third pillar is experimentation with and exposure to new technological tools to increase regional technology intelligence such as: technology clinics, e-learning, e-networking, new products development in the clusters.

I. PROJECT IMPLEMENTATION PERIOD

The project started following the Commission's Grant Letter on 8 July 1999 SG (99) D/4953). The time frame was 18 months, with the final date of work being 31 August 2000 and the final date of payments being 31 November 2000.

The project director requested an initial six-month extension, on 14 March 2000. This extension was granted on 31 March 2000 (DG REGIO ML/al D (2000) 00100682) and the final dates of work and payments were set to 31 May 2001 and 30 November 2001, respectively.

An additional six-month extension was requested on 20 December 2000 and granted on 27 March 2001, setting the final date of work to 30 November 2001 and the final date of payments to 28 February 2002 (DG REGIO B.3. D/330164).

The actual start of the project activities was June 2000, excluding a kick-off meeting for all four RIS+ projects in Greece that was held on 4 March 2000. All project activities have been completed by 30 November 2001.

II. PROJECT OBJECTIVES

The *main objective* of “**RIS+ Central Macedonia**” (the programme) was to fund the experimental phase of selected projects proposed in the RTP Action plan of Central Macedonia. The RTP constituted a collective effort to support innovation in the Region, through the promotion of applied research, co-operation between research institutions and industry, technology transfer, entrepreneurial capabilities, new production processes and effective competition in the global market. The RTP in Central Macedonia introduced a voluntary planning process in the Region, where there was neither the culture nor the will to do so, and where the national approach to regional co-ordination was not at all appropriate. Due to the development of the RTP, innovation became part of the regional planning agenda.

Regional R&D policy was relatively inexistent before the development of the RTP in Central Macedonia. There were no bridges between research institutions and firms -with few individually promoted exceptions- and virtually no contacts between the research community and institutional actors. According to the independent evaluator commissioned by the European Commission, the RTP introduced a voluntary planning process in the region, where there was neither the culture nor the will to do so, and where the national approach to regional co-ordination was not at all appropriate.

The most important impact of the RTP was its influence on a new working practice and the fact that it brought together people that would normally not sit at the same table. Before the RTP exercise, it was common for regional authorities to ignore researchers in their planning process and to therefore push the latter to establish alliances outside the region and even outside the country. Companies also needed the regional authorities (mainly for financial incentives), but these needs could not be fulfilled because the lack of credibility of the regional authority when it comes to implementing a consistent planning process. Thanks to the RTP, innovation has become more prominent in the regional agenda, although in higher political circles, it is still believed that tangible physical infrastructure always represents a better investment opportunity than funding “software” (innovation support actions). However, this attitude is slowly disappearing in the middle layers of the Regional Authorities.

The value added of the RTP for the region can be summarised as follows: (1) the diffusion of innovation through the application of innovation supporting projects in Central Macedonia, (2)

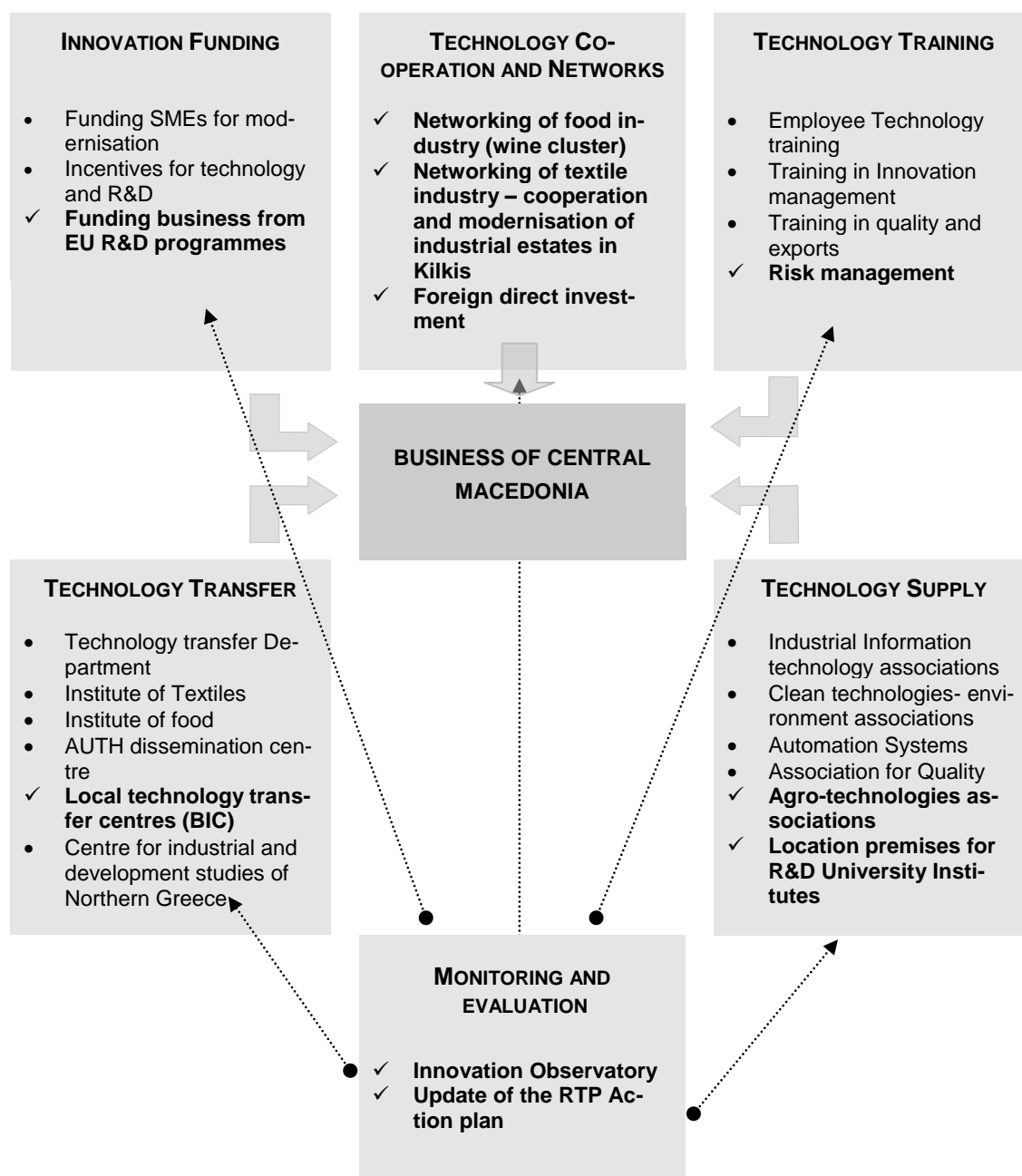
building awareness of regional authorities on innovation related issues, (3) and the creation of an Observatory as a monitoring and evaluation system.

The **operational objective** of the programme is **funding the experimental phase of nine projects** that stemmed out of the RTP's Action Plan. Eight of these projects pertain to the factors that influence the firms' ability to innovate, with the ninth providing information on the Regional Innovation System and covering monitoring, evaluation and feedback activities. The operational objective was achieved through three groups of activity, namely: (1) the management structure, (2) pilot projects, and (3) the promotion of activities and networking. All work-packages were implemented on the basis of intra-regional co-operation and working teams. The Steering Committee and the Management Unit provided guidance, monitoring and on-going evaluation for the programme as a whole. The implementing authorities of each pilot project provided their own evaluation of their respective pilot action.

The objectives of the programme remain as described in the proposal covers the following five priority areas:

1. **Establishment of mechanisms facilitating access to funding for technology and innovation:** supporting the preparation of projects in the framework of the 5th R&D Framework programme and/or national programmes; and improving the firms' capacity for innovation through collaboration with research units and participation in international R&D consortia.
2. **Promotion of technology co-operation and networking between businesses:** supporting the attraction of foreign direct investments in Central Macedonia; supporting technology networks between businesses located in the industrial area of Kilkis; designing new infrastructures for the modernisation of the estate with respect to the development of technology networks and co-operation; improving the intra-regional technology co-operation in the wine cluster; and improving the innovation capacity of regional firms through co-operation with international businesses.
3. **Technology training** in the field of risk management
4. **Reinforcement of the technology supply system** through the improvement of building premises at the Aristotle University of Thessaloniki and the promotion of agro-technologies.
5. **Monitoring and evaluation** of the RIS+ actions, dissemination of best practice for regional innovation support, selection of international expertise for regional innovation strategies, and update of the RTP action plan.

The strength of the programme and the pertinence of the followed objectives derive directly from the assignment of each pilot project to an adequate regional operator, and the development of a strong regional partnership monitored by the Steering Committee.

Table 2. RTP – RIS+ projects (1995-2000)

The RTP Action Plan, approved in the beginning of 1997, included 22 projects, out of which:

- 7 projects were approved for funding from different Operational Programmes of the 2nd CFS, with a budget of 15 MECU.
- 15 projects are pending for actualisation by the respective regional authorities, in the framework of the 3rd CSF.

