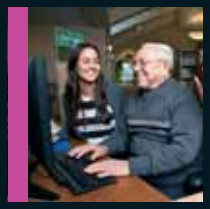
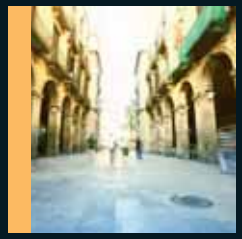
European Union
Regional Policy

INVESTING IN OUR REGIONS

150 EXAMPLES OF PROJECTS CO-FUNDED BY EUROPEAN REGIONAL POLICY







INNOVATION / RESEARCH & DEVELOPMENT / BUSINESS SUPPORT / INFORMATION & COMMUNICATION TECHNOLOGIES / ENVIRONMENT / ENERGY / TRANSPORT / URBAN & RURAL DEVELOPMENT / TOURISM & CULTURE / EDUCATION & SOCIAL

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European Commission, Directorate-General for Regional Policy
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http://ec.europa.eu/regional_policy/projects/stories/index_en.cfm

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Foreword

Europe's many and different regions are proof of the huge diversity and variety that exists in the European Union (EU). As a whole, the EU is a prosperous part of the world. However, within its own borders, there are significant differences in economic, social and territorial development. The EU's regional policy works to reduce these disparities, and promote balanced development throughout the Union. In doing this, regional policy is an explicit and visible expression of solidarity within the EU.

But regional policy is about more than closing the gap. It is also a development policy working to create the right conditions for sustainable growth, help create jobs, improve our well-being and our environment and strengthen the integration of regional economies.

To achieve this, the EU's regional policy is chiefly targeted at promoting investment to help mobilise resources in regions where they are underused, removing bottlenecks where productivity is already high, improving the capacity of regions to adapt to a constantly changing economic environment, and supporting co-operation and exchange between regions and countries. It does this in line with the overarching goal of the EU – to achieve socially, environmentally and economically sustainable development.

Millions of European citizens have benefited from regional policy through projects co-financed by the European Regional Development Fund (ERDF) and the Cohesion Fund. These projects have resulted in a cleaner environment, better transport links, energy savings, a broader basis for research and innovation, the establishment and development of small enterprises as well as co-operation and integration across national borders. And this investment is set to continue. Between 2007 and 2013, just over €270 billion is available under the ERDF and the Cohesion Fund. Working in partnership with Member States and regions, these funds are targeted primarily at projects designed to improve competitiveness, boost growth, create jobs, protect the environment and strengthen social cohesion.

In this book, we have selected 150 projects that illustrate how the ERDF and the Cohesion Fund are being used successfully by our regions and countries. These projects tell the story of how investments in infrastructure, environmental improvements, innovation and business development and skills, have delivered real benefits for citizens throughout the EU. They also show how the partnership between different levels of governance (local, regional, national, and European) plays a key role in building a more stable, integrated and prosperous Europe.

Johannes Hahn
Member of the European Commission in charge of Regional Policy

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Introduction

Regional policy is one of the European Union's most visible policies. With its two funds – the European Regional Development Fund and the Cohesion Fund – EU regional policy works to help the least prosperous regions catch up with those that are more developed. Complemented by the work of the European Social Fund, it aims to ensure equality of opportunity right across the entire Union, helping all regions to become more competitive in an increasingly globalised world.

On these pages, you will see how funding from European regional policy has been a catalyst for change in Europe's regions. It has brought benefits to millions of EU citizens, not only by creating jobs and fostering the right conditions for growth, but through improving transport links, transforming landmark public spaces, and investing in a cleaner environment.

The focus for regional funds has always been on strategic, high-quality and long-term investments. To achieve this, the overarching framework for investment is set at the EU level through commonly agreed guidelines, designed to encourage innovation and entrepreneurship, and create more and better jobs. But a large part of the success of the policy lies in the fact that it is the European regions themselves which select and implement the projects. The decentralisation of the policy, with programmes managed in the Member States at national or regional level, makes it as relevant and close to the citizen as possible.

