# Part 5
# IMPLEMENTATION

*This part examines the ways the Action Plan can be interwoven with the 2nd Community Support Framework and the Community Initiatives that may contribute for the implementation of the projects.*

*It presents also the Observatory, which is a system for the continuous evaluation of the Plan and dissemination of information on innovation and development in Central Macedonia.*

# 15. IMPLEMENTATION FRAMEWORK

The implementation of the Regional Technology Plan is to a great extent linked to and dependent on the 2nd Community Support Framework and those Community Initiatives which contain actions in support of innovation and technology transfer. For this reason, we tried to identify and list all the actions of the Operational Programmes within the 2nd CSF and the Community Initiatives which may support the implementation of the RTP. This analysis led to a selection of the sub-programmes, measures and actions, of which the most important are presented below.

**Central Macedonia Regional Operational Programme**

This covers the same area as the RTP. The actions relating directly to the RTP are mainly concentrated in the sub-programme 2, *Reinforcing company competitiveness,* and the measures:

1. Reinforcing company competitiveness through technical support for SMEs, new methods of financing and private investment.
2. Modernisation and completion of company infrastructure, particularly through the expansion of industrial zones, the foundation of the Food Company and the Textile Institute, and the completion of the Pieria Productivity Centre.
3. Linking research and production through the creation of a Regional Council on research and the promotion of applied research.
4. Development of inter-Balkan collaboration through the creation of an information network and stock exchange.
5. Vocational training.

| Operational Programme / Subprogram / Measure | Total Cost (million ECU) | % to total | % to Operational Programme |
|---|---|---|---|
| **1. Regional Operational Programme of C. Macedonia** | **858,91** | | **100,0** |
| SUBPROG.2: Reinforcing company competitiviness | **71,48** | 2,0 | 8,3 |
| **2. OP on Industry** | **2808,89** | | **100,0** |
| SUBPROG.1: Infrastructure | **416,35** | 11,4 | 14,8 |
| SUBPROG.2: Promotion of private investment | **1250,00** | | |
| Measure 1: Support for high scale investment | 632,00 | 17,4 | 22,5 |
| Measure 2: Support for private investment under the Law 1892/90 | 70,00 | 1,9 | 2,5 |

| | | | |
|---|---|---|---|
| SUBPROG.3: Company modernisation | **865,00** | 23,7 | 30,8 |
| SUBPROG.4: Small and medium-sized companies | **141,20** | 3,9 | 5,0 |
| **3. OP on Research and Technology** | **579,07** | | **100,0** |
| SUBPROG.1: Support for science and technology | **150,44** | 4,1 | 26,0 |
| SUBPROG.2: Industrial research, technology transfer, innovation | **265,25** | 7,3 | 45,8 |
| SUBPROG.3: Reinforcing the research fabric of the country | **101,95** | | |
| Measure 1: Development of technology fabric | 48,76 | 1,3 | 8,4 |
| Measure 2: Widen the technology fabric of northern Greece | 35,46 | 1,0 | 6,1 |
| SUBPROG.4: Human resources | **47,25** | | |
| Measure 1: Preparation of education programmes | 3,33 | 0,1 | 0,6 |
| Measure 3: Training of SMEs executives | 12,33 | 0,3 | 2,1 |
| **4. OP of Community Initiative for SMEs** | **155,57** | | **100,0** |
| SUBPROG.1: Modernisation of administration and production | **54,10** | 1,5 | 34,8 |
| SUBPROG.2: Development of trade and product distribution | **53,33** | 1,5 | 34,3 |
| SUBPROG.3: Development of services provided to SMEs | **25,00** | 0,7 | 16,1 |
| SUBPROG.4: Vocational training | **16,83** | 0,5 | 10,8 |
| **5. OP of Community Initiative RETEX** | **141,10** | | **100,0** |
| SUBPROG.1: Modernisation of textile and clothing companies | **40,40** | 1,1 | 28,6 |
| SUBPROG.4: General support framework | **5,41** | | |
| Measure 1: Establishment and operation of industrial observatories | 2,36 | 0,1 | 1,7 |
| Measure 2: Improving company access to risk capital | 2,00 | 0,1 | 1,4 |
| **6. OP of Community Initiative INTERREG II** | **492,22** | | **100,0** |
| SUBPROG.1: Basic Infrastructures | **194,87** | | |
| Measure 6: Communication addressed to advanced telecommunications services | 16,50 | 0,5 | 3,4 |
| SUBPROG.4: Reinforcing the economic base | **113,40** | | |
| Measure 2: Support for integrated business projects | 35,00 | 1,0 | 7,1 |
| Measure 3: Cross-border collaboration between SMEs | 6,40 | 0,2 | 1,3 |
| Measure 4: New financial instruments | 10,00 | 0,3 | 2,0 |
| Measure 7: Collaboration in research and technology | 3,00 | 0,1 | 0,6 |
| **7. OP of Community Initiative ADAPT** | | | |
| **8. OP on Energy** | **946,31** | | **100,0** |
| SUBPROG.2: Energy saving | **375,40** | 10,3 | 39,7 |
| SUBPROG.3: Renewable energy sources | **190,90** | | |
| Measure 2: Economic incentives for the development of applications | 165,00 | 4,5 | 17,4 |
| Measure 3: Infrastructure development and selective support | 14,20 | 0,4 | 1,5 |
| **9. OP on Environment** | **512,00** | | **100,0** |
| SUBPROG.1: Environmental infrastructure | **47,00** | | |
| Measure 3: Eco-audit and eco-labelling | 10,00 | 0,3 | 2,0 |
| Measure 4: National network of environmental informatics | 9,00 | 0,2 | 1,8 |
| **10. OP on Education and initial training** | **1847,60** | | **100,0** |
| SUBPROG.3: Higher education | **598,04** | | |
| Measure 4: Creation of services linking education and production | 46,60 | 1,3 | 2,5 |
| **Total of measures and subprograms related to the RTP** | **3642,22** | **100,0** | |
| **Total of 10 Operational Programmes** | **8341,66** | | |
| **Total of 2nd CSF and Community Initiatives** | **30515,06** | | |

