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Economic Development Agency of the Principality of Asturias, IDEPA



It gives me great satisfaction to be able to present this final report on the European ESTIC project to you. This publication culminates almost three years of combined work and cooperation and the time has now come to disclose the results and to share the achievements reached.

One of the lines of action of the Institute of Economic Development of the Principality of Asturias involves improving the competitiveness of businesses through innovation and promoting cooperation as a tool for competitiveness. Along these lines, participation in European programmes has been a stimulus to enable the continuous, enriching exchange of experiences with other regions.

When, in our role as leaders, we began to design what was later to become the ESTIC project, the Interreg IIIC initiative was revealed as the most appropriate vehicle for putting our ideas into practice, as the main aim of Interreg IIIC - to improve the efficiency of regional development policies and instruments - matched the activity of IDEPA perfectly. Furthermore, Interreg IIIC was to enable us to start a Regional Framework Operation, a model aimed at creating a general area of cooperation between different regions in which participation was opened up to the different players in the regional innovation systems through sub-projects.

Without a doubt, economic development is promoted by the availability of research institutes, technological centres, innovative companies, talent and skills and the way in which these interact with each other. We are quite sure that supporting this Regional Framework Operation model has been the correct thing to do. It has been useful not only for participating organisations to cooperate with organisations from other European regions, often for the first time, but for strengthening networking within each region.

Finally, I would like to express my certainty that the quality of the relationship established with ESTIC member regions has been exemplary and has provided for the development of an inter-regional cooperation project that we believe can make the difference in the development of our respective regions.

A handwritten signature in black ink, appearing to be 'V. González Marroquín'.

Prof. Dr. Víctor M. González Marroquín
Managing Director, IDEPA

Competition on innovation and technology development is critical to securing regional economic prosperity in the context of a shift to an increasingly knowledge intensive economy. Cantabria has significantly restructured its industry in recent years and successfully moved from an Objective 1 region to a Competitiveness region, but the region still faces the prospect of further restructuring away from high dependence on traditional industries in low technology manufacturing and services that currently undertake little innovation.

Diffusion of a scientific, technological and innovative spirit, improving the quality of the research and innovation carried out in the region, increasing private and public investment in RTDi activities, integration and participation of all regional actors and fostering international cooperation and technology transfers are some of the key actions expected to give Cantabria a place in the knowledge economy.

The ESTIIC Project fits perfectly into the said strategy and has therefore represented a great contribution for the development and promotion of the innovation and information society in Cantabria. ESTIIC has given the partner regions the opportunity to share knowledge and experiences, to raise awareness on new technologies, to argue about the future interaction between ICT and regional development and to finance some new initiatives that would have hardly been implemented without this project framework.

Last but not least ESTIIC has been an example of coordination and fruitful cooperation among project partners and we really hope to keep on doing so in the next future.



Mr José Luis Sánchez
Director General Innovation and
Business Development
SODERCAN (Cantabria Regional
Development Agency)

North Rhine-Westphalia



As representative of the region of North Rhine-Westphalia, it is with great pleasure that I look back on three years of informative and fruitful cooperation with our partner regions Asturias, Cantabria and Southern and Eastern Ireland within the Interreg IIIC RFO ESTIIC.

The results of ESTIIC impressively show that regional economic advancement can be fostered significantly through the deployment of ICT. Anyway, deployment and further development of ICT are not self-selling at all. Especially regions that, until now, have made only little use of the advantages of ICT can benefit from an impulse from outside. This is what we would like to offer. Even more advanced regions cannot afford to stop innovating. You are invited to join us in focusing on the leading edge ICT topics for the next years.

In North Rhine-Westphalia, we closely interlinked ESTIIC with the process of updating and optimising our regional ICT-related economic development strategies. We found it very helpful to have an opportunity to look at this process from outside, through the eyes of other regions' approaches and to exchange with each other what we identified to be best practice. It goes without saying that the execution of such a challenging project had to deal with difficulties as well. The joint efforts undertaken to overcome several obstacles have strengthened links and laid the basis for sustaining cooperation beyond the runtime of ESTIIC.

I would like to thank the colleagues from our partner regions and all participants who have contributed to making the RFO ESTIIC a success and an inspiring experience. We look forward to further cooperating with European regions in the future.

A handwritten signature in black ink that reads "Hans Bruch".

Dr. Hans Bruch

Head of the Media and
Telecommunications Division at the
State Chancellery of North Rhine-
Westphalia

Southern & Eastern region of Ireland



The Southern & Eastern Regional Assembly was very pleased to participate in the ESTIIC project, as one of the four Regional Partners. The Assembly and the Region has benefited greatly from its involvement in this project, with many of the ideas and initiatives supported by the ESTIIC partnership delivering significant results.

The Assembly has already had the opportunity to begin mainstreaming our ESTIIC experiences; in late 2006, the Assembly began preparing a new Regional Operational Programme, funded by the ERDF under the Regional Competitiveness and Employment Objective, running from 2007 to 2013. The Regional Needs Analysis undertaken at the outset highlighted the need to enhance the supply and usage of ICT and to stimulate innovation, as key factors in securing future economic growth in our region.

The preparation of this Programme involved extensive consultations with national and regional policy makers and with interested stakeholders. It was here that we were able to bring many of the lessons and new ideas learned from our discussions with our ESTIIC partners into those consultations; ideas and suggestions considered previously in our partner regions were put before leading Irish policy makers for their consideration in an Irish context. This sharing of knowledge and experience is I believe the very essence of Interreg.

At a political level, the members of the Regional Assembly were particularly interested in the ESTIIC project. Nine members of the Assembly participated in a study trip to Asturias and Cantabria in November 2007, to look at the policies and experiences of promoting innovation in both Regions. The trip was very successful and since their return the members involved have been working on developing a policy document for promoting innovation in our region.

Another significant output is the number of sub-project participants who have indicated an interest in, or who have indicated that they already are, working on new projects and new ideas with their ESTIIC partners.

In conclusion, may I again thank all those involved - Interreg IIC Joint Technical Secretariat South zone, all the sub-projects, especially the lead partners, our partners in North Rhine-Westphalia and Cantabria and lead partner IDEPA in Asturias. I very much hope that we have the opportunity to co-operate on some project in the future.

A handwritten signature in dark ink, appearing to read 'Stephen Blair'.

Mr. Stephen Blair
Director, S&E Assembly

INTRODUCTION

The ESTIIC project 'Fostering Competitiveness through Innovation and the Information Society' was a 3 year Regional Framework Operation within the INTERREG IIIIC initiative. The project was approved by the IIIIC South Zone Programming Committee in April 2005, and finished in June 2008. Four regions took part in the project: Asturias and Cantabria from Spain, North Rhine-Westphalia from Germany and the Southern & Eastern region of Ireland. ESTIIC was led by the regional government of Asturias.

The ESTIIC regional partners have chosen two fields for collaboration: technological innovation and information society, both of considered as key policy areas for regional development. For each area the objectives were clearly identified:

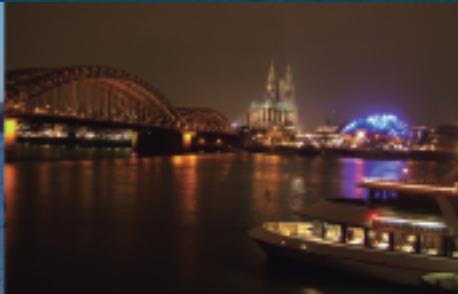
As regards Technologically-driven innovation:

- To develop initiatives and methods which would allow SME to access technological intelligence and to bring scientific offer more in line with their needs.
- To foster new tools to assist in processes of innovation, such as networks and innovation groups.

As regards Information Society (Broadband):

- To develop common initiatives to enforce, assess and further develop regional broadband strategies.
- To stimulate broadband applications usage.
- To modernise and improve the delivery of public services to private sector.

PARTNER REGIONS





ASTURIAS

The Principality of Asturias is geographically situated in the north west of Spain and has an area of some 10,604 km². Population and economic activity is largely concentrated in the central metropolitan area (80%).

Asturias' GVA in 2004 was e 13,197 millions, 2.2% of the Spanish GVA. Regional GVA per capita was e 12,290. Asturian economy comprises a mixture of numerous SMEs (66.967), with a few large companies (77), most of them from the industrial sector.

One of the key features of Asturias' economic structure is the importance of the industrial sector (not including construction), which represents 25.1% of the Region's GVA, four percentage points above the national average. The most prominent manufacturing industries are metal production, food processing and energy.

Services, which have grown strongly over the last decade, are the main constituent of regional GVA, providing 61.5% of the total. The Knowledge intensive services play an important role in our economy, especially the activities related to engineering, technical consultancy and information technologies.



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PARTNER: IDEPA

IDEPA – The Economic Development Agency of the Principality of Asturias is the Public Body, dependent on the Asturian Regional Administration, whose mission is to favour economic growth and generate employment in this autonomous region, by stimulating and providing support for business activity.

In order to carry out its work, the Economic Development Agency of the Principality of Asturias has its own personnel and budget and the support of organizations specialized in different fields of business promotion. In all of the latter, together with IDEPA or the regional Administration that have a majority participation, the main representatives of the regional business and financial world take part.

IDEPA, through its Business Innovation Department, aims to encourage the changeover from traditional activities, with low added value, to others making intensive use of advanced technologies.

CANTABRIA

Cantabria is a Region located in northern Spain covering an area of 5,300 km², with greater demographic concentration and economic activity in the region's coastal area. The city of Santander, the regional capital, is home to about 35% of the total population.

Over the last years Cantabria has experienced remarkable economic growth, above both the averages for Spain and the European Union.

The region's economy is distributed among agriculture (3.9%), industry (25.4%), construction (7.5%) and services (63.2%). The distribution of the workforce shows a similar pattern.

The industrial manufacturing sectors represented in the region and their respective weightings in the regional economy include: automotive components (24%), metalworking (21%), chemicals (13.7%), energy, cement and building materials, plastics, tobacco, food and fish processing.

The business community is dominated by small and medium sized businesses (SME), although there are some larger companies employing more than 500 people.

