



Summary report on the regional S&T Intermediation System

THE CASE OF NORTHERN GREECE¹

The current state of intermediation services



Thessaloniki - February 2007

¹ Regions of West Macedonia, Central Macedonia, East Macedonia and Thrace

TABLE OF CONTENTS

| | |
|--|----|
| 1. INTRODUCTION - WIDER CONTEXT OF S&T INTERMEDIATION SYSTEM..... | 1 |
| 2. PROFILE OF S&T INTERMEDIARIES..... | 6 |
| 2.1. General Information | 6 |
| 2.1.1. Status of S&T Intermediaries | 6 |
| 2.1.2. Sectors and research areas covered by S&T Intermediaries | 11 |
| 2.1.3. Profile of assisted SMEs | 12 |
| 2.1.4. Human Resources | 13 |
| 2.1.5. Budget | 15 |
| 2.2. Categories of S&T Intermediaries | 16 |
| 3. SERVICE AREAS COVERED IN REGIONAL S&T INTERMEDIATION SYSTEM | 17 |
| 3.1. General Offer of S&T Intermediation Services | 17 |
| 3.2. Services Offered by Category of S&T Intermediary | 21 |
| 4. MATCHING S&T SERVICES OFFER WITH THE NEEDS OF SMEs | 23 |
| 5. COOPERATION WITHIN REGIONAL S&T INTERMEDIATION SYSTEM | 24 |
| 5.1. Main cooperation pattern..... | 24 |
| 5.1.1. S&T intermediaries' perspective..... | 24 |
| 5.1.2. SMEs' perspective | 25 |
| 5.1.3. Comparing S&T intermediary and SME perspectives | 27 |
| 5.2. Mapping S&T intermediation system | 28 |
| 6. GENERAL ASSESSMENT OF THE REGIONAL S&T INTERMEDIATION SYSTEM..... | 29 |
| 7. PROPOSALS OF THEMATIC FOCUS OF SUPER-SME STUDY VISITS AND PEER REVIEWS..... | 32 |
| 7.1. Proposals for the study visits | 32 |
| 7.2. Proposals for the Peer Review visits | 32 |
| ANNEX 1. SUMMARY TABLE: MAIN FUNCTIONS, SPECIALISATION AND PARTNERS OF REGIONAL S&T INTERMEDIARIES | 33 |

1. INTRODUCTION – WIDER CONTEXT OF S&T INTERMEDIATION SYSTEM

Universities and Research centres develop constantly new technologies without, unfortunately, being able to exploit them at the same time. The main problem that intermediaries have to face is the diffusion of research and technological results, rather than their production. All at once, Small Medium Enterprises (SMEs) as long as industries need to adopt innovative approaches in order to gain competitive advantages in the modern globalised market.

“Innovation Intermediaries” were mainly formed to bridge the gap between research conveyors (Universities, Technological Educational Institutions, Research Centres etc) and industries-enterprises. Their main objective is to function as facilitators for the transfer and diffusion of innovation and new technologies, in order industries and enterprises to use productively the vast amount of know-how and technology that research conveyors produce.

Empirical proofs show in Europe that the flow of basic research towards economic development faces numerous obstacles although the attempts that have taken place to develop and maintain the relationship between research and industry. The gap between the highly standard scientifically constitution and its low contribution to the industrial competitiveness and entrepreneurship with innovative achievements seem to be rather considerable. This gap is well known as the “European Paradox” (Debackere K., Veugelers R., 2005). Looking for more effective practices to improve the commercial use of basic research from Higher Educational Institutes, experts resulted that the low levels of connections between universities and enterprises in the EU may well be justified because of the lack of demand from the enterprises side.

In Greece the term and existence of intermediaries has started being visible only by the end of last decade within the universities. Corresponding role for the research centres have undergone the Scientific and Technological Parks, that have a maximum history of only fifteen years and they’re currently at the face of development. Main objective of the innovation intermediaries is the linkage between research and production through the following actions:

- The commercial exploitation of every product or custom-made service that derives from researchers and academics
- The mapping of all market needs towards products and intensive knowledge services that vary according to geographical regions, where the liaison office exists.

- The development, constant update and maintenance of a trustful mechanism that correlates demand (industry-enterprises) and supply (research provision).
- The complete marketing and looming up of services or products of research conveyors.
- The provision of consulting services to research conveyors, institutions and enterprises.
- The contribution to develop or/and support spin-off companies.

Intermediaries have the ability and should develop complementary and parallel activities that cannot be fully described in this report, but are being considered eligible up to the point that they serve their vision. Their main aim is to link-up research and educational conveyors with the “external” competitive environment within the Greek boundaries, but in a more international context.

According to a thorough on-going survey, financed from the General Secretariat of Research and Technology that attempts to map the national intermediation system, there have been noted three types/models of institutions-intermediaries within European countries:

1. Organic units or exclusive departments within universities or academic institutes.
2. Daughter organisations that function independently from one university or academic institute, although they are closely linked to it.
3. Public or private, independent intermediaries that serve more than one university or academic institute.

The choice of one of the above-mentioned types/models reflects some important factor for its function like the legal environment, the level of its autonomy, potential governmental form, amount of national contribution to it, the birth of other daughter organisations or even the knowledge transfer procedure.

Observing the European experience we conclude that the new trend of Liaison Offices is to form independent companies that manage and diffuse the research results. Primary scope is to form a steady income of the institution’s/organisation’s portfolio and its increase by signing new collaborations with research centres and the industry accordingly. In this way they will no longer be financially dependent anymore to governments and their flexible management is the main characteristic of this model.

The Intermediation System of Northern Greece

The enactment and subsidy of innovation intermediaries dates back to 1996 with a special initiative of the General Secretary of Research and Technology (1995-1999) and was carried on in 2003 through the Community Support Framework 2000-2006 and specifically the operational programme "Competitiveness" of the Greek Ministry of Development. Currently exist in Greece approximately 45 innovation "intermediaries", according to the broad meaning of the term and almost half of them are concentrated in northern regions of Greece:

- 4 Highest Education Institutes (Universities)
- 3 Technological Education Institutes
- 3 Research Centres-Institutes
- 1 Technological Parks
- 8 Centres for Business and Cultural Development
- 1 Business Innovation Centres
- 2 Innovation Relay Centres

The personnel recruited by the intermediaries usually are people that already belong to these institutes and they undertake all duties, organisational issues, coordination, as well as administrative responsibilities. Their average number of employees is 3 to 4 (except from Institution of Technology & Research), a figure that proves to be poor to cope with all needs, when in other international intermediaries the average number is 15 people. The available budget of Greek intermediaries is quite limited to afford more in the scheme that they function. However, personnel prove to be highly qualified into certain academic fields, but it's rather impossible to cover any potential collaboration with some specialised university units. In essence, Aristotle University of Thessaloniki, the largest university (in terms of students' number) in the whole Balkan region, is impossible to have a representative/expert of each department in the liaison office.

According to a detailed questionnaire conducted recently, intermediaries' staff claims to be experts in the context of technology management and diffusion, although most of them agree that they obtained most of their knowledge during their service there. It's sad to mention that nationwide it doesn't exist any organisation to audit skills towards knowledge transfer and there is no doubt that intermediaries require audited highly skilled experts. Thus, the use of numerous external experts proves to inevitable and they work with project contracts. Another drawback of the intermediaries' staff is their lack of industrial experience; not real

or in the best cases weak experience of what industries and enterprises demand. Private sector's background is a crucial factor that should not be omitted.

Another issue is the targeted interest that intermediaries show to certain fields of research. It's obvious that a higher education institute has quite differentiated objectives and aims than a technological research centre. In general, innovation intermediaries attempt to develop strategic collaborations more with research community and enterprises, but less with investors, high-risk entrepreneurs or venture capitals, as they are limited in Greece. Paradoxically, their relationship with incubators is also poor.

Table 1.: Main organisations of the Regional Innovation System (Northern Greece)

| <i>Type of organisation</i> | <i>Name of organisation</i> |
|--|--|
| Universities and other higher education institutions | Aristotle University of Thessaloniki (AUTH) |
| | University of Macedonia (UoM) |
| | Democritus University of Thrace (DUTH) |
| | University of West Macedonia (UoWM) |
| | Technological Educational Institute (TEI) of Thessaloniki |
| | Technological Educational Institute (TEI) of Serres |
| | Technological Educational Institute (TEI) of Kavala |
| Public and private research institutes/laboratories | Centre for Research and Technology (EKETA) includes the following institutes 1 Chemical Process Engineering Research Institute (CPERI) 2 Informatics and Telematics Institute (ITI) 3 Hellenic Institute of Transport (HIT) 4 Institute for Solid Fuels Technology and Applications (ISFTA) 5 Institute for Agro biotechnology (INA) 6 Clothing Textile & Fibre Technology Development Company (CLOTEFI) 7 Metallurgical Industrial Research & Technology Development Centre (EBETAM) 8 Ceramics and Refractories Technological Development Company (CERECO) 9 Food Industrial Research and Technological Development Company (ETAT S.A.) |
| | South East European Research Centre SEERC |

| | |
|--|--|
| S&T intermediaries between research and business | Liaison Office of AUTH Liaison Office of DUTH Liaison Office of CERTH Liaison Office of UoM Liaison Office of UoWM Liaison Office of DUTH |
| | URENIO Research Unit |
| Networks of organisations active in the field of research, technology and innovation | IRC / HIRC |
| | IRC / Help Forward |
| Chambers of commerce, industry and associations | Federation of Industries in Northern Greece (F.I.N.G.) |
| | Association of Information Technology Companies of Northern Greece (SEPVE) |
| | Association of Exporters of Northern Greece (SEVE) |
| | Thessaloniki Chamber of Commerce and Industry T.C.C.I. |
| | Exporters' association of northern Greece |

2. PROFILE OF S&T INTERMEDIARIES

2.1. GENERAL INFORMATION

2.1.1. Status of S&T Intermediaries

In the Regions of Macedonia and Thrace 7 S&T Intermediaries were interviewed of which the general profile according to the questionnaires (section 1, S&T Intermediaries Questionnaire) is provided in Table 1.