Source: Andrikopoulou E., Tomprou V. (1996)

# 16. FEASIBILITY STUDIES AND IMPLEMENTATION OF THE PROJECTS

The implementation of the RTP projects by means of their inclusion into the Operational Programmes of the 2nd Community Support Framework and relevant Community Initiatives presupposes that their usefulness and feasibility must have been documented. For this reason, detailed feasibility studies were conducted for all the projects in the Action Plan.

The studies were conducted by agencies in Central Macedonia which possessed experience in the organisation and management of similar projects, and they provide a complete picture and full documentation for each project. The studies were compiled using set specifications and a common thematic structure consisting of ten units: (1) Objectives of the project; (2) Description; (3) Services offered by the project; (4) Demand in Central Macedonia for the technological services offered; (5) Phases in the implementation of the project; (6) Time-schedule; (7) Budget; (8) Implementation agency; (9) Method and criteria for evaluation, and (10) Viability. The studies conducted and the individuals responsible for compiling them have already been listed in the *Introduction* and are presented in a separate volume.

Feasibility studies are an important step in the application of the Regional Technology Plan since they make it possible to decide whether or not to include the projects immediately in a funding and implementation framework. Furthermore, it was decided to begin implementation with the seven lead-projects shown on Table 16.1, and that the projects which are in a state of greatest readiness would then follow.

Table 16.1 Commencement of implementation and lead projects

1. *Funding Businesses for Technological Modernisation:* Financial support for Central Macedonia firms for technology audits and modernisation.
2. *Foreign Direct Investment and International Technology Co-operation*: Opening of an office for the purpose of attracting, supporting and encouraging local co-operation with multinational investments.
3. *Employee Technology Training*: In-house training and professional orientation in horizontal technologies.
4. *Technology Transfer Department at the Thessaloniki Technology Park*: Development of a new service for technology transfer and the provision of business services.

5. *Textile Institute of Northern Greece*. Creation of a management and technology support mechanism for the textile firms of northern Greece.
6. *Association for Industrial Information Technologies*: Creation of an association including research units of the universities, technical institutes, and information technology local providers.
7. *Expansion of the RTP Observatory*: Extension at the level of Prefectures of an innovation monitoring and information system.

Application of the Plan and implementation of the projects is expected to be a long-term process. In effect, it will be an open-ended procedure leading to the formation of the mechanisms of a *Regional Innovation Support System*, with a specific institutional capacity and organisational form. It is the ambition of the Regional Technological Plan in Central Macedonia that it should serve as the starting-point for the formation of that mechanism.