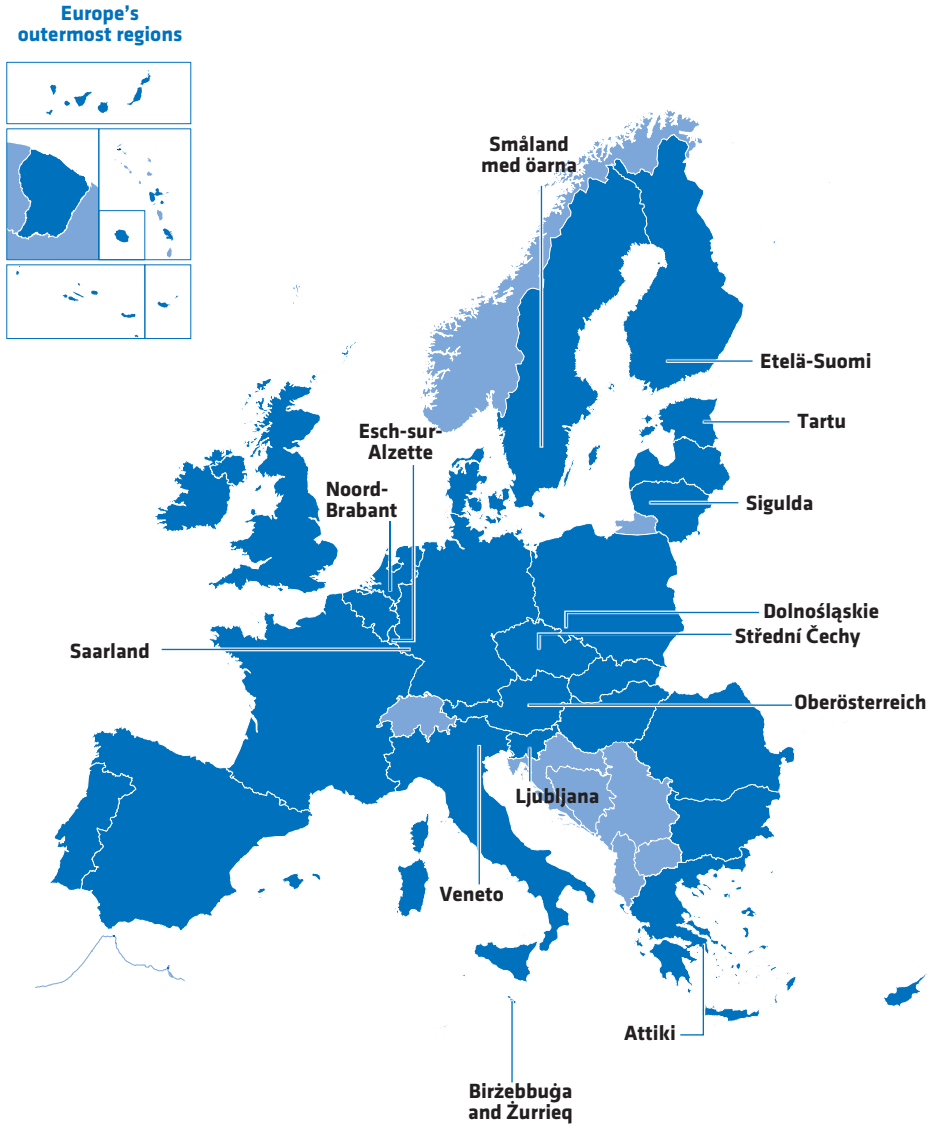
The project descriptions are set out here under ten categories – innovation, research and development, business support, information and communication technologies, environment, energy, transport, urban and rural development, tourism and culture, education and social – reflecting the priorities for investment of the strategic guidelines.

High-speed rail networks, faster internet access, upgraded waste treatment facilities, state-of-the-art technology parks, revitalised city centres, restored cultural assets, new educational centres – this brochure tells the stories of these projects and many more and gives you a taste of the real impact of European funding on people's lives.

However, this is by no means the complete picture. The EU, its Member States and regions, have invested regional funds in tens of thousands of projects over many years. The 150 projects* highlighted here serve as an illustration of some of the more recent activities. You can find many more examples of projects which have benefited from EU regional funds, as well as more detailed selected case studies in the online database: http://ec.europa.eu/regional_policy/projects/stories/index_en.cfm.

These project descriptions cover a broad range of themes and show how the EU is investing in all regions across each of the 27 EU Member States. We invite you to take a look at the impact of European funding on your region and on other regions across the European Union.

*Whilst most of the projects which have been selected are from the funding period from 2000 to 2006, the descriptions of each theme relate to the current 2007-2013 period. There are also evidently fewer projects to include from the Member States which joined the EU after 2004.



Attiki, Greece: Corallia technology hub to drive innovation in Greece

Birżebbuġa and Żurrieq, Malta: Toy manufacturer makes energy savings

Esch-sur-Alzette, Luxembourg: Luxembourg turns up the heat in material technology

Etelä-Suomi, Finland: Clusters for environmental care

Karlshamn, Småland med öarna, Sweden: Building a better future for Karlshamn

Ljubljana, Slovenia: Nanoscience and technology take the limelight in Slovenia

Neratovice, Střední Čechy, Czech Republic: Czech town launches triple-hybrid fuel cell bus

Noord-Brabant, Netherlands: All eyes on Dutch technology

Oberösterreich, Austria: Cultivating innovation in Upper Austria

Padova, Veneto, Italy: Making nanotechnology work for industry

Saarbrücken, Saarland, Germany: SAAR develops innovative approach to space

Sigulda, Latvia: All eyes on floating humans

Tartu, Estonia: Estonian enterprise on the rise

Wrocław, Dolnośląskie, Poland: New opportunities for innovation in Poland

Territorial Co-operation

DK, SE: Research and industry combine forces for cross-border growth

DE, ES, IE: Four regions gain leading-edge technological experience

Innovation

Innovation is a key driver to improving the EU's competitiveness, increasing growth and boosting jobs. However, innovation means more than just creating new products. It is also about inventing new processes, generating new services, exploiting new ideas... In a nutshell, innovation is about doing different things and doing things differently. Regions and countries need to reinvent themselves to compete. This is crucial for survival and success in increasingly complex global markets.