Table 2.: General Profile of the S&T Intermediaries interviewed

| Name of the Organisation | Abbreviation | General Profile | Legal Status | Territory Serviced |
|--|---------------------|--|---|----------------------|
| Association of Information Technology Companies of Northern Greece | SEPVE | Association | Non Profit - non Governmental | Northern Greece |
| Research Committee - Aristotle University of Thessaloniki | RC-AUTH | University interface and technology transfer (TT) unit | Legal Entity of Public Interest | Greece |
| Research Committee - University of Western Macedonia | RC-UoWM | University interface and technology transfer (TT) unit | Legal Entity of Public Interest | Western Macedonia |
| Liaison Office of the Democritus University of Thrace | Liaison Office DUTH | University interface and technology transfer (TT) unit | (Research Committee of DUTH -Legal Entity of Public Interest) | Northern Greece |
| Thessaloniki Technology Park Management & Development Corporation | MDC/TTP | Technology transfer organisation | S.A | Northern Greece |
| West Macedonia Development Company | ANKO | Non-technological intermediary | S.A. | Western Macedonia |
| South - East European Research Centre | SEERC | Research centre interface | Not-for-profit | South Eastern Europe |

The **Association of Information Technology Companies of Northern Greece (SEPVE)** was founded in April 1994 as a private non-for-profit organisation and is based in Thessaloniki. From its foundation until the present day it has been the only collective body representing the interests and concerns of the information technology businesses active in Northern Greece (regions of Macedonia, Thrace and Thessaly). In its attempt to secure the most effective representation of its members the Association has set itself the following objectives:

- Offering information to both existing and future members on the latest developments in the information technology sector, on both the national and international levels.
- Fostering the growth of information technology within its regional sphere of action.
- Promoting, through specific initiatives and projects, an enhanced status for the regional information technology businesses, thus making a positive contribution to Greece's advance into the Information Society
- Coordinating and submitting specially designed business plans and proposals to various government departments and agencies, in order to bring about the gradual and unimpeded development of its members' businesses.
- Creating the necessary framework for acquaintance, communication and collaboration among its members, and between its members and the public sector and other business sectors.
- Organizing a regular series of educational and information seminars, round table discussions and conferences, in order to improve the administrative and technical skills of its members.
- Promoting cooperation between its members and related businesses in the Balkan countries, as well as in the Mediterranean region and the Middle East.

The **Research Committee of Aristotle University of Thessaloniki (RC-AUTH)** is a collective, elective body of the University, legally charged with the administration and management of the "Special Account", which operates with the aim of transferring and managing research, technological and training programmes as well as other related services which are provided by the members of the Institution. The Aristotle University of Thessaloniki has realized, during the 12 years of the existence of the Research Committee, 4,500 programmes, in which over 10,000 University staff and external co-operators have participated.

The **Research Committee of the University of Western Macedonia (RC-UoWM)** is a collective elected body of the University, charged by the law with the management of the "Special Account". The "Special Account" programme manages research, technological and educational programmes and other relevant services of the University. The research programmes that are carried out in the Institution, are financed by the General Secretariat of Research and Technology (GGET) and by other institutions of the country, by the European Union, or finally by private institutions (enterprises) of our country or even certain other countries, under certain academic conditions. In the framework of research programmes bilateral or multilateral inter-country collaborations are established with Universities, research centres and other institutions at a national and European level as well as in third countries.

The **Liaison Office of the Democritus University of Thrace (DUTH)** was founded in 1996 with the aim to link the research units of DUTH with the productive and social organizations. The ultimate objective is to exploit the research activities of DUTH and SMEs in Regional, National and European level. The office provides services as follows:

- Diagnosis of the technological capabilities of DUTH laboratories with innovation tool applications and of the business potential technological needs as well
- Update on the funding sources
- Assistance in finding partners for cooperation
- Assistance in funding for innovation
- Techno intercession services
- Organisation of Technology Transfer events
- Business plan preparation for spin-off creation
- IPR consultative services
- Project preparation for Regional Innovation (Region of East Macedonia & Thrace)

The Thessaloniki Technology Park Management & Development Corporation (MDC/TTP S.A.) serves as Industry-Research Liaison assisting assessment and exploitation of research results promotes the creation of new and spin-off SMEs (Incubator) in new technologies and assists in technology transfer agreements and technology implementation. Its activities include:

- TTP/MDC promotes activities, which contribute to increasing the competitiveness of Greek industry (in particular SMEs), with an emphasis upon Chemical, Biotechnology, Material, Food and Beverage, Textile, Energy and Environment technologies. Its role is to identify emerging trends and technological innovations with high potential in the Greek business environment. TTP/MDC's network information database expands continuously and includes research institutes in addition to industrial and regional development organisations.
- TTP/MDC Technology Transfer Unit acts as industry-research liaison, via services offered to SMEs including: partner searches, assessment and exploitation of research results, assistance with RTD proposal preparation, submission and project management. It also provides technology brokerage, technology search and assessment, technology transfer agreements and assistance for technology implementation as well as assistance in IPR issues within R&D contracts. TTP/MDC promotes technology transfer between Greece, the EU, Eastern Europe and the Balkans.
- TTP/MDC promotes closer links between industry - SMEs and local universities / research centres by raising funds for basic and applied research, related to local needs. This involves both local and international projects mainly focused to SMEs research needs.
- TTP/MDC organises, implements and participates in national and European training programmes, it also studies issues related to professional training and prepares training workshops on the usage of innovative technologies.
- TTP/MDC supports the incubator centre on the Thessaloniki Technology Park by providing services such as: secretarial support, telecommunications, photocopying, ISDN networking, Internet, email and assistance for participation in European and National programmes.

West Macedonia Development Company (ANKO S.A.) created by the local authorities, the State, the agricultural cooperatives and Chambers of Commerce, in order to act as a pioneering scientific organisation for the regional development approach. The company's aim is the promotion, support and contribution to integrated regional development, in order to make West Macedonia a place for healthy and safe life and a model for sustainable growth, through:

- Study, promotion, administration, monitoring and evaluation of programs and projects on development, in collaboration and complement action with local authorities, the state and the private sector, and
- Support of authorities and inhabitants, consistent informing, awareness, motivation, activation, contribution in the configuration of development strategies and the coordination of actions for the implementation of innovative development projects.

ANKO acts cooperatively and supportively with the public and private sectors. The company operates under free enterprise criteria through a rational combination of social motion, business behaviour and accomplishment of the high-level demands of integrated development with clarity and effectiveness, aiming in the creation of a modern, powerful, specialised and financially self-reliant company.

South - East European Research Centre (SEERC) is an international, not-for-profit research centre jointly established by the University of Sheffield and CITY Liberal Studies, it is located in one of the ancient hubs of South-East Europe, Thessaloniki, Greece. The Centre and its activities are founded on the belief that by supporting the peoples, economies and political institutions of South-East Europe through the conduct of research and policy analysis, the dissemination and application of findings and the facilitation of open and informed discussion, a significant contribution can be made to the development of a stronger, more stable and more prosperous European community. SEERC's mission is to support the stable and peaceful development of South-East Europe by conducting pure and applied research in and for the region. To accomplish this, SEERC will employ the existing research capacities of the University of Sheffield and CITY Liberal Studies by facilitating collaborations between their research staff and by developing multi-disciplinary networks of researchers from across Southeast. The objectives of SEERC are as follows:

- To promote independent, objective analysis and public discussion on issues related to the development of South-East Europe.
- To provide a forum for researchers in the SEE region.
- To initiate common research by the University of Sheffield, CITY and other academic institutions in the SEE region.
- To disseminate findings to academics, professionals, NGOs, and policy-makers through conferences, advising, published research papers, monographs, and working papers.
- To disseminate important data and findings to interested members of the general public through open forums, and web and other media-based means.
- To promote cutting-edge methodology both within existing disciplines and in the development of multi-disciplinary perspectives through workshops and seminars.
- To assist in the integration of researchers from universities and research centres in the SEE region into networks of excellence.
- To draw PhD candidates from throughout the SEE region to University of Sheffield and CITY and provide them with a rich and rewarding research environment at SEERC.

Due to the fact that the Liaison Office of DUTH was created with the aim to play the intermediary role between research units and enterprises, intermediation is a sole activity for this office, which happens to be also the only intermediary selected with this attribute. The rest of the organisations interviewed characterised intermediation as one of the key activities, not the only one, logical enough if someone takes into account that Research Committees carry out the administration and management of the “Special Account”, SEPVE, ANKO S.A. and MDC/TTP S.A. bring off a variety of activities mentioned above. SEERC’s staff is occupied only part time for R&D issues. Therefore, intermediation at SEERC belongs to secondary activities.

In 2003 South East European Research Centre (SEERC) was founded as a private owned research institution, affiliated to the University of Sheffield in UK. SEERC has its own S&T intermediary organisation and it is one of the most recently created in northern part of Greece. All the other organisations operate more than a decade.

2.1.2. Sectors and research areas covered by S&T Intermediaries

The sectoral coverage of intermediaries interviewed is indicated in Table 2 below.

Table 3.: Sectors and research areas covered by intermediaries interviewed

| | | | | | |
|--------------------|---------|------------------------|---------------|-----------------------|--|
| No specialisation | | Electronics | 2, 4 | Textiles | 2 |
| Chemistry | 2, 4, 5 | Mechanical engineering | 2, 3, 4, 6 | Optics | 2, 4 |
| Biotechnology | 2, 4, 5 | Informatics | 1, 2, 4, 5, 7 | Logistics | 2, 7 |
| Medicine | 2, 4, 5 | Robotics | 2, 4 | ICT | 1, 2, 3, 5, 7 |
| Food processing | 2, 4, 6 | Metrology | 2, 4 | Construction | 2, 4, 6 |
| Advanced materials | 2, 4 | Industrial design | 2, 4 | Transport equipment | 2, 5 |
| Mechanics | 2, 3, 4 | Wood processing | 2, 4, 6 | Energy | 2, 3, 4, 6 |
| Nanotechnology | 2, 5 | Agriculture | 2, 4, 6 | Other, please specify | 2, 3(pedagogies), 6(hydraulics), 7(economics, business, political and social sciences) |

*1. SEPVE, 2. RC-AUTH, 3. RC-UoWM, 4. Liaison Office DUTH, 5. MDC/TTP, 6. ANKO, 7. SEERC

From the table above the first conclusion someone could reach to, is that no sector is left out of the particular regional intermediation system. There are sectors though that are deeper covered like mechanical engineering, informatics, ICT and energy, and others like robotics, logistics, advanced materials, nanotechnology etc that are less covered. The only sector that seems to be poorly and insufficiently covered is textiles as only the RC-AUTH, which deals with many different fields, can deliver services on this specific sector. Another institution

that looks like dealing with various and different sectors is the Liaison Office DUTH while the University of Western Macedonia (UoWM) as it consists of the Department of Management of Energy Resources, the Department of Balkan Studies, the Department of Elementary Education and the Department of Pre-School Education, it is consequently expected to cover particular sectors related to the mechanical engineering field and the pedagogic field. Of the institutions selected, SEPVE, which represents the interests and concerns of the information technology businesses and therefore it covers areas such as informatics and ICT, could be considered as a specialised one.