The above table presents the connection between the two programmes RTP and RIS+ concerning the priority areas and the concluded pilot projects. The pilot projects mentioned by the symbol ✓, are the pilot actions, which have been subsumed to the RIS+, programme.

III. PARTNERSHIP AND MANAGEMENT

III.1 PARTNERSHIP DEVELOPMENT

The Steering Committee (SC) is the internal decision-making instrument that authorises and validates the proposals made by the project director and the management unit. To ensure coherent guidance to both RIS+ and RISI+ programmes that were simultaneously carried out in Central Macedonia, it was deemed necessary to establish a Joint Steering Committee (JSC) for both projects. Therefore, chairmanship of this Joint Steering Committee was assigned to the Secretary General of the Region of Central Macedonia (RCM), although RCM was the beneficiary organisation of RISI+ only. This provided appropriate a valuable political endorsement to the SC's decisions and opened channels to regional development funds.

Thus, the 15-member Joint Steering Committee of the RIS+/RISI+ programmes in Central Macedonia was chaired by the Regional Administration and included 5 representatives from the national government, 2 from of the regional industrial associations, 2 from the regional chambers, 1 from the trade unions, 1 from the regional development agencies and 2 from the academic community. Its composition had a positive influence on the consensus building process and the applicability and wide dissemination of the programme and its objectives.

The overall role of the Steering Committee included:

1. Examination on a regular basis of the situation regarding the programme's progress, the responsibility and technical contribution of partners, adherence to the timetable; and establishment of the "rules of play";
2. Decision making concerning any possible re-scheduling of the programme which may be deemed necessary in order to ensure the concrete implementation of actions within the imposed timeframe;
3. Approval of the technical and financial activity reports before their submission to the Commission;
4. Analysis of the results achieved by the project; and
5. Dissemination of the programme's results to the organisations represented.

The specific role of each of the members of the RIS+ Steering Committee was to explicitly raise the urgent needs of each particular sector of the local economy, to involve the agencies they

represented in the development of the programme, to provide consultancy services to the management unit, and to monitor the work progress and the distribution of financial resources.

Direct communication channels were established with the Structural Fund Monitoring Committees, both at regional and national levels through the participation of representatives of the entities responsible for allocating the Structural Funds in the Steering Committee.

III.2 PROJECT MANAGEMENT

The operational management of RIS+ in Central Macedonia was assigned by the JSC to a special project team, the Management Unit (MU), belonging to Aristotle University of Thessaloniki – URENIO Research Unit, the beneficiary organisation for RIS+. A member was also appointed from the Regional Development Fund of Central Macedonia.

The responsibilities that were assigned to the project director were:

1. Co-ordination of key actors, under the authority of the Steering Committee, for the smooth implementation and performance of the actions;
2. Management of the project team (MU);
3. Preparation of contracts and contract review;
4. Quality assurance of the deliverables;
5. Development and use of project management and monitoring instruments;
6. Submission of technical and financial progress reports to the Steering Committee and the Commission;
7. Preparation of JSC meetings;
8. Organisation of the project's participation in inter-network activities;
9. Optimisation of the dissemination activities.

The management unit of the project falls under the umbrella of the URENIO research unit. It is composed of 5 experts: the head of the unit, a full-time engineer from URENIO, a part-time economist from URENIO and a representative from the General Secretariat of the Region of Central Macedonia.

The head of the unit Prof. Mr. Nicos Komninos supervised the evolution of the whole project, both in terms of management and progress of pilot actions. He was also responsible for networking activities with other RIS+ regions and for the communication with Commission services.

The URENIO engineer was responsible for financial issues and for promotion work, the URENIO economist assisted the team in the drafting of interim and final reports, while main tasks of the representative from the General Secretariat of the Region of Central Macedonia concerned the co-ordination with regional actors, and consensus building activities at the regional level.

According to the work programme the pilot actions are assigned to the pilot action implementation authorities, which undertake the overall responsibility for the completion of their respective tasks. The role of the management unit is to monitor and co-ordinate the work of all the pilot actions and to act as an advisory body to the implementation authorities. For obvious reasons of flexibility and effectiveness, operational decisions rest solely with the management unit, while strategic issues, decisions and feedback, emerged through discussions during the Steering Committee meetings.

The members of the management unit were in constant contact with each other and their role was to perform a continuous evaluation of the work in progress, solve any management and financial issues, address specific problems that may arise during the evolution of the project, and plan and organise future actions. For obvious reasons of flexibility and effectiveness, operational decisions rest solely with the management unit, while strategic issues, decisions and feedback, emerge through discussions during the Steering Committee meetings.

A list of the members of the Management Unit is presented in Annex I

Consulting: The international company ADEsa provided consultancy services. The company was selected because of its broad experience in regional development, planning and innovation issues. ADEsa provided the services Mr Alasdair REID in assisting and contributing to the activities of RIS+ and updating the RTP action plan based on lessons learned from best practices from European RIS regions. The aim was to transfer experiences from innovative strategies adopted in other European regions, and to assess their applicability to the region of Central Macedonia. At the regional level consulting was provided by BCS consulting company, on issues concerning the lines between RIS and the Regional Operation programme for Central Macedonia.

Additional consultancy expertise was also provided to each pilot action when applicable, according to the work plan.

IV. ACTIVITIES

IV.1 MAJOR MILESTONES

The overall structure of the programme was based to the elaboration and application of 9 pilot actions. The management unit, in close co-operation with the Steering Committee, proceeded with an in-depth analysis of the specific tasks of the RIS+ and definition of the content of each pilot project included in the initial proposal. The aim was to specify the actions and guidelines for implementation. Special attention was paid to the feasibility of the pilot actions, and the incorporation of modifications deriving from the feasibility reports developed in the framework of the RTP for the respective pilot projects. In general, the initial work programme remained unchanged, with only minor modifications, which do not influence the objectives and the content of the project, but mainly concern the structure of the work programme.

Thereinafter, in co-operation with the appropriate regional organisations, the management unit supervised the evolution of each pilot application. This procedure was successful for the majority of the tasks of the pilot applications. Although, there have been problems and delays in some of them, as we'll estimate in the follow paragraph (Lessons learnt).

Because of these difficulties, there have been minor modifications to the tasks of the pilot actions according to the initial workplan but also we had the replacement of two initial pilot actions:

The two pilot projects "Training in quality" and "Association for quality" were merged into one single project, under the common title "Quality Association" to avoid overlapping and fragmentation of activities. Within the framework of this project, a workshop was organised on "Initiatives for Quality Promotion" for the creation of a "Network for Quality in Central Macedonia" on Wednesday 28 June in the premises of the Byzantine Museum of Thessaloniki. From the discussions that emerged from the conference and after discussions with the Steering Committee in July 2000 it was decided to abandon the pilot project "Quality Association" because of inherent difficulties in promoting collaborative activities between the various agents involved in quality issues.

After organising a workshop on quality on 28 June 2000, the MU faced inherent difficulties in promoting collaborative activities among the various agents involved in quality issues at the regional level. A proposal was made to the JSC to drop WP 10 and 11 in favour of two new projects entitled "Innovation and Information Technology Centre in Central Macedonia" and "Loca-

tion Premises for R&D University Institutes". The JSC endorsed this proposal and also authorised some minor modifications in the content of the deliverables of the entire programme.

These changes were communicated to the European Commission on 25 June 2001 by the project director. Therefore, the updated programme work plan is summarised in Table 2 and describes the final list of activities undertaken in the framework of RIS+ in Central Macedonia.

In practice, the programme was fully launched in June 2000.

In conclusion the implementation problems and the difficulties in the follow up of some of the pilot applications are not concern the sufficiency of the regional organisations, either the co-operation between them and the management unit, but derive from external specific factors into the corresponding fields (*see V1. Lessons learnt*).