It is no surprise then that investment in innovation is a core priority for the EU. Between 2007 and 2013, almost one quarter of the EU's regional development funds – some €86 billion – will be spent on projects aimed at boosting the development of innovative practices, processes and products (see also projects featured on R&D and ICT in separate sections in this book). Regions are often key developers and implementers of innovation policies. Investment from EU funds is used to encourage the development of regional innovation strategies. It seeks to energise the knowledge economy by investing in cutting-edge research and technological development, innovative information and communication technologies, entrepreneurship, business development and training to ensure a more skilled and qualified workforce.

This massive investment has the potential to transform regional economies, as shown in projects like the Corallia Technology Hub in Greece. Bringing together industry and research organisations working in the area of microelectronics, this cluster is driving innovation in this field. Not only have research efforts received a significant boost, but the project has also sparked ambitious spin-off ventures thanks to investment incentives offered to business angels. Other initiatives include a Centre of Excellence on Nanoscience and Nanotechnology, set up in Slovenia with backing from EU regional funds. This centre is working to overcome the traditional lack of co-operation between public research institutes and business. By giving businesses access to highly specialised equipment, new opportunities have opened up for more advanced applied research development and testing activities.

The EU's commitment to innovation is also shown through more than funding and grants. Modern economies depend on information networks. Regional policy programmes promote co-operation, supporting a vast network across the public and private sectors to exchange experience and good practices, and to jointly develop new opportunities.

Corallia technology hub to drive innovation in Greece

The Hellenic Technology Clusters Intiative (HTCI-Corallia) supports state-of-the-art innovation clusters in knowledge-intensive, export-oriented technology sectors. It is the first project of its kind in Greece whose aim is to boost competitiveness, entrepreneurship and innovation under the auspices of the General Secretariat for Research and Technology of the Hellenic Ministry of Development.

The initiative helps to stimulate and expand the innovative activity of cluster members by providing support and offering incentives. It also helps to draw local and foreign investment to the cluster and to create a favourable environment for innovation through cluster development policies. Microelectronics and embedded systems are the focus of Corallia's first innovation cluster, now a reference point for over 100 organisations (industry, academic labs and research institutes).

Economies of scale and scope

Cross-industry synergies and research collaborations are increasingly important in today's competitive climate. They allow the members of these so-called clusters to become pioneers in their respective fields and to attract direct foreign investment.

Corallia officially came together in May 2006 with financing from the EU's third Community Support Framework (CSF) through the Hellenic Operational Programme for competitiveness and entrepreneurship. It is hosted in the Athena Research Centre under the auspices of the General Secretariat for Research and Technology of the Hellenic Ministry of Development.

> "Corallia helps Greece to become an international business focal point with the 'Innovation Made In Greece' trademark."
>
> **PROF V MAKIOS,**
> CORALLIA GENERAL DIRECTOR

Corallia put in place strategic, well-organised measures:

- a one-stop shop for unique business opportunities and added-value services;
- support for the creation of new ventures;
- incentives for business angels to invest early on to create favourable conditions;
- development of networks to enhance technology transfer;
- training programmes to expand the innovation-knowledge horizon;
- promotion of an 'innovation made in Greece' brand.

Seeing tangible results

Through Corallia's activities in the area of microelectronics and embedded systems, tangible results including a significant increase in annual turnover, exports, patent submissions and job creation are achieved. Sharing the same premises resulted in substantial benefits for the cluster members. It strengthened co-operation between the companies involved and boosted research efforts.

The cluster received positive publicity, with over 200 articles and special reviews published in the local and international press. It also cooperated closely with other centres of excellence and cluster initiatives in Europe and beyond. Subsequently, Corallia's public relations and communications programme was granted the European Excellence Award in Berlin in December 2007.

More about this project can be found at:
http://www.corallia.org/

Small details leading to great strides in innovation

Birżebbuġa and Żurrieq, Malta

Toy manufacturer makes energy savings

Playmobil Malta is making the most of heat generated as a result of its toy manufacturing process. Through a new heat recovery system, the company is able to warm its offices and shopfloors. Commonly known as waste heat, as no useful application for it is found, it is in great supply in energy-intensive industries such as plastics processing.

By exploiting this form of energy, Playmobil Malta is cutting its overall consumption levels and making a positive contribution to environmental sustainability. The small behavioural changes and system adjustments being made are helping Playmobil Malta to cut energy consumption costs in the areas of air conditioning, heating and cooling.

From waste to resource

The Playmobile Malta project saw the development of a heat recovery system. This system was built to cover the heating requirements of the administration department and five shopfloors.

As of February 2008, the temperature of the administration department has been regulated through the use of two pumps with a combined heating/chilling action. The temperature of the five shopfloors has been regulated by 12 air handling units using electric heating elements.