2.1.3. Profile of assisted SMEs

The Liaison Office of DUTH and SEERC weren't able, during the interview, to inform us about the enterprises they have provided direct assistance to. Information of the rest of the intermediaries is provided in Table 3.

Table 4.: Direct and Group (Horizontal) Assistance to Enterprises provided by S&T Intermediaries

| | SEPVE | RC-AUTH | LO- DUTH | MDC/TTP | ANKO |
|--------------------------------------|-----------|------------|-----------|------------|-------------|
| Direct Assistance | | | | | |
| Micro enterprises (1-9) | | | | | |
| Returning clients | | | 5 | 20 | 810 |
| New clients | | | 2 | 5 | 1440 |
| SME (10 - 250) | | | | | |
| Returning clients | | 90 | 23 | 30 | |
| New clients | 18 | 10 | 12 | 10 | 40 |
| BE (more than 250) | | | | | |
| Returning clients | 7 | 18 | 11 | 3 | |
| New clients | | 2 | 2 | | 9 |
| TOTAL Returning clients | 7 | 108 | 39 | 53 | 810 |
| TOTAL New clients | 18 | 12 | 16 | 15 | 1489 |
| Group (horizontal) assistance | | | | | |
| TPE (less than 10 employees) Clients | | | | 150 | |
| SME (10 - 250) Clients | | | 12 | 350 | |
| TOTAL Clients | | 50 | 12 | 500 | |

2.1.4. Human Resources

An average of the personnel that is occupied in the S&T intermediaries that were interviewed is 20 employees per intermediary with maximum 50 (RC-AUTH) and minimum 2 (SEERC). Apart from SEERC, of which the employees that deal with intermediation are working part time, all the other intermediaries, due to the fact they also claim that there is a demand of great importance, occupy at least the half of the staff full time. In particular, AUTH, which is considered the biggest university in the Balkans, creates so much knowledge in many fields that if it wasn't for the research committee having an adequate number of employees to facilitate the research activities of the university staff, the laboratories of AUTH would not manage to implement research. Notwithstanding, the Research Committee of AUTH still complains about the insufficient number of employees occupied. Another situation that must be mentioned about AUTH is that, when they were questioned about the personnel dealing with S&T intermediation they wondered if the educational staff (2450 persons) should be included as professors also play an intermediary role while they carry out research projects.

Table 5.: Human Resources of the intermediaries interviewed

| Name of the organization | Total | Full time | Part time | Engineers | Technicians | Specially trained managers | Researchers (PhDs) |
|--------------------------|-------|-----------|-----------|-----------|-------------|----------------------------|--------------------|
| SEPVE | 7 | 5 | 2 | 2 | | 1 | |
| RC-AUTH | 50 | 50 | | 4 | 12 | 8 | 1 |
| RC-UoWM | 39 | 19 | 20 | 1 | 2 | 4 | 12 |
| LO-DUTH | 5 | 2 | 3 | 2 | | 3 | |
| MDC/TTP | 5 | 3 | 2 | 3 | | 2 | |
| ANKO | 30 | 30 | | 10 | 13 | 6 | 1 |
| SEERC | 2 | | 2 | | 1 | | 1 |

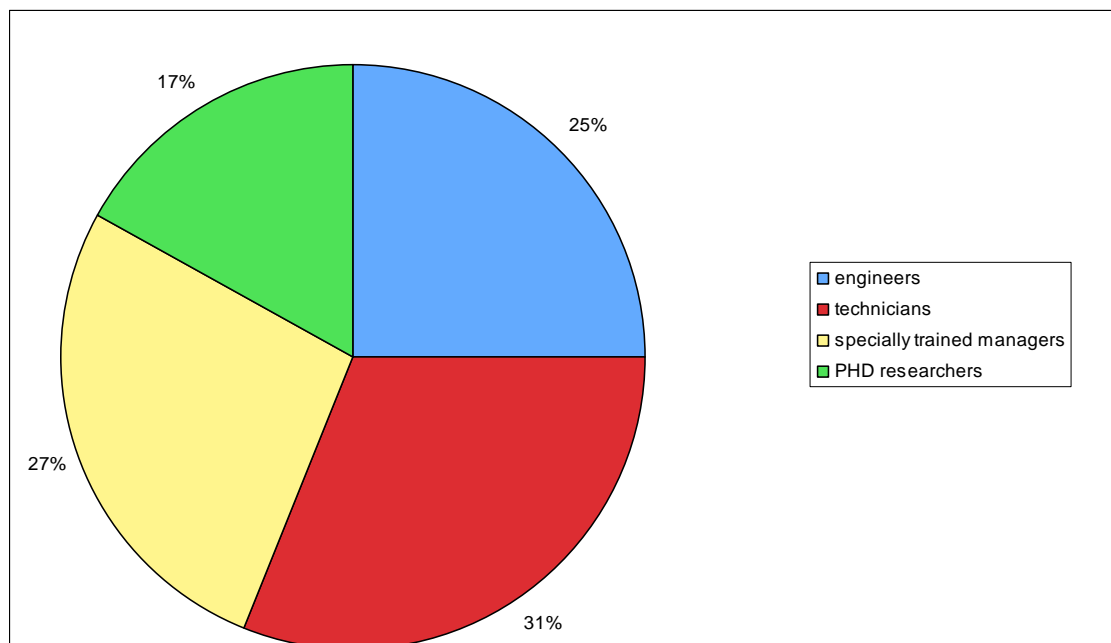
As far as the specialisation of the personnel is concerned, a few to none researchers (PhDs) are usually occupied in such organisations. Particularly in A.U.TH, this fact is not because there is no available space for researchers, rather due to the fact that such high-qualified individuals, in case they choose to be occupied in the university, they prefer to work in the

field that they have studied and particularly at the labs they have worked for their PhD. About the RC-AUTH employees, half of them have studied economics and that is because, as it is mentioned above, the RC-AUTH needs such persons as it deals with the administration and the management of the "Special Account". If someone observes the table, he will notice that the only intermediary that has a plethora of researchers is RC-UoWM while SEPVE, LO-DUTH and MDC/TTP have none. Except SEERC that classifies intermediation to the secondary activities, the rest of the intermediaries engage at least one engineer and one specially trained manager. Technicians and researchers are occupied mostly in those organisations where the total number of employees dealing with S&T intermediation is more than 30.

Almost all intermediaries seem to have an external expert pool of which the number of experts fluctuates between four and thirty and they use, if need be. The percentage of time that the experts usually spend on S&T intermediation is more or less 50%. It must be mentioned though, that the universities have the advantage to exploit also the educational staff.

An indication of the human resources of the selected S&T intermediaries is illustrated in the pie chart below:

Exhibit 1.: Personnel of S&T Intermediaries.

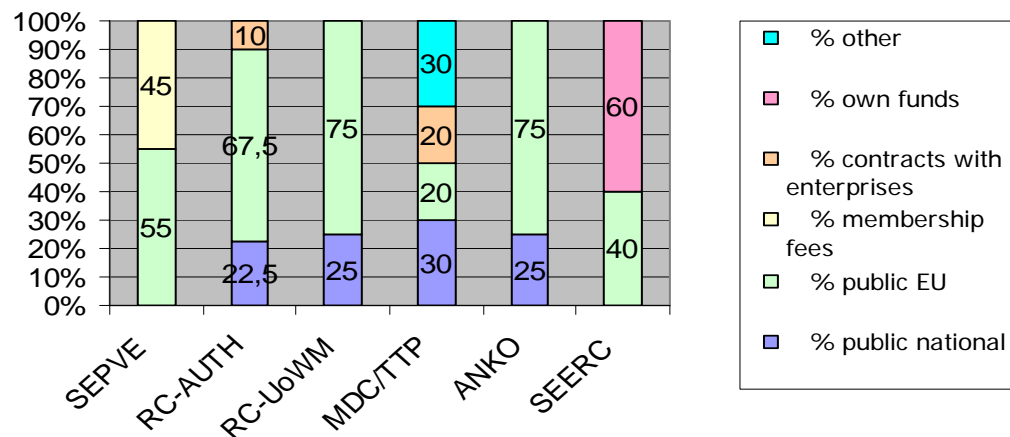


2.1.5. Budget

During the interviews it was really hard for the intermediaries to give exact financial numbers. Especially from the Liaison Office of Duth, we couldn't obtain any information related to their budget. This is also the reason which we didn't include this office in our below analysis.

Six of the S&T intermediaries SEPVE, RC-AUTH, RC-UoWM, MDC/TTP, ANKO AND SEERC allocate annually their budget to S&T intermediation respectively as follows: 40.000 euros (20% of SEPVE total budget), 4.000.000 euros (8% of RC-AUTH total budget), 450.000 euros (6% of RC-UoWM), 210.000 euros (70% of MDC/TTP total budget), 3.500.000 euros (50% of ANKO total budget), 21.500 euros (5% of SEERC total budget). Consequently, the total amount devoted annually to S&T services is an 8.221.500 euro, which also represents the 12,5 % of all intermediaries total budget. The reason this percentage came up low is due to the fact that more than 50.000.000 euros (80% of all intermediaries total budget) is destined for R&D projects.

Exhibit 2.: Total budget of each intermediary funding by source.



The main outcome of chart 2 is that Public EU funds, in general terms, appear to be the most important ones. SEERC and MDC/TTP are the only intermediaries that gave us information about the funding sources for intermediary services. Of 5% (21.500 euros) of the total budget (430.000 euros) that SEERC devotes to intermediation, 80% (17.200 euros) is derived from Public European Programmes and the rest 20% (4.300 euros) is own funds. Correspondingly, of 70% (210.000 euros) of the total budget (300.000 euros) that MDC/TTP appropriates to S&T services, 40% (84.000 euros) is public EU funds, 30% (63.000 euros) is public national, and the last 30% (63.000 euros) accrues from contracts with enterprises.

2.2. CATEGORIES OF S&T INTERMEDIARIES

S&T intermediaries are diverse organisations with different missions and scope of service. This report introduces a categorisation of intermediaries based on distinctions between (1) generic or sectoral orientation and (2) technological or non-technological character of service.

Generic - or multi-sectoral - intermediaries provide services to companies independently of their sector. The examples can include both collective services such as awareness raising campaigns and one-to-one services such as support for start-ups and spin-offs. Sectoral intermediaries are specialised and focus on a particular sector or technology field. Technological intermediaries focus on providing support for development, commercialisation or transfer of technology whereas non-technological services include activities with a focus on management and organisation, S&T staff training and placement schemes, IPR etc. Some intermediaries may provide both technological and non-technological services. These are referred to as 'hybrid'.

