

Work Report no. 203

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**Final Evaluation on Project Level of
Projects Funded Within the RFO
“ENABLE - ENABLING European Entrepreneurship”**



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1. Executive Summary

- The overall picture is that the project partners have done what they were committed to in the project proposals. Most projects were conducted within the limits of their budgets and time schedule. In addition, some of the projects have outperformed.
- Most projects have produced outcomes that can be expected to have a lasting, positive effect on the partner organizations and their regions.
- The ENABLE projects have resulted in social relations that will last after the project period. Most project participants have intentions to stay in touch with their respective project partners after the completion of the project, and some have specific plans for this. Such relations form networks that can be an important competitive strength for those partners and their regions.
- As could be expected, several problems occurred during the project period. The most frequently mentioned problems are lack short time schedules in the application as well as the project period, budget reductions, and the level of bureaucracy. Still, most projects were able to fulfil their obligations.
- Cultural and structural differences between partners, and partner regions has also been challenging in some cases.
- Arguably, the most severe problem seems to be shift in key personnel. Though not being among the most frequent problems, some degree of readiness to address such problem should be developed.
- Even if the survey put more focus on problems than on things working well, several respondents emphasized that a helpful and service minded ENABLE-management and staff has been an important success factor.

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Preface

This is the third and final report from the evaluation of the projects founded within the RFO-*ENABLE - ENABLING European Entrepreneurship*. The ENABLE programme is a part of the European INTERREG 3c Programme. The evaluation is commissioned by Hordaland and Sogn & Fjordane County Municipalities on behalf of the Regional Management Group (RFO) within the programme.

The report represents the final evaluation of all projects founded within the ENABLE-programme. The report succeeds two prior reports; 1) the combined mid-term evaluation of the projects funded under the 1st project call and the pilot project call (Mitchell-Banks 2006), and 2) the mid term evaluation of the 2nd project call (Halvorsen and Mitchell-Banks 2007). The first and part of the second mid term evaluation was managed by Dr. Mitchell-Banks. When Mitchell-Banks left his employment at Møre Research October 2006, the project management was taken over by Lars J. Halvorsen.

The empirical basis for this report is surveys and interviews amongst the projects partners conducted during the mid term evaluations, and a survey among the project lead participants December/ January 2007. The total number of returned questionnaires during the whole project is 87. The evaluator wants to take the opportunity to thank all the repliers for their cooperation during the evaluation and further, to wish all ENABLE participants good luck in their future pursuit of regional economic development.

The evaluator also wants to thank Hordaland and Sogn & Fjordane County Municipalities, Holger Czuday with the LEG Thuringen, Andreas Starzacher with the KWF, and Ivar Petter Grøtte and Ingjerd Skogseid with the WNRI for necessary help during the project period.

2. Introduction¹

ENABLING European Entrepreneurship has brought together four European regions: Carinthia (Austria), Kaunas (Lithuania), Thuringen (Germany), and Western Norway (Norway). All these regions are far from the economic centres of their countries and face similar challenges and opportunities.

The objective of establishing ENABLE has been to assist the participating regions in improving the effectiveness of their regional development policies, thus making them more competitive. A special focus has been set on the development of SMEs. This type of enterprises, yet posing a substantial potential for regional economic growth, is becoming more and more dependent upon networks and partnerships for the transfer of research and technology know-how. The ENABLE project started in January 2004 and will be active until March 2007.

The overall objective of ENABLE has been the formulation of a "Mini EU programme" as a strategic concept for interregional partnerships focused on small and medium sized enterprises (SMEs) through:

- An improvement of the effectiveness of regional development policies and instruments for SMEs
- An increase of the basis for entrepreneurship and innovation
- The creation of vibrant, self-confident and competitive regions with a strong internationalised SME basis
- An exchange of knowledge and experiences
- The development of new instruments for dynamic regional leadership

The target groups – and potential participants in ENABLEs sub-projects – have included technology centres, cluster initiatives, universities, schools of applied sciences, SMEs, transfer agencies and associations, in Carinthia, Western-Norway and Thuringen. The Region of Kaunas was integrated in the RFO level as a so called "Learning Region" to benefit from the exchange of know-how between the different European regions, but hasn't participated in the sub-projects.

2.1 The partner organizations of ENABLE

LEG

The LEG Thuringen as a state development corporation is not a traditional government agency. The institution uses performance measures and continuous improvement to assure the highest quality of service to its business customers. Leveraging insight and experience into business success, the LEG specializes in project development services as well as site development for private and government entities.

LEG's services include industry-focussed consulting teams, corporate site development and site management, superior access to state policy makers and permit assistance, compilation of project financing packages (e.g. incentive package negotiation & optimization), labour

¹ This chapter is not a part of the analysis. Its sole purpose is to provide the reader with background information about the projects to be evaluated. The chapter is based upon ENABLE documents, homepages etc.

market/workforce assessment studies, employee recruitment and training, services for expatriates, and investment aftercare.

Investors are accompanied by a dedicated consulting team which acts as single point of contact. LEG has established deep relations with a number of specialists in the field of banking, international law and tax, recruitment, real estate, telecoms and marketing. All services rendered are free of charge for the investor.

STIFT

The '**Stiftung für Technologie, Innovation und Forschung Thüringen**' (Foundation for Technology, Innovation and Research Thuringia, or **STIFT**) promotes science, research and technology in the Free State of Thuringia. It assists in the innovation process of Thuringia's economy by targeted monitoring of technology and it supports the work of sector-specific networks. STIFT also provides incentives for technology-orientated infrastructure projects.

The Foundation's activities include such areas as:

- promoting cooperation between companies and research centres
- combining competences in technology-orientated sectors and linking the actors from science and business as basis for the knowledge transfer in the Free State
- supporting the establishment of networks
- providing the Business and Innovation Portal (www.wip-thueringen.de)
- conception, planning and establishing of application and technology centres, in which existence founders, research institutions and SMEs find optimal development and/or production conditions.

KWF

Carinthian Economic Promotion Fund is the sole economic promotion authority for the southern Austrian province of Carinthia. The principal goals are the improvement in the innovation capability of SMEs, internal and external corporate development and promotion of high-tech projects. The KWF creates, implements, and manages programs to support business, industry, and academic institutions of Carinthia, promote economic growth of the region, and improve the region's international competitiveness. The KWF places particular emphasis on small and medium-sized enterprises with programs in start-up financing, financial incentives for industrial and manufacturing companies, quality and infrastructure improvements for tourism enterprises, special incentive programs for technology companies, and support of cross-border collaborations. In the year 2003, the KWF supported 583 projects in Carinthia with grants of EURO 36.1 million (cash value). The companies receiving grants had over 10,000 existing employees and planned to create close to 1,000 new jobs through these projects.

Kaunas County

Kaunas County is located in the centre of Lithuania, at the confluence of two major rivers, the Nemunas and the Neris. It occupies the territory of 8089 sq.km and is inhabited by 696100 people. It is the geographical, educational, as well as industrial and transportation centre of Lithuania. Kaunas County is divided into several districts, each of which enjoys its distinctive characteristics:

Kaunas County Governor's Administration is a public institution, consisting of 12 departments and divisions. The head of the Administration is the County Governor. The Law of Governing of the County adopted in 1994 defines main tasks of the County Governor:

- to implement state policy in the spheres of regional development, social maintenance, culture, health care, territorial planning and others,
- to implement state and inter- regional programmes;
- to co-ordinate the structural divisions of Government institutions lying within the limits of the county, as well as co-ordinate the activities of local authorities executive institutions in implementing regional programmes.

Hordaland and Sogn & Fjordane Counties

Hordaland and Sogn & Fjordane are two adjacent counties in the western part of Norway. Together they constitute a region which is commonly referred to as Western Norway. The county municipality represents the medium of three democratic levels in Norway.

The major responsibility of the two County municipalities is to function as a mediator between the municipalities and the state, performing tasks on behalf of the state, and furthering regional interests defined in the democratically elected Fylkesting.

Hordaland with its 450.000 inhabitant is the third largest Norwegian county by population. Most inhabitants live along the coast or near the fjords, while the inland area is a mountain landscape which is less habitable. More than half of the population (242.000) lives in the former Norwegian capital Bergen, which is the location of the Hordaland County Municipality.

Sogn & Fjordane is the northern neighbour of Hordaland. The landscape has obvious similarities with that of Hordaland, yet it is a far more scarcely populated area with a total population of 106.000. There are no large cities in Sogn & Fjordane. The two largest municipalities are Florø and Førde, each having about 10.000 inhabitants. The administration of the County municipality is located in Leikanger, not far from the University College town Sogndal.

2.2 The ENABLE structure

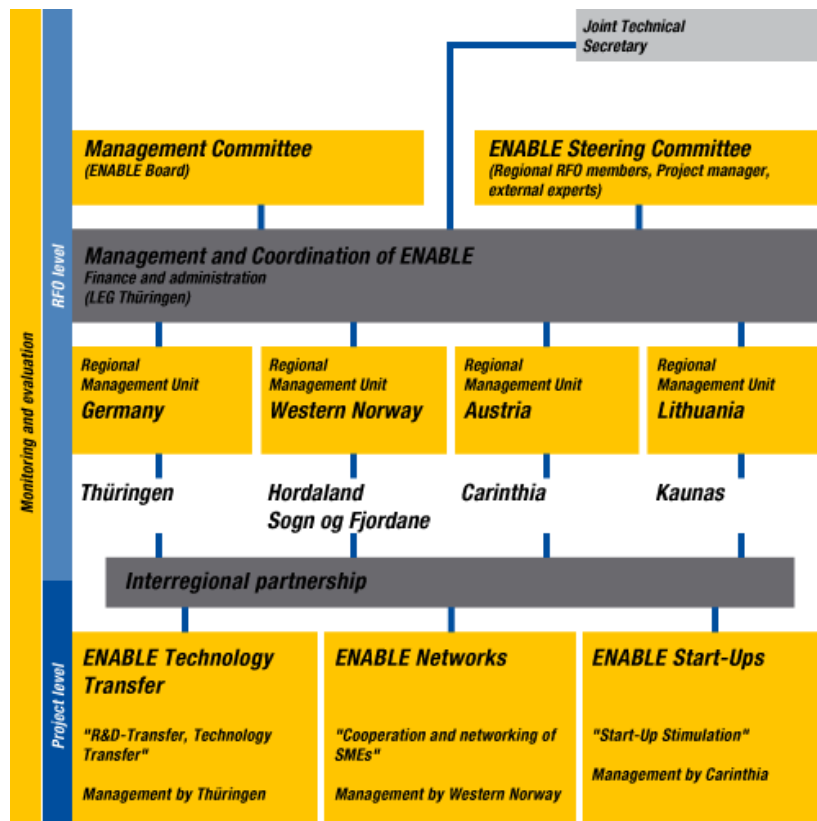
The ENABLE Regional Framework Operation (RFO) is based on an interregional co-operation strategy between all participating regions. The central management unit (CMU) is located in Thüringen. This CMU, which is led by LEG is responsible for the operation's financial and administrative management. Thus, LEG has had the responsibility to provide all administrative and financial reports to the Joint Technical Secretary (JTS) in Vienna. LEG has also been guiding and overseeing the programme's implementation.

The ENABLE Steering Committee (SC) has been constituted of regional chairpersons plus the project co-ordinator. In addition, external experts linked with ERDF issues in the regions, have been integrated as advisors to the SC to provide external input and a comprehensive feedback to ESF and the operational programmes.

The Management Committee (MC) has been responsible for all the important decisions during operation, such as the management process' review on RFO level, overseeing

evaluation etc. The MC's chairperson has been responsible for encouraging decisions by consensus.

The participating regions were responsible for establishing management and evaluations. This function has focused on the results and components (project level), the experiences of regional partners (RFO level), management, evaluation, and review of the progress (achieving the objectives, approve the implementation plan, review all evaluation reports, management review) annually. Each of the three ENABLE components is managed by one of the regional management units.



As shown in the model above, there are three ENABLE components. Each of these has funded seven projects.

2.3 The ENABLE Components

Technology Transfer Projects

This component's strategic focus has been to strengthen the competitiveness of small and medium sized enterprises (SMEs) by stimulating the collaboration between researchers and SMEs. Another objective was to introduce increased focus on the implementation of commercially orientated innovation projects. The partners responsible for the technology transfer component were LEG Thüringen and STIFT.

The target groups have been research institutes, technology transfer centres, universities, SMEs, patent info centres etc. Results out of this project component should be interregional R&D know-how, transfer of best practice examples, transfer and consolidation of procedures

and processes for R&D and technology transfer and to support SMEs in the development of innovative products and to support them entering new markets.

The projects that received funding under the Technology Transfer Projects component are:

- **ASIP:** Applied Spectral Imaging for Plastic Materials
- **DeMonTools:** Development of Automated Tools for the Monitoring of Buildings and Structures
- **IN-MICRO:** Optical real-time measurement method for inspection of microsystems and internal microspaces
- **MetaStoRe:** Metadata Storage and Retrieval
- **TECHTRA:** Technology Transfers Information Network
- **TextileLightGate:** Technology Transfer and Development for Continuous Production of Self-Shining Textiles by Means of Optimised Phosphors
- **UTTS:** Unified Technology Transfer Network Strategy

Networks of SMEs

This component's strategic focus has been to strengthen the competitiveness of small and medium sized enterprises (SMEs) by stimulating the development of cooperation and networking between them, thus improving the so-called "triple helix" approach to regional innovation systems in an international context.

Target groups for this project component were SMEs, cluster initiatives, associations of branches, chambers of commerce etc. This approach saw the business and the whole set of support structures as a necessary framework for successful business development. Further, that the regional innovation system itself had to become networked. To meet this new challenge, ENABLE was seen as a perfect laboratory to establish a set of operational interregional networks of SMEs operating at relevant levels of co-operation.

The partners responsible for the networking component are the County Council of Sogn & Fjordane and the County Council of Hordaland (Western Norway).