> "Waste can be resourceful - use it!"
>
> **ANNA LECKE,**
> PLAYMOBIL MALTA

Playmobile Malta has also been running its injection moulding machines – of which there are 220 – using motors capable of converting some of the consumed energy into heat. The excess or waste heat generated from these machines is being dissipated using water which runs through two cooling towers.

Energy efficiency means cost efficiency

As a result of this heat recovery system, electricity consumption at Playmobil Malta from January to April of 2009 was almost two million kWh less than for the same period of 2008 – this amounts to savings of as much as 62% of the total kWh used at the company for air conditioning.

More about this project can be found at:
http://www.playmobilmalta.com/

EU funding

€35 000

was allocated to the Playmobil Malta Ltd project from the ERDF

Technology in use to save money and heat

Esch-sur-Alzette, Luxembourg

Luxembourg turns up the heat in material technology

The increasing complexity of modern technology can often hinder companies as they embark on research, testing and development of equipment and materials. The highly specialised field of material characterisation is one case in point. The THERA project, backed by EU funding, has come up with a practical solution to this problem, offering a one-stop shop concept for the thermal and thermo-physical characterisation of materials.

THERA has created a laboratory for thermal characterisation and accelerated ageing of materials, where an entire gambit of services, including tailor-made tests, is offered to companies in a single location. In doing so, industrial companies avoid the need to set up their own, often expensive, facilities, and instead benefit from the experts and high-tech equipment offered at this accredited facility.

Talent and technology lead the way

The partners involved in the project included both industrial companies and academic organisations. The laboratory is part of the Public Research Centre Henri Tudor and as such has ready access to high-level, updated expertise. The support offered is therefore among the best in the business. The sectors benefiting from the services include the metallurgy, chemical, non-metal mineral product, construction, agri-food, electric/electronic, energy and pharmaceutical industries.

The laboratory is also an active member of AFCAT (French association of calorimetry and thermal analysis) and ICTAC (International Confederation for Thermal Analysis and Calorimetry), and a recognised European expert and consulting laboratory under EVITHERM (European Virtual Institute for Thermal Metrology).

> "Thanks to the laboratory's activity, which gave us the opportunity to evaluate the thermal decomposition of the polymer matrix and the synergetic effect of nano $CaCO_3$ and polyvinyl butyral (PVB) as stabilisers, we were able to draft a European patent in 2008."
>
> **CLAUDE BECKER AND REGIS VAUDEMONT,** THERMAL ANALYSIS LABORATORY MANAGERS, ADVANCED MATERIALS AND STRUCTURES (AMS), LUXEMBOURG

Monitoring the ageing process

The laboratory's work includes simulation of ageing under different atmospheres (inert, oxidising, thermal, photochemical and gaseous fluids); thermal, thermo-mechanical and physico-chemical analysis and identification; mechanical characterisation (hyperelastic, viscoelastic, viscoplastic); scientific consulting; quality assurance; inspections and certification of products.

To measure the diverse transformations and assess a material's thermo-physical properties, the evolution of these different properties is studied at various temperatures. The equipment acquired for the work at the laboratory has been chosen so that the key properties can be determined and above all so that a full range of materials can be studied (polymer, metal, ceramic, multilayer, composite and biological), thereby ensuring that as many businesses as possible can benefit from the facilities on offer.

More about this project can be found at:
http://www.ams.tudor.lu/

Testing under way to analyse characteristics of materials

Clusters for environmental care

Finns are recognised as experts when it comes to environmental matters; however businesses in this field are often modest in size and face difficulties expanding. To help them find new business opportunities and increase their potential for export, the InnoEnvi project in southern Finland has created thematic groups (clusters) and sub-groups (mini-clusters) of environmental operatives and resulted in the set-up of over 50 second- and third-generation projects.

To ensure the development of environmental know-how and to create real co-operation between companies, a register was created and includes some 650 companies linked to similar international registers where over 6 000 companies from across the globe are actively sharing information and experience in this field.

Small efforts generate big rewards

InnoEnvi's partners (Green Net Finland – principal partner, Lahti Science and Business Park Ltd, HAMK University of Applied Sciences, Lappeenranta University of Technology, Helsinki University of Technology Lifelong Learning Institute Dipoli, Helsinki Metropolia University of Applied Sciences and Turku Science Park Ltd) are regional organisations with recognised skills in supporting environmental companies. Initially, 700 private and public companies were taking part; however this has grown tenfold and also now covers seven countries. Since August 2003, co-operation has become a reality with four online services to facilitate exchanges between the sub-group members. Six market and trend surveys, brochures such as for 'Green Net Mining', 33 publications, strategic planning, marketing as well as fairs and road shows all feature in InnoEnvi's work.

> "The InnoEnvi project was really a starting point for our company. The web service created during the project was later developed as a larger, international Material Exchange portal, which expanded our business to another level."
>
> **JANNE KOIVISTO,**
> CEO, ENVIRONMENTAL CONSULTING HYÖTYVISIO LTD

The birth of new clusters

Mini-clusters covering waste management, water supply and sewerage, energy, environmental measurement, ecological environmental research and environmental management in the mining and minerals industry were set up – joint projects have started in all these mini-clusters. Clusters offer SMEs the chance to make use of the resources and experiences of larger companies, centres of expertise and national and international NGOs.