The exhibit below presents the categorisation of S&T intermediaries active in the regions of Macedonia and Thrace. The classification takes into account S&T intermediaries having direct contact with SMEs.

Table 6.: Categorisation of regional S&T intermediaries

| | Generic | Sectoral |
|-------------------|--|----------|
| Technological | | SEPVE |
| Non-Technological | RC-AUTH RC-UoWM Liaison Office of DUTH ANKO | |
| Hybrid | MDC/TTP SEERC | - |

3. SERVICE AREAS COVERED IN REGIONAL S&T INTERMEDIATION SYSTEM

3.1. GENERAL OFFER OF S&T INTERMEDIATION SERVICES

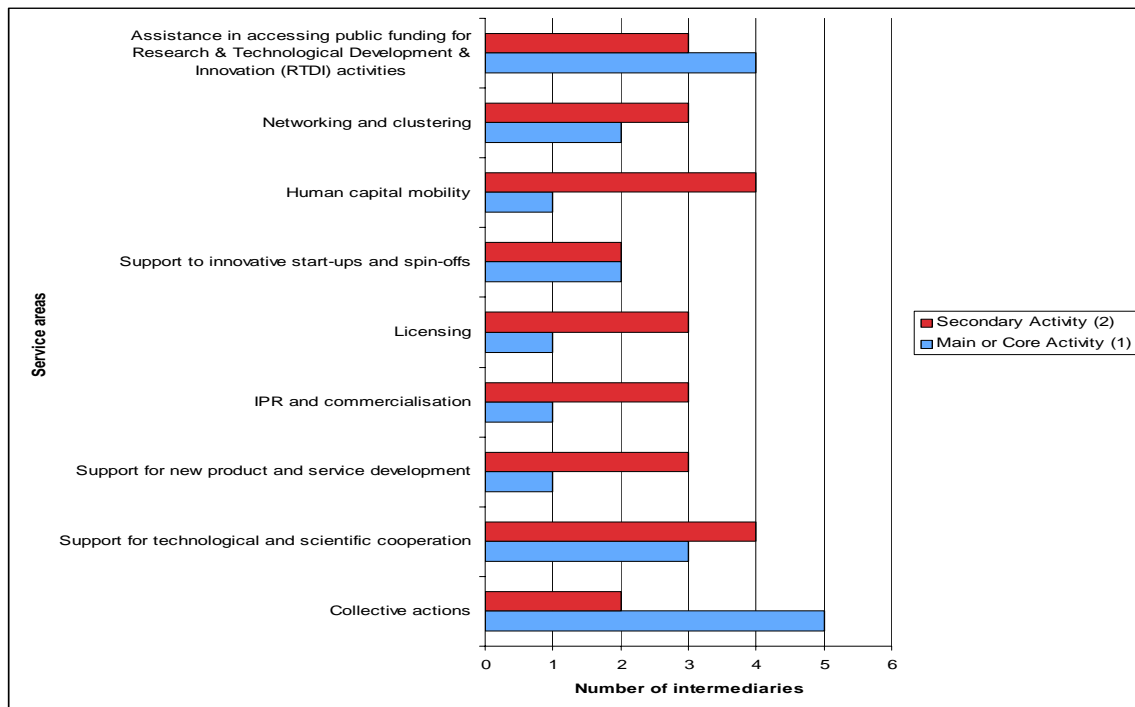
The following table 7, summarises the questionnaires that have been answered by the S&T intermediaries in the Northern regions of Greece, the main four group of activities that can identified are: 1) the collective actions, 2) supporting activities for technological and scientific cooperation, 3) activities related to access public funding for Research & technological Development & Innovation and the supporting activities to start-ups and spin-offs.

Five sub services from the group regarding the collective actions have been rated as of high importance, or primary activity, and scored (1) with a total number 997 of services provided, while two sub services have been rated as secondary activity. The activities or services regarding the support for technological and scientific cooperation are considered more as secondary than as a primary activity. That fact can be justified by the budget figures of each S&T intermediary that has been interviewed, that clearly shows the dependence of the intermediaries to European funds that comes mainly through the implementation of research project that are implemented by broad consortiums of partners.

Table 7.: Overview of service areas and services covered by the S&T intermediaries

| | | Main or Core Activity (1) | Secondary Activity (2) |
|------|---|------------------------------|---------------------------|
| 2.1. | Collective actions | 5(997) | 2(36) |
| 2.2. | Support for technological and scientific cooperation | 3(255) | 4(59) |
| 2.3. | Support for new product and service development | 1(30) | 3(93) |
| 2.4. | IPR and commercialisation | 1(6) | 3(33) |
| 2.5. | Licensing | 1(50) | 3(22) |
| 2.6. | Support to innovative start-ups and spin-offs | 2(385) | 2(23) |
| 2.7. | Human capital mobility | 1(3) | 4(5) |
| 2.8. | Networking and clustering | 2(5) | 3(3) |
| 2.9. | Assistance in accessing public funding for Research & Technological Development & Innovation (RTDI) | 4(739) | 3(10) |

Exhibit 3.: Service areas and services covered by the S&T intermediaries



From Table 7 and more clearly from exhibit 3, conclusion is that the less developed areas or group of activities are 1) the IPR and commercialisation, 2) the human capital mobility, 3) the licensing and 4) the networking and clustering. From the analysis of the questionnaires there were not identified any areas of services that were not provided by the intermediaries at all. From the interviews that were performed is quite clear that all the S&T intermediaries are not able to provide all the below listed services (see table 8). Each intermediary is attempting to focus only to a certain subcategory set of services. The following table presents an overview of the service areas covered and services mainly delivered by the interviewed regional S&T intermediaries over last 2 years.

Table 8.: Services in the regional S&T intermediation system

| 2. | Service areas covered by the intermediary | Primary Activity | Secondary Activity | Number of Services Delivered last 2 yrs |
|--------|---|------------------|--------------------|---|
| 2.1. | Collective actions | | | |
| 2.1.1. | Awareness raising activities for enterprises (e.g. study visits, presentations and conferences) | 5 | 2 | 152 |
| 2.1.2. | Awareness raising activities for the scientific community on research commercialisation and IPR | 4 | 3 | 33 |
| 2.1.3. | Technology watch - analysis of | 4 | 3 | 93 |

| 2. | Service areas covered by the intermediary | Primary Activity | Secondary Activity | Number of Services Delivered last 2 yrs |
|-------------|---|------------------|--------------------|---|
| | evolution of the technological needs of the region | | | |
| 2.1.4. | Collecting and disseminating information on relevant existing technologies | 6 | 1 | 554 |
| 2.1.5. | Coordinating and disseminating information on available S&T services for companies | 3 | 3 | 201 |
| 2.2. | Support for technological and scientific cooperation | | | |
| 2.2.1. | Technological audit - analysis and identification of needs of enterprises | 4 | 1 | 111 |
| 2.2.2. | Search for regional and national scientific partners for R&D projects | 3 | 4 | 57 |
| 2.2.3. | Search for international scientific partners for R&D projects | 3 | 4 | 45 |
| 2.2.4. | Search for regional and national industrial partners for R&D projects, and S&T support | 4 | 3 | 86 |
| 2.2.5. | Search for international industrial partners for R&D projects, and S&T support | 3 | 4 | 15 |
| 2.2.6. | Technical and legal support for preparing projects and agreements related to S&T collaboration | 2 | 5 | 44 |
| 2.3. | Support for new product and service development | | | |
| 2.3.1. | Technical assistance for preparing a feasibility study for a product/service | 1 | 2 | 12 |
| 2.3.2. | Assistance for developing a business plan for a new product/service | 2 | 2 | 44 |
| 2.3.3. | Assistance for prototype development (e.g. rapid prototyping etc.) | 0 | 2 | 3 |
| 2.3.4. | Assistance for prototype testing | 0 | 1 | 0 |
| 2.3.5. | Support in product launch or service implementation | 1 | 4 | 64 |
| 2.4. | IPR and commercialisation | | | |
| 2.4.1. | Initial IPR check for products and services before their development | 0 | 2 | 5 |
| 2.4.2. | Assistance in commercialisation of industrial research projects, identification of results requiring IPR protection | 0 | 3 | 23 |
| 2.4.3. | Assistance in register patents and management of patent portfolio | 1 | 2 | 11 |
| 2.5. | Licensing | | | |
| 2.5.1. | Industrial partner search for licensing | 0 | 4 | 20 |
| 2.5.2. | Preparing and negotiating conventions (licence agreements) | 1 | 2 | 52 |
| 2.6. | Support to innovative start-ups and spin-offs | | | |
| 2.6.1. | Legal support in creating a start-up | 2 | 0 | 304 |
| 2.6.2. | Legal support in creating a spin-off | 2 | 1 | 19 |
| 2.6.3. | Search for private financial partners for start-up/spin-off creation | 3 | 2 | 16 |
| 2.6.4. | Preparing "cahier des charges" | 1 | 2 | 11 |

| 2. | Service areas covered by the intermediary | Primary Activity | Secondary Activity | Number of Services Delivered last 2 yrs |
|-------------|---|------------------|--------------------|---|
| | (specifications) and budget for spin-off creation | | | |
| 2.6.5. | Monitoring and promotion of start-up/spin-off | 1 | 2 | 58 |
| 2.7. | Human capital mobility | | | |
| 2.7.1. | Placement schemes between research and industry | 1 | 3 | 2 |
| 2.7.2. | Search for highly specialised R&D personnel | 1 | 5 | 2 |
| 2.7.3. | Search for highly specialised management personnel (e.g. innovation management, knowledge management) | 1 | 3 | 4 |
| 2.8. | Networking and clustering | | | |
| 2.8.1. | Supporting and creating business networks (B2B) | 2 | 1 | 6 |
| 2.8.2. | Supporting and creating networks of SMEs and research base (University, research centres) | 2 | 4 | 2 |
| 2.8.3. | Supporting and creating clusters, and promotion of SMEs and research base participation | 2 | 3 | 0 |
| 2.9. | Assistance in accessing public funding for Research & Technological Development & Innovation (RTDI) activities | | | |
| 2.9.1. | Search for public funding and monitoring of public tenders | 4 | 3 | 315 |
| 2.9.2. | Assistance in accessing funds from EU Framework Programmes | 4 | 3 | 162 |
| 2.9.3. | Assistance in accessing funds from EU Structural Funds | 4 | 2 | 272 |

The table cited above is based on information provided by the interviews on 7 main regional S&T intermediaries.