Table 3: Final work structure for the development of RIS+ in Central Macedonia.

| | WORK PACKAGES | DELIVERABLES |
|--------------------|--|--|
| Management Unit | 1. Management unit | Selection of Management Unit |
| | 2. Steering Committee | Selection of Steering Committee |
| | 3. International Expert | Selection of the international expert |
| | 4. Financial management | Operation of the Research Committee of Aristotle University of Thessaloniki. |
| Pilot applications | 5. Funding businesses from the European R&D programmes | <ol style="list-style-type: none"> 1. Setting-up of a Support Unit, inside the Technology Park of Thessaloniki. Preparation of proposals and setting-up of research consortia for specific R&D projects. 2. The organisation of three events to introduce the European R&D programmes to the local businesses. 3. Design, printing and direct mail campaigns of three information brochures to 1200 regional businesses. 4. Consultation to 25 businesses for preparation of R&D proposals. 5. Joint preparation of three R&D proposals (one national and two European projects). |
| | 6. Foreign direct investment and international technology co-operation | <ol style="list-style-type: none"> 1. Study for the institutional framework about the foreign direct investment in Greece 2. Analysis of the incentives provided by the development Law 3. Best practise Best practice from the European regions for the attraction of the foreign investment 4. Presentation on the web site of the new Development Law. 5. Feasibility study for the establishment of a Unit for the attraction of foreign investment at the regional level 6. Training of personnel of the Region of Central Macedonia in the evaluation of direct foreign investments. |
| | 7. Wine SMEs Network | <ol style="list-style-type: none"> 1. Study and methodological guide for the conversion of usual vinicultures to ecological. Diffusion of these methods to the wine producers of the region 2. Study for the needs of the wine sector and the utility of supporting the primary and secondary sector 3. Study, which examines the economical conditions for the evolution of the regional wine producers to a cluster. 4. Creation of a mail server, electronically library, and search engine for the Greek wine on the Internet. 5. A video film in Greek, German and English promoting Macedonia wine producers and products |
| Pilot Applications | 8. Technology Co-operation and Modernisation of Industrial Estates | <ol style="list-style-type: none"> 1. Identification of the operational needs of the industrial area of Kilkis, and investigation of possible fields of technology co-operation between the businesses. 2. Creation of a SMEs cluster for technology co-operation and formulation of alternative actions for the networking support 3. Design of support structures that include a proposal for creating a cluster and analysis of the required services and infrastructure. 4. Dissemination of the experience through printed material. |

| | | |
|------------------------|--|---|
| | Training in risk management | <ol style="list-style-type: none"> 1. Training seminars about Greek investments in South Eastern Europe. 2. Study for the update of the institutional framework for the investments in the country of FYROM 3. Creation of an Association of Greek Business for the promotion of the Greek investments in FYROM |
| | 9. Innovation and information technology centre in Central Macedonia | <ol style="list-style-type: none"> 1. Meetings with Greek and European agencies to exchange of experiences on innovation/ technology transfer. 2. Feasibility Study and business plan for the Innovation and Information Centre. 3. Definition of a legal framework on which the Centre can be based and operate. 4. Training of personnel of the Regional Authority of CM on technology transfer issues. 5. Technical sheet for the inclusion of the project into the Regional Operational Programme. |
| | 10. Association for agro- bio- technologies | <ol style="list-style-type: none"> 1. Research on the demand in agro-technologies from the agro-food industry. 2. Meetings with businessmen and technology providers to assess needs and demand. 3. Involvement of international experts. 4. Feasibility study for a new project to promote agro- bio-technologies in the region of Central Macedonia |
| | 11. Location Premises for R&D, University Institutes | <ol style="list-style-type: none"> 1. Study and investigation of the needs for location and premises for the new Research Institutes of Aristotle University of Thessaloniki. 2. Setting the administrative issues for the location of the new research and technology activities on the premises of Aristotle University, near the Airport of Thessaloniki. 3. Preparation of a master plan for new R&D and technology units' location in the above area. 4. Environmental impact study of the premises and activities. 5. Preparation of a technical study of the project for submission to the 3rd CSF. |
| | 12. Expansion of the RTP Observatory | <ol style="list-style-type: none"> 1. Creation of a bi-lingual portal for R&D and innovation, in Central Macedonia. 2. Development of indicators for the monitoring of the regional innovation system of Central Macedonia. 3. 1st annual report for the regional performance in the field of innovation and the new economy. 4. Dissemination actions of the above activities |
| New Action Plan | 13. International panel | <ol style="list-style-type: none"> 1. International benchmarking of innovation policies and actions in European RIS regions. 2. Panel of experts to discuss innovation in the ROP of Central Macedonia. |
| | 14. Update of the RTP Action Plan | <ol style="list-style-type: none"> 1. Study for innovative actions and policies and the relation between RIS+ and ROP of Central Macedonia. 2. Elaboration and formulation of new a new action plan for innovation in Central Macedonia. 3. Creation of a digital Innovation Observatory on the web |
| Promotion | 15. Promotion and networking actions | <ol style="list-style-type: none"> 1. Design, print and diffusion of a bi-lingual brochure for the project. 2. The publication and distribution of the final report 3. Creation of a digital Innovation Observatory on the web |

IV.2 FEASIBILITY STUDIES AND PILOT ACTIONS

The development of RIS+ in Central Macedonia was based on the parallel implementation of ten self-contained, individual sub-projects. We briefly describe their objectives, contents, scope, main findings and recommendations in the following sections.

FUNDING BUSINESSES FROM EUROPEAN R&D PROGRAMMES

| | |
|---|------------------------------|
| Implementing organisation | THESSALONIKI TECHNOLOGY PARK |
| Geographical area | THESSALONIKI |
| Budget | 28.228 € |
| Description | |
| <p>This project is included in the first priority of the RTP Action Plan and its purpose is to increase funding available to businesses for research, technology and innovation. The project refers to existing funding mechanisms from the European R&D framework programmes or national funding sources. It may also offer information services in collaboration with the Innovation Relay Centres. More specifically, the project concerns the creation of a Support Unit in the Technology Park of Thessaloniki, for the participation of companies in the European R&D Framework Programme.</p> | |
| Rationale | |
| <p>R&D levels in Central Macedonian businesses are generally considered inadequate. Very few firms participate in European R&D programmes or seek the assistance of external consultants to access European research funds. On the other hand, the region has a great potential in terms of Universities, Technological Institutes and Research Centres, which could help generate, diffuse and promote new technologies and innovative methods, and contribute therefore, to the quest for regional modernisation.</p> | |
| Link to the RTP Action Plan | |
| <p>As already mentioned, the project was included in the first priority of the RTP Action Plan. This priority promotes the modernisation of existing businesses and encourages the creation of new hi-tech start-ups. However, the actions recommended do not imply the creation of new institutions (like venture capital funds or business angels), but refer directly to existing funding mechanisms.</p> | |
| Deliverables / Major accomplishments | |
| <p>The major result of this action was the creation of an R&D Support Unit in the Technology Park of Thessaloniki. This support mechanism may be further developed and extended through the mainstream structural funds, at the regional and national levels.</p> <p>The major accomplishments of the Support Unit between January and November 2001 include:</p> <ol style="list-style-type: none"> 1. The organisation of three events to introduce the European R&D programmes to the local businesses-held in June (IST), July (LIFE-Environment: application to the textile industry) and August 2001 (National R&D Programmes), attended on average from 40 businesses each. 2. Design, printing and direct mail campaigns of three information brochures to 1200 regional businesses. 3. Consultation to 25 businesses for preparation of R&D proposals. 4. Joint preparation of three R&D proposals (one national and two European projects). | |

FOREIGN DIRECT INVESTMENTS AND INTERNATIONAL TECHNOLOGICAL CO-OPERATION

| | |
|---|--|
| Implementing organisation | REGIONAL DEVELOPMENT FUND OF CENTRAL MACEDONIA |
| Geographical area | CENTRAL MACEDONIA, SOUTH-EASTERN EUROPEAN COUNTRIES. |
| Budget | 31.672 € |
| Description | |
| <p>This project is included in the second priority of the RTP Action Plan, and its purpose is to enhance co-operation and networking between regional firms and larger multinational companies. The aim of the project is to support the capability of the region of Central Macedonia to attract technology-intensive investments. The main expected result is the creation of the FDI Unit within the General Secretariat of the Region of Central Macedonia and the expected re-orientation of existing regional incentives. The project will also introduce "post-investment services" which may include the promotion of local networks of suppliers.</p> | |
| Rationale | |
| <p>Although Central Macedonia has managed to attract substantial amounts of FDI in the 1960s, this figure has decreased dramatically during the following decades. During the 1960s and 1970s, FDI contributed to the strengthening of the region's productive fabric, especially in the textile, chemical, beverage, and electro-mechanical sectors. During the last decade (1990-2000), a re-orientation of investments towards the service and leisure sectors was observed, together with a weakening of the manufacturing base of the region. FDI is considered crucial for the development of new industrial branches, as well as for the diffusion of business and industrial practices of excellence.</p> | |
| Link to the RTP Action Plan | |
| <p>The project was included into the second priority of the RTP action plan to support technological co-operation among businesses. In this area, RTP actions focus on the development of technological collaboration networks within specific industrial branches, and on the attraction of technology intensive foreign investments, which could become centres of excellence for new industrial sectors.</p> | |
| Deliverables / Major accomplishments | |
| <ol style="list-style-type: none"> 1. Study for the institutional framework about the foreign direct investment in Greece. 2. Analysis of the incentives provided by the development Law 3. Best practice and critical evaluation of FDI services in Scotland and Ireland, which were considered as best practice, and examined their organisational structure, mission, services and motives for potential entrepreneurs. 4. Feasibility study based on the analysis of the productive environment in Central Macedonia, the infrastructure and the favourable geographical position of the Region, the feasibility study proposed the legal status, the organisation and the services that will be provided by the FDI Unit in RCM. The conclusion is that the FDI Unit should be a non-profit, public organisation, supervised by the regional authorities and the Ministry of Development and governed by a six-member board that includes representatives from both the public and private sector. 5. Elaboration, codification and presentation on the web of the Development Law concerning incentives for investments in Central Macedonia. 6. Training of personnel of the Regional Authority of CM on the attraction and support of foreign direct investments. | |