Snowball effect of Finnish expertise

Bio-energy, contaminated soil treatment, irrigation pipe manufacturing and geo-technology consultancy show the ever-increasing range of services and subjects covered by InnoEnvi. The project has had a significant snowball effect on environmental business growth in Finland and also abroad. The project's clustering model was applied to the FEEN Prognoos Project in which the Southern Finland environmental cluster was extended into Estonia by forming joint Finnish-Estonian mini-clusters in related sectors.

More about this project can be found at:
http://www.greennetfinland.fi/en/index.php/Main_Page

EU funding

€700 000

was allocated from the ERDF to InnoEnvi over the period May 2002 to February 2004

InnoEnvi is in the energy efficiency business

Karlshamn, Smaland med Öarna, Sweden

Building a better future for Karlshamn

Creating long-term growth in the Swedish town of Karlshamn is the aim of the NetPort project which supports the transfer of knowledge from the local university to businesses and the public sector, thereby increasing businesses' levels of expertise in tandem with the university's experience in real-life conditions.

NetPort's ambitions are high but are on their way to being realised. Karlshamn is being renewed and developed into a place that is attractive to work, study and live in, with bigger and better opportunities for its residents.

Finding new sources of growth

Local industries in the Karlshamn region on the south coast of Sweden have lost as many as 3 000 jobs in the past 30 years. In a bid to reverse this trend, key players from the Karlshamn municipality, the Blekinge Institute of Technology, and trade and industry assocations drew up a new vision of local development and worked towards implementing a series of projects to promote long-term socio-economic prosperity.

As it seemed unlikely that the manufacturing industry would return, other options to make the region flourish were needed. The key to moving on from industrial production to innovation and business development was found in the development of digital communications. This was taken on board by the NetPort project which focused on becoming a leader in the field of new media, creative industry and intelligent logistics.

> "The NetPort project is fundamental to the development of our work in higher education and research at the Karlshamn campus of the Blekinge Institute of Technology (BTH). The work has so far resulted in several hundreds of bachelor degrees in Media Technology, 16 research degrees and companies started by students."
>
> **LENA TROJER,**
> PROFESSOR, BLEKINGE INSTITUTE OF TECHNOLOGY

Through co-operation between industry, university and the public sector, NetPort has been driving development and contributing to strong and long-term growth.

The benefits of a shared vision

The quality and level of negotiation, mutual trust and interchange between the municipality (Kommun), the associated local businesses (Näringsliv) and the Institute of Technology (Högskola) were vital factors to the success of the project. In the project's intial stages 12 new companies were set up, 37 new jobs created and ten safeguarded.

This represents just a drop in the ocean for the project. NetPort aims to create 1 100 new jobs and 125 new companies within its three focus areas by the year 2020. The ambition is also to have added 2 200 inhabitants to the region and to host 2 000 students in higher education by the same date. The new media programme includes several bachelor and master's degrees on new media, digital games, and digital media training.

The ERDF seed capital provided the impetus for the creation of a sustainable local development initiative in a region seeking to find new sources of growth.

EU funding

The NetPort Karlshamn project was allocated

€550 000

under the ERDF for the period 2000 to 2006

A hub of knowledge transfer from university to businesses and the public sector

Nanoscience and technology take the limelight in Slovenia

Innovation pushes ahead in Slovenia as researchers come together from the public and private sector to form a centre of excellence in nanoscience and nanotechnology (CE NS&NT). The centre boasts top level facilities that enable researchers to achieve optimum results for specific projects chosen in collaboration with local businesses. So far, six research institutes and as many as 26 businesses work with the centre.

Not only are the participating research institutes and businesses benefiting from the project, students from the local Jozef Stefan International Postgraduate School are also able to make the most of the sophisticated equipment for their own research and to participate in the ongoing research activities of the centre.

Co-operation opens new doors

Insufficient co-operation between public research institutes and businesses is seen as a major obstacle to economic growth in Slovenia. To exploit the potential of this untapped resource, the Slovenian government decided to create a Centre of Excellence in Nanoscience and Nanotechnology which would rely heavily on this form of co-operation.

By giving businesses access to the highly expensive equipment used for nanoscience and nanotechnology research, new opportunities have opened up for more advanced basic and applied research, development and testing activities.

> "The Centre of Excellence on Nanoscience and Nanotechnology is increasing collaboration between industry and research institutions. One of the most welcome innovative elements of the centre is the sharing of expensive and sophisticated research equipment not only among public research institutions but also with businesses. Another important dimension of the centre is the involvement of the Jozef Stefan International Postgraduate School."
>
> **PROFESSOR DRAGAN MIHAILOVIC,**
> JOZEF STEFAN INSTITUTE

The centre has bridged not only the public-private divide but also the disciplinary divide – research activities cover physics, chemistry and electronics. Before, public financing for cross-disciplinary research was practically unheard of, being available only for basic and applied research of a particular scientific field.

Raising skills across the board

Six research institutes and 26 businesses came together for six major research projects.