3.2. SERVICES OFFERED BY CATEGORY OF S&T INTERMEDIARY

The following table is constructed from the analysis of the questionnaires. In that table we can point out that the collective actions appear to be one of the most important core activities. The activities regarding the support for technological and scientific cooperation and the supporting actions for new product and service development are considered as main secondary activities.

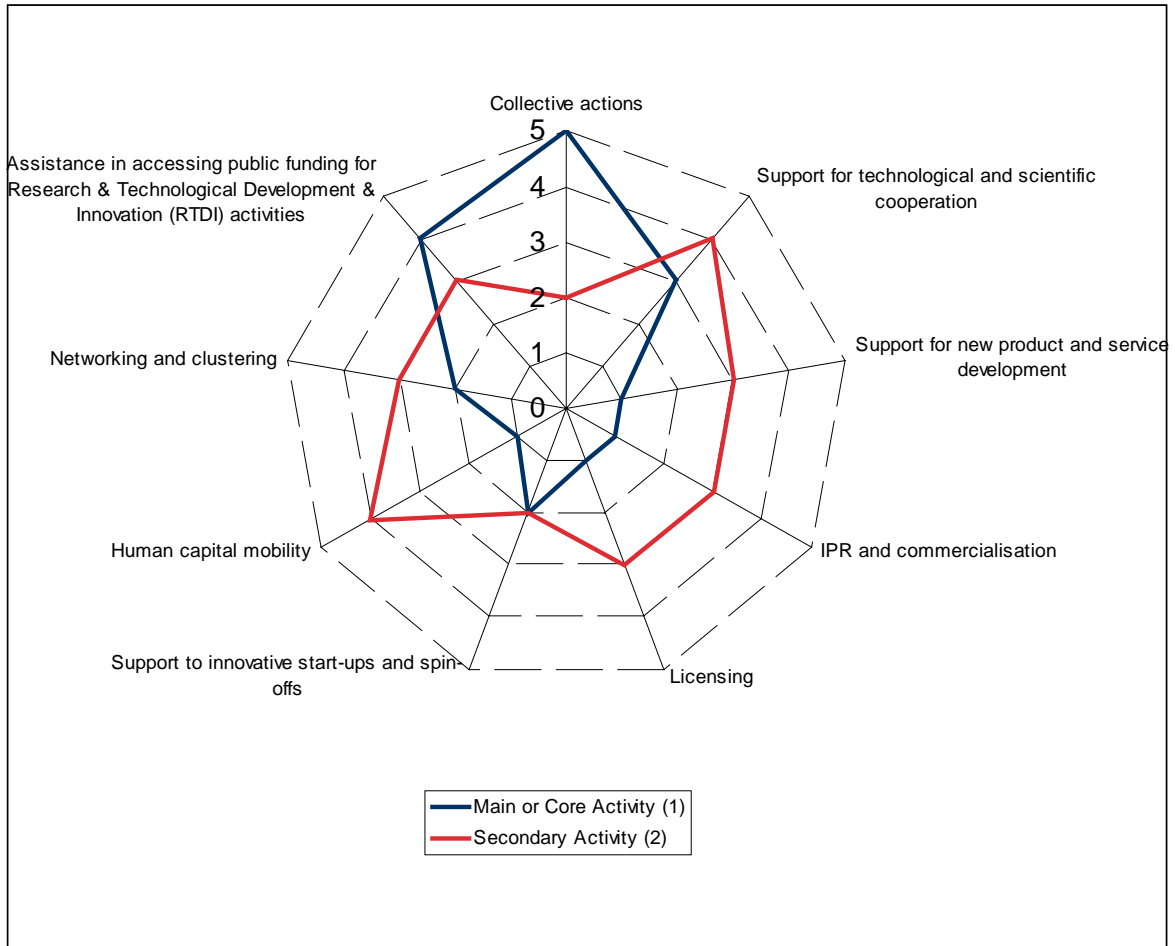
It is interesting to identify the reasons for that chosen strategy. For example the collective actions as 1) the awareness raising activities for enterprises (e.g. study visits, presentations and conferences), 2) the awareness raising activities for the scientific community on research commercialisation and IPR, 3) the technology watch - analysis of evolution of the technological needs of the region, 4) the collection and dissemination of information on relevant existing technologies and 5) the further coordination and dissemination of information on available S&T services for companies, do not require dedicated high level expertises from the intermediaries, they are services that can be offered easily with a minimum degree of effort and cost.

The secondary group of activities mainly is those that are related to the support for technological and scientific cooperation. One easily justifiable reason is that most of the European projects that have been implemented by the intermediaries are focused to those services.

Table 9.: Services offered by category of S&T intermediary

| Group of activities | 1 (n) | 2 (n) |
|---|----------|---------|
| 2.1. Collective actions | 22 (997) | 12 (36) |
| 2.2. Support for technological and scientific cooperation | 37 (255) | 40 (59) |
| 2.3. Support for new product and service development | 4 (30) | 11 (93) |
| 2.4. IPR and commercialisation | 1 (6) | 7 (33) |
| 2.5. Licensing | 1 (50) | 6 (22) |
| 2.6. Support to innovative start-ups and spin-offs | 9 (385) | 7 (23) |
| 2.7. Human capital mobility | 3 (3) | 11 (5) |
| 2.8. Networking and clustering | 6 (5) | 8 (3) |
| 2.9. Assistance in accessing public funding for Research & Technological Development & Innovation (RTDI) activities | 12 (739) | 8 (10) |

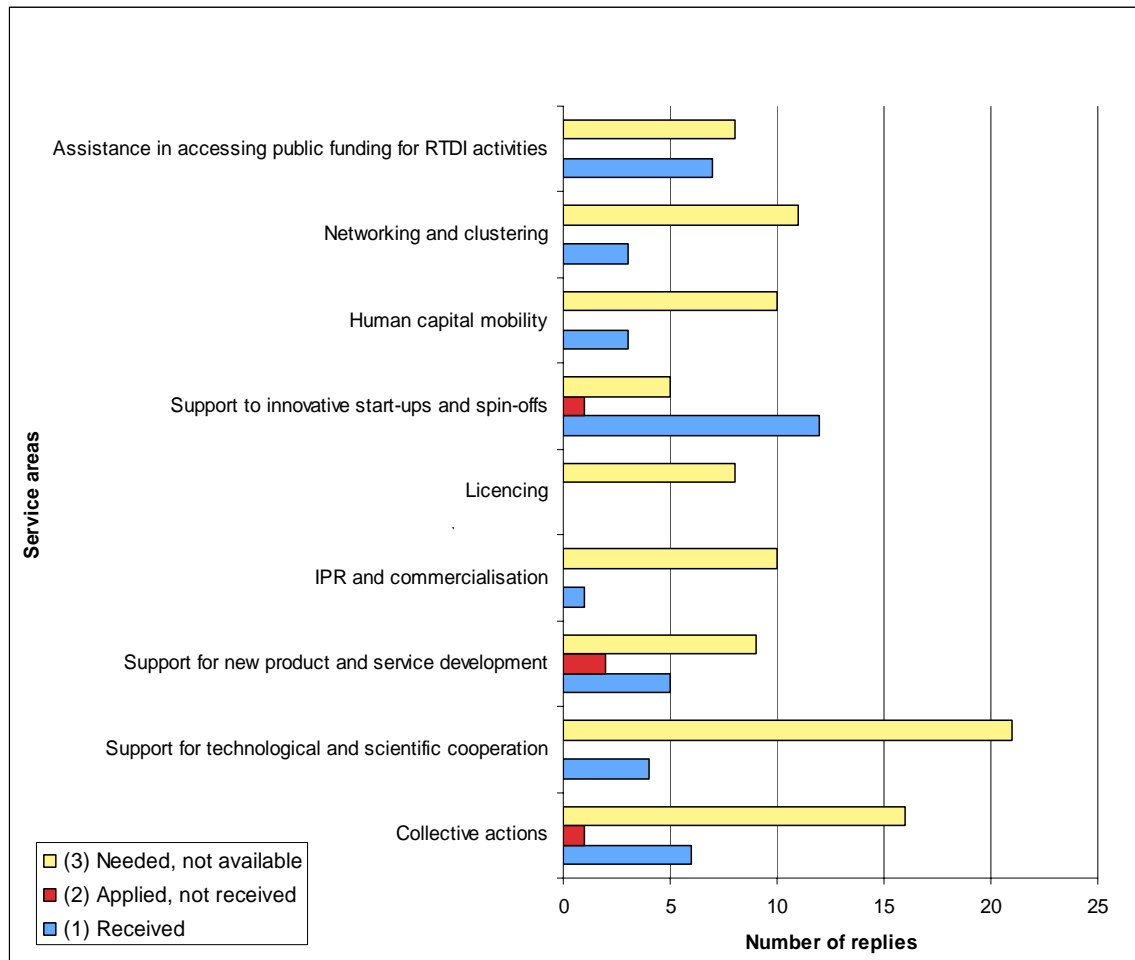
Exhibit 4.: Comparison radar graphs of the core (1) and secondary (2) activities



A clear outcome from the Exhibit 4 is a profound lack of services regarding IPR and commercialisation, despite the fact that in the region of Central Macedonia exist large institutions of knowledge-creation. Moreover, once again collective actions and assistance in accessing public funding prove to be core activities of the intermediaries. On the other hand, support to start-ups and spin-offs seems to be very weak.

4. MATCHING S&T SERVICES OFFER WITH THE NEEDS OF SMEs

Exhibit 5.: Services received and unavailable in the regional S&T system according to SMEs



- 1) *Services received*, 2) *Services applied but not received*, 3) *Services needed but are unavailable*

The reasons for the image that is presented in the bar chart above i.e. most of the SMEs questioned they need the proposed services but they think that they do not exist in S&T intermediaries, are firstly there is a lack of communication between the two actors SMEs-intermediaries and secondly those services usually are provided by private consulting companies. Those services though are of limited scope and targeted mainly in the framework of access to public funding.