WINE SMEs NETWORK

| | |
|---|---|
| Implementing organisation | ASSOCIATION OF WINE PRODUCERS "ROADS OF WINE" |
| Geographical area | CENTRAL MACEDONIA |
| Budget: | 28.819 € |
| Description | |
| <p>The project was designed to broaden co-operation in the field of wine products and improve the firms' capacity for marketing and promotion of products. The wine industry of Central Macedonia is an important sector in the regional productive system. A new dynamic growth has recently been witnessed in the sector, mainly because small producers have introduced new varieties of grapes and a wide range of new products on the market. The production model has shifted from mass- and low quality production to a more flexible model with many products and higher product quality. The present pilot project investigates the scope of existing intra-regional technological co-operation between wine producers, as well as the opportunity to introduce innovative production and marketing methods. The project focuses around two major fields of enquiry: ecological wine production and electronic wine market.</p> | |
| Rationale | |
| <p>Long-term stable relations among companies, either producers or suppliers, as well as the establishment of a wider system of subcontracting links from the design to the promotion of products; it might also support the innovative capacity of firms to engage into international marketing activities and facilitate their adaptation to current market requirements.</p> | |
| Link to the RTP Action Plan | |
| <p>The project falls within the priority of the RTP Action Plan (Technology co-operation), which focuses on the development of technological collaboration networks within specific industrial sectors and the attraction of technology-intensive foreign investments. The actions included in this priority are designed to complement the actions for business networks and clusters supported by the Ministry of Development.</p> | |
| Deliverables / Major accomplishments | |
| <p>This pilot project investigated the scope of existing intra-regional technological co-operation between wine producers, as well as the opportunity to introduce innovative production and marketing methods. The major project accomplishments include:</p> <ol style="list-style-type: none"> 1. A methodological guide for the conversion of traditional viticultures to ecological ones; it provides the complete set of definitions for biological agriculture (controlling organisations, processes to enter the system of control and certification of biological agriculture, processes for applying for subsidies); it also provides operational details for the use of eco-friendly fertilisers, gem prevention and grape protection. Printing of 2000 copies of a 16-page version of the aforementioned guide and distribution to the wine producers of the Region. Creating an electronic version on the "Roads of Wine" site (http://www.wineroads.gr). 2. Drafting the master plan for the wine industry in Northern Greece. It is a study of the needs of the wine sector and the necessity of supporting the primary and secondary sectors. The master plan contains analysis of the baseline situation (existing situation, trends and perspective), analysis of the existing situation regarding the infrastructure to support the wine industry, the quality assurance framework and some proposals that may lead to upgrade the entire industry in Central Macedonia. 3. A study that examined the economical conditions for creating a regional wine producer cluster. This study quantified individual marketing, promotion and investment figures for each producer and proposed collective efforts and the economies of scale that can be achieved if a cluster is formed. It also raised organisational issues for such an attempt and proposed solutions that could overcome them, based on the producers' consensus. 4. Creation of a special web search engine that collects information on Greek Wines over the Internet. 5. A video film in Greek, German and English promoting Macedonia wine producers and products. | |

TECHNOLOGY CO-OPERATION AND MODERNISATION OF INDUSTRIAL ESTATES

| | |
|--|---|
| Implementing organisation | THE ASSOCIATION OF INDUSTRIES OF THE KILKIS INDUSTRIAL ESTATE |
| Geographical area | KILKIS PREFECTURE |
| Budget | 28.899 € |
| Description | |
| <p>This project was designed to develop the technological co-operation among industries established within the Industrial Estates of RCM. The major objective was to support the regional industrial system so that economies of scale appear in the form of business partnerships, new financing tools, innovation relay centres and mobility of highly skilled personnel. The secondary objective was the enhancement and integration of the localised, within the Industrial Estates, industrial system and the promotion of new structures that would lead to the formation of high technology and innovative clusters.</p> | |
| Rationale | |
| <p>Although businesses in the industrial estate of Kilkis are considered relatively dynamic and often show a strong export orientation, they maintain relative low levels of internal organisation, and often hesitate to use new technologies in their production processes, their management, and the promotion and distribution of their products. It was expected that the pilot project would also be relevant for the modernisation of traditional industrial estates in other Greek cities, through the promotion of flexible and technology-driven forms of inter-firm collaboration.</p> | |
| Link to the RTP Action Plan | |
| <p>The project falls within the second priority of the RTP Action Plan (Technological Co-operation) which focuses on the development of technological collaboration networks within specific industrial branches, and on technology-intensive foreign investments.</p> | |
| Deliverables/Major accomplishments | |
| <p>According to the work plan, four distinct tasks were developed:</p> <ol style="list-style-type: none"> 1. A study for the possibility of technological co-operation in Industrial Estates. This study identified the existing or potential synergies among businesses within or outside Industrial Estates. It also evaluated services provided to those businesses. 2. Creation of a network of SMEs within the Industrial Estate of Kilkis to support technological co-operation based on the specific, expressed needs of the enterprises, their potential and the opportunities that appear in the external environment. 3. Design of support structures that include a proposal for creating a cluster and analysis of the required services and infrastructure. 4. Dissemination of the experience gained through printed material. <p>The major project conclusions are summarised below:</p> <ul style="list-style-type: none"> • There is an eminent presence in the Prefecture of Kilkis of traditional industrial sectors, namely textiles / clothing and food / beverages. Their performance is above the national average in terms of turnover and number of employees but below average in terms of profitability and exports. • The majority of businesses of the supply chain are not contained within Industrial Estates (56%). • In general, businesses established within Industrial Estates outperform the rest, especially in the textiles/clothing and food/beverages sectors. • A common observation is the lack of permanent co-operation of businesses in terms of win-win strategies. There is also no single understanding for the necessity and the utility of a “technological support system”. • The most urgent priorities for establishing an inter-entrepreneurial support system are raising awareness and supplying real services with concrete sectoral focus. | |

RISK MANAGEMENT FOR INVESTMENTS IN S.E. EUROPE

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|--|--|
| Implementing organisation | THE ASSOCIATION OF INDUSTRIES OF NORTHERN GREECE |
| Geographical area | CENTRAL MACEDONIA |
| Budget | 24.845,50 € |
| Description | |
| <p>This project aimed to support regional businesses to expand their activities in the Balkans. It was designed to provide information and training to entrepreneurs and business executives in Central Macedonia on issues relating to the political framework and business conditions in countries of the Balkans, Central and Eastern Europe, and the Black Sea area. The specific project objectives were to foster Greek investment in South Eastern Europe through better information and understanding of the investment environment and provide training on management and investment methods in a risky business environment. The project's pilot phase was focused on the Former Yugoslav Republic of Macedonia (FYROM) the most prominent neighbouring country in terms of Greek investments.</p> | |
| Rationale | |
| <p>Greek business interests in the Balkan area have grown to become very important in the last few years. Over 2000 Greek firms have invested in the S.E. European Countries. This situation could be improved, if the firms of the region of Central Macedonia could benefit from more organised support and better knowledge of the political and economic situation in the countries of South-Eastern Europe.</p> | |
| Link to the RTP Action Plan | |
| <p>The project falls into the third priority of the RTP Action Plan, which concerns the human skills in technology and innovation. Particular emphasis is given to training for entrepreneurs and senior executives on matters relating to innovation management, export promotion, and risk management associated with investment in South-Eastern Europe.</p> | |
| Deliverables / Major accomplishments | |
| <p>There were three streams of activity for the development of the project:</p> <ol style="list-style-type: none"> 1. Organisation of three business meetings in 2000, one held in Athens, one in Skopje and one in Thessaloniki with participants from 25 businesses of RCM and FYROM. The major conclusions of these meetings are: <ol style="list-style-type: none"> a) The major barriers for investing in FYROM are political instability, lack of strategic planning, crime and corruption. b) The economic environment in the neighbouring country will benefit from Greek investments. c) Future investors should first satisfy local demand and then consider export scenarios. d) Wide privatisation of publicly held enterprises in FYROM is an opportunity for international co-operation and strategic alliances. e) Investment motives should be supported by access to international financing organisations. f) There is a strong potential for co-operation in R&D and technology transfer projects. 2. Study for the update of the institutional framework for investments in FYROM, where a complete SWOT analysis is presented and the major investment opportunities are identified. 3. A joint Memorandum of Understanding was signed between the Associations of Industries of Northern Greece and FYROM, defining the necessary conditions for the development of their relations. | |