PARTNER: SODERCAN

SODERCAN (The Regional Development Agency of Cantabria) was established in 1985 and its shareholders include the Regional Government of Cantabria, the Cantabria Savings Bank and the Cantabria Chamber of Commerce, Industry and Navigation.

SODERCAN is in charge of the economic development of Cantabria and combines its goal of serving the regional public interest with support for new and existing businesses, the attraction of inward investments and the creation of an adequate operating environment for business and industry, hence contributing to regional economic growth and job creation.

SODERCAN is likewise in charge of implementing the regional policies on innovation, information technologies, industrial development and internationalization.

Business advice, consulting services, financial packages, as well as comprehensive assistance for prospective investors through all the stages of starting up a business, complete the services rendered.



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NORTH RHINE-WESTPHALIA (NRW)

North Rhine-Westphalia is located in the center of Europe and borders on the Netherlands and Belgium. It is the most populous and the most densely populated of the 16 federal states in Germany.

NRW earns EUR 481 billion or 22 % of the German GDP, putting it at the top of the German federal states. NRW generates 4.7 % (2004) of the EU-25 GDP. 20 of the 50 largest German companies are based here. The economy of NRW comprises a mixture of large corporations and small and medium-sized enterprises (SMEs). More than 700,000 SMEs provide about 70 percent of all jobs, generate 47 percent of the GVA and account for 41 percent of all investments in NRW.

NRW is the leading location of Germany's chemical and steel industry. Another big employer is mechanical engineering with around 216,000 employees. The state is Europe's no. 1 energy region producing about a third of Germany's electricity. Nevertheless, 71 % of the region's economic output is generated by service companies. 6 million people are working in this sector.

Especially the information technology and telecommunications industry (ICT) and the media sector have become a key industry employing about 350,000 people in 53,000 businesses.

PARTNER: STATE CHANCELLERY OF NORTH RHINE-WESTPHALIA

The Staatskanzlei (State Chancellery) is the office of the Prime Minister of North Rhine-Westphalia which is one of the 16 federal states of Germany. The Prime Minister heads the state's government, decides upon the guidelines of politics, represents the state and coordinates its politics. The State Chancellery disposes of special own responsibilities on issues of cultural and media policy.

The State Chancellery is also the seat of the Minister for Federal Affairs, Europe and the media. His responsibilities include basic issues of EU subsidies, European law, bilateral relations with EU countries and international relations as well as the state's representations in Berlin and Brussels.

On behalf of the State Chancellery, FTK Research Institute for Telecommunications operationally managed the implementation of the activities of RFO ESTIIC for North Rhine-Westphalia. FTK is a well-known research and competence centre for IT, telecommunications and digital media.



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SOUTHERN AND EASTERN REGION OF IRELAND

The Southern and Eastern Region covers a land area of 36,414 square kilometers (53% of the State land mass). The Region comprises 5 constituent NUTS III Regional Authority areas covering 20 NUTS IV local authorities. The population of the region is 2,879,000 (73.5% of the State).

Statistics are largely influenced by the strong economic performance of the Dublin Region over the past number of years. The key driver of the regional (and national) economy in recent years has been the growth in the services sector which accounts for more than two thirds of all persons employed in the region (with the strongest growth in the construction and financial sectors). The numbers employed in agriculture has been in steady decline over a prolonged period and now accounts for just over 5% of the workforce.

The Region's GVA in 2002 amounted to e 93,973 million while GVA per capita was e 32,641. The Region accounts for more than 80% of national output in manufacturing, construction and services and the growth in GVA for each of these sectors has exceeded 120% since the mid 1990's.

PARTNER: S&E REGIONAL ASSEMBLY

The Southern & Eastern Regional Assembly was established in 1999 following the designation of Ireland into 2 regions for the purposes of EU Funding. The Assembly is made up of 41 councillors who are nominated by their respective Local & Regional Authorities. The Regional Assembly provides the Chair and Secretariat for the Monitoring Committee of the Southern and Eastern Regional Operational Programme. The Assembly currently has a staff of 24, based at their headquarters in Waterford City.

The focus of the Regional Operational Programme 2007-2013 is on Innovation & the Knowledge Economy, Environment & Accessibility, & Sustainable Urban Development.

In 2006, the Assembly was designated as Managing & Certifying Authority for the Ireland-Wales Territorial Co-operation Programme 2007-2013.



SOUTHERN & EASTERN REGIONAL ASSEMBLY

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INTERREG IIIC

The INTERREG IIIC programme is one of the three strands of the European Community Initiative INTERREG III. INTERREG III is designed to strengthen economic and social cohesion in the European Union by promoting cross-border (strand A), trans-national (strand B) and interregional (strand C) co-operation. The overall objective of the INTERREG IIIC Programme, which focuses on interregional co-operation, is to improve the effectiveness of policies and instruments for regional development and cohesion in a structured way - through large-scale information exchange and sharing of experience.

Programme Funding and Programme zones

The INTERREG IIIC Programme is financed by the European Regional Development Fund (ERDF) and co-financed by national partners and participants. The total ERDF budget available for commitments to operations during the period 2000 to 2006 amounts to around 315.4 million EUR for all four Programme Zones.

The eligible INTERREG IIIC co-operation area covers the entire territory of the European Union - old and new Member States -, including insular and outermost areas. For programme management purposes, the territory of the European Union is divided into four Programme Zones: North, East, South and West. Each Zone area has its own programme management and decision-making structure.

Regional Framework Operations (RFO)

The activities of the Interreg IIIC Programme can be performed through 3 Types of Operations (Regional Framework Operations, networks and individual projects). A Regional Framework Operation (RFO) is a strategic co-operation between a group of regions, formed for the joint development of new approaches in regional development policy on a limited number of topics and joint priorities. This strategic framework can be considered as a kind of "mini-programme" where the regional partners can select sub-projects to be funded.



MANAGEMENT & COORDINATION

Steering Committee: The Steering Committee (SC) has been at the centre of all ESTIIC's activities and has taken all essential decisions concerning the overall management process of the RFO.

Central Management Team (CMT): composed of the ESTIIC Coordinator and the Financial Manager.

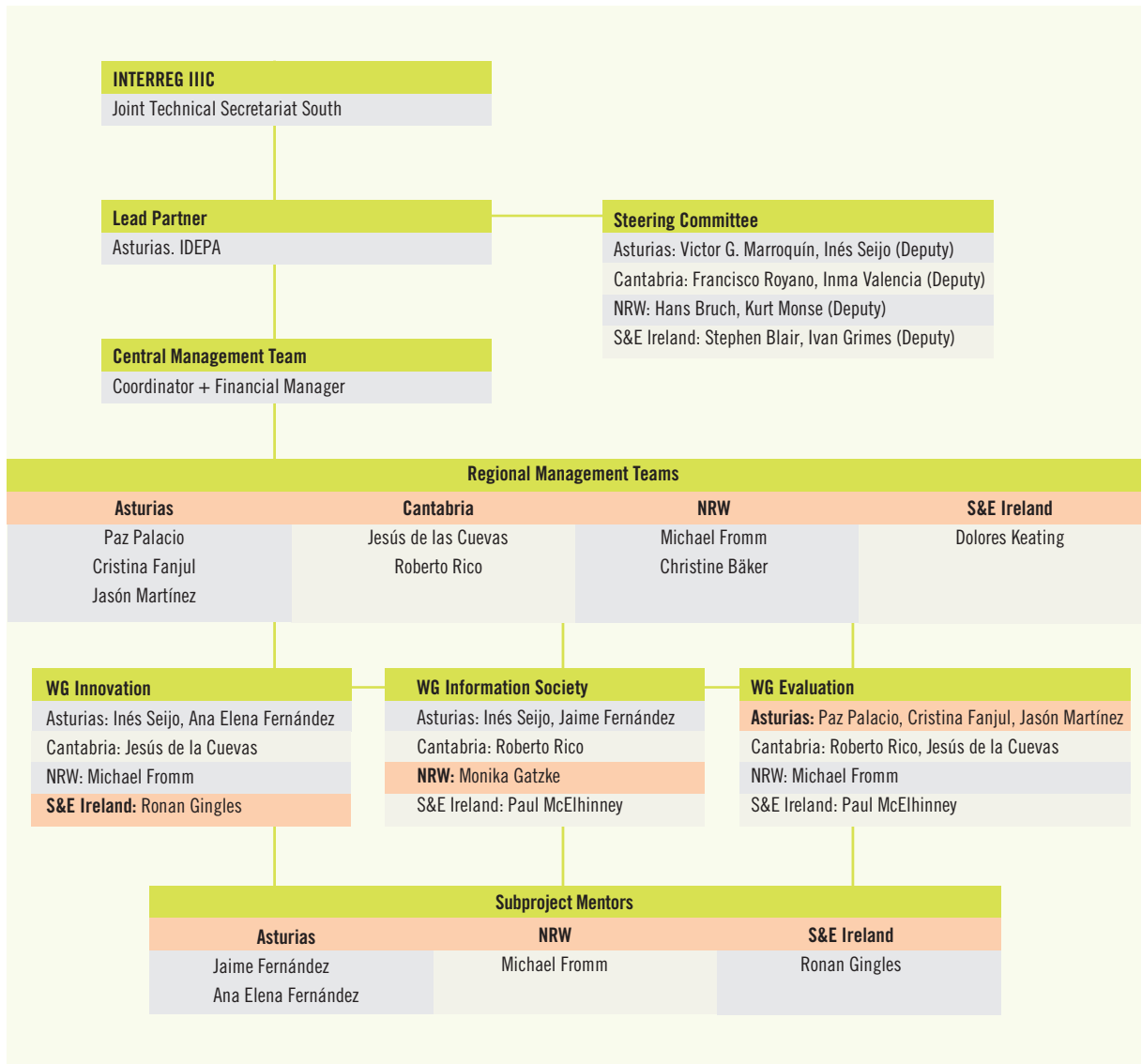
Regional Management Teams (RMTs): A RMT was in place in each of the partner regions and was responsible for the daily management of the operation in that region. The RMT also hosted the Regional Contact Point and was the advice centre for all sub-projects participants from that region.