5. COOPERATION WITHIN REGIONAL S&T INTERMEDIATION SYSTEM

5.1. MAIN COOPERATION PATTERN

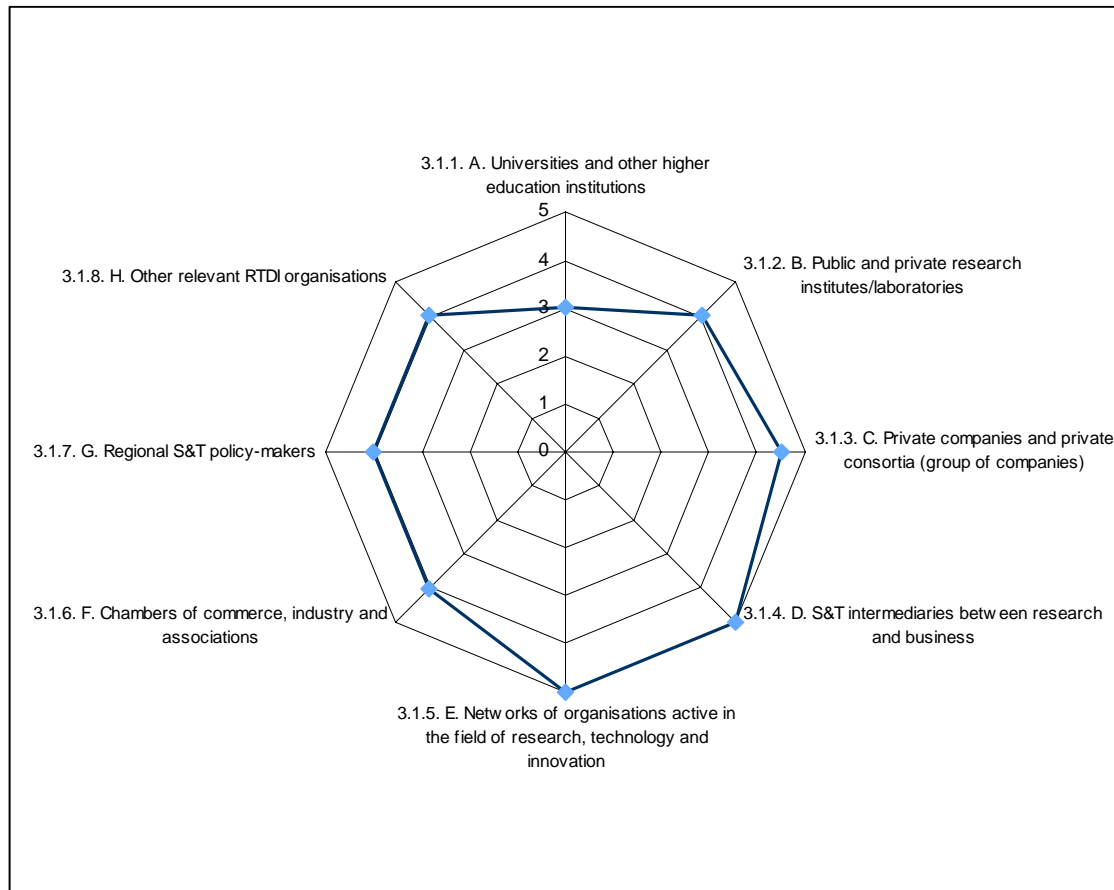
5.1.1. S&T intermediaries' perspective

The table 10 below shows the number of answers for each of the 5 respective link categories. Arbitrarily the last column illustrates the most common answer for each category. It has to be clarified that the value is not an average, but just a deliberation of the answers from the team that conducted the report. Taking into consideration the answers as pure numbers and the general perspective of the cooperation according to the interviewees, some adjustments were needed in order the results to depict something useful and new for any future study of the current report.

Table 10.: Cooperation of S&T intermediaries with other regional actors

| Regional Actors | 5 | 4 | 3 | 2 | 1 | |
|--|----|---|----|----|---|-----|
| 3.1.1. A. Universities and other higher education institutions | 8 | 7 | 12 | 10 | 5 | 3 |
| 3.1.2. B. Public and private research institutes/laboratories | 11 | 7 | 10 | 8 | 9 | 4 |
| 3.1.3. C. Private companies and private consortia (group of companies) | 5 | 2 | 1 | 0 | 0 | 4,5 |
| 3.1.4. D. S&T intermediaries between research and business | 16 | 9 | 4 | 2 | 6 | 5 |
| 3.1.5. E. Networks of organisations active in the field of research, technology and innovation | 9 | 9 | 3 | 5 | 2 | 5 |
| 3.1.6. F. Chambers of commerce, industry and associations | 7 | 3 | 6 | 1 | 1 | 4 |
| 3.1.7. G. Regional S&T policy-makers | 4 | 2 | 6 | 1 | 3 | 4 |
| 3.1.8. H. Other relevant RTDI organisations | 4 | 2 | 6 | 1 | 3 | 4 |

Exhibit 6.: Cooperation of S&T intermediaries with other regional actors the radar



The above exhibit shows that the S&T intermediaries consider themselves very well networked and linked to all the categories of the actors of the intermediation system.

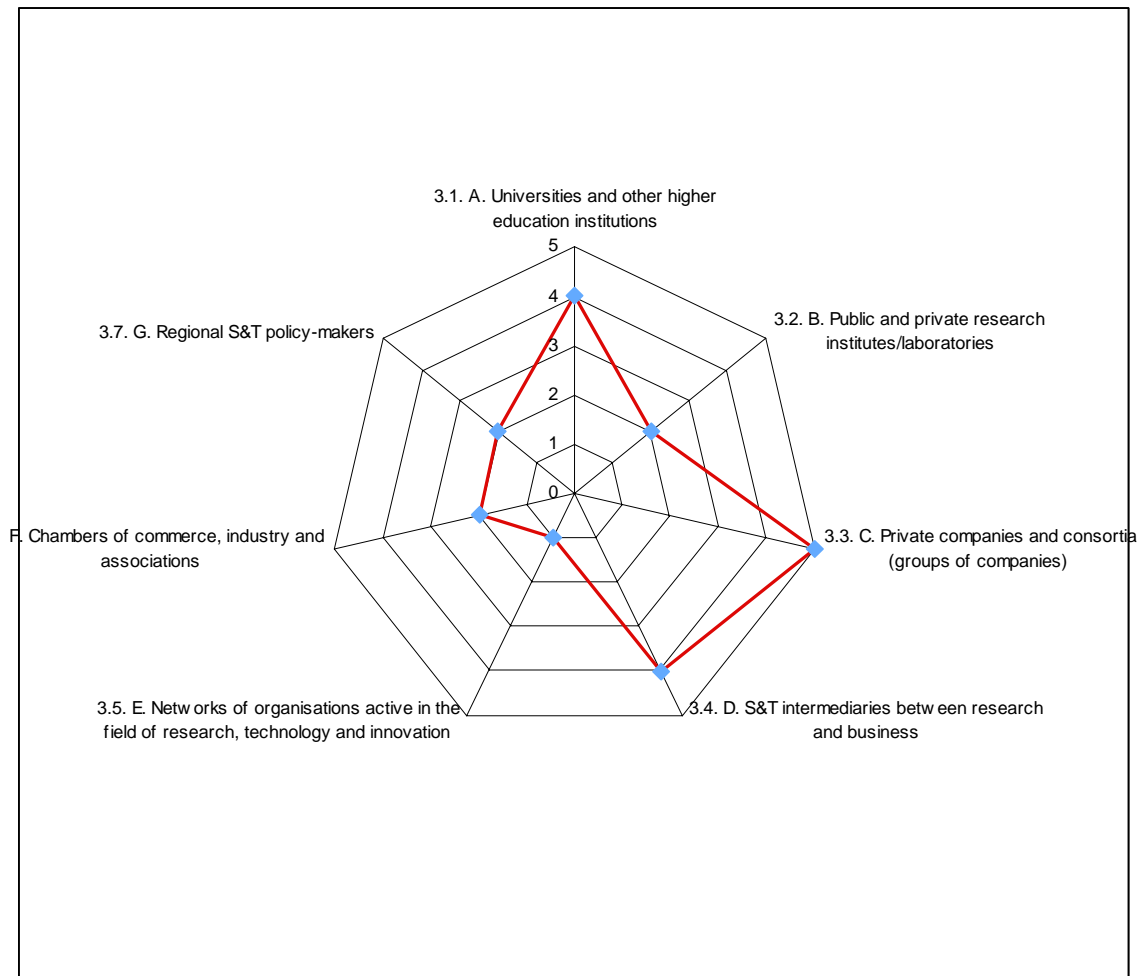
5.1.2. SMEs' perspective

The following table shows the number of answers for each of the 5 respective link categories. Arbitrarily the last column illustrates the most common answer for each category. It has to be clarified that the value is not an average but just a judgement of the team that created the report, having in consideration the answers and the general perspective of the collaboration.

Table 11.: Collaboration of SMEs with other regional actors the data

| | 5 | 4 | 3 | 2 | 1 | |
|--|---|---|---|---|----|---|
| 3.1. A. Universities and other higher education institutions | 5 | 3 | 7 | 2 | 6 | 4 |
| 3.2. B. Public and private research institutes/laboratories | 2 | 1 | 0 | 2 | 10 | 2 |
| 3.3. C. Private companies and consortia (groups of companies) | 4 | 0 | 0 | 0 | 0 | 5 |
| 3.4. D. S&T intermediaries between research and business | 1 | 7 | 1 | 0 | 8 | 4 |
| 3.5. E. Networks of organisations active in the field of research, technology and innovation | 0 | 0 | 0 | 0 | 4 | 1 |
| 3.6. F. Chambers of commerce, industry and associations | 3 | 0 | 0 | 3 | 6 | 2 |
| 3.7. G. Regional S&T policy-makers | 0 | 3 | 0 | 0 | 3 | 2 |