INNOVATION AND INFORMATION TECHNOLOGY CENTRE IN CENTRAL MACEDONIA

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| Implementing organisation | REGIONAL DEVELOPMENT FUND OF CENTRAL MACEDONIA |
| Geographical area | THESSALONIKI / CENTRAL MACEDONIA |
| Budget | 39.950 € |
| Description | |
| <p>The aim of this pilot project was to prepare all the necessary actions for the establishment of a Business Innovation Centre in the city of the Thessaloniki. The centre would be part of the wider network of 150 European Business Innovation Centres and there are currently six Business Innovation Centres in Greece. It should be noted that, during the past few years, several attempts had been made by the Region of Central Macedonia to create a BIC, but these remained unsuccessful. The aim of the Innovation Information Centre would be to support technology and management services for business and regional productive system, and to diffuse innovation and decentralise the regional technology system of Central Macedonia.</p> | |
| Rationale | |
| <p>The establishment of a Business Innovation Centre in a region is an important tool for regional development, which connects local agencies, universities, research institutions and the private sector within the framework of a regional development strategy. A necessary condition is the establishment of a local consensus involving all involved agencies, and a subsequent agreement for common actions to promote this establishment. Creating an Innovation Information Centre in the region of Central Macedonia was long overdue and will offer an important contribution to the region, which is characterised by a strong culture of entrepreneurship. From an administrative point of view, the Region of Central Macedonia seems to be a well-chosen agent for the creation of a BIC, especially because of its capacity, through its Centre of Economic Development, to implement the whole sequence of steps necessary to create a BIC.</p> | |
| Link to the RTP Action Plan | |
| <p>The project falls within the technology support priority of the RTP Action Plan, which deals with the external technology and innovation environment of the firms.</p> | |
| Deliverables/Major accomplishments | |
| <p>The implementation of the pilot project includes the following actions:</p> <ol style="list-style-type: none"> 1. Collaboration / meetings with Greek and European agencies to exchange of experiences on innovation/ technology transfer. 2. Feasibility Study and business plan for the Innovation and Information Centre. 3. Definition of a legal framework on which the Centre can be based and operate. 4. Training of personnel of the Regional Authority of CM on technology transfer issues. 5. Technical sheet for the inclusion of the project into the Regional Operational Programme. | |

PROMOTION OF AGRO-TECHNOLOGIES

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|--|--|
| Implementing organisation | RESEARCH INSTITUTE FOR AGRO-TECHNOLOGIES AND FOOD TECHNOLOGIES |
| Geographical area | REGION OF CENTRAL MACEDONIA |
| Budget | 26.291€ |
| Description | |
| <p>The objective of this project is to promote agro-technologies, demonstrate best practice applications to businesses and the public sector, and to contribute to the creation of a regional pole of excellence in the field of agro-technologies. The pilot application followed the model of industrial information technologies already implemented in Central Macedonia. It created associations between technology providers and users for the application of agro-technologies: improvement of plant varieties, plant diseases, ecological agriculture, hydro-production technologies, genetic improvement of animal breeds, and biotechnology applications.</p> | |
| Rationale | |
| <p>Central Macedonia is an important food-producing region with high concentration of employment in agriculture. However, the use of advanced agro-technologies by the local farming community and food industry is very limited. On the other hand, the demand for ecological farming products, ecological approaches to plant diseases, and genetic improvement of animal breeds, is increasing steadily. The aim of this pilot action was to promote new technological solutions, to demonstrate applications to businesses and farmers, and to sustain a regional pole of excellence in the field of agro-technologies.</p> | |
| Link to the RTP Action Plan | |
| <p>The project falls within the scope of the RTP Action Plan and its purpose is to support the endogenous technology supply and demand. This priority is concerned with the development of local applications within specific technology sectors (information technology, quality, environmental technologies, agro-technologies). A major problem that was addressed is the latent demand for technology. Often, technology related actions, couldn't be undertaken by companies alone, because they require significant investments in capital and human resources, with no guarantee that they will pay off in the long term. The development of new technologies is best seen as a collective action from which all the businesses in the area can benefit, either as technology users or technology providers.</p> | |
| Deliverables/Major accomplishments | |
| <p>The pilot project included the following actions:</p> <ol style="list-style-type: none"> 1. Research on the demand in agro-technologies from the agro-food industry. 2. Meetings with businessmen and technology providers to assess supply and demand. 3. Involvement of international experts on the application of biotechnologies in C. Macedonia. 4. Feasibility study for a new project to promote biotechnology in the region of Central Macedonia. <p>The major conclusions from the development of the project, after three workshops and intense field research, are summarised below:</p> <ul style="list-style-type: none"> • There is a considerable lack of information on the developments and the applications of biotechnology. • There are urgent needs for upgrading and modernizing the equipment employed by regional businesses in terms of production, packaging, quality assurance and laboratory testing. • There is a shortage of trained scientific personnel that can evaluate the effectiveness of biotechnological methods and incorporate them into the production processes. • There is a strong potential for co-operation among the industry, know-how and technology suppliers in terms of developing innovative biotechnological products and production processes. Such co-operation would improve the odds of the regional industries against international competitors. • The existing legal framework in Greece and the European Union does not provide flexibility for the introduction of biotechnologies. <p>Following these conclusions, a proposal for funding the industries of the primary sector was made, focusing on the production and monitoring of seeds, biodiagnostic technologies and applying biotechnologies to the production of food and beverages, and utilisation of agro-technology sub products.</p> | |

NEW PREMISES FOR R&D UNIVERSITY INSTITUTES

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|---|--|
| Implementing organisation | RESEARCH COMMITTEE OF ARISTOTLE UNIVERSITY OF THESSALONIKI |
| Geographical area | THESSALONIKI / REGION OF CENTRAL MACEDONIA |
| Budget | 28.824 € |
| Description | |
| <p>New established institutions in the field of research, technology, and technology transfer have created an important demand for location premises. The lack of adequate premises for such activities has become a major barrier for the development of research and technology activities. The objective of the project was to examine, and possibly open-up new areas, for the location of public-private associations for technology supply, research institutes of the Aristotle University of Thessaloniki, and technology transfer institutions. The project bears special relevance for the new (and currently being developed) institutes of the Aristotle University and for other public or semi-public initiatives in the field of technology transfer.</p> | |
| Rationale | |
| <p>The project will respond to the needs of R&D and technology organisations of the region in terms of location and premises. Concurrently, it opens the administrative and legal procedures for the location of such activities on the premises of Aristotle University of Thessaloniki.</p> | |
| Link to the RTP Action Plan | |
| <p>The project is considered part of the fifth priority of the RTP, which concerns the endogenous development of technology and innovation. This priority focuses on the development of local institutions and activities that promote specific technologies, such as information technologies, automation and quality technologies, environmental technologies and agro-technologies.</p> | |
| Deliverables/Major accomplishments | |
| <p>The project provided a detailed study for the development of the Centre for Innovation, Quality and Sustainable Development, including rationale, architectural studies, equipment, landscape design, etc.</p> <ol style="list-style-type: none"> 1. Study and investigation of the needs for location and premises for the new Research Institutes of Aristotle University of Thessaloniki. 2. Setting the administrative issues for the location of the new research and technology activities on the premises of Aristotle University, near the Airport of Thessaloniki. 3. Preparation of a master plan for new R&D and technology units' location in the above area. 4. Environmental impact study of the above premises and activities. 5. Preparation of a technical study of the project for submission to the 3rd CSF, which was submitted to the Operational Programme of Development. | |

INNOVATION OBSERVATORY IN CENTRAL MACEDONIA

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|--|---|
| Implementing organisation | URBAN AND REGIONAL INNOVATION RESEARCH UNIT (URENIO) ARISTOTLE UNIVERSITY OF THESSALONIKI. |
| Geographical area | REGION OF CENTRAL MACEDONIA |
| Budget | 37.221 € |
| Description | |
| <p>The project aims to provide monitoring and evaluation for the RTP and the follow-up actions, as well as information on innovation issues in the Region. Specific goals include the promotion of the RIS+ actions, the dissemination of best practice for regional innovation support, and the provision of information on innovation, regional competitiveness, and company development to the public and private sector in Central Macedonia. More specifically, the objective of the Observatory is to monitor the progress of the RTP and RIS+ projects, and to assess their contribution to the regional innovation system and competitiveness.</p> | |
| Rationale | |
| <p>Setting up an Observatory requires the development of two inter-connected systems: a system for monitoring and evaluation and an informational system. The project would be developed in cooperation with the IRIS+ initiative for Central Macedonia and the Hellenic RIS Network</p> | |
| Link to the RTP Action Plan | |
| <p>The project falls within the 6th priority of the RTP action plan, which deals with the application and effectiveness of the regional innovation strategy promoted by the RTP and the RIS+. This includes monitoring of actions, developing criteria and evaluation coefficients, and fine-tuning the Plan while it is being implemented.</p> | |
| Deliverables/Major accomplishments | |
| <p>The main project achievements include:</p> <ol style="list-style-type: none"> 1. The development of a bi-lingual portal for R&D and 700 innovation related organisations in Central Macedonia, accessible through the Internet at http://portal.urenio.org/ 2. The development of a set of indicators for assessing the regional innovation system in Central Macedonia, with respect to the international experience in monitoring regional innovation performance 3. The presentation of the actual trends of innovation in the region in terms of an annual innovation report (<i>Innovation Index: Central Macedonia</i>), available to the public at http://www.urenio.org/innovation_index.htm. The innovation report is bi-lingual and includes seven modules: sectors and employment, human resources, regional potential, technological resources, innovation, entrepreneurship and infrastructure where quantitative regional data are presented and benchmarked to other Greek regions. 4. Dissemination of the above activities to the local and national press and to the regional economic organisations / agencies. | |