The projects under the Networks of SMEs component are:

- **BIOC:** Biogas - Centre of Competence
- **NAMEMOS:** Network for Assembly of Micro Electro Mechanical Systems (MEMS) and Micro Opto Electro Mechanical Systems
- **REAL:** Remote Engineering and Application's Laboratory
- **R.O.A.D.S:** Real-time Online Applications for Decision Support
- **SitesNet:** Networking of Development Corporations to develop new services and instruments to strengthen the sites and the SMEs
- **TourHeal:** Tourism and Health Project
- **Wood-Spill**

Start-Ups

This component's strategic focus has been to inform target groups (like start up initiatives, universities, incubators, technology centres and consultants), to stimulate entrepreneurship

and to create start-ups. Therefore “self-employment” was to be substantially promoted together with information on creating a company as an interesting perspective for both, graduates and undergraduates. In this way entrepreneurship amongst young people could be promoted. A training concept for young entrepreneurs was to be developed and implemented in addition to the implementation and mentoring of a specific coaching programme for business and technical coaching.

The partner responsible for the start-up component has been the KWF, the Carinthian Economic Promotion Fund.

The projects under the Start-ups component are:

- **The Alchemist:** A project which helps young entrepreneurs in starting their own businesses.
- **ENTREE:** Entrepreneur Empowerment for Sustained Growth
- **Entrepreneurship-Education** for Upper Secondary Vocational Schools
- **Incubator Support:** University Based Incubator Support Programmes
- **Manage SME:** Customized management development for SME
- **Promot-Grow:** Optimisation of the promotion possibilities for innovative and technology oriented small and medium enterprises in the phase of growth
- **RENEST:** Regional resource networking as an efficient support strategy for the technological development and upgrading of innovative start up companies

3. Methodology

This is the final report from the project ENABLE- Enabling European Entrepreneurship. The report succeeds two prior reports, each presenting the findings from the mid-term monitoring of the ENABLE projects funded within the pilot project call and first project call (Mitchell-Banks 2006), and the second project call (Halvorsen and Mitchell-Banks 2007) respectively. The objectives of the final monitoring have been to a) sum up the results of the ENABLE-projects, and b) to analyse problems, impediments, success factors and solutions. The purpose of the latter objective is to give the principal a better understanding of how to improve the organization of, as well as outcome from programmes like ENABLE.

The primary empirical basis for this final report is an e-mail questionnaire conducted among the persons representing the lead participant in each of the 21 ENABLE- projects. A total of 16 contact persons representing the lead participants have answered. In the remaining five projects, the evaluation has tried to fill the gap with secondary data. These consist of ENABLE-documents (applications, progress reports, presentations etc.), as well as interviews and surveys conducted in the two mid term evaluations. The interview and survey material from these evaluations represent all the projects and 71 answers out of a total of 80 project partners. In all but five projects, replies from all project partners are represented in this material.

Still, in one of the projects; the Alchemist, there is to vague empirical basis to do a decent evaluation. The other four non replying projects are also evaluated on a weaker basis. This applies particularly to the two evaluation topics; long lasting results from the projects (4.2) and continuing interregional cooperation (4.3), while the topics activities and outputs (4.1) and problems and solutions (4.4) are adequately covered in the mid term evaluation in combination with the project progress report, presentations and work shops.

The data analysis has been utilized in the evaluation of the activities related to the ENABLE-project on two levels; the ENABLE projects in total, and each project. The findings on these levels are presented in chapter 4 and 5 respectively.

Chapter four will discuss the overall results of the projects receiving support during the 2nd call with regard to the five following questions:

- Activities and outputs
- The long lasting results of the project
- Continuing regional cooperation
- Problems and solutions

Chapter five focuses on the performance of each project receiving funding under the ENABLE programme. It will address the same four topics as chapter four.

4. An overall evaluation of the ENABLE-projects

The overall evaluation of the ENABLE projects will address four topics; 1) the activities and outputs from the programme, 2) the long lasting results of the programme, 3) whether the programme has resulted in continuing interregional cooperation, and 4) what problems have occurred during the project period and how such problems can be handled in future projects.

4.1 Activities and outputs

The overall picture is that the project partners have done what they were committed to in the project proposals. Most projects were conducted within the limits of their budgets and time schedule. Some of these projects represent an impressive piece of work.

The evaluator lack sufficient knowledge about the Alchemist project in order to assess whether it has been completed. However, the mid term monitoring indicates significant problems and delays. Additional four projects have faced delays, which have resulted in the projects not being finished as planned. The uncompleted tasks in these projects can mostly be expected to be completed after the project period. The remaining 16 project groups have fulfilled their obligations. Even if the overall picture of the ENABLE-projects is very good, there are significant differences in the project performances between the three components.

All the projects in the Technology Transfer component have been completed. Further, the evaluator considers two of the project groups to have outperformed. MetaStoRe had highly ambitious plans but ran into unforeseen technological difficulties. To overcome these, the project group had to conduct further research on improvements of the music similarity estimation, which originally wasn't a part of the project. Still all objectives from the application have been met. IN-MICRO also seems to be a very strong project. Even if the projects ran into unforeseen problems due to delayed deliverances of key input, the project was able to meet all milestones and fulfil all obligations with very promising results.

Three projects ran into delays within the Networks component. As we shall demonstrate in the Problems and Solutions subchapter (4.4), these were mostly caused by a prior underestimation of the time and work needed to establish and coordinate network projects. Still, all the three projects either are, or can be expected to be finished after the project period. These are REAL, SitesNet, and TourHeal. Among the remaining four projects, R.O.A.D.S stands out as an impressive project. The project partners have been able to organize the contributions from five different partners from three countries in a way that created clear synergies. The results from the project have lots of potential.

In the Start-Up component all but the Alchemist and RENEST projects have fulfilled their obligations during the project period. The latter are just about to be completed. Among the projects in this component, both the Entrepreneurship Education and the Incubator Support project seem to very successful.

4.2 The long lasting results of the project

Most projects have brought about new technologies, products, skills, social relations and other outputs that can be expected to have a lasting result on the partner organizations and their

regions. After analysing the survey material, we found it most expedient to divide the different kinds of results into four categories.

It is common to draw a distinction between two categories of results; output and outcome (Amdam 2005). Output refers to what can be measured internally, while outcome refer to the total effect of the activity. These concepts correspond closely to the two categories efficiency and effectiveness (Pfeffer and Salancik 2003). The former refers to the measured results of the activities within an organisation, while the latter refers to the results from the same activity on a societal level.

Based upon these two dichotomies, a distinction between results from the development of products and technologies has been made. This distinction has resulted in two categories results: 1) the form of commercial applications for the project group and 2) broader applications for regional development. It is necessary to mention that some projects have produced products or technologies that have brought about both kinds of results. In these cases both kinds of result have been registered.

Results in the form of new or improved courses, curricula etc is a third category. The fourth category consists of less tangible results including new or improved skills, experience, knowledge, and expanded networks. The distribution of these results among the three ENABLE components is shown in the table below.

Result	C 2: Technology Transfer	C 3: Networks	C 4: Start ups	Total
Products/technologies with commercial application	4	2		7
Products/technologies/planning tools with broad societal application	2	2		4
New courses			2	2
New/improved skills, experiences, knowledge, and expanded networks	3	4	3	10

4.2.1 Products/technologies with commercial application

Not surprisingly, the projects within the technology Transfer component produced most tangible products and technologies with a commercial application. A total of four out of seven of these projects had such outputs. These are TextileLightGate, MetaStoRe, DeMonTools, and InMicro. In addition ASIP has a potential to produce such results after the project period. Some of the results from these projects were quite impressive considering the limited project period. There are several examples of project groups within this component that have worked close and effective together, thus realising significant and tangible synergies that can lead to a commercial breakthrough.

Of obvious reasons the Start Up component produced no new products or technologies. On the other hand, two of the projects within the Networks component had produced this kind of result. REAL has produced remote lab engineering technology, while Wood-spill has produced forest fuel utilisation technology, both with commercial (and as we shall return to below) broader societal application.

4.2.2 Products/technologies/planning tools with broad societal application

Proceeding to the products/technologies with broader regional application, we find a total of six projects having produced such results. Half of these projects were financed under the Networks components. Among these projects are REAL and Wood-spill (mentioned above) and R.O.A.D.S. REAL has produced a remote lab from which regional education programmes etc will benefit. REAL has developed new technology from which the forest fuel industry in the partner regions Carinthia and Thuringen can benefit. Finally, R.O.A.D.S. has produced showcases for traffic, snow, and hiking trails monitoring, all with potential to improve regional planning in the respective fields.

Within the Technology Transfer, component two projects have produced results with broad, societal application. TECHTRA has produced a system to integrate technology information. This system holds great potential for supporting the development of innovative companies. UTTS has developed a system for removing hindrances for technology transfer processes, thus supporting the development of both SMEs and R&D in the partner regions.

No projects within the Start up component produced this kind of result.

4.2.3 New courses

Two projects have resulted in improved courses and curricula. Both of these are found within the Start up component. Entrepreneurship Education has developed new curricula and teacher training programmes. These are implemented in vocational schools where they represent a new, more efficient way of teaching entrepreneurship. Incubator Support has produced new educational packages that will be a part of the education offered by BUC and FHJ. Both these courses have a potential to promote and increase the life expectancy of start-ups.

4.2.4 New/improved skills, experiences, knowledge, and regional networks

In addition to the three categories of tangible results presented above, half of the projects have contributed to the further development of the partner organization or that of the region through less tangible improvements like skills, experiences, knowledge, and expanded networks.²

In the technology Transfer component this includes ASIP, TextileLightGate and DeMonTools. ASIP has resulted in a significant expanded institutional network in the partner regions. Through the TextileLightGate project, the participants has gained valuable knowledge about how to handle EL-paste materials and the inter digital woven structure for continuous processes. During the participation in the DeMonTool project, FH-TK has increased its level of knowledge in the application of information technology in protecting steel against corrosion in concrete.

Within the Networks component, five projects have produced skills, experiences, knowledge, or expanded networks. The BIOC partners have developed new skills in organizing new EU-based projects, and gained a better cultural awareness and understanding of the EU-system. NAMEMOS has laid the foundation for a supra national network cooperation to continue after

² In this context expanded networks refer to improvements of the networks beyond that of the project group.

the project. REAL has resulted in better contacts between the partner organizations and SMEs in their respective regions, as well as the development of new skills, knowledge and information. SitesNet has resulted in an improved understanding of international projects. TourHeal has stimulated learning about health tourism and participation in EU-projects.

Finally, three projects within the Start-Ups component have produced results in this category. RENEST has resulted in an increased network. ManageSME has increased the project participant's skills and knowledge in the field of SME's competence development. PROMOT-GROW has produced and disseminated knowledge and understanding of regional business development processes among the project partners and in the active regions. This knowledge will be applied in strengthening the role of the regions in future business developments.

4.3 Continuing interregional cooperation

The survey clearly indicates that the participation in the ENABLE-project has created social relations that will last after the project period. During the two mid term evaluations, most project participants expressed intentions to stay in touch with their respective project partners after the completion of the project. Such relations form networks that can be an important competitive strength for those partners and their regions. There are however, large differences between the respective project groups regarding the size of these networks.

The final monitoring shows that almost every project has resulted in continuing interorganisational relations. In about half of the projects, these relations are limited to only some of the project partners. This tendency increases with the number of project partner. There is a plausible explanation for this. Even if cooperation has worked very well between all partners in a given project, it will probably have worked better between some of the partners. To keep up cooperative relations without funding is costly, and this forces the partners to prioritize (Granovetter and Swedberg 2001; Uzzi 2001).

Another important aspect of the continuing interregional cooperation is the strength of these relations. Weak and strong social ties are two common categories of social relations. While strong ties between firms enables them to establish far reaching, specialized cooperation with low transaction costs, weak ties serves as channels for information and influence, as well as a provider of flexible access to standardized inputs (Granovetter 2001; Uzzi 2001).

The important aspect of a firm's strong and weak ties is its quality and size respectively. In the Technology Transfer Component the kind of ties developed are mostly the strong ones. In four out of seven projects, the partners have produces synergies, and have specific plans to continue developing new products or technologies. The remaining three had less defined plans. Such continuing interregional cooperation can create strong intraorganisational and intraregional production groups. The potential of regional economic development from such partnerships will be closely related to the economic potential of the new products or technologies they develop.

In the other two components networks consisting of a mix of the two types of social ties has been created. The strong ties represent the relation between the projects partners, while the weak ties consist of the larger group of entrepreneurs, students etc, which has been connected to the projects through work shops, courses, and established networks. These partnerships can

contribute to regional economic development through both their products, but also through an improved web of weak ties between entrepreneurs, educational organisations, and development agencies within and between regions (Piore and Sabel 1984; Putnam 1990; Storper 1997). In both of these components, four project groups have specific plans to continue cooperating, while the remaining three has more vaguely defined ambitions in this respect.

4.4 Problems and solutions

Under this chapter, we will address the most frequent and most important problems occurring in the ENABLE projects. The challenges and problems arising during the project can be divided into two categories. The first category, by far housing the most frequently mentioned problems are related to the organization of ENABLE. The second category contains problems and challenges of structural, relational and internal kind. Worth mentioning, also the second category of problem can be reduced or handled by organizational effort on the RFO/RMU level.

The purpose of discussing these problems is to extract valuable lessons from the project. These can hopefully contribute to the improvement of future projects like ENABLE. In this discussion, the challenges and problems indicated will be supplemented with the lead participant's account of success factors in handling these kinds of problems.

4.4.1 Problems related to the organization of ENABLE and some possible improvements

There are especially four problems that have been mentioned frequently. The length of the application time period, and the project time period were both regarded as a problem in nine projects. The level of bureaucracy and the level of financing were each regarded as a problem in ten projects. As shown in the table below, these were unevenly distributed between the components.

Problem	C 2: Technology Transfer	C 3: Networks	C 4: Start ups	Total
Application time	4	5		9
Project time	3	5	1	9
Level of funding	2	6	2	10
The level of bureaucracy (audits etc)	2	4	4	10

As the table shows, the projects within the network component alone faced more problems than the other components in total. The frequency of these problems seems to be relatively evenly distributed within the component. This suggests that the network projects generally were more demanding to prepare and organize, than anticipated. A plausible explanation for this is that can be time and money consuming to mobilize, organize and document network project. This interpretation receives strong support from the respondents more specific comments on such problems.