Thematic Working Groups: The WGs played a vital role in the launching of the Call for Proposals, the subsequent selection procedure and the design and implementation of the additional and capitalisation activities. Thematic Working Group on Technological Innovation was coordinated by the Regional Partner of the Southern and Eastern Regional Assembly of Ireland. Thematic Working Group on Information Society was coordinated by the Regional Partner of North Rhine-Westphalia.

Evaluation Working Group: Its main activities were the coordination of the monitoring, evaluation and mainstreaming activities. The Lead Partner Asturias was responsible for this Working Group.

Subprojects Mentors: One nominated person per sub-project has been in charge of following the subprojects closely, and to check that milestones were accomplished in due time. The nominees have been the Innovation and Information Society Working Groups representatives for each subproject's Lead's region.





Budget lines	Compon 1 Management	Compon 2 Innovation	Compon 3 Info. Society	Compon 4 Evaluation	Compon 5 Promotion	Total	%
01 Staff costs	409.551	245.843	243.472	43.741	37.340	979.949	21,3%
02 Administrative costs	108.083	80.1111	95.393	16.425	12.907	312.920	6,8%
03 External Expertise	46.050	145.000	71.420	45.809	8.331	316.61	6,9%
04 Travel and Accomodation	69.739	45.827	47.682	20.338	16.954	200.542	4,4%
05 Meetings and Events	31.291	40.902	42.506	9.718	34.280	158.698	3,4%
06 Promotion	7.223	9.475	799	16	191.440	208.955	4,5%
09 Subprojects		1.180.000	1.226.648			2.406.648	52,2%
Subtotal 1-9	671.937	1.747.159	1.727.922	136.049	301.255	4.584.325	99,5%
10 Preparation costs						23.349	0,5%
Total costs per Component	671.937	1.747.159	1.727.922	136.049	301.255	TOTAL	
	14,6%	37,9%	37,5%	3,0%	6,5%	4.607.674	100,0%

	ERDF	Nacional Co-financing	Total per region
Asturias	€ 997.337	€ 332.445	€ 1.329.782
Cantabria	€ 744.562	€ 248.187	€ 992.750
Nrw	€ 592.437	€ 592.437	€ 1.184.875
S&E Ireland	€ 825.200	€ 275.066	€ 1.100.267
Total	€ 3.159.537	€ 1.448.137	€ 4.607.674



PROMOTION

In an interregional cooperation process like ESTIIC, communication, promotion, dissemination and publications is essential. IDEPA was responsible for setting up and implementing the Communication Plan, as well as the operation's logo and the corporate image. The objective of the promotion activities has been to make an effective use of the outputs produced by the RFO. To this effect, the communication strategy includes 3 main actors: the partners of the operation, the participants engaged in the sub-projects, and the general public.

The communication plan of ESTIIC had foreseen the production of a series of publications and promotional related materials such as folders, flyers, bulletins, posters, self-standing banners, books and booklets, etc.

Brochures: Two brochures were produced in 3 languages (English, Spanish and German). The first brochure was issued in March 2006 at the same time as the launching of the call for proposals. The target group of this brochure was the general public, and specifically the potential participants of the sub-projects (Public Administrations, Institutes of Technology, Universities, etc). The second brochure was issued in December 2007 with information of the eight subprojects approved.



Website: www.estiic.org shows the full picture of ESTIIC providing information about the structure, the regions, the topics, objectives, results as well as downloads of the published materials. Most important is the ESTIIC website as platform for the subprojects, descriptions, contacts and outputs are available and can be downloaded. The ESTIIC website is linked to the websites of INTERREG IIC, to all regional partners and the subprojects and the subproject participant's institutions.

For the launch of the Call for Proposals, the ESTIIC website was the essential tool. Through the website many regional and local actors could be mobilised and motivated to get acquainted with the RFO-process and to allow direct access to topics and potential partners. The website access was the ideal means to make the Call for Proposals transparent and efficient.

Info days and seminars: Four information days took place after the launching of the call for proposals, one in each partner region.

Audiovisual materials: Audiovisual materials have been produced for raising awareness and publicity of ESTIIC.

Press releases: Several press releases were issued in order to raise the awareness of ESTIIC and to promote the presence of potential participants interested in submitting proposals of sub-projects.

Newsletters: Four periodical newsletters were produced by the Central Management Team with contributions from the Regional Management Teams as well as the Working Groups. The target groups of these newsletters were the beneficiaries of this project, as well as managing authorities and subscribers of the mailing list. The objective has been to inform about the objectives, the state of the working process, and the results achieved.

Final Conference: Organised in Asturias in May 2008.

ESTIIC has participated in several European forums with the aim to share the experience gained throughout the project and learn from other regions.



MEETINGS

	2005	2006	2007	2008
January-June		<p>2nd Working Groups meeting February, 6&7 Düsseldorf, NRW</p> <p>2nd Steering Committee meeting June, 6 Dublin, S&E Ireland</p> <p>3rd Working Groups meeting June, 20&21 Santander, Cantabria</p> <p>3rd Steering Committee meeting June, 27 Santander, Cantabria</p>	<p>Evaluation Working Group meeting March, 8 Asturias House, Brussels</p> <p>5th Working Groups meeting May, 3&4 Dublin, S&E Ireland</p> <p>4th Steering Committee meeting June, 12 Asturias House, Brussels</p>	<p>7th Working Groups meeting April, 16 Asturias House, Brussels</p>
July-December	<p>Kick-off meeting September 26&27 Gijón (Asturias)</p> <p>1st Working Groups meeting December, 1&2 Cork, S&E Ireland</p> <p>1st Steering Committee meeting December, 14 Asturias House, Brussels</p>	<p>4th Working Groups meeting November, 2&3 Oviedo, Asturias</p>	<p>6th Working Groups meeting November, 7&8 Cologne, NRW</p>	<p>8th Working Groups meeting May, 29 Gijón, Asturias</p> <p>5th Steering Committee meeting May, 29 Gijón, Asturias</p>

SUBPROJECTS

A simultaneous call for proposals was published in the spring of 2006 to identify subprojects to be carried out on a trans-national basis. The call targeted the involvement of local and regional government bodies; development agencies; business organisations; third-level education establishments and research and technology centres as likely participants.

14 subproject proposals were received of which the ESTIIC Steering Committee selected 8 for funding: 3 led by Irish participants, 3 led by Asturian participants and 2 by German participants. The relevance of the sub-projects was assured through a structured selection procedure. The 8 subprojects approved were developed from July 2006 to December 2007 with a total budget of 2.4 million and involved 27 organisations from the 4 regions. Each of the 8 sub-projects covered one or two of the ESTIIC objectives. Moreover, the approved subprojects covered different levels of intensity in their cooperation; the combination of different approaches was very useful and effective in order to meet the ESTIIC objectives.





Title	Enabling RFID Technologies in SMEs
Priority topic	Cross-sectional Technologies
Lead participant	Institute of Technology, Tralee (S&E)
Participants	Fraunhofer Institute for Material Flow and Logistics (NRW) Component Technological Centre (CANT) PRODINTEC Foundation (AST)
Budget	512.366,03 euros

The RFID4SME subproject has been a joint initiative of European research institutes that aimed to assist small and medium sized enterprises, SMEs, by facilitating their learning and understanding of the benefits and risks associated with radio frequency identification - RFID. As one of its main goals RFID4SME provided information for different types of users, irrespective of their experience with the integration of RFID technology into their company:

- Providing best practice-studies,
- Developing RFID guidelines for beginners and advanced users,
- Supporting RFID pilot projects and
- Arranging RFID events, workshops and seminars.

The objectives of this project were to prepare and equip the SMEs sector for the evolving requirement by customers, retailers, government agencies and others to use RFID technologies and to improve processes during the production process with RFID technologies. This requirement is both driven from a regulatory and market perspective. It is incumbent on all SMEs to be fully aware of the RFID technology, its benefits, limitations and applications to internal business processes. This has been facilitated through the network outlined in this project. SMEs in all partner regions have benefited from this project since all partners had different industry focuses. Consequently, the main focus within this project was to collect information from regional partners and provide this information for

different types of users. The development of practical applications and the setting up of a European RFID network to connect SMEs in order to give and get expertise from different regions has been necessary to fulfil global demands.

Highlights

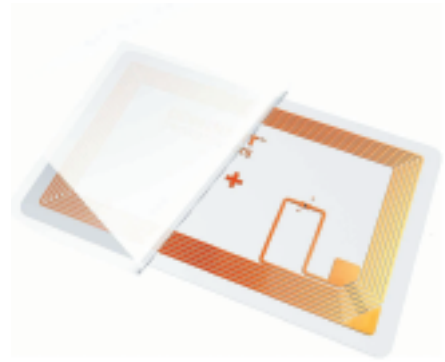
This project provided an excellent partnership for the transfer of knowledge between regions. Fraunhofer IML has a world-class enterprise level facility for designing, testing & demonstrating RFID technology deployments up to and including multinational sized solutions. It is important for SMEs to be aware of enterprise level RFID implementations in order to fully integrate SME solutions. ITT has excellent programmes with mobile/GSM solutions, which can provide excellent return-on-investment opportunities to SMEs. PRODINTEC has the regional network to transfer RFID knowledge to regional companies and CTC has expertise with antennae design, access control technology and traceability.

The RFID events that ran in each region were extremely well organised and attended by more than 500 SMEs. The knowledge acquired in through the design, implementation, and deployment of this subproject was disseminated at these events. This knowledge also gave each partner the practical experience required to provide direct support to SMEs as they began to use RFID in their business processes. The training courses brought SMEs into contact with each of the partners. RFID4SME also launched a very popular web site which has continued the dissemination of RFID best practices.

RFID4SME has produced a great number of outputs. 16 Guides and case studies, 10 pilot projects, 5 transregional events and 4 training courses. The methodology and tools applied are suitable to be transferred and knowledge gained by partners gave practical experience required to provide direct support to SMEs.