The projects are coordinated by the research institutes, and the businesses involved as potential end-users provide funding. In some cases, the businesses also participate in the research.

The six projects cover: nanoelectronics and equipment for nanotechnology; synthesis of nanoparticles and nanocomposites; nanomaterials in electrochemical systems; nanostructured surfaces and layers; synthesis of 1D inorganic nanostructures and bionanostructures; characterisation on nanometric scale.

EU funding

From June 2004 to June 2007, the centre received

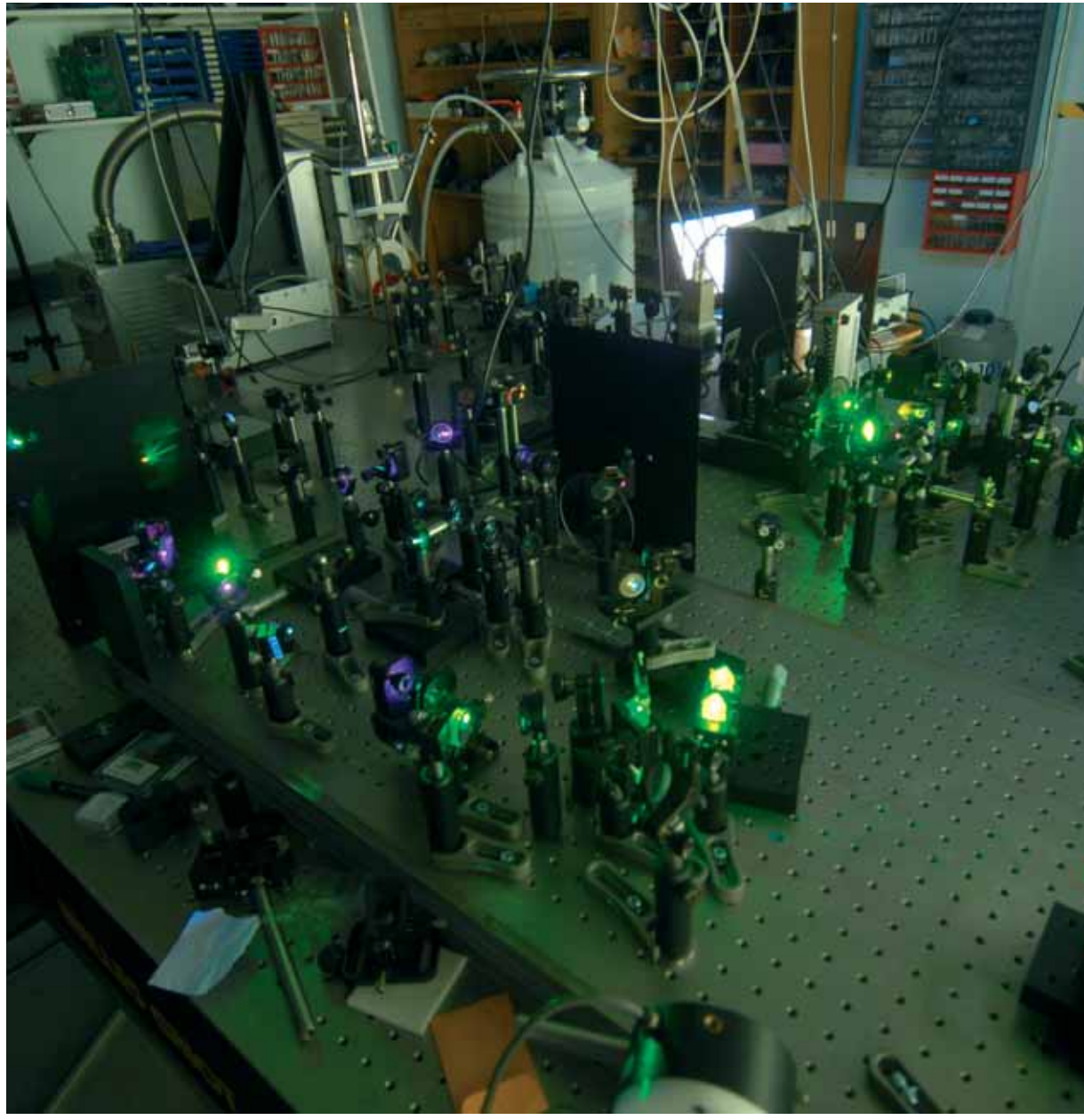
€829 400

from the ERDF

The ability to share the modern testing equipment has increased the motivation of industry partners, who previously viewed co-operation as a burden rather than a benefit. The project is also raising the skills among industry researchers and providing grounds for participation in research for postgraduate students and young researchers.

The team has recently applied for new funding from the ERDF for the 2010–2013 period. This will help to improve the centre's facilities and give them the possibility of competing with some of the best nanoscience and nanotechnology facilities in Europe.