In the application period, the Technology Transfer projects faced similar problems as the Networks projects. Finding new partners with complementary skills in other regions proved to be both difficult and time consuming. In several cases, existing cooperation between some of

the project partners have proved necessary, in order to establish a project group and finish the application within time limits.

It is also worth mentioning that fewer projects within the Technology Transfer component had problems with the level of funding and bureaucracy. One possible explanation is that several project partners within this component had significant prior experience with this kind of projects.

The huge majority of the projects within the Start-Up component faced small problems with the time available for the application and conducting the project. One probable explanation for this is that most projects had partners with extensive experience and routines for applying for and running such projects (i.e. university colleges, innovation parks, and development agencies). On the other hand as many as four of these projects signalled problems with the level of bureaucracy.

The major lessons to be learned from these tendencies are:

1. Establishing partnerships and developing an interregional project application is time and cost consuming. Even project groups that build on prior relation between the partners signalled such problems. Thus, a longer application period should be granted.
2. Since finding suitable partners seems to be a major challenge, the RMU's should put even more systematic effort into helping out in this matter. Several projects signalled a need for such help, while respondents from project groups who claim to have received necessary help described this as an important success factor.
3. Several projects in both component 2 and 3 felt that the project period was too short. As a result a total of three projects within the Networks component were delayed. In future projects a longer project period, possibly up to two years should be considered for similar projects.
4. Since so many project groups considered the amount of bureaucracy (reporting, audits etc) too high considering the size of the project, the possibility to reduce this in future projects should be considered.
5. Several respondents have also described budget cuts as a problem. *Ceteris paribus*, an increase in the budget of each project being funded would result in a decrease the total number of projects. The overall results from the ENABLE-projects are very good. Considering this, the evaluator finds the budgets generally being adequate. However, more flexibility related to reallocations of means within projects could improve the results with no extra cost.
6. In addition to the above results, the evaluator would like to add an important lesson from the mid term evaluations. These clearly indicate that most projects have received only sporadic public attention. If public attention is considered important, a common PR-strategy should be developed in future programmes.

4.4.2 Structural, relational, and internal problems and some possible improvements

Even if the overall picture is that problems of structural, relational, and internal character have been far less frequent than the problems related to the organization of ENABLE, such problems have posed significant challenges for some of the projects.

Three out of seven of the projects within the technology Transfer component had problems with technology in the form of functioning, getting deliverances in time or limited quality of input available due licensing rights. Of obvious reasons, none of the other components faced this kind of problems. As suggested above, a possible solution to this is an extended project period.

Two related problems that were more evenly distributed among the components were related to a) finding partners (one project in each component), and b) to structural and cultural differences between regions (four projects of which two were within the start-up component). Both these problems could also be addressed through to strategies mentioned in the above subchapter.

Three projects faced problems related to shifts in key personnel. Arguably loss in key personnel is the most severe problem such projects can face. Further, it is very difficult for each project partner to prevent such happenings. Therefore, we argue that some degree of readiness to address such problem should be developed. This argument is illustrated if we look closer at two of the three projects having this problem. Both ManageSME and UTTS were able to address the problem efficiently with only minor delays partly due to good assistance from the RMU level.

The survey results also indicated some success factors. Among the most frequently mentioned were; motivated and committed partners, dedicated lead participants, and trust and understanding between the partners. These success factors are not easy duplicated, but a longer application time, which enables the creation of suited project groups, will probably be a good start.

Other success factors mentioned were experience with EU program, good project planning, and a helpful and service minded ENABLE-management and staff. The two factors could be stimulated by elective composition of project groups, or functionally substituted by a good support system from the RFO/RMU-level.

5. Review of Each Project

After a pilot project call and two subsequent project calls, a total of 21 projects received funding from the ENABLE-programme. These were evenly distributed over the three project components; ENABLE Technology Transfer Projects, ENABLE Networks, and ENABLE Start ups respectively. This chapter will give a short review of each of the projects receiving funding from the ENABLE- programme. It will be divided into three sub-chapters, each addressing the projects within each component. The review of each project will focus on the same four topics as the overall EVALUATION of the ENABLE projects.

5.1 Technology Transfer Projects

Globalization has a dual effect on regional industrial development. It opens new markets for regional firms, but it also increases the competition in their industry. Increased competition, alongside a development towards a more technological and educational production favour specialized, large-scale production.

The four regions participating in the ENABLE are located far from the economic centres of their countries. In addition SMEs represent an important part of the firms in their regions. As a result, developing, disseminating, and adjusting technology to small scale production are of major importance for the industrial competitiveness in these regions.

The Technology Transfer Component has addressed this challenge. The objective has been to identify, test, and validate new approaches and strategies for R&D, technology transfer, and sharing interregional know-how. Responsible for the component has been Dr. Olaf Schümann on behalf of the Foundation for Technology, Innovation and Research Thuringen (STIFT).

5.1.1 ASIP: Applied Spectral Imaging for Plastic Models (Pilot project).

Spectral Imaging is a powerful tool with a large range of applications and a huge potential for SMEs. The drawback until recently has been that the use of the technology requires specialist competencies and high fixed cost. Both these requirements favour large-scale producers. Recent developments have reduced both of these requirements, thus increasing the technology's potential accessibility for SMEs.

The objective of ASIP has been to develop tailored spectral imaging applications for small SMEs. The main approach has been to incorporate the SMEs in an early stage of the development of products from this technology, thus enabling them to receive solutions tailored to their need.

There are three project partners. The Carinthian Tech Research (CTR) took on the role as lead participant. The other partners were the Technical University of Ilmenau (TUI), Thüringen and T+I Consult-Thüringen GmbH.

5.1.1.1 Activities and outputs

The application contains five workpackages (WPs). These are:

WP 1 **Awareness Programme:** Creating awareness of the technology and the project through media and industry organisations.

- WP 2 **Application Identification Phase:** Identifying new areas of application important for regional SMEs and what demands are posed in such environment.
- WP 3 **Technology Transfer:** Pilot project to showcase the technology and get a better understanding of demands posed by SMEs.
- WP 4 **Scientific Cooperation:** Best practice recommendation with risk analysis, feasibility study, Report on related IPR-issues.
- WP 5 **Project Management:** Coordination and management of the project including a management report and final report.

Out of the planned activities, the project partners were able to complete work shops, scientific studies, risk assessment, and PR activities as planned. The quality of most of this work has been good and the results have contributed to the achievement of the goals of the project. However, problems occurred when it came to the next step of the project; the transition from scientific achievements into industrial partnership and marketable products. In this phase the project ran into problems with pre-financing and difficulties finding suitable partners in the target area.

5.1.1.2 The long lasting results of the project

One of the expected lasting results from the project is a significant expanded institutional network in the partner regions. Equally important are the scientific results, which hold great promise for SMEs. There are numerous opportunities to apply this technology, but there remains to be seen whether the project partners will be able to conduct the transition from technology into industrial partnership and marketable products.

5.1.1.3 Continuing interregional cooperation

During the project period, both intraregional, and interregional networking have been good. The project partners plan to continue the scientific cooperation, with applications in the food industry as an operational target. How this will be organized or the time schedule for this work is currently not known.

5.1.1.4 Problems and solutions

The major problem this project ran into was related to finding industrial partners. Despite several invitations, the project partners received no response. As a result, the budget could not be spent as planned. The partner has not solved this problem, but additional project time would probably increase the chance of finding such partners. The project also had problems with lack of pre-financing, which contributed to the problem with industrial partnership.

Arguably, this project has been too ambitious, considering the time available. The result gained seems quite impressive even if they do not match all the objectives in the project application.

5.1.2 MetaStorRe: Metadata Storage and Retrieval (1 call)

The increasing amount of multimedia content requires advanced metadata techniques for navigation and semantic searching, as well as proper monitoring license deals and services, and thereby remuneration to creators and other right holders. This would be essential for future business success in the digital industry.

The ENABLE partner regions have faced difficulties connecting to an international basis with R&D institutions to transfer technology and exploit it. Among the obstacles are international regulations, R&D funding issues, and problems getting in contact with the right partners.

The intent of the MetaStoRe project has been to develop a database system that incorporates metadata to both store and analyse the material. This could represent a significant advance in existing databases and essentially opens up a window to a series of possibilities that have wide applications.

There are three project participants. Fraunhofer Institut for Digital Media Technology (FhG-IDMT), Ilmenau, Thuringen is the project leader, while Artspages International AS, Sogndal Western Norway, and Grieg Music Education AS (GME), Bergen, Western Norway are the project partners.

5.1.2.1 Activities and outputs

The project application describes the following six WPs.

- WP 1 **Specification** of all desired software components needed for the realization of this project.
- WP 2 **Implementation:** To jointly integrate software components, test proto applications, and reengineer the implementation in accordance with test results. This component was considered to be the most comprehensive one.
- WP 3 **Content Preparation:** This WP included selection and clearance of rights, and the digitalization and storage of audio content.
- WP 4 **Database build-up:** Final design of integrated database and actual extraction of features out of multimedia content, to finally build an applicable meta-database.
- WP 5 **Application:** Develop custom-tailored user interfaces in the form of a web-based application that allows the user of various user groups to intuitively browse and pre list
- WP 6 **Dissemination and Coordination**

Under WP 1 the project partners developed a detailed work plan and the specification of the deployed tools for audio feature extraction, as well as the interfaces for the demo applications. Under WP 2 they provided the actual tools for audio feature extraction as well as the software interfaces for the demo applications. These were utilized under WP 3; the Content Preparation. In this phase of the project a total of 100k tracks could be assembled and prepared for feature extraction at Artspages facilities. This activity also implied metadata clearance, completion and format adaptation. In the following WP, the actual audio feature extraction was performed, and the existing text-based metadata was stored in the database. The next step was to develop metadata-supported applications for the e-learning environment and for automated music recommendations. The final WP defined in the application was the coordination of all the project activities and the dissemination of the results. The former ensured the smooth progress of the whole project, while the numerous dissemination activities raised the awareness of the project and of the projects results within commercial entities and the scientific community. As a result worldwide interest has been expressed in the searchable world-music database.

Each of these activities, as well as the relation between them was essential for the project. All these activities were conducted according to schedule and with impressive results. During the project period, the partners discovered a need for further research on improvements of the

music similarity estimation. This activity was not a part of the project plan, but turned out to be necessary in order to improve the technology to obtain reasonable results for automated world-music recommendations. The partners took on the task wholeheartedly. This activity indicated that the results could be improved by 6,5 % in average. However, research in this field could only be pursued within the project to a very limited degree due to the limited budget. Overall, the results from this project are impressive. All objectives have been fulfilled.

5.1.2.2 The long lasting results of the project

The technological developments in this project hold high promises. The only restriction is given by the limited precision and reliability of the achievable result of the automated recommendation technology considering the diversity of world-music content. This drawback however, is critical and must be addressed since it could reduce the prospects for commercial exploitation of the projects outcome. It is expected that all four project partners will have a lasting positive impact from the participation in ENABLE.

Four specific technological developments are emphasised in the questionnaire:

- The first of these is the development of metadata-supported modules for e-Learning platforms for music teaching and education. This development provides Grieg Music Education with a stronger market position, and open new application areas for FhG-IDMT's technology.
- The partner Artspages will benefit from the development of automated music recommendation, through better prospects for content distribution when combined with search & recommendation technologies.
- There is also negotiated a licensing agreement between Artspages and FhG-IDMT. This agreement will enable the former to increase its profits through technology enhanced content licensing, and the latter to reach new markets for their technologies, particularly in Asia.
- The same two partners also expect the development of a searchable database with extracted audio features to contribute to their development. This technology provides Artspages with new models for B2B and B2C businesses, and FhG-IDMT with a basis for further research and technology improvements.

5.1.2.3 Continuing interregional cooperation

This is a very strong partnership from which it is possible to create large synergies. Further, the relationship between the three partners is characterized by respect and trust. There is a good working relationship in place, and a strong intent for future collaboration. Besides the cooperative activities mentioned above, all the partners intend to continue cooperating in the ongoing dissemination of the results from this project. The major purpose of the latter activity will be to evoke commercial interest in the existing database & search technology and open up new markets. The approach will be joint presentations on conferences etc (i.e. a music conference in Trondheim February 2007).

5.1.2.4 Problems and solutions

MetaStoRe faced three challenges during the project period. Two of these arose in the Content Preparation (WP 3).

1. It was difficult to get access to the whole amount of audio data for feature extraction, since not all of the planned resources could be made physically available to the project

due to legal concerns by the rights-holders. As a result only a part (~ 100k tracks) of the originally planned whole archive could be extracted. This amount is by far sufficient for a first version of the database and for the implemented applications.

2. The second problem arising in WP 3 was partly unsupported metadata formats or missing desired metadata such as country of origin etc. This challenge was addressed by adding additional metadata fields such as country of origin to a subset of the tracks with the help of the contracted labels.
3. The third problem occurring posed challenges under the implementation phase (WP 2). The existing technology for automated similarity determination at FhG-IDMT turned out to be not very precise for providing meaningful music recommendations from such diverse world-music content. Great efforts have been spent on improving the technology. These efforts could not be charged on the project due to the small budget and had been paid solely by FhG-IDMT. These efforts are still ongoing. All improvements will be continuously made available to the partners. The gathered features data however remain unchanged valid and serve as a sustainable basis for future versions of the technology.

On the structural level it's worth mentioning that the audits proved time consuming, and that the budget reductions reduced the partner's ability to adapt to new technological requirements.

5.1.3 TECHTRA: Technology Transfer Information Network (1. call)

Today, a general challenge for many SMEs is insufficient oversight over developments in the European context that is of strategic relevance for them. The core idea behind TECHTRA is to identify SME's informational needs and provide an information system that makes it possible for Business Development Officers to keep the companies in their community up to date on such information. TECHTRA addresses the transfer of best practices from the successful Norwegian Nærinett project by creating a targeted, proactive, and dynamic information system aimed at the specific individual needs of SMEs in Thüringen.