Contributions to ESTIIC objectives

RFID is a key technology in the enhancement of competitive business processes. This project encouraged a wide range of SMEs to consider, pilot, and to adopt emerging RFID technologies. The regions also participated in numerous regional events in which RFID innovations were promoted. These included events directly sponsored as part of the subproject as well as other events in which regional partners participated through talks and direct contact. RFID4SME participated in the Lisbon RFID conference hosted by the EU and future action is expected to promote policy and standards efforts in each of the four regions.





Title	Cabrales Cheese Traceability based on RFID Technologies
Priority topic	Cross-sectional Technologies
Lead participant	Asturias Council for Fishing and Rural Land (AS)
Participants	Department of Logistics, University of Dortmund (NRW)
Budget	117.000 euros

Cabrales cheese is a blue cheese which is made from a mixture of cows' and goats' milk and ripened in mountain caves with no electricity or water in Asturias. It is only made by family-owned businesses that produce the cheese in relatively small amounts. Nevertheless, these farmers, like all businesses in the food industry, are obliged to comply with EU legislation which requires them to track and trace their product throughout the production process.

The goal of this sub-project has been to develop a reliable labelling for each individual cheese which is applied at the first stage of production (filling the raw milk into the mould), surviving the ripening process and finally following the cheese on the wrapping into food shops.

During the first stage of production, a transponder was applied to the cheese; the challenge was to develop a transponder which was small enough to allow the cheese to breathe during the ripening process and to ensure that no external fibres or flavourings got into the cheese during the process.

During packaging, the transponder was removed and replaced by a serial number which allowed the cheese to be traced back to source from the counter at the supermarket. By entering this serial number into a website, the consumer is able to find out which farm supplied the milk that went into the cheese, when the cheese was made and how long it spent in the ripening caves.



Highlights

The project's developments showed that it is possible to tag individual cheese with RFID and to record and maintain specific data in order to be able to track and trace each cheese. Based on the generated data it can be told which farmer made the cheese, how it is composed and for which time the cheese has been in the several production steps.

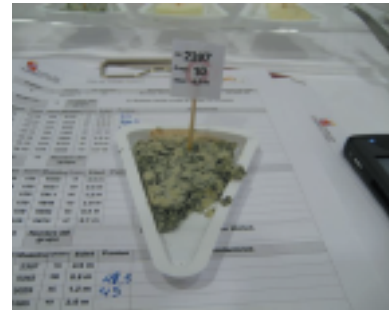
RFID technology used with this type of cheese is therefore suitable for fulfilling respective directives of the European Union like 178/2002 or 1935/2004. The technology itself can be transferred to any other food, only the application method and usage level (item, case and pallet) might be different.

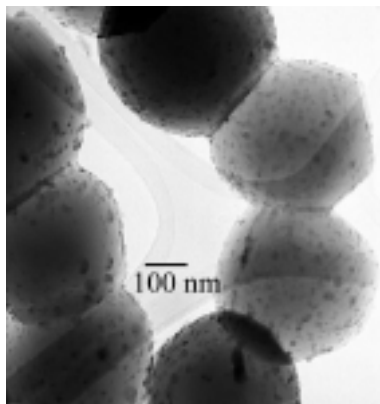
For Asturias' Queso Cabrales, RFID can be used to tag each cheese individually and on item level during the complete production process. As long as it is removed before packaging, the transponders can be used in a circulation system, which makes the price of each tag more or less uninteresting. The consumer does not need to have his own RFID reader in order to read the cheese's history, because he can copy the number printed on the packaging to a website. From the production point of view, each step can be monitored and recorded, so that it can be made sure that each cheese has the high quality it should have. Thus, the regional product of Queso Cabrales can be controlled and protected against fraud.

During 2007 CABRFID was presented in the two main regional fairs related with agrifood sector in Asturias: Expoalimentaria Fair in Avilés and Agropec Fair in Gijón. The project was also presented during the conference Advanced Storage Management held in Madrid and organized by IIR Spain (Institute for International Research).

Contributions to the ESTIIC objectives

The knowledge gained from this project has been of relevance for a large number of SMEs in the agrifood sector. Consequently, SMEs have been given a much better awareness of the potential advantages of RFID and have been informed of specific applications of this technology. This sub-project has benefited from unprecedented media interest both at national and at European level contributing to promote the RFID technologies for foodstuffs in Europe.





Title	Dissemination and awareness-raising in industrial apply of nanotechnologies in R+D+i of products and process in SMEs
Priority topic	Cross-sectional Technologies
Lead participant	Fundación ITMA, Technological Institute for Materials (AS)
Participants	CSIC – Coal National Institute (AS) University of Oviedo. Nanotechnology area (AS) University of Applied Sciences Fachhochschule Gelsenkierchen (NRW)
Budget	144.633,45 euros

Nanotechnology has already made its appearance in many spheres of application from material technology to biotechnology. Nevertheless the potential of this cross-sectional technology hasn't, to a large extent, been properly tapped. In particular, in spite of being very innovative in approach and outlook, many SMEs often lack the capacity and specialised staff to access the economic and innovative opportunities associated with technology or else don't have access to information and the available support relevant for practical applications.

In NANO-SME a range of information materials were specifically designed and project demos and events were organised for specific target groups to inform and make businesses aware of the opportunities. A guide for information about the spheres of application of nanotechnology was published and distributed among 700 SMEs.



Highlights

The skills and capacities of the research institutes involved in Asturias and NRW were closely networked with one another. In addition to this the aim has been to co-ordinate and work together with networks in the nanotechnology sector. The project has contributed to stepping up the transfer between research institutes and businesses. Consequently this makes it possible to boost investment activity in the application of nanotechnology in research and development.

Contributions to the ESTIIC objectives

The NANO-SME subproject has contributed to the dissemination of nanotechnology in different industrial sectors of Asturias. According to the dialogue established between subproject partners and regional SMEs, the subproject has helped to present nanotechnology not only as a new paradigm but also as a set of processes not very far from their own skills. To this effect, the dialogue has driven to an increasing interest of SMEs about the use of nanoparticles or nanotubes in their conventional materials or, even the synthesis of new ones





Title	»Customized Publishing« Co-operation network for individualised publishing strategies
Priority topic	Clusters and Networks
Lead participant	Bergische Universität Wuppertal (NRW)
Participants	Dublin Institute of Technology (S&E)
Budget	171.000 euros

The supply of information is increasing at exponential rates worldwide. In contrast to this, the demand for more specific and individualised information is growing, resulting in an increasing requirement for more customised publishing. Technological key innovations basically allow for such customised publishing to a certain extent. Recent developments in mobile communication technologies, however, have now enabled completely new forms of individualised information transmission. This new technological platform is bringing about a large potential for business opportunities particularly for small and medium sized regionally restricted information service-providing firms.

CP has analysed which businesses need to cooperate in which way to be able to professionally offer individualised products to their customers. Additionally, in order to support start ups, employment, and economic growth in the future market of customized publishing the subproject has published a set of strategic guidelines and teaching tools and has developed good practice examples.

Highlights

The outcome of the project's regional analyses and context factors in Ireland and NRW can be clearly addressed by initiating a sustainable mobilisation impact on all relevant innovation sectors and actors. Consultants involved in the subproject have shifted their advisory services more towards the conversion from traditional to new media products and services. Professional associations from NRW (like the

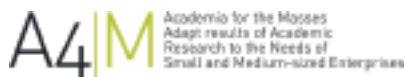
VDM-NRW) are now planning to set up comprehensive studies on “new challenges in mobile and individualised publishing” to provide more in-depth insights into the innovation process for their clients. Publishers from NRW are more sensitive towards business options as a result of cross-fertilization between classical print and mobile services; the printing industry sector is developing new initiatives to diversify along the digital supply chain embracing also new service providers and new market actors (online-agencies, communication providers etc.).

The pilot project developed with the National Print Museum of Ireland created the service Print Museum Mobile Website. Each artefact on display showed a reference number, that once introduced in the mobile device together with an e-mail address gave the visitor access to the “mobile museum” through an URL. Then the Museum would deliver customised information on the visit carried out, the items selected, the forthcoming events - that could be checked in situ with a phone with wi-fi technology or when going back home. This service opened a line of dialogue between the visitor and the museum – thereby creating a relationship. It obtained Visitor details in an unobtrusive manner and created an opportunity for future communications to visitors with news of upcoming events and promotions.

Contributions to the ESTIIC objectives

The CP results were discussed with the State Chancellery NRW and will serve the basis for a new NRW funding programme that will be launched for the mobile publishing sector within the implementation of the EU EFRD programme 2007-2013. The topics and calls for 2008 are covering all relevant open innovation questions along the main findings of the ESTIIC project: developing new business models for mobile content delivery and applications, establishing new partnerships between actors from different industry sectors, developing new personal and organizational competences for the print and publishing sector, leveraging product and service innovations based on converting technologies to better serve individual demands of end-users. In that sense the ESTIIC project has unfolded a great impact to sustain the activities of all innovation actors concerned to improve growth and employment as well as future stability in the industry.





Title	Academia for the Masses – Adapt Results of Academic Research to the Needs of Small and Medium-sized Enterprises (SME)
Priority topic	Industry and Academia
Lead participant	Horst Görtz Institute for IT Security (NRW)
Participants	Dublin City University (S&E) University of Oviedo – Technology Transfer Office (AS) Sodercan (CANT)
Budget	235.000 euros



The subject of IT security is a good example for a highly complex and dynamic topic with increasing importance. Especially small companies have a strong demand for IT security know-how, since in general they are not able to employ specialized IT security experts. In addition, good IT security experts are rare in the market. Therefore the ideal solution for many SMEs is to develop their own IT security knowledge inside the company, by educating some staff members. Due to the small number of employees, many small companies are not able to send their employees to training courses over several days a year. Therefore, the goal of A4M was to explore the possibilities of internet-based e-learning for SMEs and to provide an e-learning platform on the field of IT security, suiting the demands of SMEs in the regions of the subproject participants

Highlights

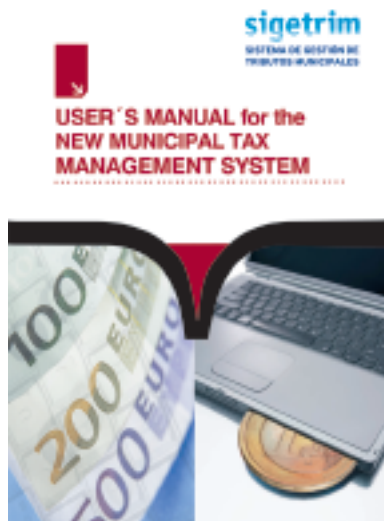
A questionnaire was developed and a total number of 450 SMEs were contacted. The participating companies were able to choose from several proposed course topics. In this sense, several training courses have been offered with topics dealing with network security, systems security and internet security. This information was offered in English, German and Spanish.