# 17. MONITORING AND EVALUATION: THE OBSERVATORY

The particularity of the Central Macedonia RTP is that it comprises projects which are expected to be implemented via separate operational programmes within the Community Support Framework and the available Community Initiatives. This decentralised implementation structure requires the organisation of a central hub to record, monitor and assess the progress and the results of the various programme actions, and thus make possible corrective adjustments and supplementary initiatives during the course of implementation.

This is the first objective of the Observatory: to monitor the progress of the implementation of the RTP and the results of its actions, and to assess its usefulness to regional competitiveness and the innovation system. A second, and equally important, objective is to provide information on technology and innovation support activities. This includes information on the regional technology supply, information on technology demand on the part of companies in the Region, information on technology support programmes, and information on the innovation infrastructure that is gradually being developed in the European Union.

In accordance with the above, then, the Observatory is being developed as a local hub for the collection, evaluation and dissemination of information relating to:

- the RTP and its results
- supply and demand of technology services in Central Macedonia
- technology support programmes and infrastructures.

It is a function that requires the development of two inter-connected systems: a system for the monitoring and evaluation and an information system.

**Monitoring and evaluation system**

Monitoring and evaluating the RTP actions is a very important component which will be developed once the implementation of the RTP actions has begun. It will permit the assessment of the Plan's benefit, corrective adjustments to certain projects during the course of implementation, and deeper understanding of the content of public support for innovation and technology.

The method of monitoring and evaluation includes three levels of approach:
(1) Monitoring of the implementation of the RTP projects, via indicators of physical object and cash flow evolution, which will be supplied by the implementing authorities.
(2) Evaluation of the direct effects of the actions, by recording the results of the actions on its target groups and beneficiaries.
(3) Evaluation, by selected indicators, of the utility of the Plan within the broader regional innovation system and regional competitiveness.

In this sense, the evaluation of any RTP project is effected on the level of the progress of the physical and financial object of the project, on the level of the services offered to user (companies or organisations), and on the level of the benefit to the regional innovation system because of the dissemination of know-how and technology. The most important level within the above structure is the second, relating to the evaluation of the benefits reaped by target groups from the various actions within the programme. This involves a methodology which through systematic monitoring of a specific number of benchmarks assesses the real contribution of each action.

Precondition for such evaluation is the development of a network for data gathering and diffusion of reliable information on innovation and development in C. Macedonia.