This project involves four Norwegian and one German partner. Osterfjord Nærings samarbeid, Lonevåg, Western Norway has been the project leader. Hordaland County Council, Bergen; Sogn & Fjordane County Municipality, Leikanger; and the Municipality of Florø, are the Western Norwegian partners, while Thüringen Innovativ GmbH (TI), IRC, Erfurt, is the partner from Thuringen.

5.1.3.1 Activities and outputs

The strategic objectives of the project was

1. Improving interaction between local administration, R&D facilities and SMEs
2. Improving information service development and distribution
3. Improving awareness of R&D-induced innovation potential

These have been deduced into the following operational objectives

- 1.1. Exchanging experience and best practice on the diversity of operational approaches to public private partnerships in the provision of infrastructures for supporting innovative companies

1.2 Support and development of innovative companies for the global marketplace - and how best to encourage/support the development of innovative firms whose market are international (rather than local / regional / national).

2.1 New approaches in the support of innovative firms with particular reference to industrial sectors of regional importance in each partner region

2.2 Create new operational attitudes to the provision of professional support services

3.1 Exchanging experience and best practice on the use of ICT tools for regional economic development

In the project application it was scheduled an 18-month running project period organized in five WPs.

WP1 **Develop a common information platform:** Approaching the operational objectives 1.1, 2.1, 2.2 and 3.1.

WP 2 **Develop a common information interface:** Approaching the operational objectives.1, 2.1, 2.2 and 3.1.

WP3 **Recruiting and training companies, developing information profile:** Approaching the operational objectives 1.2, 2.1 and 2.2.

WP4 **Main project: Newsletters are published and mediated:** Approaching the operational objectives 1.2, 2.1 and 2.2.

WP5 **Evaluation and dissemination:** Approaching the operational objectives 2.1 and 2.2.

All the WPs are now completed and the results live up to the strategic and operational objectives of the project.

5.1.3.2 The long lasting results of the project

The project participants expect that three outcomes will have a lasting impact on the further development of the partner organizations.

Firstly, it is developed a system to integrate technology information. This will provide TI with a tool to support and develop innovative companies. TI will try to raise money to finance further activities.

There is also developed a system to improve information about technology. This tool represents an improvement for Hordaland and Sogn og Fjordane County Councils, which will be employed in the support and development of innovative companies. In relation to this, it is planned further activities together with Thüringen Innovativ.

Thirdly, the use of technology information systems has been improved. This will play an important role in Osterfjord Næringsamarbeid and the municipality of Flora's work to support and develop innovative companies.

5.1.3.3 Continuing interregional cooperation

The cooperation between the project partners will continue after the project period, partly across regions, and partly within the regions. Publishing and distributing newsletters will mainly happen through intra regional cooperation. In Western Norway the partners will continue the Nærinett/THECTRA information system, while TI will continue this work in Thueringen. The information providers will cooperate in publishing news.

Another continuing cooperative activity is the implementation and improvement of the technology information system. Thüringen Innovativ (TI) wants to further develop the TECHTRA information system. This will depend on further financing. Beate Schütte, TI, will come to Bergen. HCC European Office will arrange a Nærinett/TECHTRA workshop. In spring 2007 Jochen Schmidt, TI, will visit SINTEF in Trondheim. He will afterwards visit HCC in Bergen for a discussion about the possibilities for further cooperation.

A new cooperative activity that is planned is to implement and improve technology information system. In this regard Hordaland County Council (HCC)/ The European Office will establish a partnership agreement with the Erfurt municipality. Erfurt is probably interested in the Nærinett/TECHTRA information system. Erfurt will get access to this system free of charge from the owner HCC.

5.1.3.4 Problems and solutions

During the project period TECHTRA faced three challenges. First, the contact person for Flora Municipality got sick short time after the project period. This was handled by engaging Sunnfjord Prosjekt 2020 to take his role.

Second, two partner organisations going into a reorganizing process short time after the kick off caused a delay. This was approached by an approved prolonged project period.

Thirdly one original partner faced an insolvency process during the company recruiting period. This was handled by excluding the partner, and handing its tasks over to TI.

5.1.4 TextileLightGate: Technology Transfer and Development for Continuous Production of Self-shining Textiles by Means of Optimised Phosphors (Pilot project)

This project has addressed unsolved problems with cheap printing pastes containing electro luminescent phosphor pigments. The objective has been to improve this technology in order to substitute expensive pastes with micro encapsulated phosphors with cheaper materials.

There are three partners to this project. The project leader *TITV Greiz*, Thuringen came up with the project and contacted *Leuchtstoffwerk Breitung* GmbH, thuringen, and *J. Zimmer Maschinenbau* GmbH, Klagenfurt because of their respective expertise. Zimmer was found at the end of the application process chain and plays a larger role at the end of the project after the technical challenges of the pastes have been addressed.

5.1.4.1 Activities and outputs

In the project application there were planned five project phases (steps):

- | | |
|---------|--|
| Phase 1 | Determine the influence of galvanic surface modification of thread electrodes and the fabric structure on basis of the commercially available EL_pastes. |
| Phase 2 | Development of textile basically structure for characterizing of EL-materials related to the results of phase 1. |
| Phase 3 | Screening of new developed EL-phosphors of the LWB compared with already available micro capsulated EL-phosphors and commercial EL-phoils. |

- | | |
|---------|--|
| Phase 4 | Determination of relations between textile structure, thread electrode modification, microencapsulating, dielectric excess layers, stimulation frequency and ACD voltage amplitude due to the maximum reachable life time of textile EL modules. |
| Phase 5 | Evaluation of potential light sources on basis of textile structure with view to economic aspects. |

More specific, the following activities took place:

Technological developments

- December 2004 the workshop “Flexible Materials for Light Application” were arranged.
- During the workshop possible applications and scientific problems were discussed and new project ideas launched.
- First hand-made demonstrators on textile fabric using were created.

Networking

- The project idea was presented at an ENABLE Regional Info Day, held in Erfurt November 2004.
- June 2006, TITV held a Workshop about intelligent coating in Greiz. About 90 people participated. There was a fruitful discussion about specific applications for this technology.
- A total of four project meetings were held. The primary content of these were discussions about the results and the degree to which working tasks were completed.

Dissemination of results

- Description about the project were published in four ENABLE Newsletters (3/2004, 4/2004, 1/2/3 2005, 2/2006)
- The project was received coverage in a newspaper article and in the radio November 2004.
- The project was presented by posters at the 20th IFATCC Congress & 5th Veredlertag of VDTF in Weimar, mai 2005.
- Findings were introduced through paper presentation at the Flanders Textile valley at XPO Kortrijk, Belgium.
- Project results were published in the Journal VTI- Aktuell 1 (2005) Personal protection & Fashion 2 (2005) 5.
- Poster presentation were held at the TechTextil & AVANTEX in Frankfurt/M. Sept./Oct. 2005
- Symposium about Smart Textiles – parts of the Textile LightGate results were presented Effekte´06:.. There were more than 100 participants, and the presentation resulted in three direct requests referring to automotive, clothing, and home tex
- There was a presentation of the project to members and cooperating partners through TITV-News: 01/2005.

The project partner has found solutions for the technology with printing pastes containing electroluminescent phosphor pigments. By improving the technology and knowledge transfer the basis for new innovative products was created. The varied research marketing supported the objectives of the project and increased both the effective exchange of knowledge and results as well as the input to make the project more effective. This project has good potential

and, assuming successful research outcome new applications, processes, and products could be developed.

There are a number of interesting potential applications for this technology, and it could very well lead to new product and process developments. Their cooperation has been good, in particular between the two German partners and this may assist LWB in repositioning their business given the challenges of technological change in monitors and phosphorous demand.

5.1.4.2 The long lasting results of the project

The project partners expect the dissemination activities to have enduring effect on the partner's, industrial networks, their public relations, and in the promotion of their products.

The participant TITV Greiz got valuable experiences during lab work in Klagenfurt when it comes to handling EL-paste materials and the inter-digital woven structure for continuous processes.

Through the participation in the project, Zimmer got the opportunity to develop unconventional fabrics, as well as intensifying the contacts to German companies. TITV on the other side got a chance to get insight in new machinery and practical experiences beside their limited technical lab equipment.

Among the more tangible results, TITV Greiz and Zimmer preparing to offer a R&D project in October 2006, a positive decision is expected. TITV Greiz has also received a request from a Thuringian automotive supplier concerning the electroluminescenting textiles. A joint project is under preparation.

5.1.4.3 Continuing interregional cooperation

TITV Greiz, a Thuringian automotive supplier, and a Saxon producer of narrow fabrics discuss the possible development of new applications of electroluminescenting textiles for public transport 2007-2008. The companies ProInno and ForschungscHECK Thüringen will apply for the project, with TITV Greiz as contractor.

TITV Greiz, IAP-FhG Golm, and STFI Chemnitz plan to cooperate developing self-shining textiles with high light density for safety applications.

5.1.4.4 Problems and solutions

The project group faced problems with the lack of stability of the woven structure. The optimisation of this material was not a specific task for the project, but the partners were forced to address this challenge. The problem appeared when the first demonstrators had been prepared and used for a longer period of time.

The problem was addressed by investigating the reasons for the instabilities. It turned out that the textile structure was responsible. The instability interferes with the stability of the electroluminescenting particles of the screen print. Luckily it proved possible to separate the two effects.

To compare the results of the screen prints of the EL-particles on the textile substrate it was not advisably to optimise the textile structure due to the fact that the results won't be comparable

5.1.5 DeMonTools

There is an increasing interest in the restoration and rehabilitation of buildings and structures. This project put focus on the potential to monitor the dynamic or static behaviour of structures to determine their status. Currently available monitoring systems are either manual or industry specific for particular applications, and as such are both inflexible and expensive. The objective of this project has been to define basic and open specifications for a building monitoring system that uses sensors to provide different information, which in turn can be coordinated and employed for each field of application.

Carinthia Tech Institute with the University of Applied Sciences (CTI), School of Civil Engineering and Architecture, Spittal/Drau has been the Project leader, while the *IB-Weimar-Ingenieuriuro für Bauwerkshaltung GmbH*, Weimar Thuringen, and *BUC- the Bergen University College*, Faculty of Engineering have been the project partners.

5.1.5.1 Activities and outputs

In the three regions involved in this project there are public and private owners of buildings and structures concerned with maintenance, restoration and a strong interest in energy efficient buildings. This project's aim was to develop tools for the monitoring of structural health data of a structure, to monitor corrosion data of steel reinforced structures, to monitor energy relevant data of buildings, and finally performing a laboratory test for corrosion measurement and corrosion protection of steel in concrete. This work was organized around six working packages (WPs).

- WP 1 Project management
- WP 2 Development of specification for automatized tools (AT) regarding structural health monitoring
- WP 3 Development of specification for AT regarding monitoring of corrosion of steel in concrete
- WP 4 Development of specification for AT regarding monitoring in building physics
- WP 5 Implementation of the developed specifications of WP 3 in a lab project
- WP 6 Development of a general specification for monitoring of buildings and structures

DeMon Tools appears to be a successful project on all levels. All objectives were met and equally important, the project partners have clear intentions and what seem to be realistic plans for future cooperation in commercial projects. All WPs were completed during the project period and they contribute directly to the goals of the project.

The WP 2-4 resulted in definitions of the monitoring system of structural health information of buildings, of corrosion of reinforcement steel in concrete, and of physical parameter of buildings. This constitutes the basis for a general specification of a monitoring tool for buildings and structures.

During WP 5 the monitoring tool specified in WP 6 was implemented in a laboratory project, where parameter of different sensors can be studied under practical conditions.

In the last WP the parameter outlined in WP 2, 3, and 4 were condensed to a general specification for a monitoring tool, which was tested for its practical application in a laboratory project.

All milestones were met and all the meetings described in the project plan have been held as anticipated. In addition a number of unofficial meetings have been held.

5.1.5.2 The long lasting results of the project

The project can be expected to have a lasting impact on the partner organizations. IBW will benefit by widening its spectrum of products, thus strengthen they position in the consulting market. Through the project, BUC has gained knowledge about monitoring of data in building physics. This enables it to define its needs for further research in the field of energy saving construction. FH-TK has increased its level of knowledge in the application of information technology in protecting steel against corrosion in concrete. Both academic partners have initiated cooperation in the field of exchanging teaching personnel, starting student projects, and through the development of new research ideas.

5.1.5.3 Continuing interregional cooperation

The participation in ENABLE has allowed the partners to develop a good basis for further cooperation. The partners want to continue to cooperate in the field of monitoring as well as in the field of teaching in the two universities.

IBW and FH-TK have agreed to continue they're cooperation on project level based on the monitoring system, developed during the project. On either side, a project is defined and there is applied for funding under individual funding conditions. In meetings the exchange of results will be performed. The definition and adjustment of the projects takes place in March 2007 in Vienna.

FH-TK and BUC have signed an agreement on the Sokrates/Erasmus level of EU in which the exchange of teachers for special lectures and students for project works will be arranged. This agreement is already set into practice. Financing will be secured through EU funding and private contributions.

5.1.5.4 Problems and solutions

The project participants all experienced a lack of time and funding, arguing for a project period lasting at least two years with better funding and reduced demands for administration and documentation on the financial audit.

5.1.6 IN-MICRO

Increasing automation in the field of manufacturing and assembling of Microsystems requires improved quality monitoring in every stage. This is closely connected to measurement of completeness and system set-up, surfaces, caves, internal spaces and gaps etc. Measurement systems targeting these specific areas usually consist of complex image acquisition and analysis systems, which tend to require large investments and specialist competences.

With the new MORES sensor developed by *CiS*, based on the remission/reflection technology, the simultaneous acquisition of three different kinds of information has been made easily possible:

- variations of the wavelengths,
- distance/length of run between sensor and surface of object and,
- Timing by triggering emitting light.

The key issue of the project has been to analyse and test the feasibility of the MORES sensor family; respectively the MORES sensor technology for optical real-time measurements to solve specific inspection and other related tasks in the micro-world. If successful, the MORES-technology could replace image acquisition and analysis systems, thus reducing the need for specialist competencies and investments cost for SMEs in the microsystems manufacturing industry. Each of these gains has the potential to increase the SMEs competitiveness, and thus contribute to regional development in the partner regions.