Contributions to the ESTIIC objectives

The e-learning platform has improved the IT security knowledge of companies from the participating regions. This improved knowledge has led to a better protection of companies against threats which result from the use of information technology in the daily business processes. In addition, the improved knowledge and establishment of contacts with university researchers might lead to innovative products for participating companies which operate in the field of IT security.

There is no doubt that by strengthening the relationship between academia and the private sector, we can accelerate the development of new and improved products, processes and services. Furthermore, academia can provide essential capabilities in research and development in support of pilots, prototypes or concepts that lead to products and profits. In turn, universities and institutes can benefit from ideas for and material support to their endeavours, while gaining experience and insights into management practices.





Title	City Broadband Exchange for SMEs
Priority topic	Future of Broadband and Regional Development
Lead participant	Shannon Broadband (S&E)
Participants	Cologne City Council (NRW) Asociación IDEM (CANT) Emcanta (CANT) South East Regional Authority (S&E) Mid West Regional Authority (S&E)
Budget	479.780 euros

Across Europe many regional development initiatives have to date focused on addressing the broadband supply side deficits and infrastructural gaps. However there is a growing awareness that supply side initiatives by themselves are unlikely to yield optimum results. Parallel demand side initiatives are required to drive the take-up and usage of such broadband infrastructure and to create a competitive environment in all regions. Hence the CBExS subproject has aimed at generating greater awareness of the opportunities presented by broadband networks, to drive demand for extended broadband services and to facilitate the exploitation of broadband amongst the SMEs, citizens and other stakeholders in the target areas. The project addressed this topic directly through the transfer of relevant knowledge and the development of tangible broadband demonstration projects in each region. This has promoted and enhanced the use and opportunities presented by the fact that broadband communications infrastructure is creating new capacities in urban areas.

Highlights

Shannon Broadband, the South-East Regional Authority and the Mid-West Regional Authority in the Southern & Eastern Region of Ireland have a strong record in working to attract new broadband carriers, infrastructure and services

into the area. Cologne City Council has supported the development of broadband and recognises that the expansion of broadband in Cologne has made an important contribution towards underpinning the existing dynamic economic conditions. IDEM and EMCANTA in Cantabria have developed an active program to enlarge the capacity of SMEs, citizens and the public authorities. The partners have developing demonstrator projects in the use of broadband and digital content by SMEs and other regional stakeholders. These initiatives included:

- Direct interface with SMEs, particularly highlighting the potential use of broadband;
- Creating awareness among other stakeholders, especially citizens;
- Developing communities of broadband users among the stakeholder population;
- Informing business and the public of the value of broadband;
- Encouraging collaboration among SMEs in the digital media sector;
- Animating the formation of clusters of SMEs around broadband;
- Demonstration projects on the exploitation of broadband by SMEs and other stakeholders.

Contributions to the ESTIIC objectives

CBExS has contributed to the strategic development of the information society based on broadband by pilot testing regional techniques for stimulating the use of broadband and by showing how these techniques work in a variety of national settings. The pilot action has aimed to introduce new methods/approaches to improve the delivery of existing broadband infrastructure programs and instruments of regional policy. It is crucial that SMEs and citizens have equality of access to a quality broadband service.





Title	Sleep Monitoring in the Home
Priority topic	Business Potentials of e-Health
Lead participant	University College Dublin (S&E)
Participants	Zentrum für Telematik im Gesundheitswesen (NRW) Hospital Universitario Marqués de Valdecilla (CANT) Fundación CTIC (AS) Dirección General de Salud Pública y Planificación (AS) University College Dublin (S&E)
Budget	419.648

Sleep disorder respiration and disturbed sleep are associated with serious chronic health problems as well as associated with a variety of diseases (sleep apnea, heart failure, chronic obstructive pulmonary disease). Against this background, Irish, Spanish and German experts from the spheres of science, medicine and technological development tested the potential of telemonitoring in general and sleep monitoring in particular for preventative strategies.

Highlights

SMITH partnered with an external supplier to build initial prototypes of the non-invasive monitor. These prototypes were then used in studies in Ireland, Spain and Germany. Researchers were able to show that the non-invasive monitor was equivalent in output to the current gold-standard for respiratory effort measurement. CTIC provided a complete technical prototype of the sleep monitor integrated with a set-top box based home health capability. This allowed users to access the data measurement capability through a set-top box on the TV in their home, and also allowed a health care user to view the data on a website. HUMV conducted two studies, one in which the non-invasive sensor was directly compared with a polysomnogram in an ideal sleep laboratory environment, and another in which the non-invasive measurements were made in the home

environment, and compared to actimetry. The studies indicated that the sensor gave results similar to a respiratory inductance band. UCD also conducted two studies, one in a sleep laboratory environment on 15 control subjects (which provided similar results to the HUMV study), and a second study on 30 subjects with chronic lower back pain (CLBP). The study on CLBP showed that sleep quality was disrupted in this patient group relative to age and gender matched norms. ZTG facilitated an introduction to several German medical researchers, and the technology was evaluated on a trial basis by several doctors.

Contributions to the ESTIIC objectives

e-Health is already being deployed widely across Europe. Health care professionals and patients are seeing the benefits through better patient care, improved referral times and other benefits that emerge from health information networks and telemedicine services. The key factors behind this success are the long-term commitment and investment by national and regional health authorities together with the investment of industry and adoption by users. The positive results of this subproject will foster in the participating regions an economic analysis of the overall needs/costs for integrating the clinical services into the health network, this report will be specifically aimed to provide market needs analysis for the European SMEs sector involved in Home Health. The long-term sustainability of the project will be determined through the development of a network of clinical service providers who can deploy the system. Therefore, the project will provide both basic research on the value of convenient sleep monitoring, as well as providing an overall implementation strategy included.





Title	International Spatial Data Exchange Platform
Priority topic	Use of Spatial Information in Business Processes
Lead participant	Fundación CTIC (AS)
Participants	CeGi Center for Geoinformation GmbH (NRW)
Budget	330.000

Usage of Spatial Information for Business Enterprises is an economic good of outstanding impact. Half of all enterprises acting in the market use spatial information for business processes. About 80 percent of all decisions that are made in enterprises are directly or indirectly related to spatial information. On the other hand European regions support and administer different information related to industrial areas and business centres. This information is used to support the establishment of new companies, for monitoring the industrial areas in development and for planning future business parks. The idea of the project was to expand the awareness of the usage of spatial information in a broad range of key actors.

Highlights

ISDEP has helped IDEPA to develop its Spatial Data Infrastructure (SDI) for the publication of the cartographic information of the industrial areas in Asturias. Moreover, the service is provided for accessing information from mobile devices together with an application for updating information in the field with a PDA. This information is used to support the establishment of new companies, for monitoring the industrial areas in development and for planning future business parks. The ISDEP sub-project has also focused on drawing the attention of the public to the potential of spatial information and on bringing users and suppliers of spatial information into close contact with each other.

Contributions to the ESTIIC objectives

The application of this type of technology is really very wide and both the public and private sector showed great interest in the results. The technologies developed in the sphere of the subproject will be kept in mind when designing the new technology policies and strategies at regional level. Through the dissemination activities, which included seminars with the ICT Cluster, great interest was shown by the private sector in the possible applications and results of the project such as geomarketing, sustainable management of natural resources and management of product traceability in multimodal logistics. For this, it will be determinant the convergence between the standards promoted by organizations such as W3C and OGC for their shared use in a heterogeneous and interoperable environment. Recommendations exist by International organizations (OCDE) where Governments are urged to promote the use of special technologies to satisfy the needs of civil society.



ADDITIONAL ACTIVITIES



Our commitment with ESTIIC until the end, together with our capacity of reaction pulled us to undertake further initiatives. During the last phase of ESTIIC the regional partners discussed and approved the development of additional activities not included in the original proposal. These activities were linked to the topics tackled by subprojects with the aim to reinforce their results, thus ensuring the achievement of the initial objectives in each region.

ASTURIAS

Study: Nanotechnology in Asturias

Topic: Cross-sectional technologies

This study distinguishes two different aspects in the development and the role of nanotechnology in the economic and social framework of the region: Scientific research and industrial application. In order to know the state of scientific research, technological and public research centres have been considered. In the case of industrial application, information coming from companies and industrial platforms has been evaluated.

Study: Microtechnology in Asturias

Topic: Cross-sectional technologies

The aim of this report is to show the state-of-the-art Micro technologies in Asturias in order to provide a vision of the current research activities in the field and the level of implication for industries in the region in applying these technologies into real applications at the industries. The outputs of this report are compared with those obtained from similar studies already carried out at both national and international level.

Workshop: Individualised Publishing – Challenges for the Asturian Publishing Houses

Topic: Clusters and Networks

A 2-day workshop was organised in IDEPA on the 21st and 22nd of February 2008. The German experts Prof. Heinz-Reiner Treichel (Bergische Universität Wuppertal) and Dr. Joachim Hafkesbrink (Innowise) provided a comprehensive overview on trends, innovation drivers, obstacles, opportunities and threats in the new media markets, delineated options for business models and strategies and presented a toolbox and best practice examples from NRW publishing houses. The objective was to help the Publishers Association of Asturias to develop strategies in individualised publishing.

Workshop: Awareness Creation for the use of Spatial Information in business processes and to enrich value chains.