More about this project can be found at:
http://nin.ijs.si/nano.htm



Nanotechnology in action for business and research

Neratovice, Střední Čechy, Czech Republic

Czech town launches triple-hybrid fuel cell bus

Travelling by bus in the town of Neratovice in the Central Bohemia region of the Czech Republic will never be the same again following a recent development coordinated by the nuclear research institute Rez. Marked by an absence of noise and vibration – so typical of traditional diesel engines – the newly introduced Triple Hybrid Bus or TriHyBus now circulating in the town offers passengers a more enjoyable, environmentally friendly mode of travel.

Thriving cities and towns need no longer be synonymous with smog-filled skies and noisy traffic, Neratovice's 16 400 inhabitants are learning. With hydrogen as the fuel of the future, not only can urban dwellers enjoy cleaner air and less disturbing sound levels but they can also feel the health benefits as the risks of suffering from associated effects, such as asthma and high blood pressure, are greatly reduced.

TriHyBus co-operation

The TriHyBus is the product of a co-operation agreement between Czech nuclear research institute Rez, Skoda Electric, Linde Gas, Veolia Transport, Proton Motor (Germany) and IFE Halden (Norway). Skoda Electric was responsible for the bus, including its electric drive system and system integration, and Proton Motor supplied the triple hybrid fuel cell propulsion system.

The standard-sized, 12-metre-long bus uses a 48-kw Proton Motor fuel cell along with a bank of ultracapacitors which are recharged during braking. The bus is filled with 20 kg of gaseous hydrogen at 350 bar and does more than 250 km per tank with a maximum speed of 65 km/h.

> "The TriHyBus project heralds a new era in the Czech Republic, one in which the transport sector is less dependent on fossil fuels and more dependent on hydrogen and electricity. This project has opened many doors for us, especially in the renewable energy sector."
>
> **LUDĚK JANÍK,**
> DIRECTOR OF THE CZECH HYDROGEN AND FUEL CELL PLATFORM

A hydrogen refueling station was built by the Linde Group in Neratovice and is supplied with compressed hydrogen gas off site. The filling process takes less than 10 minutes.

Greener and smarter travel

As the fuel of the future, hydrogen is entirely environmentally friendly. The only emissions produced are water emissions. What's more, this new fuel substantially reduces Europe's dependence on imported fossil fuels, such as oil and natural gas.

The smart hybrid design system – the fuel cell is an energy converter which uses chemical energy to produce electricity – boasts an overall efficiency of 50%. Currently, one bus and one hydrogen filling station are in operation.

This development was made possible thanks to financing from the ERDF, the Czech Ministry of Transport and the individual partners of the project.

More about this project can be found at:
http://www.h2bus.cz/

EU funding

The Czech Hydrogen Buses project was allocated

€1.3 million

for the period 2004 to 2006

Triple Hybrid Bus at the service of passengers and nature

Noord-Brabant, Netherlands

All eyes on Dutch technology

The ability to track human eye movements results in a better understanding of how the mind processes visual perceptions and is seen as a powerful tool for companies engaged in marketing, advertising and commercials. Experts in North Brabant have gone a step further in this technique, seizing on the potential they saw in testing reading skills using eye tracking. They developed Pseyecatcher, a tool now used for identifying problems such as illiteracy and dyslexia.

For people with poor literacy skills, this technology will find widespread use for addressing problems related to reading. One of the major innovations and advantages of Pseyecatcher is the fact that it can be used by non-experts.

On track towards better reading

Eye tracking and the information this generates about visual perceptions is a technique used extensively in advertising to determine to what extent advertisements and commercials attract people's attention. Pseyecatcher builds on this tried and tested technology using a clever idea from two companies that on the surface had little in common: INNO-metal, a builder of high-tech computer-controlled hardware; and i-Test Talentcenter, a consultant specialising in psychological tests. The result: technology for testing (reading) skills and detecting dyslexia and illiteracy, a particularly important issue for young children.

> "In education and business, there is a high requirement to measure reading levels quickly and affordably. But the existing equipment was too expensive and slow to test reading skills, hand-eye coordination and visual alertness. The Pseyecatcher solves that problem. We now have the first objective measurement method with regard to testing technical reading skills."
>
> **MARCEL L'HERMINEZ,**
> MANAGER OF I-TEST TALENTCENTER

A diverse pool of knowledge

The two companies involved combined their respective expertise and worked together with specialists from the scientific world who contributed to Pseyecatcher with their eye-tracking know-how: the University of Utrecht, Rotterdam's Erasmus University (Institute of Psychology), and the Verify Test Lab. The market launch is currently being developed in co-operation with ROC ter Aa in Helmond, with some 400 students being given an intake test using Pseyecatcher.