This project has four partners: Carinthia Tech Institute (CTI) with the University of Applied Sciences, School of Civil Engineering and Architecture, Spittal/Drau has been the project leader. Carinthia Tech Research AG (CTR), Institute for Microsensors (CiS) and Haukeland University Hospital (HUH) were the project partners.

5.1.6.1 Activities and outputs

The main objective was to examine application areas where the MORES sensor could ideally be used. The project application contains six WPs with connected milestones. These are

WP 1 **A feasibility study**

WP 2 **Development of a demonstrator I**

WP 3 **Development of demonstrator II**

WP 4 **Dissemination of results**

WP 5 **Closing the project**

WP 6 **Project management.**

All of these seem to be successful and all milestones have been met. The main outputs include extensive research documents, the results from Demonstrator I and Demonstrator II, as well as new manuals. All these comply with the main objective and are thus considered successful.

This seems to be a very good project that clearly meets the ENABLE goals. All milestones have been met, and the project has brought about promising results with great potential for regional economic development through increased competitiveness for SMEs. There are also good reasons to expect that the project partnership will be continued and even expanded after the project period.

5.1.6.2 The long lasting results of the project

There appears to be a clear case that MORES is a very promising application for selected application cases and therefore, product development is realistic. *CTR* carried out the work packages specification of sensors and application, market survey, first business plan. Based on this work, *CTR* is actively contemplating a continuation of the work for both application, especially a near-time commercial realisation of application 1 and further research and development on application 2.

The consortium (mainly *CTR*) will contact several companies and give them a technology demonstration. If it is successful, further development activities especially for *CTR*, *CTI* and *CiS* will be the outcome. The consortium will also try to acquire additional funding to take this medical device into clinical testing. If this proves successful, a product development could be the result.

For the region as a whole, there is established collaboration with a local agency regarding a market survey, and with local businesses. Some SMEs will be involved in the prototyping, which could lead to ramping up production. The potential market for both applications is world-wide. Therefore collaboration with current partners and experts from their region are essential. With respect to SME entrepreneurs, application 1 has immediate product potential that could be realised as a start-up SME or by *CTR* with a local SME.

5.1.6.3 Continuing interregional cooperation

Since all activities within the project plan have been carried out successfully, a continuation of any is not planned. Nevertheless, the partners to the project have good experiences from the cooperation. This provides a good relational basis for further cooperation. Furthermore, the results from the project are promising, thus giving the project partners incentive to develop new projects.

5.1.6.4 Problems and solutions

This project ran into one problem. In the second half of the project period an order of a new sensor configuration was hindered due to a lack of availability. This problem was solved through an increase of the funding.

5.1.7 UTTS³

SMEs competing in international markets need to use the existing state-of-the art knowledge in the most efficient way. This depends heavily on their ability to get access to the best technology, sort out the relevant part of it, find a way to implement it, and finally transfer it into marketable products.

This project has addressed unsolved problems concerning the production of cheap printing pastes containing finer electro luminescent pigments. UTTS intention has been to unify the best technology transfer network strategies. The objective was to investigate and compare strategies of three different regions and adapt it to the market sectors relevant in the regions for technology transfer into the SME sector.

UTTS has approached the basic background for fostering the transfer of knowledge from research and technology entities to companies, service providers and industry, with a special focus on the SME sector as recipient.

There were four partners in this project. These can be divided into two groups. First, partners interested to apply the research as users, and secondly partners facilitating the technology transfer by providing contacts, networks, strategies etc. In this way “both sides” of technology transfer (technology development and transfer) were integrated into the project consortium. More specific reasons behind the selection of the participants follow below.

LST- Lakeside Science & Technology Park GmbH has been the project leader and as such, responsible for the overall preparation of the project. The organisation has provided an overview over measures, activities, experiences and know-how in different ways and methods

³ The evaluator hasn't received any reply during the final monitoring survey. The evaluation of this project has been based on the mid-term questionnaire, in addition to presentations of the project progress in conferences and work shops.

to organize technology transfer in order to develop and establish technology transfer instruments.

TI- Thüringen Innovativ GmbH is promoting the technology and innovation oriented business development in Thuringia to increase and strengthen regional competitiveness and innovation by initiating and supporting co-operation as well as technology and knowledge transfer. As partner in the project "UTTS" *TI* has contributed with know-how and experience for a fruitful cross-border information exchange on the one hand and to get access to new and approved methods and technology transfer instruments of other regions on the other hand.

CMR- Christian Michelsen Research AG contributed as project partner in defining the project objectives and work packages. *CMR* is providing the link between academic institutions and SMEs and has therefore provided insight to efficient strategies and models for technology transfer on national and European level. In addition they could offer established contacts to the *University of Bergen* and the *BUC* (Bergen University College) due to the regional networking project "*Competence Transfer*".

NCRI- the Norwegian Crop Research Institute division Njøs is an applied research institute for innovation in production, processing and commercialisation of products related to top and soft fruits in the region of Sogn & Fjordane and also at a national level in certain fields. They have experienced that there is a lack of innovation, technology and knowledge transfer, especially among and towards SMEs. The institute has brought extensive knowledge about efficient methods for technology transfer to increase competitiveness for all SMEs in the involved regions.

5.1.7.1 Activities and outputs

The project has expanded across three major tasks, regional analysis, interregional correlation, and unified strategy. The objective in the first part was to investigate best practices in the regions of the project partners. In the second part the aim was to analyze strategies, processes and special approaches. The third part was dedicated to the definition of unified strategies for the different regions and finding a correlation in technology transfer between the participating regions.

The work has addressed the following subjects:

- 1) The methodology of the transfer process. Organization of the transfer of research results into new products and services.
- 2) Methods to define commercialization strategies for R&D organisations.
- 3) Methods to support their realization together with the scientists (prepare and negotiate contracts, know how about financial support and how inventions can be protected and commercially exploited)

The project aim was to analyse processes for how an innovation circle could be run through networking between the different organizations directly or indirectly involved in the SME activity. Key questions in this regard are:

- In which technology transfer processes is it possible overlaps to other organizations?
- What kinds of obstacles hinder the technology transfer processes?
- How could R&D results be utilized in order to achieve a higher competitiveness has be given a special focus?

Besides WP 4, which represents the project management, the project application contains three WPs:

- WP 1 contained an analysis of status-quo of technology transfer instruments in the participating regions, identification of best practice models for each region, analysis report including strengths and weaknesses of models.
- WP 2 focuses on the correlation of the best practice models identified in WP1, through a comparison of regional differences and common approaches. The main focus in WP 2 was on the process itself.
- WP 3 each partner should determine a strategy for the improvement of the technology transfer in its region and centre of gravity based on the output of the two other WPs. Furthermore a strategy to improve the technology transfer between the participating countries will be elaborated.
- WP 4 represented the Project management. The responsibility lay with the lead partner.

The coordination and management of UTTS have generally been very good. The project leader has worked hard to keep the project on time and on budget, but has faced serious challenges due to illness or job turnover with some of the project partners. The most important reason for the project getting back on tracks is that these difficulties were taken seriously and efficiently addressed at an early stage.

WP 1 has been completed as scheduled. During WP 2 the project was delayed because of illness and job turnover with the project partners. This forced the lead partner to apply for a three month extension of the project, which was approved by ENABLE. All milestones in the revised project plan have later been met.

This project seems to be one of the most successful in the whole ENABLE programme. The project partners have, despite the unforeseen difficulties mentioned above been able to create synergies from including partner organizations from “both sides” of technology transfer into the project consortium.

5.1.7.2 The long lasting results of the project

The results of the project are assumed to be of importance for both the SMEs and the R&D in the regions.

5.1.7.3 Continuing interregional cooperation

There are reasons to assume that the project partners will stay in contact with each other after the project, and that this can bring about new cooperation.

5.1.7.4 Problems and solutions

There are at least two lessons to be learned from this project.

The call period was too short, and this led to a hectic application process. If the project call period had been a little longer there would have been better time for discussing the content of the project.

The other lesson to be learned is that addressing problems, wholeheartedly and at an early stage as has been done in this project, is important to successfully overcome them.

5.2 Networks of SMEs

This component has addressed the need for exchange of best practices among many SMEs, as a response to globalization and increased competition. Cooperation and networking between enterprises has the potential to improve the so-called “triple helix”, and thus the competitiveness in the partner regions.

The main target group for the project under this component has been cluster initiatives, cluster managers, technology parks, business information centres, and public institutions supporting networks in the ENABLE regions.

5.2.1 BIOC: Biogas Centre of Competence (1st call)

The objective of this project was to establish the **BIOC: Biogas Centre of Competence** as an interregional exchange of best technological pieces of research and practices and an internet based Biogas Network Portal. Further to transfer information about Biogas and to identify and find solutions to overcome existing market barriers and to promote economic development. The focus of the BIOC project is to start up partnership and networking opportunities. Subsidy system for alternative energy in Thüringen naturally complements such a research area.

The project involves two German partners and one from Austria. BIC Nordthüringen GmbH, Thuringen has been the project leader, and Entwicklungsagentur Kärnten GmbH, Klagenfurt, Carinthia and Entwicklungsgesellschaft Südharz-Kyffhäuser mbH, Leinefelde-Worbis, Thuringe has been the project partners.

5.2.1.1 Activities and outputs

The activity plan was divided into four WPs

WP 1 Implementation plan

Mile stones WP 1: Common implementation plan, web page design, “shared workspace”, SWOT-analysis, resource survey.

WP 2 Engineering refinement

Mile stones WP 2: Engineering Refinement Report with analysis of possible technical and distribution affected improvements.

WP 3 Joint industrial projects

Mile stones WP 3: Feasibility analysis of joint industrial projects; scenarios for choosing various technical solutions in plant designing.

WP 4 Project management

Mile stones WP 4: Drafting of a subsidy programme, catalogue of new projects, final project status, create a maximum of sustainability concerning the network activities.

The project partner decided early that there was a need to adjust the plan according to available time and budget. Focus on Fuel cell was replaced by more demanded topics, i.e. Biogas into Natural gas network. This change was forced by involved network partners, especially SMEs in Carinthia. This was a necessary condition for the intentions of BIOC defined in the project application to be reached.

The evaluation of possibilities of Biogas usage in combination with fuel cell did seem out of reach after partners 1st meeting, 2005-05-02, due to lack of funds and expertise and was not

conducted. There was also plans for a bilateral know how transfer. This hasn't taken place yet, but negotiations regarding this are conducted on single partner level. A BIOC brochure is already published and spread.

All in all this has been a well managed project with strong cooperation between German and Austrian partners.

5.2.1.2 The long lasting results of the project

Through the project management (WP 4), the partners developed new skills in organizing new EU-based projects, and a better cultural awareness and understanding of the EU-system at large. The partners also believe that the project has provided them with a better reputation and important know-how.

There is great interest in the potential for using gas derived from wood (wood gas), and this offers a related but independent energy opportunity. There is also the very large commercial opportunity to combine wood gas with biogas production to increase the production of methane.

5.2.1.3 Continuing interregional cooperation

Bilateral contacts between Carinthian network partners and Thuringian partners will continue. The focus of this work will be criteria catalogue and safety. A common work space will be available at least in 2007, but prolonging this service will require more input from Network partners and decent traffic. New project applications BIC and EAK are planned in fields of regenerative energy resources and entrepreneur support, and SME exchange of ideas. In the latter activity, business trips are an option. In 2007 BIC will organise a business trip to Romania and with good results they will try to establish regular meetings of SMEs. It is also worth mentioning that the project partners have established networks with the partners in other ENABLE-projects like RENEST and Wood-Spill.

5.2.1.4 Problems and solutions

Before the start of the project, Thuringia had problems activating network partners. The result was that the final number of involved organisations was limited. Another challenge was a reduced budget. This made it necessary to skip parts of the content in the application. During the project it became apparent that organized inter regional know-how transfer had to be limited to one contact, due to limited time.

5.2.2 NAMEMOS: Network for Assembly of Micro-Electronic and Micro-Optic Mechanical Systems (Pilot project)

The objective of NAMEMOS was to promote exchange of knowledge and transfer of approved technologies in building hybrid microelectronic systems.

The project leader was OptoNet e.V., Jena, Thuringen, while the partners to the project were Micor Electronic Cluster GmbH, Villach, Carinthia and Fraunhofer Institut für Angewandte Optik und Feinmechanik, Jena, Thuerinen.

5.2.2.1 Activities and outputs

The operational objective of the project was to identify and record various different assembly technologies performed by SMEs in the different European regions and integrate them into a database in order to improve the networking and the cooperation among the companies.

The four main project activities were:

1. Establishing networks to SMEs interested in the project in the two regions.
2. Technology transfer through a survey of packaging and assembling technology competencies of the partners.
3. Network promotion through workshops and dissemination of information flyers and brochures.
4. Development of a roadmap in the field of packaging and assembling technologies.

The overall results of the project meet the expectations of the direct project partners as well as their network members. The project topic seems to be well-chosen and catching the interests of all participants. The project partners were committed to the project, and the cooperation was well managed. There was a natural match for the project with the SMEs in Germany and Austria and this project will assist in raising awareness of the area and potentially in assisting in recruiting either employees or companies into partnerships.

5.2.2.2 The long lasting results of the project

The project partners expect two kinds of lasting impacts from the NAMEMOS project. Firstly, they expect that joint projects will continue after the project period. They expect these projects to produce new technology and to be expanded through recruitment of new project partners.

Secondly, they expect supra national network cooperation to continue after the project. The relation between me2c and OptoNet has been significantly consolidated through the project. In addition the International visibility of both networks has been increased during the project period.

5.2.2.3 Continuing interregional cooperation

Good partnerships and networks are established, and as described above there are reasons to expect that interregional cooperation will continue.

5.2.2.4 Problems and solutions

The only major challenge to this project was finding suitable partners. One reason is that the project period is relatively short considering the time necessary for establishing interregional networks. The project partners have addressed this challenge by generating as many personal contacts as possible, especially between the network management during the first project period.