Topic: Awareness Creation for the Use of Spatial Information in Business Processes and to Enrich Value Chains

In Asturias, there is an interested group of companies already working with geospatial information. Therefore a 2-day workshop was organised in IDEPA on the 28th and 29th of May 2008. The German experts Dr. Bodo Bernsdorf (Center for Geoinformation, CeGi) and Dr. Roland Wagner (Münster University) helped participants to learn about new market opportunities and gain knowledge on technical aspects.

CANTABRIA

Programme: Promoting innovation while bridging university and enterprises

Topic: Industry and Academia

Through this initiative it has designed and developed a full training and educational programme focused on innovation management and covering all stages of the process: from designing the contents of the programme/course itself to creating a support framework for SMEs hiring innovation managers, hence bridging training and education with business needs and creation of employment.

Study: ICT Security Cluster

Topic: Clusters and Networks

Starting in autumn 2007, Sodercan has been promoting the creation of a regional cluster with those information and communication technology based firms, some of them spin-offs from the active local academic community, that hold strategic interests regarding the security sector.

The outcomes of this exercise have suggested that the initial framing of ITC-based firms should be enriched from the inclusion of leading public works contractors based in Cantabria, with responsibility in designing and putting up critical infrastructures and thus, adding value in terms of heterogeneity within the cluster.

NRW

International conference: Eat more healthy food - but safe: Food and RFID

Topic: Cross-sectional technologies

The international conference was held in Duisburg (NRW) the 25th of October 2007 and informed on the chances of radio frequency identification in the food sector. Introduction talks and three workshops focused on single topics and a lively panel discussion developed a realistic picture of the opportunities and potential of the RFID technology in the food branch. Thus the visitors were supplied not only with visions about things to come, but also comprehensively informed about difficulties that are still to be mastered.

Study: Research and Preparation of Development-Potentials of Application-Solutions in the Overlapping Area of Spatial information-Application and RFID in North Rhine-Westphalia

Topic: Awareness Creation for the Use of Spatial Information in Business Processes and to Enrich Value Chains

RFID and spatial information-processing are application areas with points of contact. Several examples for a successful connection of geoRFID are already on the market. But the idea hasn't yet been assessed accurately. The analysis of interview results shows which weaknesses face a successful further

development of the overlapping area of geoRFID. These weaknesses and dangers must be overcome to promote the development of geoRFID and to give both branches the opportunity to develop new areas of application and that way to develop new markets.

Study: Cluster development and management – NRW.ICT

Topic: Clusters and networks

This study analyses the circumstances for the development of an ICT cluster in the region of North Rhine-Westphalia. The region is taken as an example to show other regions possible approaches towards the development of a cluster. North Rhine-Westphalia is a region with a long tradition and a main focus on information and communication technologies. With the great influence, ICT have on many other sectors of industry, it is an example that might be helpful and instructive to other European regions.

Study visit: Digital Cities

Topic: Future of Broadband and Regional Development

From the 27th to the 29th of January 2008, the ESTIIC partners from NRW conducted a study visit to Asturias on the topic of “Digital Cities” comprising a workshop at the CTIC Foundation in Gijón together with partners from Cantabria and a meeting with the State Secretary in charge of the region's broadband policy formulation at the Asturian Ministry for Economic Affairs in Oviedo. The workshop focused on the strategies for the provision of complete broadband coverage and the improvement of public services and innovative ICT applications.

International conference: Provision of Broadband in NRW – Location Quality for Rural Regions

Topic: Future of Broadband and Regional Development

The conference held in Düsseldorf on 12th June 2008 as a major event for disseminating and mainstreaming turned out a great success. More than 220 participants, among them 5 members of the NRW parliament, 20 mayors, 32 heads of regional and economic development agencies as well as numerous other policy-makers accepted the invitation. Focus

was on the provision of broadband in rural regions. Well-known experts and practitioners presented future prospects for broadband activities, specific challenges for rural communities and options for action.

S&E IRELAND

International conference: Developing Competitive Knowledge-based Regional Economies

Topic: Cross-sectional technologies

More than 150 decision-makers, economists, entrepreneurs and technologists met in Kilkenny on 11-12 October 2007. The aim was to explore how regional economies can best plan for their competitive future through boosting investment in RTD and innovation and maximising the benefits from such investments by effective knowledge use and collaborative working among organisations. The event benefited from the presence of two Irish government ministers: John McGuinness and Martin Cullen as well as an impressive array of national and local print media coverage.

Study visit: Regional initiatives in Innovation and ICT

Topic: Cross-sectional technologies

A nine member delegation of elected representatives from all corners of the Southern & Eastern Region of Ireland made a 3-day visit of Northern Spain from 19-21 November 2007 in a bid to gain an insight into how their Spanish partner regions approach the imposing task of day-to-day management of the twin themes upon which ESTIIC is based. An opportunity to appreciate Spanish perspectives on how regional initiatives in Innovation and ICT can drive local economies internally, nationally and internationally.

Workshop: CP subproject, extended communication and dissemination

Topic: Clusters and Networks

The Customized Publishing subproject team at the Department of Printing, Dublin Institute of Technology held a number of events during May 2008. These included a Chief Executive

Officers event which was used to introduce participants to the developing communication channels and the necessary strategies to compete in the high value added area of customized publishing. In excess of 27 small to medium enterprises were represented.

International conference: Is Connecting Bits to Atoms Sufficient?

Topic: Cross-sectional technologies

On 22nd April 2008 in the Institute of Technology Tralee, a conference was held to discuss the need for and role of generating knowledge from the huge amount of data that system's such as RFID can generate. Speakers at the symposium illustrated through their areas of expertise why data (bits) about things (atoms) is necessary but insufficient in decision support systems, unless data can be converted to information. Attendees at the conference included representatives of SME's both local and national, government representatives the form of Enterprise Ireland and Shannon Development and representatives from other research groups with similar interests and vision.

ESTIIC aim has been not only to improve regional cooperation and carry out specific technology but to apprehend the knowledge obtained throughout those collaborative projects and make it useful for other regions to help them as well as ourselves to take the right direction in view of a challenging future. For this, three capitalisation activities were approved. We consider the final output of these activities, the European ICT Manifesto for the Regions an efficient tool for attaining this goal.

Think Tank: Identifying future ICT trends of exceptional importance for regional economic change.

The meeting, held at IDEPA premises in Brussels on January 31st, 2008 gathered more than 25 European experts of the research sector and ICT enterprises as well as representatives of relevant EU, national and regional institutions from Italy, Ireland, Germany, Spain, Belgium, Denmark, Sweden, England, The Netherlands and Finland.

Well-known experts like Prof. Jean-Claude Burgelmann from the Bureau of European Policy Advisors, Prof. Luc Soete from UNU MERIT accepted our invitation as well as representatives from important european clusters like Dr. Kari Tilli from Tekes Technology in Finland or Peter Hojerback, who is managing director of the Oresund IT – a cross-border IT cluster in Denmark and Sweden. The aim was to identify the future ICT trends of exceptional importance for regional economic change. RFID applications to logistic, production and commerce, the use of service oriented architecture (SOA) to the development of business models, the regional, national or international implementation of geospatial information, the good practices in order to protect the confidentiality and security of information, and the use of mobile devices in order to generate new business models are some of the potentialities that the group of experts identified.

International conference: Regional Policies for Technological Innovation and the Information Society for SMEs, Groundwork and next steps.

The conference was organised in Brussels in April 2008. The event took place in the offices of the German region of North Rhine Westphalia and served to add the ideas of new experts in the application of ICT for regional development to the debate initiated in the Think-Tank organised in January 2008.

Among those attending were a large number of European regions supported by leading members of the European Commission. Ms. Linda Mauperon, member of the cabinet of Ms. Viviane Reding, the European Commissioner for the Information Society and Media, emphasised the key role of ICT for the future of Europe and its regions. In the exchange of ideas following the presentations, it is worth noting the participation of Ms. Madeleine Mahovsky, member of the cabinet of Ms. Danuta Hübner, the European Commissioner for Regional Policy. For Ms. Mahovsky the most important point of the debate centred on improving productivity and development in the regions. To achieve this, there must be a commitment to endogenous growth in the most underdeveloped regions, in order to allow them to catch up.

With this conference the ESTIIC project focused its efforts on dissemination of the results and increased dialogue between the regions taking part, while highlighting its leading role in economic development and convergence.

Internet Protocol Television

Short spots from the subprojects, the Think Tank, the Brussels conference and the Final conference have been broadcasted using the IP TV platform developed by IDEPA.



IDEPA TV

THE EUROPEAN ICT MANIFESTO FOR THE REGIONS

Identifying future ICT trends of exceptional importance for regional economic change and successfully incorporating them into proactive regional policy approaches.

The European ICT Manifesto for the Regions has been a very important output of the work carried out in the ESTIIC project. The main objective of the Manifesto has been to make the results of the subprojects useful for regional policy makers because the potential of Information and Communication Technologies identified in the framework of the subprojects can be successfully used for regional development.

The manifesto is divided into three chapters, and this chapters describe the three in our opinion most important steps which are necessary to take when developing regional ICT strategies. With the description of those steps we want to support regional policy makers in their attempts to develop successful strategies for delivering the Lisbon and Gothenburg agendas.

The first necessary step to develop a proactive policy approach is **to understand the basics of the technologies**. Due to the fact that the technological landscape changes quickly and new challenges lie ahead, it is of high importance to identify the most promising ICT trends and to be familiar with them. During our work on the Manifesto we identified four themes as the main technological trends shaping the future of ICT: Ubiquity, Flexibility, Convergence and Information growth. The “First Step” of the Manifesto gives a well-grounded short introduction on those trends, confirmed by the results of the Think Tank in January.

The second chapter of the Manifesto: **“Knowing the technologies – strengthening the ICT-supply side”** identifies the most relevant technologies and connects them with the ICT trends:

RFID and sensor networks will help to optimise existing processes and make them more reliable, they will offer new services and realise benefits from rationalisation. They are the key enabler to the “Ubiquitous Network Society” as RFID is a bridge between the physical and the virtual world.

Service Oriented Architectures, SOA, claimed as the future of IT services imply that business process activities, applications and data are no longer locked into independent, often incompatible silos. SOA delivers data needed for special processes or activities as an integrated service. Service Oriented Architectures enable flexible IT Architectures.