INTERNATIONAL PANEL AND UPDATE OF THE RTP ACTION PLAN

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|--|---------------------------------|
| Implementing organisation | INTERNATIONAL AND LOCAL EXPERTS |
| Geographical area | REGION OF CENTRAL MACEDONIA |
| Budget | 26.489 € |
| Description | |
| <p>Since RIS+ in Central Macedonia is a follow-up of the Regional Technology Plan of Central Macedonia, elaborated during 1995-1997, one of its objectives was to summarize international expertise and best practices for regional innovation strategies and project planning, and update the RTP action plan. The new RIS+ Action Plan include actions based on a selection of the best experiences from other European Regions that have elaborated RTP, RITTS, and RIS strategies.</p> | |
| Rationale | |
| <p>The rationale is rather obvious, to update the RTP action plan in view of the knowledge acquired during the second and third generation of RIS strategies, and the evolution of our thinking about regional innovation in the Region of Central Macedonia. The investigation and selection of new projects based on the results of the international panel and includes the experience of other regions. The work was done by experts who delivered a revised Action Plan for Central Macedonia.</p> | |
| Link to the RTP Action Plan | |
| <p></p> | |
| Deliverables/Major accomplishments | |
| <ol style="list-style-type: none"> 1. The international consultant presented a report and benchmarked five categories of successful RIS actions, including innovation finance, regional R&D development, technology transfer, technology use in SME's and innovation/technology information networks. Short definitions of the exact types of action were meant for each category, presentation of existing support measures per category and a number of good practice examples were given. 2. Following the best practice cases presented by the international consultant, regional consulting company presented a study on the relations between RIS+ and ROP of C. Macedonia, and the actions of RIS+ to be included into the ROP. 3. The RIS+ management unit provided a revised action plan for the RTP, based on four independent pillars: <ul style="list-style-type: none"> • To increase regional technology intelligence and the understanding of emerging features in innovation and technology. • To sustain the development of knowledge-based clusters. • To disseminate business excellence and world class manufacturing principles, and • To help the Region in defining, monitoring, evaluating and restructuring a comprehensive regional development policy, based primarily on innovation and secondly on sustainability. 4. The revised action plan was presented in an event organized for this purpose on 11 May 2001. This process also led to the preparation of a new proposal for the 2000-2006 Innovative Actions in Central Macedonia. | |

IV.3 INTER-REGIONAL NETWORKING

Inter-regional co-operation has proved to be a very important learning mechanism. It has enabled the transfer of knowledge, experience and best practices from other regional innovation strategies. This transfer of know-how has helped Central Macedonia to overcome known problems, to be more efficient in the diffusion of results and to successfully involve a wide range of regional actors. The management unit of the RIS+ Central Macedonia has participated in the following inter-regional co-operation activities:

1. First co-ordination meeting with the Commission, on 8 December 1999, in Brussels, for the beginning of the programme.
2. Two meetings of the Hellenic RIS Network, on 15 December 1999 in Volos, Greece, and on 14 April 2000 in Athens, Greece, for the purpose of establishing common monitoring systems and identifying common promotion activities.
3. A meeting of the Hellenic RIS Network, on 26 and 27 May 2000, in Volos, Greece, to evaluate progress and examine future funding opportunities.
4. A RIS / RITTS meeting held in Nicosia, Cyprus, on 15 May 2000 to discuss a call for proposal to establish a RIS/RITTS project in Cyprus. The head of the management unit made a presentation about the experience of the regional innovation system in Thessaloniki.
5. Two members of the management unit participated in the first meeting of the Iberian RIS Network, in El Escorial, Madrid, Spain, on the 14th of June 2000. Their contribution discussed the establishment and organisation of the Hellenic RIS Network and the possible transfer of this successful experience to other RIS regions.
6. Participation in the second IRE plenary meeting in El Escorial, Madrid, Spain, on June 15-16. The conference provided an opportunity to learn more about the European RIS+ projects, to exchange experiences regarding the difficulties faced during implementation of pilot projects, to present the activity of the Hellenic RIS Network, and to get information on the new trends of EU innovation policy, including the new generation of innovation programmes and the funding opportunities under the new Structural Funds. The three members of the management unit represented RIS+ in Central Macedonia.
7. Participation of the project manager in the Hellenic RIS+ Network meeting in Athens, Greece on 9 September 2000.
8. Participation, in the Hellenic RIS+ Network meeting, in Athens, Greece, on the 9th of October 2000. The meeting, which was attended by Mr. Francois Van Der Vorst from DG Regio, offered the opportunity to a) discuss and clarify issues of financial management and financial (Commission) rules.
9. Participation, in the Hellenic RIS+ Network meeting, in Chalkida, Greece, on 19 October 2001.
10. Participation in the Workshop "Regional Innovation Observatories and Technology Watch" Porto (PT) 8 - 9 November 2001. The "Regional Innovation Observatories and Technology Watch" workshop brought together members from the IRC (Innovation Relay Centres) and the IRE (Innovating Regions in Europe) Networks in order to present successful regional experiences in technology watch for regions and for companies.

The workshop demonstrated how Regional Innovation Observatories and Technology Watch services can play a relevant role in fostering regional innovation by providing information, analysis and advice to policy makers, innovation support institutions and to companies (especially SME's). A member of URENIO research unit presented into the workshop, the Regional Innovation Observatory in Central Macedonia.

- 11. International Panel of Experts** was organised on 11 May 2001 by the URENIO research unit. In the workshop, a panel of international experts, the authorities of the Region of Central Macedonia, the local agencies that elaborate the pilot actions, discussed the innovation in the ROP of Central Macedonia. The minister of National Economy was also attended. There have been presentations of the studies "Study of International benchmarking of innovation policies and actions in European RIS regions" and b. "Study for innovative actions and policies within the ROP of Central Macedonia – Relations between RIS+ and ROP of Central Macedonia". The revised Action Plan was also presented and discussed.

V. LESSONS LEARNT

V.1 CONCLUSIONS FROM THE PILOT ACTIONS

The overall results from the development of RIS+ in Central Macedonia pilot actions can be characterising successful. All the chosen agencies had the capability to conclude the tasks of their pilot applications and also to give their specific contribution to the character of them. Although in some cases, the general conditions and the common regional weaknesses cause difficulties for a further and promising follow up. The results from the implementation of the pilot actions gave us conclusive remarks for the overall structure of the regional productive system that we keep in mind for a useful update of the Action Plan.

The overall results from the development of RIS+ pilot applications, following their ex post evaluation from the Management Unit, can be classified into two broad categories: successful projects with problematic follow-up and successful projects with promising follow-up.

For a better oversight we summarise these conclusions in the table below:

Table 3: Conclusions from the development of RIS+ in Central Macedonia.

| Successful projects with... | |
|---|---|
| ...problematic follow-up: | ...promising follow-up: |
| <p>FDI and international technological co-operation: In this case, regional follow-up is not achievable since, until today, motivation for FDI is designed and executed by the national government. In addition, the regional administration has not shown any potential or will for developing localized initiatives.</p> | <p>Funding businesses from European R&D projects: The establishment and operation of a support unit within Thessaloniki Technology Park has shown promising results in terms of providing help and guidance to regional innovative companies.</p> |
| <p>Technology co-operation and modernization of industrial estates: The generalization of the project's outcomes and their application to other industrial estates in Central Macedonia is problematic due to the variety of companies located in industrial estates, their entrepreneurial objectives, and their technological needs.</p> | <p>Wine SMEs Network: The developments from the Wine SMEs Network have shown a strong interest in joint promotion and marketing activities; however, no links were established among the participants in terms of design of innovative product development.</p> |
| <p>Promotion of agro-technologies: Currently, the public opinion is strongly against genetically modified products, thus eliminating any interest towards new ventures in this field. There is only considerable interest in quality assurance for guaranteeing that a product is not genetically modified.</p> | <p>Risk management for investments in S.E. Europe: The project was a success, highlighting new approaches for establishing business links to other Balkan countries that could be fully exploited in the near future.</p> |
| | <p>New premises for R&D Institutes: The project results became the basis for a funding proposal in the framework of the 3rd CSF. This new project is fully supported by Aristotle University of Thessaloniki and the Region of Central Macedonia.</p> |
| | <p>Innovation Observatory in Central Macedonia: The developments that were initiated in the framework of this seed project will be enhanced and upgraded since additional funding was found and a strong commitment is expressed by the Regional Authorities.</p> |
| | <p>Update of the Action Plan: The work and the results of this project became the core of a successful proposal in the framework of "Innovative Actions" and help towards the development of the Regional Innovation Strategy, part of the Regional Operational Programme 2000-2006.</p> |

V.2 CONCLUSIONS FROM THE 1ST REGIONAL INNOVATION REPORT

The 2001 Innovation Index is the first regional report to depict the situation of Central Macedonia vis-à-vis innovation and entrepreneurship. The report follows the evolution of figures and processes in seven areas: employment, manpower, and regional potential for innovation, technological resources, innovation performance, entrepreneurship, and infrastructure. The report provides some very interesting data and conclusion about the strengths and weaknesses of the region, while the comparative monitoring of figures and indexes as to the entire Country and Attica offers the possibility to “rank” Central Macedonia in the country system.