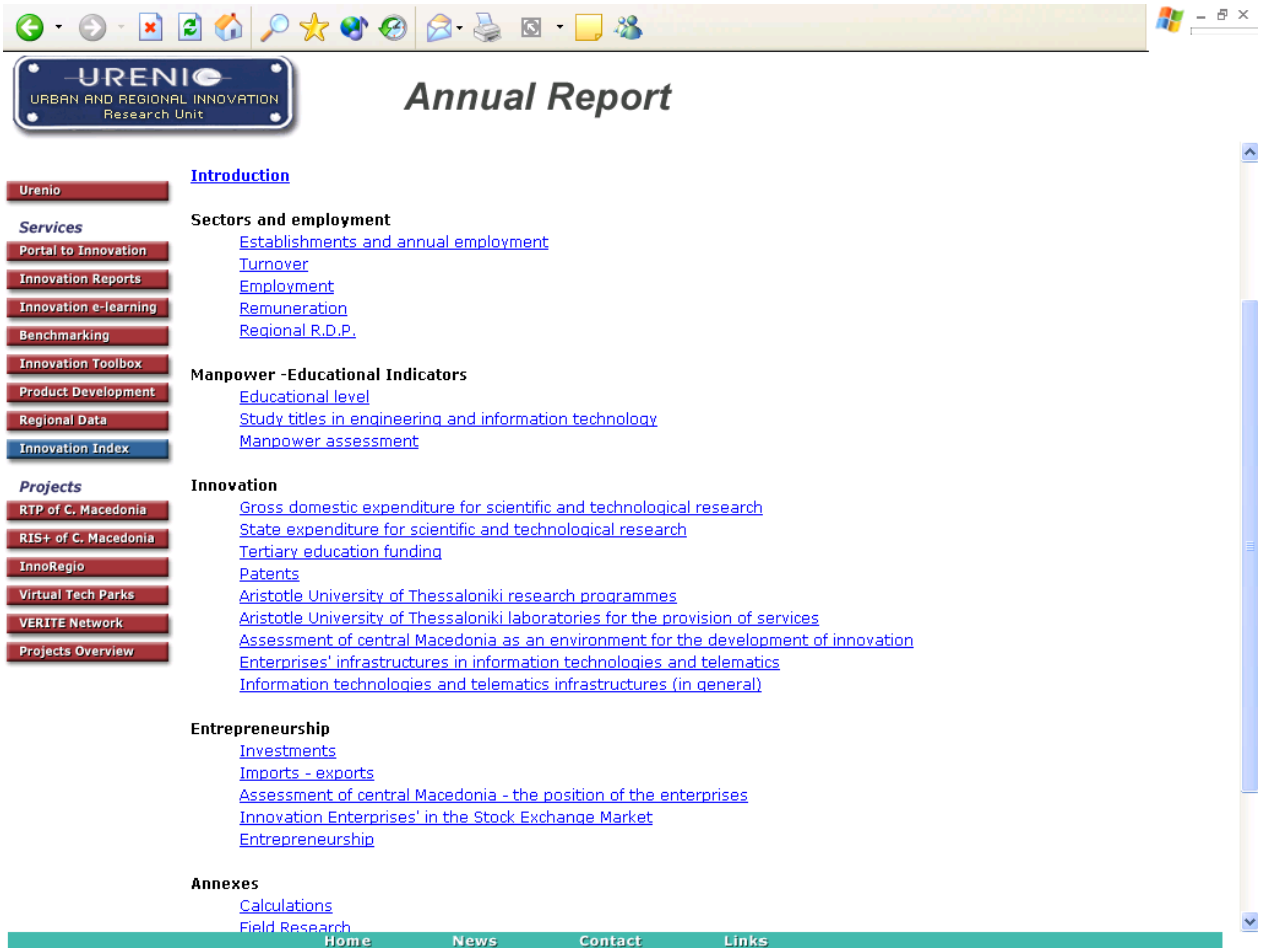
**Information system**

In the actual stage, the information system is composed of experimental infrastructure functioning at the Aristotle University of Thessaloniki and the Ministry of Macedonia-Thrace. It permits the storage of vast quantities of information, access to which is via Internet, in the address of the server (http: // rtp.auth.gr). This infrastructure supports the dissemination of information relating to the RTP, the innovation system in C. Macedonia, and the full presentation of the objectives, method, work-packages, strategy and projects prepared within the framework of the Plan. On an average, were recorded 55 “visits” per day from 78 “visitors” from various countries of Europe, the USA and Australia.

The thematic structure of this information includes three distinct units:

- The Central Macedonia Regional Technology Plan
- Economic and technological development in Central Macedonia
- Planning and infrastructures for innovation support.

Table 17.1: OBSERVATORY: Internet home page




In its more developed form during the implementation, the information system becomes part of the evaluation, by collecting and processing of information from numerous observation points at the recipients of the RTP actions. This information will permit a fullest development of on-line services, on the prefectures of C. Macedonia, the demand and supply of technologies, the industrial location areas, the innovation environment, the trends of industrial branches, and other more specific issues.

The development of the Observatory marks the completion of the C. Macedonia RTP preparation. It is delivered a strategy supporting the regional innovation system based on a substantial regional consensus, a number of elaborated projects for the immediate implementation of the strategy, and an on-line information system on the Regional Technology Plan, and the innovation and development in C. Macedonia.

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The *Innovative Region* is a strategy designed in the framework of the European Regional Policy and the Innovation Programme in order to sustain the development of European regions through the improvement of their R&D and technological capabilities. This strategy is linked to the Regional Technology Plans (RTP), the Regional Innovation and Technology Transfer Strategies and Infrastructures (RITTS), and the Regional Innovation Strategies (RIS).

The Central Macedonia Regional Technology Plan is a pilot project aiming at the investigation of the procedures, the method, and the implementation problems of this strategy. It focuses on the upgrading of the regional innovation system, which is responsible for the production, transfer and diffusion of technological knowledge in a territory.

The book presents the formulation of the regional innovation strategy in Central Macedonia: it includes the analysis of the regional innovation system, the elaboration of priorities for innovation support, the definition of the action plan, and the implementation of the individual projects. The methods which were employed and the problems encountered may be useful in the actual extension of this strategy to other European Regions.