Geospatial information creates the conditions to store, handle, and use spatial data – and to create and develop new applications like digital maps in vehicles to the management and maintenance of city infrastructures, regional agriculture and forest lands.

In view of the increasing number of IT security risks, the know-how on IT security has become an important theme for all current ICT trends. ICT security helps to protect the confidentiality, integrity and availability of data.

The last “technology” introduced in the second step are mobile communications. The saturation of the market, convergence and price erosion are just a few factors driving the competition of mobile communications. The future markets for mobile communications will offer real mobile broadband as well as devices for ubiquitous computing.

The third step, **“Putting technologies to work – fostering ICT-demand side”** presents six application fields. Those six fields are just a selection of a huge number of possible areas for regions to specialise in. The application fields chosen for the Manifesto are areas in which a “smart specialisation” seems to be promising and in which Information and Communication Technologies can be introduced in a reasonable manner. What this means for the regions is to connect application areas like eHealth and eTraffic with the introduced ICT trends like Ubiquity or Flexibility.

The third step was especially focused in the framework of the conference in April. Experts presented as examples four application fields: eHealth, eDisaster Management, eTraffic and eGovernment. They showed the economic potential and discussed which aspects regional stakeholders have to focus on, to take the chances and challenges of current ICT trends in a reasonable manner.



FINAL CONFERENCE



On Friday May 30, at the Labour University of Gijón, the Final Conference took place of the European project ESTIIC. Throughout the morning, speakers from the four participating regions, Asturias, North Rhine-Westphalia, South East Ireland and Cantabria presented the results of this initiative. In charge of opening the meeting was the Director General of European Affairs of the Principality of Asturias, Ms. Laura Robles. During her speech, the Director made clear the importance of continuing work in the same direction: the design of regional policies to help small and medium enterprises.

Ms. Marian Uriarte, on behalf of the Interreg Unit of the Spanish Ministry of Economy and Finance, focussed her talk on Interreg IV. She explained that they would continue with the same methodology, and as in the previous period all regions of the European Community would be eligible, though the themes are different - in this programming period they are much more focussed, and the project spectrum will focus on cooperation projects. These are much more targeted, with only innovation and environment themes. This guarantees a better chance for projects like ESTIIC to continue than in the previous period. Ms. Patricia Llopis, from the Joint Technical Secretariat of the Southern Region, for her part, analysed the results of Interreg IIIC. Specifically in the southern area, there were about 700 project partners, around 1200 best practices identified, of which 35 percent had been transferred, and some 200 themes analysed. Half of these had influenced regional policy and local decision-making processes and for the Secretariat this was very important.

The presentation of the results of the ESTIIC project was made by the Managing Director of IDEPA, Prof. Dr. Víctor González Marroquín. For him, the project had been a success story. He added that the partnership had managed to bring to a perfect close an activity that had fully met its goals. ESTIIC had a budget of 4.6m, therefore obtaining over a million euros for each region to inject into the regional system, with prospects for continued cooperation, had obviously been an important element in achieving this success. Prof. Dr. Kurt Monse

focussed in his presentation on an explanation of the most important parts of the European ICT Manifesto for the Regions. One of the highlights of the meeting was the presentation of the results of the 8 innovation and information society ESTIIC sub-projects. First to explain their experience were participants in the innovation subprojects, focusing on RFID, nanotechnology, IT security and customized publishing. Subsequently, the Information Society panel discussed e-Health, geospatial information and broadband applications.

The last part of the conference went on to set out the conclusions of these years of cooperation. The members of the ESTIIC Steering Committee emphasised that the ESTIIC project had been very positive, because through the project the four participating regions had the chance to carry out activities that would probably not have been possible without this framework. This also coincided with one of the main objectives of the European Commission when it finances this type of activity. It was a question, as Ms. Marian Uriarte said during her speech, of performing actions that, had it not been for this consortium and the framework of the project, would hardly have been possible. This therefore was the conclusion of the conference, bringing to an end a landmark project and marking the beginning of a new venture together for the partner regions.

Mainstreaming is a large concept that addresses a wide range of activities. The core of mainstreaming works to incorporate results to regional policies, notably in framework of ERDF co-funded programmes. But, mainstreaming it is also linked to the sustainability of the project by strengthening and widening cooperation between the RFO partner regions. Furthermore, the concept tackles communication activities, disseminating outputs and results to other stakeholders and regions so they could benefit from them.

Mainstreaming has started once outputs and results are identified and available (i.e methodologies, tools, good practices and lessons learned). As a starting point, each region has identified those regional policies that could benefit from the ESTIIC results. In those cases that there is a regional programme or plan it should be pointed out we also recommend to list those public services or tools that could benefit from ESTIIC. The next step will be to design and develop a plan so as to transfer the ESTIIC results to the regional actors concerned.

ASTURIAS

A) Plans, programmes and regional initiatives:

E-Asturias 2007. Strategy for the development of the Information Society in the Principality of Asturias.

This plan establishes the guidelines for the promotion and development of the Information Society in Asturias. Through the program e-Asturias 2007, the Regional Government proposed to the whole Asturian society a series of strategies and actions to enable the necessary and continuous development of information society. In the new strategy called “**e-Asturias 2012**” which is currently under development, there will be an opportunity to add some of the ESTIIC results.

Regional authority: Regional Ministry for Public Administrations and Government

Contact: CTIC Foundation

Enterprise and innovation policy.

IDEPA is the regional Administration's official body committed to enhancing policies for the promotion of enterprises and technology innovation. At the moment IDEPA is leading a strategy to develop regional clusters that will incorporate the experiences gained in ESTIIC. In this context a feasibility study for a Cluster on Knowledge is taking place. Other IDEPA competences such as aids

policies and entrepreneur policies could also benefit from the results. Innovation aids managed by IDEPA are financed in the framework of Science, Technology and Innovation Plan for Asturias (PCTI) 2006/2009.

Regional authority: Regional Ministry for Industry and Employment

Contact: IDEPA

Nanotechnology regional strategy.

At the end of year 2007, the Center for Research on Nanomaterials and Nanotechnology (CINN) has been established in Asturias, a joint initiative between the National Government and the Asturias Regional Government. ESTIIC results will help to orientate the activities of this Centre which will start from a better knowledge on the regional technological and market situation.

Regional authority: Regional Ministry for Education and Science

Contact: Principality of Asturias (ITMA Foundation and University of Oviedo), National Government (CSIC-INCAR)

Food policy.

Asturias Regional Government aims to implement a food safety policy and the promotion of the protective designation of origin of the regional products. At the present time a subsidy programme is being drafted to support the implementation of traceability (by using technologies as RFID) amongst cheese regional producers.

Regional authority: Regional Ministry for Environment and Rural Development

Structural Funds.

Current Operational Programme ERDF- Principality of Asturias for the period 2007-2013. There are two themes concerning the ESTIIC topics, Theme 1: Development of the Knowledge economy and Theme 2: Business development and innovation. Most of the above mentioned policies such as Science, Technology and Innovation Plan for Asturias (PCTI) 2006/2009 and E-Asturias 2007 will be supported by Structural Funds.

Regional authority: Regional Ministry for Economy and European Affairs.

B) Regional activities carried out so far to ensure mainstreaming and durability

It is important to indicate that some of the competent authorities in each one of the policies already mentioned have been involved in ESTIIC as subproject participants: Regional Ministry for Environment and Rural Development, ITMA Foundation, CTIC Foundation, University of Oviedo, Coal National Institute (CSIC) and the Regional Ministry for Health. Furthermore, IDEPA is the Economic Development Agency of the Principality of Asturias committed to enhancing economic growth and generating employment in the region and belongs to the Regional Ministry for Industry and Employment.

Moreover, some contacts have been established with the Regional Ministry of Economy and European Affairs in order to inform them about the development of the ESTIIC project. It should be highlighted that the Director General of European Affairs opened the ESTIIC Final Conference.

With regard to the continuity of the ESTIIC activities in the framework of other European projects, IDEPA has presented two proposals to Interreg IVC that give continuity to some of the topics developed during the ESTIIC project:

-Nano4M: Aims to develop an interregional cooperation network of nano and micro technologies specialised centres by implementing new innovation models. This project counts among its partners entities from NRW, therefore the collaboration between Asturias and NRW continues.

-GRISIPLUS: This proposal aims to develop the results obtained in the ISDEP subproject in the field of geospatial information with the addition of new European partners.

NRW

A) Plans, programmes and regional initiatives

The two main topic-areas of ESTIIC have since long been important focuses of NRW policies with the regional initiative “**Broadband NRW**” dealing with broadband infrastructures as well as ICT technologies and applications, ESTIIC disposed of a perfectly fitting predecessor in NR.

An analysis providing the NRW Government with information and advice for the design of the funding area “**ICT and Media Technologies**” in the framework of the new **NRW-EU objective-2 structural funding programme for the period between 2007 and 2013** was done and results have been summarized in a paper for discussion on the political level. The results reconsidered the findings and first results from the initial studies on technologically driven innovation and the information society prepared and discussed within the framework of the ESTIIC project.

Based on analyses made in the framework of ESTIIC, a competition for the most innovative ideas for ICT projects has been launched in NRW as an instrument for implementing the current European ERDF programme 2007-2013 (the new NRW funding programme named “**ICT. NRW**”)

The development of **NRW’s ICT clustering policy** is being supported and improved through ESTIIC activities incorporating stakeholders of the relevant thematic and regional networks. (A description of the steps towards the ICT cluster setup in NRW has been distributed to ESTICC partners as an example of good practice).

Last by not least, the ICT trends and challenges described in the European ICT Manifesto developed as a result of ESTIIC’s capitalisation activities will serve and be used as a roadmap and strategy development tool for the advancement of NRW ICT regional policy.

B) Regional activities carried out so far to ensure mainstreaming and durability:

In NRW, mainstreaming activities started in the very beginning of the ESTIIC project, when the regional partner initiated talks

with all relevant political and administrative bodies in the region. In the “**initiation workshops**” for the subprojects on 24 October 2006, representatives from the relevant ministries and governmental bodies participated, and this resulted in a strong high-level participation of: State Chancellery NRW; Ministry of Economics; Ministry of Innovation; Ministry of Health; Ministry of the Interior; Land Survey Administration.