Specialisation and trade

Central Macedonia is a region in which prevail traditional rather than ‘new economy’ activities. During the 1990s, the figures show a picture of Attica’s predominance over Central Macedonia in the “new economy” sectors and illustrate the intensity of CM in clothing, textile and machines-appliances. This is reflected in the average annual employment, as well as in the turnover of the enterprises. An exception is in health services, which show a strong concentration in CM.

The figures concerning the differentiation of employment between 1998 and 1999 for the Entire Country, CM and AT, show that CM and AT follow the general trend of the total, with a noted increase in the sectors of chemicals and information technology and a decrease in research - development.

CM mainly imports Mineral products, textiles and clothing, ceramics, and exports mainly dietary products, mineral products and textiles. The variation of imports from the Country average indicates the intensity of Central Macedonia in agricultural products, minerals, plastics, timber, textiles, footwear, stone artefacts, etc. (above the Country average). As regards exports, the variation indicates the intensity in dietary items, plastics – rubber, textiles and footwear (above the Country average). The same conclusions ensue from the figures regarding exports and imports per sector of intracommunity trade.

Central Macedonia displays a positive balance in the exports – imports balance in the “vegetal products”, “processed dietary products, foods, beverages, tobacco” and “textile products and material” product categories. Attica has a positive balance in the “minerals” and “others” product categories. For the Entire Country, the product categories that have a positive balance are: “vegetal products”, “fats and edible oils, waxes”, “minerals” and “others”.

Import countries for Central Macedonia, as well as for the Entire Country (with a percentage higher than 10%) are in descending order Italy, Germany, France and the Netherlands. As regards exports from Central Macedonia, Attica, but also the Entire Country, the three main export destinations are in descending order Germany, Italy and the United Kingdom.

Innovation

Concerning the general expenditure on education, there are no major discrepancies between Athens, C. Macedonia and the Entire Country. However, the figures show that Attica prevails as to postgraduate and HEI degree holders. This supremacy is also reflected on the low percentages in the categories of those who did or did not complete rudimentary education. However for tertiary education funding the variation of Central Macedonia from the national average is –6% for 1993-95 and –2% for the period between 1995-1997. These percentages are almost the exact opposite (-1% and 6% respectively) for Attica.

State expenditure for research and technology in Attica during the period between 1993-1995 is higher than the national average and practically at the same level for the period between 1995-1997. For Central Macedonia the gap is increasing: from -3% in the period between 1993-1995 it rose to -9% for the period between 1995-1997.

Data on patents were listed according to the beneficiary. Approximately 250 patents are registered each year (269 in 1997, 257 in 1998 and 226 in 1999), that is to say 2,5 per 100.000 inhabitants. The respective figure for the European Union is 111,1. Comparative data at regional level show that Central Macedonia shows a specialisation to patents related to 'living necessities', 'industrial techniques' prevail, whereas, in general, over 60% of the patents are registered in Attica.

Environment for innovation and entrepreneurship

As an entrepreneurship environment, Central Macedonia received a positive assessment by traditional enterprises as to the settlement infrastructures (1/2) and the private sector financial services (4/10). The attraction incentives and the regional policy have been heavily criticized (1/10). One out of three of the innovative enterprises consider infrastructures and incentives to be adequate and one out of five considers financial services and regional policy to be adequate.

The regional financing system looks at traditional rather than new economy sectors. In general, with the exception of entrepreneurial risk funds that are marginally (1/10) considered to be adequately mobilised, the acceptance percentage is nearly 10% for innovative enterprises and about 30% (1/3) for the remaining ones. The region offers adequate possibilities regarding the incentives of the Law on Development, the mobilisation of entrepreneurial risk funds and the mobilisation of private banks in the field of innovation.

The technological collaboration between enterprises within and outside the limits of CM is considered to be adequate by approximately 1/3 of the enterprises. Almost half of the innovative enterprises deem that their collaboration within the region is adequate.

In general, innovative enterprises (almost one out of two) consider Central Macedonia to be adequate as far as university units, institutes and research centres are concerned, as well as to organisations providing access to European research. The respective percentage for respective private sector units is close to 35% (one out of three). 30% of the traditional enterprises deem that CM has adequate respective infrastructures.

V.3 NEW STRATEGY DEVELOPMENT: A REVISED ACTION PLAN FOR THE REGION OF CENTRAL MACEDONIA

The experience acquired by the development of all RIS+ actions and pilot applications contributed the elements of this strategy for Central Macedonia, tailored to incorporate the new needs that appeared and utilize the new regional capabilities.

Based on all the lessons learnt from the RIS+ project, the new Action Plan for the region of Central Macedonia codifies a revised strategy for regional innovation and development based on three major pillars:

- The first pillar is "high tech clusters". The RTP's strategy was focused on Central Macedonia's industrial firms and especially their latent research and technology integration. These constituted the Plan's basic action priorities. The focus point for the revised action plan is now turned from the individual firm to the cluster and especially the knowledge-based clusters as a key element in changing the regional production structure.
- The second pillar is the concentrated effort to improve the co-ordination between technological supply and demand through the enhancement of the regional technology transfer system. As indicated by the Annual Innovation Report for Central Macedonia, regional businesses lack organized, internal R&D structures and the stimuli from their environment are not adequate. On the demand side, the low level of implicit technological demand has a negative impact on the development of a regional market of technology suppliers and the geographical allocation of innovative firms.
- The third pillar is experimentation with and exposure to new technological tools to increase regional technology intelligence such as: technology clinics, e-learning, e-networking, new products development in the clusters.

VI. FUTURE ACTIVITIES

The revised action plan for innovation in Central Macedonia elaborated in the framework of RIS+ project, constitutes the basic outline for the submission and approval of a project entitled "**Excellence-in-Central Macedonia**" under the framework of the Regional Innovative Actions Programme.

The main objective of the **Excellence-in-Central Macedonia** work plan is to make the companies and technology intermediary organisations of the Region familiar with the latest, in a world scale, advances in business, technological, production, and manufacturing practices. To achieve this objective, the programme is setting up four aims:

- a. To increase regional technology intelligence and the understanding of emerging features in innovation and technology.
- b. To sustain the development of knowledge-based clusters.
- c. To disseminate business excellence and world class manufacturing principles.
- d. To help the Region in defining, monitoring, evaluating and restructuring a comprehensive regional development policy, based primarily on innovation and secondly on sustainability.

An overall objective is to bring the companies of the Region closer to the best practice level. Coming closer to best practice marks a major step in innovation capacity.

In detail, the four aims are briefly analysed below:

Increase of regional technological intelligence is a permanent concern of all leading / motor regions that carry out efforts to capture future technological trends and outline emerging technologies. Technology intelligence in C. Macedonia will be based on three elements:

- A regional technology foresight exercise, covering about 10 industries. Although most foresight exercises are national (MITI in Japan, George Washington University in the US, Fraunhofer Institute in Germany, 100 key-technologies in France), there are some quite remarkable regional attempts.

- A digital research centre, codifying and presenting the main results of 1000 research projects achieved by regional university and research centres.
- Dissemination campaign to 1000 companies, and selected pilot applications in 15 companies to promote patents, spin-offs, and prototyping.

Sustain the development of knowledge-based clusters is a key element in changing the production structure of the Region. About 10 business clusters will be selected, covering traditional and new industries, which represent the leading regional production potential. At the level of each cluster, the aim is to:

- Prepare a development plan outlining the trajectory to be followed in order to improve its position on the knowledge / technology ladder.
- Create a digital network among the members of the cluster, facilitating the communication, exchange of experiences, co-operation, and joint ventures.
- Identify best practices, business excellence principles, and world manufacturing standards to be introduced into the cluster.