Exhibit 7.: Collaboration of SMEs with other regional actors the radar

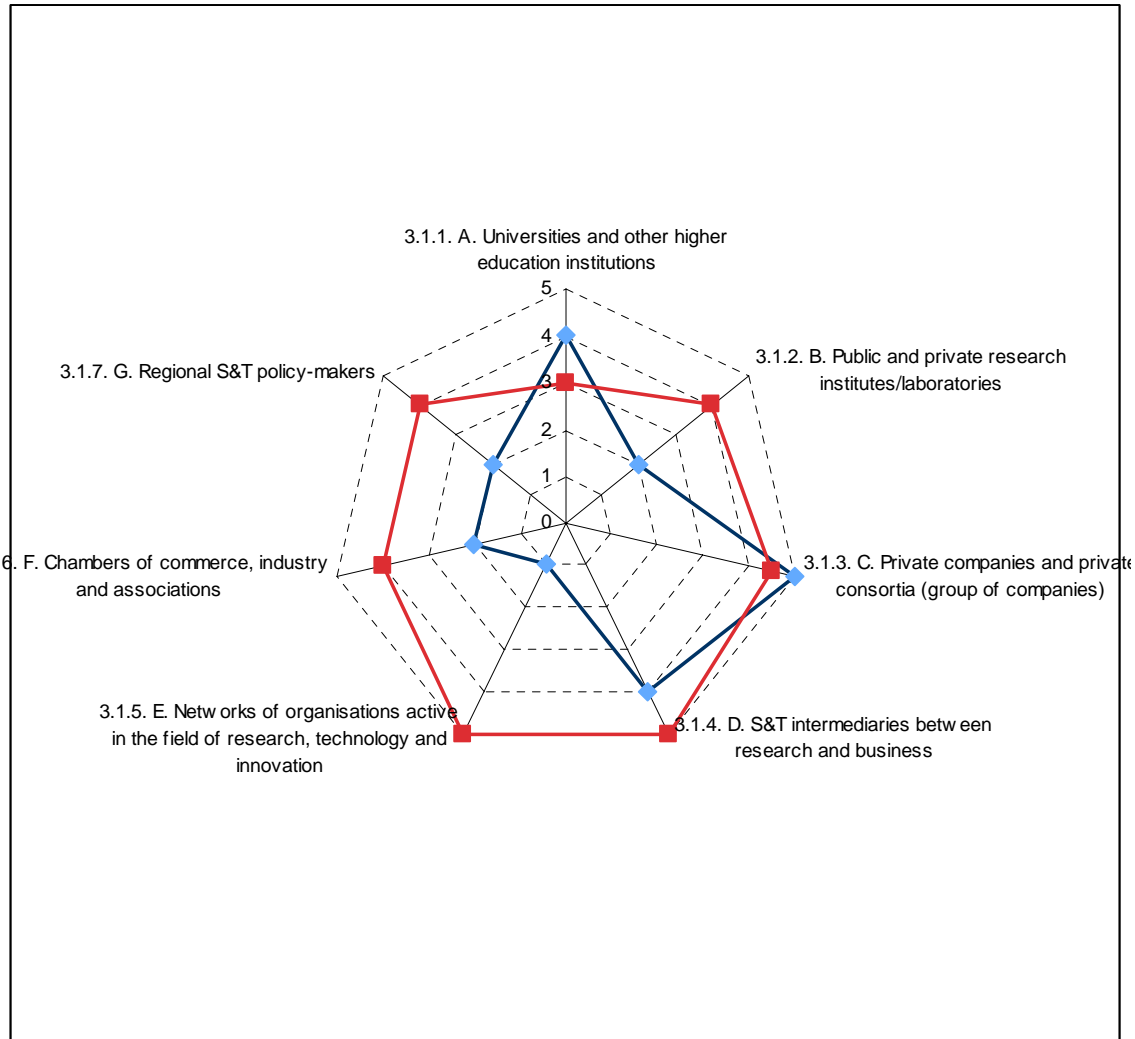


The most SMEs claim that are linked mainly to the private consultant companies. The chambers of commerce, industry and associations have been linked up to now to the SMEs mainly for functional and bureaucratic reasons, though their role appear to change and offer

intermediation services. The link and cooperation between the SMEs and the S&T intermediaries between research and business is considered quite high.

5.1.3. Comparing S&T intermediary and SME perspectives

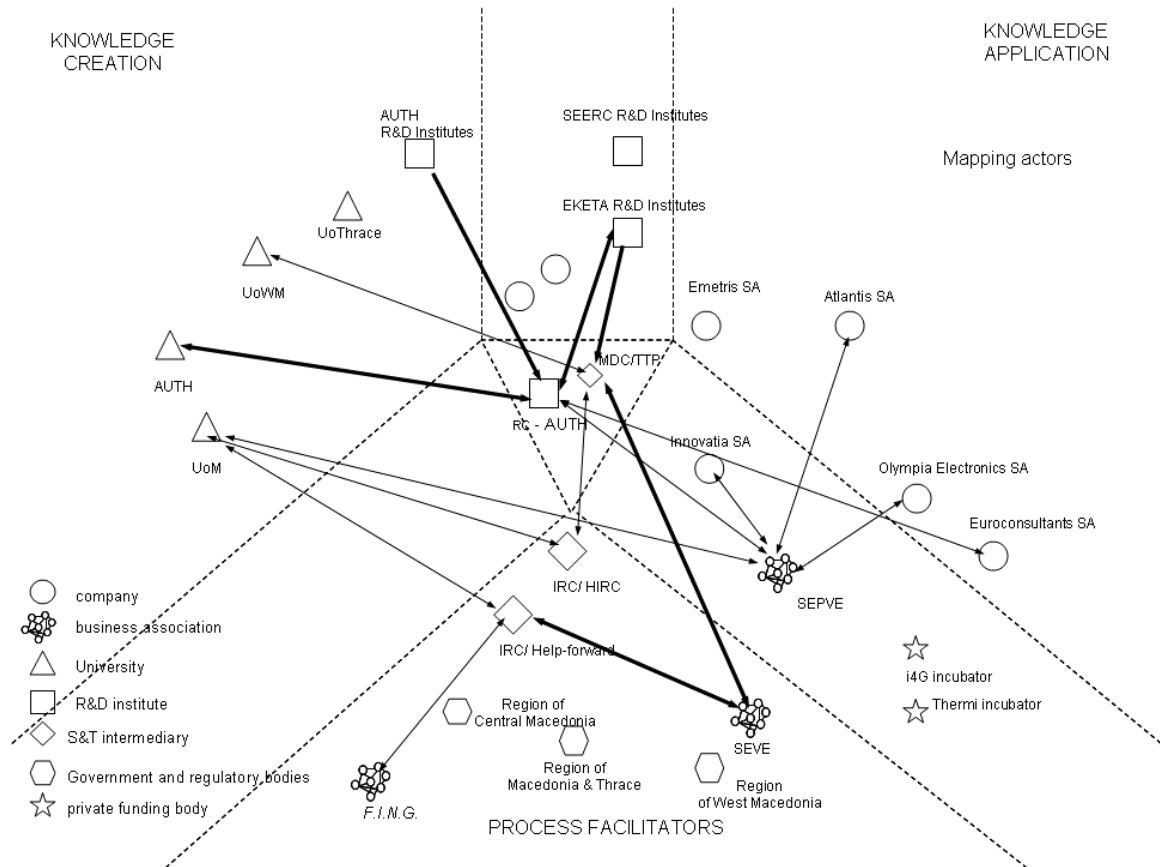
Exhibit 8.: Collaboration of S&T intermediaries and SMEs with other regional actors



The companies that have been questioned according to the projects requirement were either research active or research oriented, that can explain the matching of the point of view regarding the collaboration between the SMEs and the Universities and other higher education institutions. A gap is presented between the perspectives on the collaboration of the public and private research institutes and the SMEs. Both of the actors agree on their connection with the private companies. The S&T intermediaries consider themselves strongly connected with networks of organisations, while the SMEs actually do not present nearly any collaboration. The view of the S&T intermediaries and the SMEs, regarding their link with the chambers of commerce and other associations and regional authorities do not match. This actually defines their role in the S&T intermediary system.

5.2. MAPPING S&T INTERMEDIATION SYSTEM

Exhibit 9.: Mapping of key actors of the S&T intermediation system in Northern Greece



The research committee of Aristotle University and MDC/TTP appears to be two of the most important actors of the system. Most of the other actors are related with them. The emergence of the incubators as private funding bodies is a characteristic that its result can be verified yet. The regional authorities are part of the system, in the sense that a lot of funds are distributed through them, though their actual role as process facilitators is not clear. The other three regional universities, DUTH, UoM, UoWM are active in producing knowledge and scientific results, but their intermediary role just lately structured.

6. GENERAL ASSESSMENT OF THE REGIONAL S&T INTERMEDIATION SYSTEM

Thorough studies for the Greek reality showed that Greece still has the 1st model of Liaison offices, according to the OECD (2002) model analysis, they actually belong to the institution itself (e.g. University). This form is considered slightly old fashioned, so it seems that Greece has to gradually change over to the other two types/models, which are widely used in most European countries. In that case the national intermediation system can be in fact more flexible, effective and evolutionary.

Table 12.: Selected key organisations within the National Innovation System of Greece

| Type of organisation | Name of organisation | Website (where available) |
|---|---|--|
| Government and legislative bodies | | |
| | Ministry of Development – (MoD) | www.ypan.gr |
| | MoD – General Secretariat for Research and Technology | www.gsrt.gr |
| | MoD – General Secretariat for Industry | www.ggb.gr |
| | MoD – Special Secretariat for Competitiveness | www.antagonistikotita.gr |
| | Ministry of Economy and Finance (MEF) | www.mnec.gr |
| | National Competitiveness Council | |
| | National Research and Technology Council | |
| | National Competition Committee | |
| | MEF – Directorate General for Investment and Foreign Capital Greek Investment Centre (ELKE) | www.mnec.gr www.elke.gr |
| | Ministry of Education (MoE) | www.ypepth.gr |
| | MoE – Special Secretariat for the European Structural Programme | www.epeaek.gr |
| Private sector organisations and entrepreneurship promotion | | |
| | Federation of Greek Industries | www.fgi.org.gr |
| | Federation of Northern Greece Industrialists | www.sbbe.gr |
| | Association of Young Entrepreneurs | |
| Knowledge institutes (R&D and education bodies) | | |
| | Main national and Regional Universities | |
| | - University of Athens | |
| | - University of Thessaloniki | www.auth.gr |
| | - Technical University of Athens | |
| | - University of Patra | |
| | - University of Crete | |
| | - Democritus University of Thrace | |
| | - Univ. of West Macedonia | www.uowm.gr |
| | - Univ. of Macedonia | www.uom.gr |
| | Public RTD centres, the 5 most important been: | |
| | - Dimokritos Science Research Centre | |

| | | |
|---|---|--|
| | <ul style="list-style-type: none"> - Foundation for Research and Technology – Hellas (FORTH) - Greek Marine Research Centre (ELKETHE) - Centre for Research and Technology (EKETA) - National Agricultural Research Institute (ETHIAGE) | |
| Industrial research centres and innovation intermediaries | | |
| | Organisation for Small and Medium Size Organisations and Handicrafts (EOMMEX) | www.eommex.gr |
| | Athens Chamber of Commerce and Industry (EBEA) | www.ebea.gr |
| | Industrial Property Organisation (Patent Office) | www.obi.gr |
| | Industrial RTD and T-service companies | |
| | Standards and metrology organisations | |
| | Science and technology popularisation organisations | |
| | Innovation Centre Athens | |
| | Hellenic Innovation Relay Centre (NRF) | www.hirc.gr |
| | Hellenic Innovation Relay Centre (NRF) | www.hirc.gr |
| Financial system | | |
| | TANEO | www.taneo.gr |
| | Hellenic Ventures SA | |

According to the 3rd Community Innovation Survey (CIS) for Greece (the period from 1998 - 2000 are the most recent years for which data is available), the Region of Sterea Ellada has the highest percentage of innovating firms (36%) followed by the Region of Attiki (31%) and Ipeiros (28%). In Attiki and Sterea (mainly in the area of Oinofyta), there are 68% of all innovating companies in the whole of Greece. Sterea Ellada is the region with the lowest percentage with tertiary education in Greece¹⁰.