5.2.3 REAL: Remote Engineering and Application's Laboratory (1st call).

Today 40 % of the mechanical engineering customers buy a product on basis of the additional product-related services. Engine manufacturer have to guarantee fixed repair times independent from the place in the world their product is located. Today especially in SMEs there is common to send an engineer to detect product failure. This can be very expensive. Remote engineering can decrease such costs, and thus make products more attractive even in geographically distant markets. The objective of REAL has been to link up existing regional activities in the field of remote service and engineering, and to support interregional exchange and cooperation in this area.

There are four project partners. Technical University of Ilmenau (TUI), Thuringen has been the project leader, while BVAW Thüringen GmbH, Erfurt Thuringen; University of Applied Sciences Carinthia (CTI), Villach, Carinthia; and Christian Michelsen Research, Bergen, Western Norway are the project partners.

5.2.3.1 Activities and Outputs

The project application contains the following three WPs:

WP 1 **Online Lab:** This WP is divided into two parts:
WP 1a Remote lab
WP 1b Virtual lab

WP 2 **Knowledge Transfer**

WP 3 **Network**

The planned WPs are almost fully completed and the results clearly contribute to the ENABLE goals through the development of a remote lab, knowledge transfer, as well as networking. The interregional benchmarking through best practice examples (a part of WP 3) is not fully finished, but is in progress. Further, the planned number of regional workshops has been reduced from three or four to one per region.

This is a fascinating project with great potential for the SMEs that face challenges with the remote servicing of their technology. The cooperation and project management have been good.

5.2.3.2 The Long Lasting Results of the Project

All partners have profited from new contacts with a lot of interesting and interested enterprises in Norway, Thuringia and Carinthia. Further, all gained insights regarding the technologies and knowledge of the other project partners. Additionally, participating in the project enabled the partners to gather new or to extend existing knowledge about how to set up a European network (cultural and language barriers).

The interest of companies is focused on further education of staff by means of workshops and practical experiences in the lab. This gives a clear direction in which way SMEs can be joint in future projects. All project partners were also able to get an insight to the needs and expectations of SMEs in its own and also the other participating regions.

The major output from the project is a remote lab. All partners expect to benefit from this. One possible use is future education. The German partners plan to integrate it with high school and vocational schools.

The partners also expect to benefit from international contacts and experiences established during the project period. They will continue cooperating after the project in the dissemination of competences, and establishing support and clustering of remote engineering facilities. There will also be developed cooperation with SMEs in research and development.

All partners disseminated information about RE-Technologies and thus were able to spread out their experiences to the press, which may lead to new interesting contacts. It is difficult to measure, but all project partners believe that the project have strongly helped to increase the publicity. The three "technical" institutions CMR, CTI and TUI gathered know-how, which

can be used to adjust other activities in remote engineering to the needs of the market. Cooperation with other organizations regarding research and development processes could be built up and several qualification processes (via workshops, talks, discussion etc.) of staff in SMEs concerning remote engineering took place. It could be summarized that the project REAL has strengthened the standing of the project participants in their regions and has provided an important first impulse for future interregional cooperation.

5.2.3.3 Continuing Interregional Cooperation

The interregional cooperation will continue between all three regions, especially between the German and Austrian partner. TUI and CTI will cooperate in developing a master study program in “Remote Engineering” (MARE). With funding from Socrates/ Erasmus, this master study program will be established at several universities in 2007/2008.

A new interesting activity that is planned is “Training in advanced remote technologies” (TARET). This project also takes place in cooperation between TUI and AT, but other European partners, not involved in the ENABLE program will be included. The operational objective is to establish summer/ winter schools in this topic within 2007/2008.

5.2.3.4 Problems and Solutions

The major challenge REAL faced was a reduction in the budget, forcing the project partners to adjust the project plan. Fortunately the project partners have been able to combine this project with other activities, for example by letting students contribute to the project as a part of their coursework. It was also a problem that funding was approved 2-3 months after the official programme start. This was handled by moving money from the first to the second phase of the project.

5.2.4 SitesNet: Networking of Development Corporations to develop new services and instruments to strengthen the sites and SMEs (1st call)⁴

The main objective for this project has been to develop an approach that will contribute to the development of sites and SMEs in the two participating regions to achieve a more stable and sustainable economic development.

There were five partners representing two countries involved in this project.

Aufbaugesellschaft Ostthüringen mbH (AGO), Gera, Thuringen was the project leader. The other participants, all from Western Norway, were Årdal Utvikling, Årdalstangen; Høyanger Næringsutvikling, Høyanger; and Sunnfjord 2020 AS, in cooperation with Florø Næringshage AS, Florø.

5.2.4.1 Activities and Outputs

SitesNet has addressed one overarching question; how can development companies develop their services and instruments to support the SMEs at the site. The objectives of the project have been: 1) exchange of experience between the partners, 2) development of new services, instruments and approaches, and 3) raise the awareness of the sites. The project activities were organized around seven WPs.

⁴ The evaluator hasn't received any reply from SitesNet during the final monitoring survey. The evaluation of this project has been based on the mid-term questionnaire, in addition to presentations of the project progress in conferences and work shops.

- WP 1 Establishment of the network between the development corporations, Collaboration on interregional level.
- WP 2 Establishment of the network at regional level
- WP 3 Project management
- WP 4 Analyses
- WP 5 Work with SMEs at the sites
- WP 6 Evaluation of the results/ SWOT- analyses
- WP 7 Overall concepts of the sites

Networks on an interregional and a regional level have been successfully established. The project management has functioned well, but the project has faced some problems due to significant differences in the regional challenges in Thüringen and Sogn & Fjordane. SWOT analysis in both regions were conducted as planned, and regional workshops were held ultimo November 2005. During the first half of 2006 the work with SMEs was completed and fields of action for continued cooperation identified. Further, interregional workshops focusing on instruments developed locally and best practices were held. In addition, an interregional workshop is planned in late October 2007, addressing preliminary results and status, SWOTs and future plans.

5.2.4.2 The Long Lasting Results of the Project

Through the project, the project partners developed an increased understanding and interest in international projects. Networking between the SMEs and each site can be expected to continue. Florø's intention is to do more commercial business in line with introductions and relationship building.

5.2.4.3 Continuing Interregional Cooperation

Specific plans exist for continuing the interregional cooperation (i.e. a planned workshop in 2007). Florø plans to utilize the network obtained through the project to recruit educated workforce from the Thüringen region.

5.2.4.4. Problems and Solutions

The most important problem arising during the project period was differences between the regions of Thüringen and Sogn & Fjordane. This was addressed by regionally adaptations of the activities.

5.2.5 Wood-spill: Network for leadership in wood-spill extraction, logistics and conversion (Pilot project)

Until recently the spill in the form of branches, bark, and younger trees during culling and harvesting has not been utilized. The combination of increasing energy prizes and interest in sustainable forestry has lead to an awareness of the potential of utilizing this part of the biomass in the production of thermal and electric energy.

This project has aimed at connecting regional network activities and know-how through the entire value chain from extraction of the raw material wood, the logistics and technical

processing as well as the thermal utilization, in order to optimise the utilization of the wood spill in energy production.

There were two project partners. Industrie- und Handelskammer Ostthüringen zu Gera, Thuringen was the lead participant, while Entwicklungsagentur Kärnten GmbH, Klagenfurt, Carinthia was the other project partner.

5.2.5.1 Activities and Outputs

The networks idea has been to share the regional knowledge and combine it with European experiences in order to put the participating regions in a truly competitive position. Topics addressed in this combined effort are:

- What is the energy content of spill produced in connection with the harvesting of forests?
- The economics of producing energy from the spill is closely linked to the logistics and technologies deployed but little information exists on the available options and is often highly regionalised.
- Decentralising the refinement can save in transportation and storage but the investments carries a lot of risk since no research has been done on where and to what degree refinement can be done.
- Knowledge existing among the foresters is wasted as there is no natural way for them to share and discuss this knowledge with other foresters and/or researchers.

Wood-spill is organized in three WPs.

WP 1 **Implementation plan** in which the resources and technologies that are of interest to the project were to be identified and chartered together with regional centres of activity.

WP 2 **Establishing suitable formats to redistribute biomass**

WP 3 **Supply chain analysis**

Within these WPs, the project has addressed a number of issues and all indications are that they've been conducted successfully. Among the more tangible results, a database for support of Biofuels utilization was created. There was also created a company for handling logistics of biomass and energy wood recovery, and for dealing with the whole supply chain. The most important outcome from this project is the production of new knowledge that can contribute to a more efficient use of the resource wood in practical areas.

5.2.5.2 The Long Lasting Results of the Project

Both partners can be expected to benefit from a better overview over the producers and the capacity of wood in different areas, as well as more insight into logistical and technical processes. There have also been developed networks between different institutions and actors in the forest fuel industry.

5.2.5.3 Continuing Interregional Cooperation

Cooperation within and between the regions can be expected to continue, especially in the field of information exchange.

5.2.5.4 Problems and Solutions

The partners felt that the application time period was too short. However, since a partnership was already in place, the project partners were able to produce a project application in time.

The project suffered from restrictions regarding the home regions of potential partners. A free choice of the regions to cooperate with, would have led to a better project proposal and a stronger partnership.

5.2.6 R.O.A.D.S.

A wide range of environmental related planning tasks would greatly benefit from the use of real-time monitoring data from sensors and sensor networks. However, today sensor technologies are mainly applied in non-systematic ways and hence the output data are unavailable to the planning and servicing authorities and entrepreneurs who could have benefited from them.

In **Western Norway** a complex sensor network for the collection of climatic data related to mountain passes and strategic infrastructure elements exists for the purpose of monitoring driving conditions. These data would greatly benefit their end-users by being integrated through geographical information systems and decision support systems. This would improve the quality of public services such as clearing the roads of snow or adding salt or sand to compensate for icy surfaces.

Carinthia could also benefit from the use of real time data from sensors for planning and servicing road networks. Actual digital maps combined with the environmental situation of certain regions can thus be used for planning and thus support the decision making process.

In **Thüringen** the exchange of experience to improve sustainable regional planning and the quality supported by GIS is very important factor for the region. A lot of roads and tracks are already defined but they are not yet available in electronic form to be used in a decision environment.

The project seeks to address the above challenges in the interest of developing market potential for the participating SMEs and improving the knowledge and experience across the regions. There are five partners to this project. *CTI*: Carinthian Tech Institute, Department of Geoinformation, Villach, Carinthia is the project leader, while *UPS*: University of Applied Science, Villach, Carinthia; *Asplan Viak*, Leikanger Western Norway; *RKIT* Consulting, Sogndal, Western Norway; and *ESW*: Entwicklungsgesellschaft Südwest-Thüringen mbH, Eisensach Thüringen were project partners.

5.2.6.1 Activities and Output

The project activities have been organized into two subsequent WPs. The first of these, with the overarching topic *Environmental Monitoring* was scheduled to take place within the period January 2006 – June 2006. The main activities in this WP were:

- Kick off Meeting (Video Conference)
- Discussion on state of the art (telephone conference)
- Selection of sensors for the project (*AviNET*, *RKIT*)
- Working group on spatial temporal data storage (*CTI*, *AVINET*, *RKIT*)
- Working Group on representation techniques for roads (*CTI*, *AVINET*)

The expected main outputs from WP 1 were:

- Report and presentation documents
- Description of a test scenario
- Documentation on the conceptual design of spatial temporal data storage and spatial representation techniques
- Workshop on the working packages and discussion (All partners)

The second WP *ROADS.SDSS* was scheduled to take place within the period July 2006 – December 2006. The planned main activities in this WP were:

- Working group on spatial analysis techniques for road planning
- Creation of test maps for road visualization
- Working group on conceptual design of a framework for SDSS (All partners)
- Working group on applicable case studies for *ROADS.SDSS* (all partners)

The main outputs from *ROADS.SDSS* were:

- Workshop on the framework for *ROADS.SDSS*
- Documentation and examples on *ROADS* show cases
- Final Workshop on the results

All the planned activities were finished as scheduled, and the results have met all of the awaited expectations of the project. The table below illustrates the contribution from each specific activity to the objectives to the project.

Activities	How does each activity contribute to the goal of the project?
Sensor Network, Data transfer	Data collection at the foundation of the <i>ROADS</i> framework providing the starting point for inputting data into the roads model from sensor stations or mobile units
Spatial Temporal Data storage	Basis open source database structure for handling real-time data for exchange, analysis and output
Workshop Villach, Austria	Introduction of partners, presentation of project outline, company background information, action plan for project showcases
Spatial Representation	The ability to visualize the end results was an important phase in determining the outputs of models and data results. The display of information through web mapping services provided the representation.
Phase I Report	Provided project status of completed activities up to June 30,2006
Telephone conferences	Discussion of project ideas, information exchange, administration, completed through all project phases
Spatial analysis	Spatial analysis provided the working model for data processing
Workshop Norway	Exchange of ideas, experience in the progression in preparation for the final workshop. Presentation of showcase status. Discussions for future work, networking and partnerships.
Roads framework	Established the base technologies and concepts to implementing a standardized spatial decision support system.
Showcase completion	Demonstrated the use case scenarios of each participant region.
Promotion	Providing public information folders and data sheets
Final workshop Erfurt, Germany	Presentation and summary of regional showcases. Summary of achievements, outline for future steps, partnerships and further progress. Introduction of new partnerships, contacts and exchange for possible future project work.

This is a first class project. The partners have been able to organize the contributions from five different partners from three countries in a way that created clear synergies. The results from the project, no doubt meet *ENABLE* goals. Equally important, there is good reason to expect that the partners will expand the partnership established through *ENABLE* into a larger scale project.

5.2.6.2 The Long Lasting Results of the Project

This project holds high promise for future lasting results. Plans exist to expand the partnership into a larger scale R&D project, and several industry partners have expressed their interest in future programs and working opportunities.

In addition there are three tangible lasting results.