Round tables aimed at the improvement of communication between policy-makers and stakeholders in the areas of technological innovation and the Information Society. They bring together representatives of regional politics and administration on the one hand and representatives of regional companies from the relevant ICT sectors. A closer communication between these groups is the precondition of acquainting, for example, SMEs of the relevant sectors of industry with the political visions and strategies, e.g. concerning the information society and at the same time have a direct feedback and input from the side of the companies as to their view of things. Four round tables with different topics have been held:

- Mobile Communications I, 07 March 2007 with 27 participants

- Mobile Communications II, 22 May 2007, with 18 participants

- IT Security, 14 May 2007, with 25 participants

- Broadband Infrastructure, 14 February 2008, with 32 participants

The region’s policy aiming at the exploitation of the business potentials of innovative cross-sectional technologies like RFID for SMEs has been further developed and improved through ESTIIC activities and outcomes. Two ESTIIC subprojects, several large-scaled events and a unique **RFID information day on 19. April 2007** in the regional parliament provided substantial input for this.

Through the conference “**Broadband Coverage - Location quality for rural areas**”, **12 June 2008**, a major approach was made to bring forward the dissemination and mainstreaming of outcomes and results of broadband-related projects and activities in the framework of ESTIIC aiming at the improvement of regional broadband policies.

CANTABRIA

A) Plans, programmes and regional initiatives

Cantabria RTDi Plan 2006-2010: The RTDi Plan is a compromise of the Cantabria Regional Government and was launched as a joint and coordinated action of all the Regional Ministries. The Plan is meant to be the tool to promote the RTDi in the region and to integrate and support all the Government initiatives guided to give Cantabria a place in the knowledge economy.

Cantabria ERDF Operational Programme 2007-2013: One of the axes of the Programme is “The knowledge economy: innovation and business development” and it represents 80% of the total budget, which confirms the high degree of compromise of Cantabria towards RTDi policies.

Sodercan Strategic Plan 2008-2012; Support for innovation and technology development in regional enterprises as well as creating an adequate environment for technology based companies are key elements of the regional development strategy.

E-health: This is one of the priorities being defined in the new Regional Governance Plan 2008-2012. Lessons learned from SMITH will be taken into consideration and support to continue this line of research will be provided.

Information Society and E-Government: The public enterprise EMCANTA has been entrusted to foster the use of ICT among citizens and the business community, while promoting and enhancing the e-administration.

Clustering policies: Several initiatives are being implemented in order to develop clusters in the automotive, fish processing, wood processing, maritime and ICT sectors. Participation on European projects and initiatives to exchange knowledge and good practices in cluster management and cooperation are likewise under consideration.

B) Regional activities carried out so far to ensure mainstreaming and durability:

In Cantabria, mainstreaming activities started in the very beginning of the ESTIIC project, when the regional partner initiated talks with all relevant political and administrative bodies in the region.

Sodercan is the Regional Development Agency and is 100% linked to the Regional Ministry of Industry and Technology Development. Regular meetings with all governmental departments and institutions dealing in those fields have been carried out from the very beginning.

At the same time, contacts with all stakeholders in the Regional Innovation System have been made in order to coordinate supporting actions and dissemination activities.

Other European projects to continue activities in the field of bridging industry and academia, technology based start-ups and innovation management are being prepared.

S&E IRELAND

In South and Eastern Ireland the ESTIIC project has influenced the development of the ERDF-funded Southern & Eastern Regional Operational Programme 2007-2013. The Regional Assembly, as the author of the Programme, was aware through our involvement in ESTIIC of the need to engage directly with both the academic and research community and with business interests when developing strategies to enhance co-operation between these two sectors. Both sectors were consulted extensively when developing the Innovation & Knowledge Economy Priority of the Operational Programme. A high-level consultative workshop on stimulating demand for ICT by SMEs is planned for later this year. This event, which is being led by the Regional Assembly, will bring together policy makers and business/SME representatives in order to develop a new regional approach to promoting ICT usage. This event will contribute to another key objective of the Regional Operational Programme, namely stimulating accessibility and usage of ICT by SMEs.

ANNEX 1 - OUTPUTS AND RESULTS

RFO LEVEL

Grouped by Component

Component 1 Management

- 1 Subvention Contract
- 1 Consortium Agreement
- 1 Internal Management Handbook
- 7 Progress Reports
- 3 Interim Reports
- 1 Start-up Report
- 1 Preparation costs Report
- 1 Final Report
- 1 Set of financial and reporting templates
- 5 Steering Committee meetings
- 4 Information days
- 4 Workshops for subproject participants

Component 2 Innovation + Component 3 Information Society

- 4 Initial regional studies on Innovation
- 4 Initial regional studies on Information Society
- 1 Call for Proposals
- 1 Evaluation of Subproject proposals
- 24 Mentor's Reports
- 8 Final Mentor's Reports
- 1 Working Groups Final Report
- 9 Working Group Innovation and Information Society meetings
- 2 Study visits
- 4 international conferences

Component 4 Evaluation and Integration

- 1 Monitoring Guide
- 1 Mid-term evaluation
- 1 Final evaluation
- 1 Mainstreaming guide
- 1 Collaborative software platform
- 9 Working Group meetings
- 4 Round tables

Component 5 Communication

- 1 Communication Plan
- 4 Newsletters
- 4 Press releases
- 4 Brochures
- 4 Subproject's folder
- 4 posters
- 1 Manifesto
- 1 Final publication
- 11 videos
- 1 website
- 1 Final conference
- 1 Think Tank
- 1 International conference
- 1 Press conference

Grouped by technology

Innovation

RFID

- International conference: Eat more healthy food - but safe: Food and RFID
- International conference: Is Connecting Bits to Atoms Sufficient?

Nanotechnology

- Study: Nanotechnology in Asturias
- Study: Microtechnology in Asturias

Customised Publishing

- Workshop + Newsletter: Individualised Publishing – Challenges for the Asturian Publishing Houses

- Workshop: CP subproject, extended communication and dissemination

IT Security

- Study: ICT security cluster

Information Society

Broadband

- Study: Cluster development and management – NRW.ICT

- Study visit: Digital Cities

- International conference: Provision of Broadband in NRW – Location Quality for Rural Regions

Spatial information

- Study: Research and Preparation of Development-Potentials of Application-Solutions in the Overlapping Area of Spatial information-Application and RFID in North Rhine-Westphalia

- Workshop: Awareness Creation for the use of Spatial Information in business processes and to enrich value chains

SUBPROJECTS

Grouped by technology

Innovation

RFID

Guidelines:

- RFID vs. Environment
- RFID Consultancy
- RFID Privacidad y seguridad en la protección de datos (Spanish)
- Diseño de aplicaciones RFID (Spanish)
- RFID básico para PYMEs (Spanish)
- RFID basics for SMEs
- Is RFID save at the Work Place?
- RFID Slap and Ship
- Designing RFID Applications
- RFID Implementierung (German)
- RFID security, data protection and privacy
- Assigning EPC Numbers

Case Studies:

- Personal Identification
- Perishable Distribution Warehouse
- Cartonajes VIR
- Tester
- Web Based RFID Tag Testing
- Dairymaster
- Advance Shipping & Notification of Deliveries
- Surf Board tracking

Training Courses:

- Making RFID Work
- Introduction to RFID
- Understanding The Players
- RFID in Logistics
- RFID in Automotive
- RFID in Pharmaceuticals
- RFID in Oil and Gas
- RFID in Construction
- RFID in Government
- Deploying RFID
- Privacy Issues

White Papers:

- Intelligent Buildings
- RFID in Libraries
- Using RFID for Security Identification

Newsletters:

- June 2007
- July 2007
- August 2007
- September 2007
- October 2007
- November 2007

4 International events

Nanotechnology

Guidelines:

- Aplicaciones Industriales de la Nanotecnología (Spanish)
- 1 International conference

Customised Publishing

Guidelines:

- Guidelines for Action (German)
- Guidelines for Action
- Guidelines for Action 02
- Guidelines for Action 03

Toolboxes:

- Teaching Tool Innovation Toolbox
 - Toolbox 'migration strategies'
- 2 websites

IT Security

Training courses:

- Systemsicherheit (German)
 - Sicherheit und Kryptographie im Internet (German)
 - Netzsicherheit (German)
 - Network Security
 - Systems Security
 - Security & Cryptography on the Internet
 - Seguridad en Redes (Spanish)
- 1 website

Information Society

Broadband

Studies:

- Strategies and policies directed to the monitoring and benchmarking of broadband - Analysis of best practices and common indicators
- Manual de e-Administración para Telecentros en Cantabria (Spanish)

Training courses:

- User's manual for the new municipal tax management system – Sigetrim
- 1 website

E-Health

Papers:

- Integration of a sleeping-respiration monitor into a settop box based home health system
- An investigation of the validity and utility of a non-contact biometric sensor compared to actimetry as a screening tool for sleep disturbance within free living conditions

- A new method of measurement of respiratory movements in Sleep apnea
- Evaluación de un nuevo método de medida de movimientos respiratorios sin cables (Spanish)
- Client-Server architecture for CVD and Cognitive Decline Home Monitoring
- Chronic Low Back Pain Patients Report Poorer Sleep Quality than Healthy Controls despite Similar Sleep Onset Latency, Total Sleep Time and Number of Night-time Awakenings
- A comparison of home sleep monitoring techniques in a control and chronic low back pain population
- Schlafmonitoring als präventionsmedizinischer Ansatz zur Früherkennung chronischer Erkrankungen (German)

Reports:

- Sleep and sleep-respiration monitoring as an integrated component of a home health system – perspective and new applications
- Telemonitoring: A New Path towards Preventive Care and Health Promotion?

Geoinformation

Studies:

- Accessibility in Geographical Information Systems (GIS)
- 3 SDI developments for the industrial areas in Asturias
- 2 Demonstration videos
- 8 International conferences
- 1 website

For additional information please visit www.estic.org

IMPRINT

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