According to the European Competitiveness Report 2003 (subsequent reports do not contain regional data), one Greek region (Sterea Ellada) is in fifth position out of all EU-15 regions in terms of its productivity, while another (Thrace) ranks 5th from bottom. Both regions show low levels of RTD financing. In Thrace, the situation is unusual insofar as due to public university operating in this region, and due to the low GDP, the GERD/GDP ratio is close to 1%. Seven of 13 Greek regions are among the top 10 in regional productivity growth rates. Ipeiros, due again to the local university, has the highest GERD/G(r)DP ratio (1,5%), while the islands of Notion Aigaio have the lowest ratio(0,1%).

Despite these disparities, the gap between the Greek regions is smaller in terms of GDP per head¹² as well as in RTD expenditures than in other EU member states, in particular in the most developed ones. In general, regional statistical data is very useful for monitoring and

assessing the economic and social development at regional level. It also provides local authorities with planning tools. Nevertheless, due to the small size of the regions and the collection methods of raw data, the resulting information products may sometimes be misleading. This is for example the case of Sterea, where the bulk of economic activity is concentrated in the area of the neighbouring the Attiki region. However, Sterea still benefits from the proximity of Athens, Greece's most important pole of transportation and communication infrastructures, as well as from incentives encouraging decentralised activities outside the Attiki region.

7. PROPOSALS OF THEMATIC FOCUS OF SUPER-SME STUDY VISITS AND PEER REVIEWS

7.1. PROPOSALS FOR THE STUDY VISITS

URENIO is proposing a three-day event.

1st Day: Mentor - Mentee Visit

Closed event from 09:00 to 17:00 detailed topics and issues can be decided later.

2nd Day: Study Visit

- 1) The invited SMEs and intermediaries from the mentee regions will be provided with know-how to specific topics. Shortly mentor and mentee should come to a common agenda.
- 2) Presentation of best practices in cooperation between SMEs and intermediaries of the mentor region.
- 3) Hosted SMEs from the mentee region can address issues to a panel with experts from the mentor region, both from the intermediaries and the SMEs

3rd Day: A study tour on Intermediaries

We propose a networking session or a similar event with local SMEs and intermediaries, but we have to make the whole event appealing to the SMEs as well.

7.2. PROPOSALS FOR THE PEER REVIEW VISITS

We believe that the discussion on the issues of IPR and licensing and the support to start-ups and spin-offs will be of great importance for the region of Central Macedonia. The experience and expertise of the other two mentor regions (Lorraine and Catalonia) on the above issues will assist us and provide new ideas and tools that we will try to incorporate in the final proposal for the modifications.

ANNEX 1. Summary Table: Main Functions, Specialisation and Partners of Regional S&T Intermediaries

| Intermediary | Sectors/research fields | Principal functions | Research partners | Business partners/ Regional authorities | Intermediary partners |
|--|-------------------------|---|---|--|---|
| Association of Information Technology Companies of Northern Greece (SEPVE) | Informatics, ICT | Collective actions, Support for technological and scientific cooperation, Support for new product and service development, IPR and commercialisation, Licensing, Support to innovative start - ups and spin - offs, Human capital mobility, Networking and clustering, Assistance in accessing public funding for Research & Technological Development & Innovation (RTDI) activities | Aristotle University of Thessaloniki (AUTH), University of Macedonia (UoM), University of Western Macedonia (UoWM), Democritus University of Thrace (DUTH), Technological Educational Institute of Thessaloniki (TEI Thessaloniki), Chemical Process Engineering Research Institute (CPERI), Informatics and Telematics Institute (ITI), Hellenic Institute of Transport (HIT), South East European Research Centre (SEERC), South-Eastern Europe Telecommunications and Informatics Research Institute (INA) | 220 companies / Region of Central Macedonia (RCM), Region of West Macedonia (RWM), Region of East Macedonia and Thrace, Region of Epirus | Liaison Office of AUTH, Liaison office of CERN, Liaison Office of UoM, IRC/ HIRC, IRC/Help Forward, Federation Of Industries in Northern Greece (FING), Thessaloniki Chamber of Commerce and Industry (TCCI), Exporters' Association of Northern Greece |

| Intermediary | Sectors/research fields | Principal functions | Research partners | Business partners/ Regional authorities | Intermediary partners |
|--|--|---|--|--|---|
| Research Committee - Aristotle University of Thessaloniki (RC-AUTH) | Chemistry, biotechnology, medicine, food processing, advanced materials, mechanics, nanotechnology, electronics, mechanical engineering, informatics, robotics, metrology, industrial design, wood processing, agriculture, textiles, optics, logistics, ICT, construction, transport equipment, energy | Collective actions, Support for technological and scientific cooperation, Support for new product and service development, IPR and commercialisation, Licensing, Support to innovative start - ups and spin - offs, Human capital mobility, Networking and clustering, Assistance in accessing public funding for Research & Technological Development & Innovation (RTDI) activities | University of Western Macedonia (UoWM), Democritus University of Thrace (DUTH), Centre of Research and Technology Hellas (CERTH) | No information given/ Region of Central Macedonia (RCM), Region of West Macedonia (RWM), | Network of Liaison offices, IRC/HIRC, IRC/ Help forward, Federation of Industries in Northern Greece (FING), Association of Information Technology Companies of Northern Greece (SEPVE), Thessaloniki Chamber of Commerce and Industry (TCCI), Exporters' Association of Northern Greece |
| Research Committee - University of Western Macedonia (RC-UoWM) | Mechanics, mechanical engineering, ICT, energy, pedagogical | Collective actions, Support for technological and scientific cooperation, Support for new product and service development, Human capital mobility, Networking and clustering, Assistance in accessing public funding for Research & Technological Development & Innovation (RTDI) activities | Aristotle University of Thessaloniki (AUTH), Centre of Research and Technology Hellas (CERTH), Democritus Research Institute | Public Power Corporation S.A. / Region of West Macedonia (RWM), Region of Epirus | Liaison Office of AUTH, Chamber of Commerce and Industry Kozani, ANKO S.A. Development of Kozani, ANKO S.A. Development of Florina |

| Intermediary | Sectors/research fields | Principal functions | Research partners | Business partners/ Regional authorities | Intermediary partners |
|--|---|---|--|--|--|
| Liaison Office of the Democritus University of Thrace (LO-DUTH) | Chemistry, biotechnology, medicine, food processing, advanced materials, mechanics, electronics, mechanical engineering, informatics, robotics, industrial design, wood processing, agriculture, optics, construction, energy | Collective actions, Support for technological and scientific cooperation, Support for new product and service development, IPR and commercialisation, Licensing, Support to innovative start - ups and spin - offs, Human capital mobility, Networking and clustering, Assistance in accessing public funding for Research & Technological Development & Innovation (RTDI) activities | Aristotle University of Thessaloniki (AUTH), Democritus University of Thrace (DUTH), Eye Institute of Thrace (EIT), National Agricultural Research Foundation (NAGREF), Clothing Textile & Fibro Technology Development Company (CLOTEFI) | Some of the LO- DUTH Business Partners are: Pavlidis S.A., MAXI S.A., Kothali S.A., Kyriakidis S.A., Eurofarma S.A., Neogal S.A., Beak S.A., Meteko S.A., Kyklos S.A., Ioannou S.A., Paragogoki S.A., Pantelos S.A. | Liaison Office of AUTH, Liaison Office of CERTH, Liaison Office of UoM, Liaison Office of UoWM, IRC/HIRC |
| West Macedonia Development Company (ANKO) | Food processing, mechanical engineering, wood processing, agriculture, construction, energy, tourism, metallurgy | Collective actions, Support for technological and scientific cooperation, Support for new product and service development, Support to innovative start - ups and spin - offs, Networking and clustering, Assistance in accessing public funding for Research & Technological Development & Innovation (RTDI) activities | University of Western Macedonia (UoWM), Technological Educational Institute (TEI) of Kozani , Institute for Solid Fuels Technology and Applications (ISFTA) | No information given/ Region of West Macedonia (RWM) | Liaison Office of UoWM, Liaison Office Of TEI Kozani, Federation of Industries in Northern Greece (FING), Hellenic Fur Centre, CCI of Kozani, CCI of Grevena, CCI of Kastoria, CCI of Florina, IRC/HIRC, |
| South - East European Research Centre (SEERC) | Informatics, logistics, ICT, economics, business, political and social sciences | Collective actions, Support for technological and scientific cooperation, Human capital mobility, Assistance in accessing public funding for Research & Technological Development & Innovation (RTDI) activities | | No information given | Association of Information Technologyz Companies of Northern Greece (SEPVE) |

| Intermediary | Sectors/research fields | Principal functions | Research partners | Business partners/ Regional authorities | Intermediary partners |
|--|--|---|---|---|---|
| Thessaloniki Technology Park Management & Development Corporation (MDC/TTP) | Chemistry, biotechnology, medicine, nanotechnology, informatics, ICT, transport equipment | Collective actions, Support for technological and scientific cooperation, Support for new product and service development, IPR and commercialisation, Licensing, Support to innovative start - ups and spin - offs, Human capital mobility, Networking and clustering, Assistance in accessing public funding for Research & Technological Development & Innovation (RTDI) activities | Aristotle University of Thessaloniki (AUTH), University of Macedonia (UoM), University of Western Macedonia (UoWM), Chemical Process Engineering Research Institute (CPERI), Informatics and Telematics Institute (ITI), Hellenic Institute of Transport (HIT), Institute for Agrobiotechnology (INA), Metallurgical Industrial Research & Technology Development Centre (EBETAM), Food Industrial Research & Technological Development Company (ETAT S.A.), Clothing Textile & Fibro Technology Development Company (CLOTEFI), Ceramics and Refractories Technological Development Company (CERECO) | Some of the Business Partners are Euroconsultants S.A. , Kantor S.A. , LDK CONSULTANTS ENGINEERS AND PLANNERS S.A. , Innovatia S.A. , Thermi S.A. , 14G, Intellin, Helletel / Region of Central Macedonia (RCM), Region of East Macedonia and Thrace (REMTH) | Liaison Office of CERTH, Liaison Office of DUTH, Association of Information Technologyz Companies of Northern Greece (SEPVE). Federation of Industries in Northern Greece (FING), Thessaloniki Chamber of Commerce and Industry (TCCI), IRC/HIRC |