Dissemination of business excellence and world class manufacturing methods is the third pillar of the programme and will be achieved with the implementation of:

- **Methodology technology clinics (10).** The objective of the project is the implementation of technology transfer actions to region's SMEs, through technology clinics. Over 27000 SMEs constitute the industry network of CM. These enterprises bear pressure on a daily basis for fund raising and support related to evaluating and applying new technologies. Through technology clinics SMEs will benefit from the knowledge and experience of bodies specialized in technology transfer. Thus, the existing infrastructure is fully exploited and major synergies among Universities, Research Centres and Technology Transfer Organizations are created. The creation specific methodology technology clinics aiming at the dissemination and application of best practices and methodologies of management in specific topics such as: business planning, quality systems, environmental management and policy, marketing products, e-commerce, supply chain management, new products development, energy saving systems, business excellence.
- **An innovation award for the adoption of EFQM model.** This action refers to the establishment of a prize for innovative activities of SMEs of the RCM according to the Business Excellence Model of the EUROPEAN FOUNDATION FOR QUALITY MANAGEMENT – EFQM. The project's implementation is based on the adaptation of the European model to processes related to technological innovation.
- **E-learning tools and training courses for 500 companies.** The project will comprise the following services: Training in real conditions of production, at the factory, training in subjects relevant with industrial data, processing, automation and quality, development of orientation services, training of firm executives in benchmarking
- **E-partenariat events.** The proposed project deals with methodology evolution, so that the optimum use of new technology and the comprehensive expertise of national counsellors - namely specialised bodies assigned with the organisation of Europartenariat events in every country - can lead to establishing an innovative electronic system for developing international partnerships and applying a pilot methodology focused on the organisation of Eu-

ropartenariat (e-partenariat). The basic axes of this project is advanced technology, time-saving and cost-effective procedures, proven effectiveness as well as significant added value, since it also involves the integration of new services offered to enterprises. The project's objective is to strengthen the internationalisation efforts of Central Macedonia enterprises, make them technology-aware and promote electronic commerce.

Planning a comprehensive regional development policy based on innovation is the concluding objective of the programme and will be achieved through the pilot functioning of a specialized Observatory to which the Region assigns the tasks of evaluating the results and impacts of all innovative actions on the regional economic and social structure and of proposing appropriate policies.

The overall structure of the New Action Plan is illustrated in the following Diagram. At the heart of the strategy are a number of selected industrial clusters representing important and emerging industries of the Region (i.e. Agriculture, Food and beverage, Textiles and clothing, Chemical products, Electrical machinery, Telecommunications, Software, Pharmaceuticals, Medical services). For each of these Clusters, a detailed development plan will be prepared and validated, **introducing business excellence and world class manufacturing principles.**

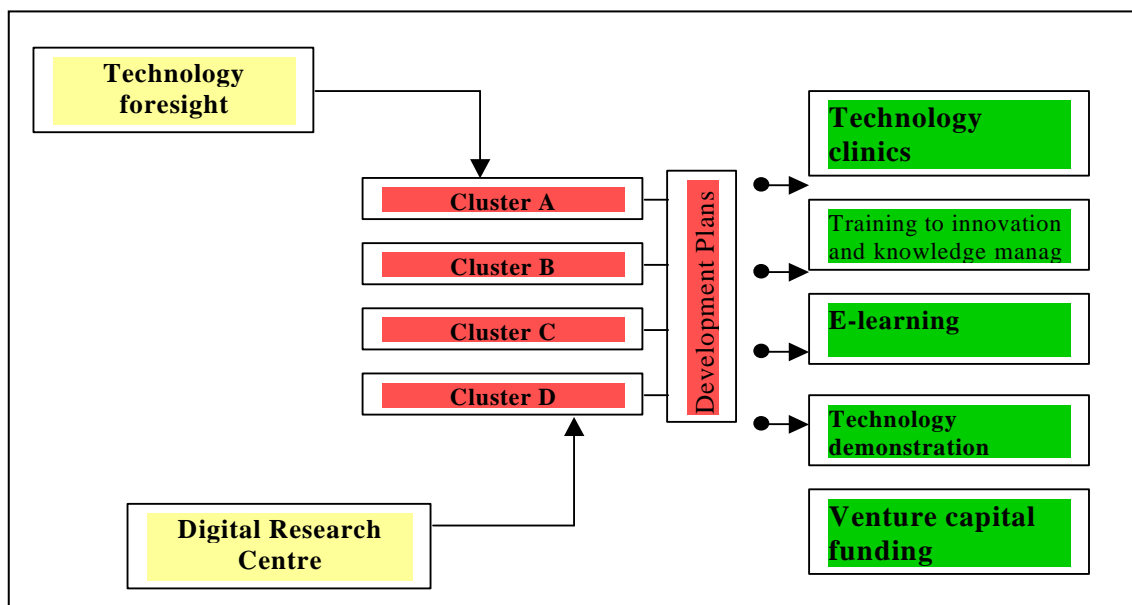


Figure 1: The general structure of the New Action Plan

En aval, the drafting of development plans of the selected clusters will be facilitated by two applications: a Regional Technology Foresight exercise to identify promising technologies for the coming decade at the industry level, and a Digital Research Centre to codify the existing regional capabilities in terms of research results and scientific human resources. *En amont*, a series of pilot practices (including technology clinics, training, e-learning, technology demonstration, VC funding, etc.) will support the endorsement and implementation of the development plans. A Regional Innovation Observatory will monitor and evaluate the effects of these pilot projects transferring the most promising actions to the mainstream structural funds of the Region for large-scale implementation.

Implementation of the action plan will be based on the actors of the Regional Innovation System, with proven, in previous innovative actions, interest, expertise, and capability to promote innovation and technological development in Central Macedonia.

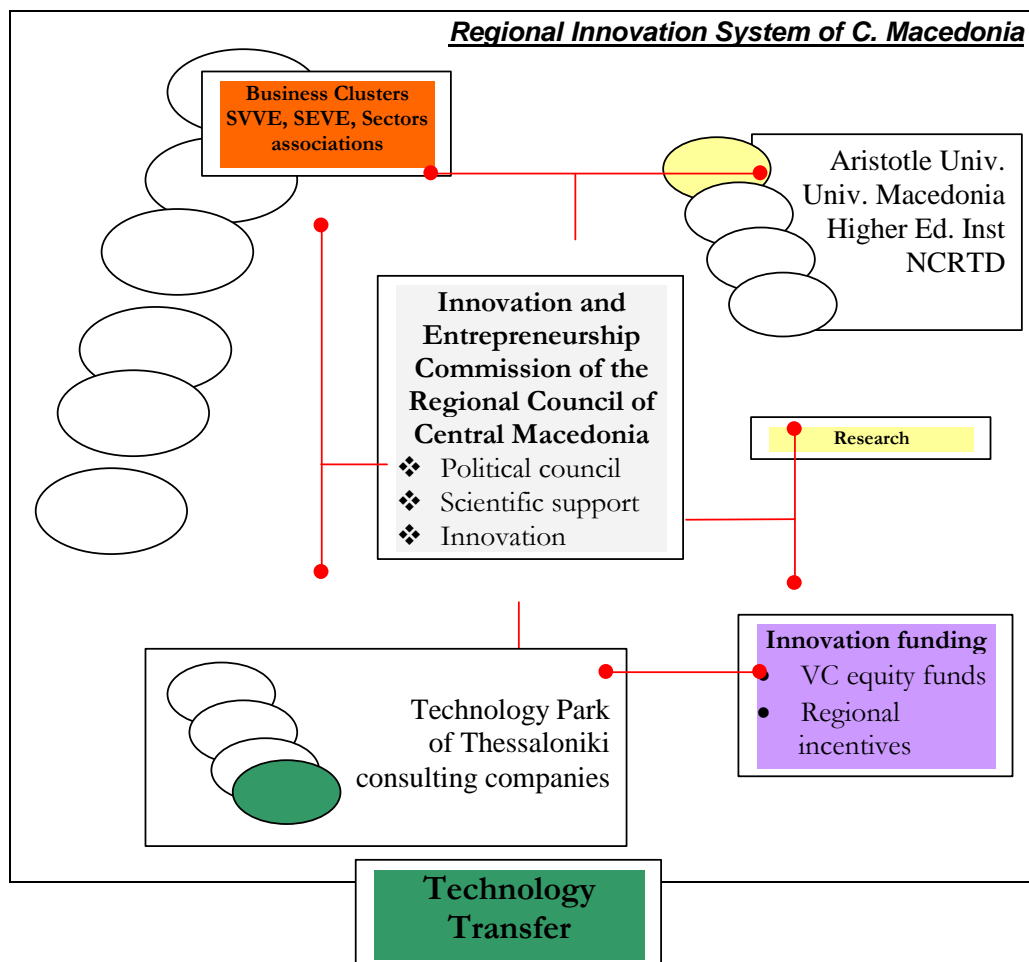


Figure 2: The regional innovation system

Figure 2 presents these actors and the central role of the **Innovation and Entrepreneurship Commission** to direct, monitor, evaluate the pilot actions, and introduce their results to the mainstream structural funds. The Innovation Council will be the institutional link between innovative ERDF actions and the mainstream structural funds. The measurement and evaluation system will be based on an adapted version of the Massachusetts Index, composed of about 30 indicators, of which a first version is already developed in the framework of RIS+.

Central Macedonia is looking to improve its international position and profile on the basis of innovation-driven and knowledge-based regional development. ***Excellence-in-CM***, will give a major push to this objective by turning the focus of the effort on the world best business and technology practices.