1. The development of a traffic monitoring showcase has provided the city of Klagenfurt with better traffic planning tools.
2. There is also developed a snow showcase, which enables the national road authorities with a better system tool of networked sensors for snow clearing and road maintenance.
3. A recreation showcase has provided the Development Agency of South West Thuringen with a hiking trail classification of the Thuringen Forest, which has positive impact on the regional tourism.

5.2.6.3 Continuing Interregional Cooperation

Through the project period, the partners to the project have developed a good basis for future cooperation. There are plans for prolonged cooperation in a lot of areas. Examples are traffic monitoring, geo park solutions, hiking classifications, hiking certifications, hiking roads classification, and environmental aspects of hiking. The traffic monitoring is scheduled to take place 2008, the hiking roads classification in 2007, and the remaining four between 2007 and 2008.

5.2.6.4 Problems and Solutions

The R.O.A.D.S. project faced two challenges.

1. At the end of phase one, the requirements in the progress reports seemed unclear. In addition the dissemination of information went slow. This was addressed through telephone contacts and e-mail discussions. In the end the reporting was well completed and on time.
2. There were also some concerns about the level of administration required considering the size of the project. The project participants felt that the administration, recordings and documentations reduced the time that could be dedicated to actual project work.

5.2.7 TOURHEAL

The service providers within the tourist industry find themselves in a market situation where physical activities, training, rehabilitation and nutrition are becoming important aspects of customer demands. A part of the scene is that different service providers jointly represent the total "service package" that individuals or companies seek. Since the demands transgress the traditional borders between the tourist industry and the health sector, development of new products requires new competencies. It also has implications for the product mix offered. Many service providers are SMEs with limited resources in the field of staff and product development. For SMEs to develop competitive and reliable services, a network that includes SMEs as well as educational and public service institutions could provide synergy effects, both locally and between the regions.

A total of 10 partners from three countries participated in the TOURHEAL project. All partners have been selected because of their deep involvement in the development of the health tourist industry in their respective regions. The regions experience similar trends and can benefit from cooperating in a network, exploiting the different experiences and resources.

Bergen University College was selected as lead participant because of its competence within the fields of health and physical activity and strategic focus on Knowledge-based practice.

The other partners were:

- HCM: Hordaland County Municipality
- Hordaland Reiseliv which is the Tourist Board of Hordaland and coordinates tourism in the county. Hordaland Reiseliv represents an active link between the regional authority and the industry, and participates, along with tourist associations, destination companies, etc., in adapting and developing the tourist industry's common product
- Vossafjell AS: This is a small service providing firm located at the ski resort Voss. The manager, Ingjerd Dymbe Anda, contributed to the ideas behind the project.
- Idrettsenteret AS is a resource and sports centre with activities directed towards the public in general, offering advice, prophylactic and therapeutic services. Key issues are health, nutrition, physical activities and sports on all levels.
- Hagahugen Rehabiliteringssenter AS is a rehabilitation centre working with patients post-operatively, mainly suffering from heart- and lung conditions.
- Erfurter Gastro Berufsbildungswerk e. V.
- Thüringer Hotell und Gaststättenverband
- Thüringer Tourismus GmbH
- Industrie- und Handelskammer Erfurt (IHK)

5.2.7.1 Activities and Outputs

Tourism is an international industry and synergy effects for the SMEs within health and tourism can be strengthened by extending the cooperation about product development on an international level. Project objectives include:

- to establish a health tourism industry network with partners from Thüringen and Western Norway.
- to identify and address the needs and interests of the SMEs, relevant local and regional public service institutions and R&D.
- through a Triple helix network approach, the project will focus on strengthening the competitiveness of the SMEs.
- to strengthen the partners and participants capability to apply research based knowledge and methods for product development.

The project application contains five WPs, of whose WP 1 represented the general project management. Further, WP 2 concerned the identification of SMEs competence needs, WP 3, 4, and 5 addressed the topics health issues, physical activities, and nutrition respectively. All WPs have been completed.

The main project activities can be summed up as follows:

- Meetings
- Development of concepts
- Development of the network
- Build up new contacts between local SME's
- Workshops in AT,DE and NO
- FFF (food, fun fitness) under utilization of 9 SME

- Seminar for cooks in healthy nutrition in DE
- Round table session during the INOGA – fair theme: slow food
- Q-Siegel as a possibility to fix common standards in tourism and seminars about that in DE
- Beginning of individual connections/cooperation with SME in canoeing, sport activities, wine farmer and restaurants and wellness
- Common projects in exchange of trainees and employees
- Concept and evaluation Content: find out which enterprises in tourism/hotel/restaurant using slow food and healthy nutrition in Thuringia

Overall the project group has succeeded in establishing a network. The product development has started and must be continued through cooperation in and between the regional networks.

5.2.7.2 The Long Lasting Results of the Project

All partner organisations claim to have learnt a lot about health tourism and international cooperation from the project. Participating in ENABLE has given BUC invaluable experience about participation in an EU project. BUC has gained substantial experience from international project cooperation and about heading such a project, and has developed relationships to several important actors within the region.

There is a desire to establish a network to connect the various interested parties in the partner regions. The two main impediments to continued cooperation are firstly, different partners wanting the network to focus on different issues, and secondly, concerns whether all partners being able to meet the necessary quality standards. Cooperation can be expected to continue though in smaller groups.

5.2.7.3 Continuing Interregional Cooperation

It is anticipated that the partners will stay in touch with each other. The surveys indicate that the probability for continued intra-regional cooperation is greater than for inter-regional ones. Still there are reasons to expect both kinds of continued cooperation after the project.

The network in West Norway plans a seminar 24th and 25th January- there it must be decided whether the network will be an exclusively Norwegian network or if the interregional cooperation will be continued. Also worth mentioning is the product *Food, Fun and Fitness*, which may be developed further.

5.2.7.4 Problems and Solutions

The partners were able to cooperate quite well, but the project faced serious challenges related to the great number of participants. There are reasons to assume that it would have been easier to coordinate and manage a project involving fewer and more similar partners. Another possibility would be organizing the project differently, for instance by dividing parts of the project into subprojects each involving fewer partners.

5.3 Entrepreneurship (Start-ups)

Entrepreneurship is a very important factor for the economic growth in the partner regions. Still, there is a known fact that a lot of start-ups fail short time after their creation. A major challenge related to entrepreneurship is to increase the survival rate of the young firms. This component has addressed this challenge. The strategic objective has been to stimulate entrepreneurship and to support start-up initiatives in their different phases of growth.

The project participants receiving funding under this component has been business and technology centres, university and schools, regional development agencies, other organisations supporting entrepreneurship initiatives in the partner regions.

5.3.1 The Alchemist

Innovation Norway has developed an instrument called the Alchemist that is based on the instrument REAL: Real Entrepreneurship Action Learning developed in the United States. The instrument addresses the special needs and problems of young people when they intend to start their own businesses. The objective of this project has been to further develop this instrument and to disseminate best practices among young entrepreneurs.

Three partners participated in the Alchemist project. Innovation Norway, Leikanger Western Norway had the project leadership, while the two other participants were Wirtschaftsbeteiligungen Gotha GmbH, Gotha, Thuringen and Sogn & Fjordane University College, Sogndal, Western Norway.

5.3.1.1 Activities and Outputs

The project started promising, but faced serious problems due to the maternity leave of the contact person with the lead participant Innovation Norway. During the midterm monitoring the new contact person was not properly prepared to give the interviewer a good account of the project (Mitchell-Banks 2006). Despite several reminders the evaluator has not received an answer to the final monitoring questionnaire. It is therefore not possible to evaluate this project properly.

5.3.1.2 The Long Lasting Results of the Project

5.3.1.3 Continuing Interregional Cooperation

5.1.3.4 Problems and Solutions

As mentioned above, the project faced serious problems due to shift in key personnel.

5.3.2 ENTRÉE: Entrepreneur Empowerment for Sustained Growth (1st call)⁵

The objective of the ENTRÉE project was to empower young entrepreneurs of innovative SMEs in the transition phase from start-ups to established and stable enterprises. The main focus was placed on the development of self-assessment tools and good practice models. The overall long-term objective has been to establish an interregional network for cooperation between economic, scientific, technology, and administrative partners.

There were three project partners. Technologie- und Innovationspark Jena GmbH (TIP Jena), Jena Thuringen was the project leader, while ReFIT e.V., Jena, Thuringen, and

⁵ The evaluator hasn't received any reply from the ENTRÉE project during the final monitoring survey. The evaluation of this project has been based on the mid-term questionnaire, in addition to presentations of the project progress in conferences and work shops.

Entwicklungsagentur Kärntnen GmbH (EWK), Klagenfurt, Carinthia were the project partners.

5.3.2.1 Activities and Outputs

The objective of the project has been to accompany young entrepreneurs of innovative SMEs from the start-up phase through their transition into stable, robust enterprises. The main strategy has been to develop a self-assessment tool and good practice models. The project activities were organized around five WPs

WP 1 **Project management**

WP 2 **Data Collection and Needs Analysis**

WP 3 **Development of Tools, Guidelines, and Good Practice Models**

WP 4 **Training Activities and Local Workshops**

WP 5 **Dissemination**

The project management and the cooperation have generally been good. In WP 2 a survey towards 70 firms was conducted. The data was then analyzed and best practices as well important needs were defined. During WP 3 self-assessment tools were developed in both an internet-short version and a long version as a basis for detailed interviews. The key aspects were:

- Product-customer-market.
- Business competition
- Production-controlling
- Financing.

An interregional business-matching was conducted, and meetings with regional partnerships were held.

5.3.2.2 The Long Lasting Results of the Project

In addition to direct regional benefits from the project activities, the regions will benefit from the development of a new project that will also include Klagenfurt.

5.3.2.3 Continuing Interregional Cooperation

Through the project good contacts between the partners has been established. The cooperation can be expected to continue with or without funding. The project partners will search for possible new partners in Norway.

5.3.2.4 Problems and Solutions

A challenge with the INTERREG programmes is funding. The project participants found it challenging to finance the project and then wait for reimbursement. In addition, budget cuts limited the project. The project partners were overwhelmed by the amount of audits. They also wanted more flexibility regarding reallocation of funds in the budget.

5.3.3 Entrepreneurship Education: Entrepreneurship Education for Upper Secondary Vocational Schools (1st call)

The regions Carinthia and Thuringen are both characterized by a low rate of young entrepreneurs out of technological sector. A large part of young enterprises fail because of lack of entrepreneurial skills. The education-level in both regions is very high but extremely technical oriented. The technical schools offer no education on how to manage an enterprise.

The objective of the project has been to sensitize pupils for a future business start-up particularly in the technical range, by developing curricula and materials to promote entrepreneurship and entrepreneurship training for vocational school students.

This project has two partners. The project leader was Build! Gründerzentrum Kärnten GmbH, Klagenfurt, Carinthia, while BWTW Bildungswerk der Thüringer Wirtschaft, Erfurt, Thuringen was the other project partner.

5.3.3.1 Activities and Outputs

The strategy of Entrepreneurship Education has been to integrate the topic of entrepreneurship into the curricula of technical oriented vocational schools, further qualifying teachers in this topic, organize the teaching more like a business plan, and involve entrepreneurs in the development of the courses. The project has been organized in four phases.

The Start-up-Phase contains a meeting in Carinthia to transfer experiences regarding stimulation and education of entrepreneurship-topics in schools. On this basis a detailed development of the project will be done.

During the **Development-Phase** it is planned to organize a development-workshop where – after elaboration of the results of the kick-off-workshop – the definition of the current position of the education-system regarding “entrepreneurship” in each particular technical school is done.

The Decision-Phase contains elaboration of the measures and the contents of the qualification programme, education of the trainer, research, and integration of best practises.

Implementation-Phase: Elaboration of best-practice methods and testing the developed programme in the schools.

During the project customer conferences have been held, involving teachers, students and entrepreneurs. A curricula has been developed, as well as a action based learning module. Another tangible output is the development of a teacher training programme and the publishing of a booklet on “mini-companies”. There has also been conducted an evaluation, measuring the students progress, their actual knowledge about business-plan-content, and their attitude towards founding a company.

This project meets the objectives defined in the project application, and clearly contributes to the ENABLE-goals through providing effective entrepreneurship training to complement the technical training received in many technical schools.

5.3.3.2 The Long Lasting Results of the Project

The curricula and teacher training programmes are implemented in vocational schools, where they represent a new, more efficient way of teaching entrepreneurship.

5.3.3.3 Continuing Interregional Cooperation

The partners will continue cooperating in the work to improve and optimize the curricula.

5.3.3.4 Problems and Solutions

There were not mentioned any specific problems. There were, however some concern about the amount of bureaucracy and the amount of effort and time involved in the reporting process, particular regarding the reporting requirements in order to change the project while underway.

5.3.4 Incubator Support: University Based Incubator Support Systems (1st call)⁶

Incubator Support has through the ENABLE project addressed the challenge of qualifying the entrepreneurs in university-based incubator start-ups. The strategy has been to develop an education package for the target group.

The project group consists of three partners. Bergen University College (BUC) is granted the project leadership, while Fachhochschule Jena (FHJ), Jena, Thuringen; and Build! Gründerzentrum Kärnten GmbH, Klagenfurt, Carinthia are the project partners.

5.3.4.1 Activities and Outputs

The project activities were organized into four WPs. The first of these represent the Project Management. WP 2, 3, and 4 represent development and testing of an education package in Bergen, Jena, and Kärnten respectively.

The outputs from these three latter WPs are

- an entrepreneurship basic module and advanced module
- opportunity discovery and business modelling
- product developments
- financing and marketing for technology based start-ups.
- testing of the developed modules involving more than 300 students and 10 experts.

The project is characterized by good management and well functioning cooperation with a clear division of labour. It clearly meets the ENABLE goals and offers some good deliverables. It was necessary to adjust the final education packages to cultural and structural characteristics of each region, but this adjustment didn't cause any significant problems.

5.3.4.2 The Long Lasting Results of the Project

The education packages developed through the project will continue to be a part of the education offered by BUC and FHJ. This has a potential to promote and increase the life expectancy of start-ups.

5.3.4.3 Continuing Interregional Cooperation

⁶ The evaluator hasn't received any reply from the Incubator Support project during the final monitoring survey. The evaluation of this project has been based on the mid-term questionnaire, in addition to presentations of the project progress in conferences and work shops.

It is anticipated that the interregional cooperation will continue after the project period i.e. BUC and FHJ holding joint lectures using video conferencing through the internet. There is also developed another project between UC Bergen and Jena that builds on the Incubator Support project.

5.3.4.4 Problems and Solutions

Cultural and structural differences as well as differences in the regional needs between the Norwegian partner on the one side and the German and Austrian partner on the other hand, posed some challenges. These were handled by adapting the education packages to the regional characteristics.

5.3.5 RENEST: Regional resource networking as an efficient support strategy for the technological development and upgrading of innovative start up companies (1st call).

The overall objective of RENEST has been the improvement of the access to technological and managerial skills for innovative start-up companies, by developing a set of strategies, based on *best practice*, and ensure the design of a registration, update and exchange system for the partner regions.

There are five partners in this project. Forinnova AS, Bergen, Western Norway has been the project leader. KPSF AS, Sogndal, Western Norway; Business and Innovation Centre Nordthüringen GmbH, Nordhausen, Thuringen; Technologie- und Gründer-Fördergesellschaft Schmalkalden/Dermach, Schmalkalden, Thuringen; and Entwicklungsagentur Kärnten GmbH, Klagenfurt, Carinthia are the other project participants.

5.3.5.1 Activities and Outputs

The approach has been to analyse and compare the start-up conditions in the three participating regions, to identify suitable strategies and instruments for exchange between the partners. The survey covered the structure of the industry, the potential for innovation, the identification of the support structures and communication patterns. The selection and implementation of appropriate strategies and instruments were aiming at improving the relations between industry, technology providers (research units), support units and funding institutions (support network) to improve regional development. The project activities have been organised around six WPs.

WP 1 Project administration

WP 2 Identification of areas of specific interest

Compilation of the players and their processes for the regions Western Norway, Carinthia, Thuringia, in order to identify areas of joint interest and opportunities for information exchange / business partnership. All partners deliver input. External expertise will be used for scientific monitoring. The partners Thuringia and Carinthia account for the external expertise, the lead partner coordinates the work package.

WP 3 Modelling a "tool kit" of best practice strategies for the support of start up companies. The partners assess and enhance their support product mix offered to the start up companies by the intermediate level to stimulate start-ups and to support young innovative companies on their way to sustainable business.

WP 4 Transfer and exchange of efficient strategies: Dissemination of the "tool kit" developed in WP 3.

WP 5 Implementation of strategies in the participating regions

Application of best practice strategies for the intermediate level as defined in WP 3 and 4, in order to enforce the international orientation of young innovative companies.

WP 6 Transmission of the project results into a long term approach to regional cooperation.

The partners will publish a common guideline for the implementation of the project output that may be used by other regions as well.

The project management has been good and cooperation has functioned well. The relations between the German and Austrian partner grew especially close during the project period. The three major outputs from the project are

1. A study of the start-up conditions in the regions. The report from this study focuses on the industry structure and the support network structure for the participating regions. This provides a good input for better knowledge of each other's areas of operation; learning by comparison, better understanding of the impact of the political and socioeconomic framework in one's own home country, and the partner countries. This study was followed by an analysis of best practices, and finally recommendations for specific approaches. The output was a liaison desk ("bridge") for the exchange and divulgation of joint best-practice strategies within the cooperating regions.
2. The second activity was the development and further improvement of a tool kit adjusted to the needs of the companies. The output was an instrument for exchange of strategies, providing a wider range of operational skills for participating business centres.
3. Thirdly, visits between SMEs and institutions were held. These resulted in many good contacts especially between participating partners, but not as much contact between companies as intended.

During the project period, the project partners experienced that some of their operational project goals were too ambitious given the available time frame. i.e. the planned publishing and distribution of a brochure was not completed during the project period due to limited time frame, but this is p.t. about to be completed. On the other hand, most of the project is completed and the work has brought about some promising results, which clearly contribute to the ENABLE goals.

5.3.5.2 The Long Lasting Results of the Project

One of the Norwegian partners did not perceive advantages through continued project cooperation due to high specialisation of the organisation. Nevertheless, valuable contacts were established. These have later been activated in order to solve practical issues. The other partners have established a sustainable information exchange on a regular basis. Also worth mentioning, the exchange with other entities and larger network proved positive for the service level with the project partners.

5.3.5.3 Continuing Interregional Cooperation

The cooperation will continue after the project in areas like networking, exchange of information and best practices, and study visits. In this work the maintenance and development of personal contacts will play a major role.

5.3.5.4 Problems and Solutions

During the start-up phase of the project, different preferences and approaches with the project partners caused some cooperation problems in the assignment of external experts for analysis. This was handled through majority voting.

5.3.6 ManageSME

ManageSME's objective was to extend the lifecycle of young companies in the growth and consolidation phase through providing customized management developments based on applicable tools. The approach has been to improve existing tools as well as develop new ones to handle important tasks facing the start ups.

To begin with, the specific management challenges had to be identified and analysed. Based on analytical results the main objective was to provide assistance to improve the effectiveness of their business management. There has been a major concern to develop these tools in close accordance with the management and leadership challenges for young firms. Thus, an important part of the project was a) to identify and analyse the most important needs in the start-up phase, b) to define the regional differences in such needs, and c) to develop tools that are adjusted in accordance with regional differences when it comes to start-up challenges.

The project group consists of three partners: NyKunnskap AS has the project leadership. The other partners are TUL- Technische Universität Ilmenau, Department of Civil Law; and KWF- Kärntner Wirtschaftsförderungs Fonds. The three partners have all been occupied with relevant topics for this project, although through different approaches. NyKunnskap works with innovation for SMEs on a county level in Norway, KWF is the sole economic promotion institution in the province of Carinthia, and TUL has a strong tradition in the field of interdisciplinarity and entrepreneurship.

5.3.6.1 Activities and Outputs

The project objective can be divided into seven sub-goals:

- Strengthen business management capabilities and effectiveness of SME in a sustainable way.
- Stabilize the business operation by improving management skills and leadership.
- Map leadership challenges as a base for case study-oriented management training
- Develop sensibility and understanding among management consultants for the special needs of SMEs, as far training and management consultancy are concerned.
- Stimulate consultants' competences through providing practical and sustainable assistance for SME.
- Involve regional authorities to improve management competences through their networks.
- Presentation of best practice-examples through successful management.

The project application for ManageSME contains the following five WPs:

WP 1 Identifying, Mapping and Analysing the leadership and Management of SME

WP 2 Exchange workshops

WP 3 Development of content for customized management developments

WP 4 Implementation of the developed program

WP 5 Final Evaluation of the project results

Surveys and evaluations have mostly been conducted as planned (WP 1), but due to internal financial problems and change in personnel, parts of the activities has been delayed. Two

successful workshops to support a more effective exchange of experience and transfer of information have been held (WP 2). In addition a total of five interregional meetings have taken place. The benefit from these activities (WP 1 and 2) is an improvement of the project partners' interregional insight and understanding, which can serve as a platform for developing management competence in SMEs.

There have been management development planning activities in five enterprises, two upper secondary schools and two municipalities (WP 3). Mini-seminars and educational programs have been carried out.

In relation to WP 4 work on improving management development practice and a systematisation of information and common experiences to create a competence base has taken place.

Also worth mentioning is that some of the pilot projects, though not organised as proper projects was started. These could be turned into more sustainable management competence developing processes later on.

5.3.6.2 The Long Lasting Results of the Cooperation

As a direct result of the project, organizations in private and public sector, which have been attached to the ManageSME project has increased their skills and knowledge in the field of SME competence development. This can in turn contribute to a higher competence among owners and managers in running SMEs as learning organizations. It is also anticipated that each partner will develop new projects in adjacent fields based upon the experiences from the participation in the ENABLE programme.

Also worth mentioning is organisational and management development among the project partners, Crosscultural SME branch insight, and higher competence in project planning. Further, interregional contacts through the project can prove useful for the development of SMEs in the participating regions.

5.3.6.3 Continuing Interregional Cooperation

There are positive ongoing discussions between the German and the Norwegian project participant. These are highly motivated to continue the cooperation but so far no specific plan has been developed.

5.3.6.4 Problems and Solutions

The project partners faced internal financial problems, caused by investors backing out early July 2006. New investors had to be found, which proved challenging. Some money was raised. The problems increased late July 2006, due to simultaneously shifts in key personnel with all the three project partners.

There has been a concerted effort to get things back on track and to complete all of the project requirements during the project period. In the evaluator's opinion, this effort has proved quite successful, which is impressive considering these difficulties.

An important lesson to be learned from this project is that Programmes like ENABLE should have tools and a clear strategy to deal with this kind of problems on the component or RFO level.

5.3.7 PROMOT-GROW

The project has focused on SMEs in the growth phase, particularly after being in business a few years and having to relocate to a larger space and potentially leaving a place where the business was supported – such as incubators. It is well documented that this transition period is a critical phase for the survival of young firms (Aldrich 2003). The objective of this project has been to improve the survival rate of young firms, by 1) systematically gathering and analysing experiences from such transition periods, 2) documenting and disseminating best practices, and 3) establishing tools for supporting SMEs in this phase.

Three partners have participated in this project. The lead partner was *TIP- Technologie- und Innovationspark Jena*. The other partners were *BABEG- Kärntner Betriebsansiedlungsgesellschaft mbH*, and *Innovation Norway*. All three participants were involved in the project development and application, but they have worked relatively autonomous in developing the project activities in their own regions. The latter is partly due to the fact that the organisation of the cooperative activities in each country to a large degree was bound to national guiding lines. This limited the partner's manoeuvrability in this project.

5.3.7.1 Activities and Outputs

As mentioned above, there are three sub goals in this project.

Objective 1: Exchange of experiences and knowledge

- Existing methods of solution, approaches shall be compiled and assessed
- Experiences, the partners still made in this field, should be merged

Objective 2: To filter out best practices

- Problems regarding the business location (space) and concerning the contents/ strategic orientation of young enterprises on their way to consolidated enterprises between the third and eighth year after the start-up (growth phase) should be filtered out
- Existing methods of solution shall be proved in view of their feasibility and effectiveness
- Applicability of existing approaches / programs for other countries should be assessed

Objective 3: Development of new supporting possibilities for SMEs

- Alternatives (new approaches) shall be developed and tested
- Document with measures for new programs in the fields of strategy and space
- Catalogue/Guide for the SMEs: helping institutions, methods, programs, general guidelines for the fields of space and strategy for the SMEs
- General guidelines for the carriers of business development

The project activities and the total results are in narrow agreement with the objectives of the project. During the project an evaluation of the situation in each region has been conducted. Other outputs include the completion of the project document, creation of a project flyer, information about the project on the websites of all the participants, regional workshops and seminars have been held, and interviews with companies conducted. Benefits include the interregional exchange of experience, testing, development, and documentation of new approaches in group based coaching in Western Norway, and in the field of space in Jena, Thuringen.

5.3.7.2 The Long Lasting Results of the Project

This project has contributed to ENABLE-goals by producing and disseminating important knowledge among the project partners and in the active regions. This knowledge will be applied in strengthening the role of the regions in future business developments. There are also developed training programmes to entrepreneurs and employees in young companies, as well as pupils in schools.

Other outcomes worth mentioning are new approaches for settlement of companies, new contacts in each region and a better overview over activities in the other regions, a better understanding for the processes in business development in the region, and valuable new experiences in international cooperation

5.3.7.3 Continuing Interregional Cooperation

The survey indicates an interest in continuing interregional cooperation.

5.3.7.4 Problems and Solutions

There were complaints about too much bureaucracy given the amount of the funding, and frustrations about a funding decision being made in February when the call was in September. It was also stated that the first reporting period was far too short.

There are a thematic overlap between this project and ongoing national projects. As a result PROMOT-GROW was bound to national organizational guidelines. This has significantly limited the manoeuvrability of the project partners. Still, the project itself is clearly within the core of the ENABLE-program. And the survey indicates some promising results.

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Appendix

Questionnaire

**Final evaluation on project level
Projects funded within the RFO
“ENABLE - ENABLing European Entrepreneurship”**

This final questionnaire is addressed to all lead participants of ENABLE –
sub - projects

Deadline for return to Moreforskning Research Institute: 5th of January
2007

Mail to: ljh@hivolda.no

1. Activities and outputs from the project

Could you please give a short overview over the main activities that have taken place as a part of this project by filling in the tables below?

Activities which were <u>not</u> completed	
Activities	Why and when was the activity terminated?

Completed activities	
Activities	How does each activity contribute to the goal of the project?

To what degree do the total results live up to the objectives of the project

2. The long lasting results of the project

Will outcomes from the activities mentioned above (products, technologies, new modes of internal and external organisation, penetration of new markets etc.) have a lasting impact on the further developments of the partner organisations?	
Activity and outcome	1. Which organisations benefit? 2. What impact on the organisations?

3. Continuing interregional cooperation?

Which cooperative activities, which have <u>actually been carried out</u>, will be continued after the project period is completed?	
Activities	1. Who will participate? 2. What are the main objectives? 3. How will the cooperation be organized and financed? 4. What are the planned timeframe and milestones?

Which <u>new</u> cooperative activities are planned after the project period is completed?	
Activities	1. Who will participate? 2. What are the main objectives? 3. How will the cooperation be organized? 4. What are the planned timeframe and milestones?

4. Other outcomes

In what other ways has the participation in ENABLE contributed to the development of the partner organisations?	
Organisations	Contribution

5. Problems and solutions

What challenges have occurred during the project period?		
Activities	In which phase of the project did they arise? What was the cause of the problem?	How was the problem handled? What was the outcome?

Based upon your experience with ENABLE, what do you consider the most important factors that lead to either success or failure in a project like this?	
Success factors	Hindrances

6. Improvements

Based upon your experience <u>with your project</u> what do you consider to change or improve with a next project of this type?	
issue	improvement

Based upon your experience with the <u>overall ENABLE operation</u> what do you recommend to change or improve in an interregional funding programme of this type?	
issue	improvement