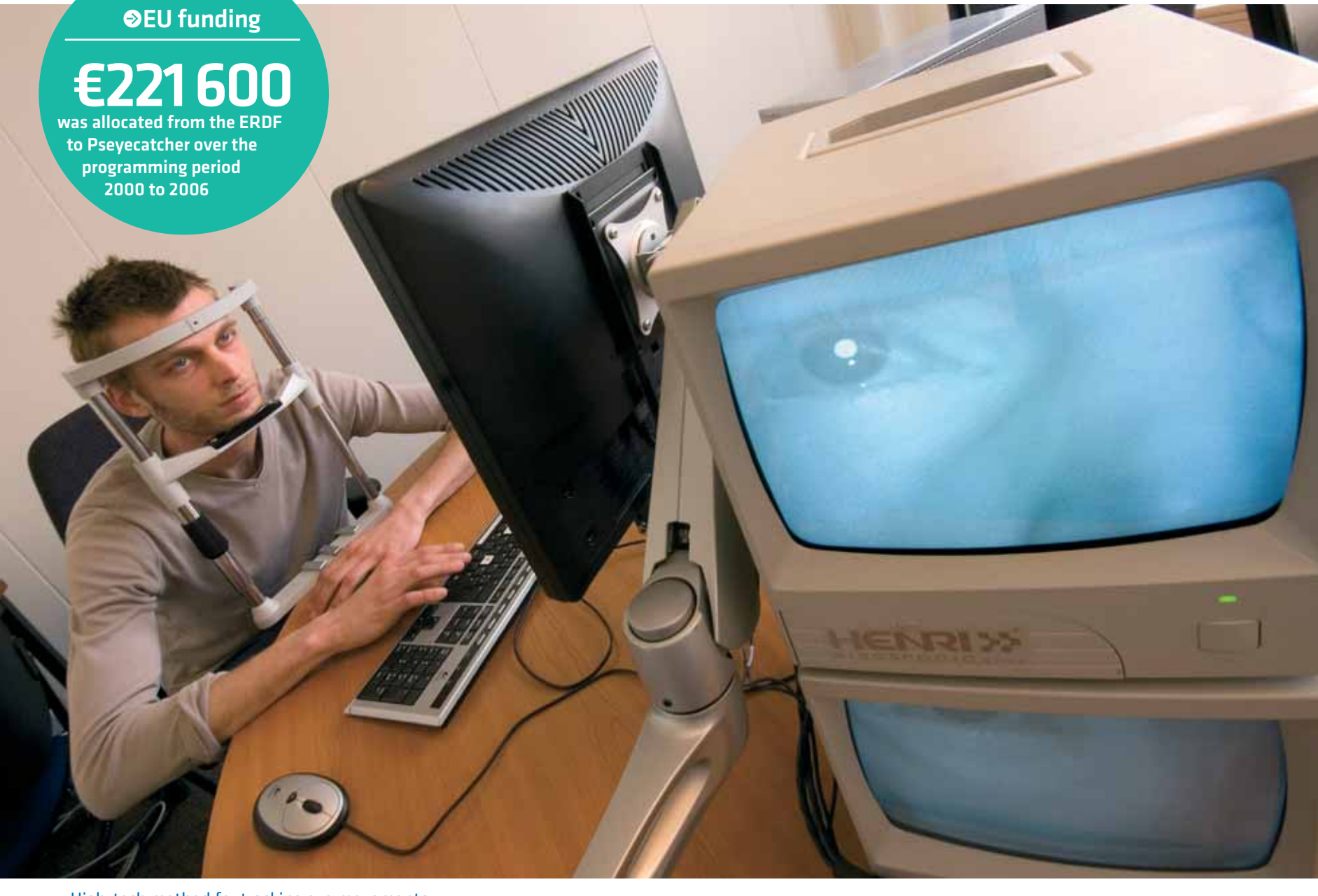
The i-Test Talentcenter emphasizes the innovation at work here, notably that non-experts can use the test equipment. Added to this, Pseyecatcher is a very mobile device given its compact size and is also affordable, ensuring its widespread use.

More about this project can be found at:
http://www.i-test.nl

EU funding

€221 600

was allocated from the ERDF to Pseyecatcher over the programming period 2000 to 2006



High-tech method for tracking eye movements

Cultivating innovation in Upper Austria

Networking gives a new lease of life to innovation in Upper Austria through the RIO scheme. By mobilising enterprises, research institutes, education establishments, public authorities and support service providers around five thematic networks, RIO has integrated effective innovative tools into the areas of human resources, research and technology, logistics, design and media, and rural development.

These tools were applied in 38 RIO funded projects, involving some 130 participants. The result was greater co-operation between the whole Upper Austrian innovation network that comprises institutions in the areas of R&D, technology transfer, education and innovation. The project has also fostered closer co-operation between schools and businesses leading to greater numbers of students following more technical professions, thereby overcoming one of the obstacles to innovation – the lack of skilled labour.

New skilled labour

The RIO concept was designed by the Upper Austrian Technology and Marketing Company to optimise the economic effect of innovation networks, institutionalise networking between business and support groups and to tackle the shortage of skilled labour in technical professions.

The human resources network fostered the introduction of innovative tools, such as e-learning tools and flexible working time models, to improve the quality of work and boost on-the-job satisfaction levels. The network was used as a platform for learning and placements were set up to encourage students to enter the profession.

> "The human resources network held special events for entrepreneurs to discuss innovative HR tools and to strengthen the participating companies' expertise in HR. Young people were also targeted to make them more interested in HR. This network is still up and running."
>
> **KARIN SCHACHINGER,**
> MARKETING & PR OFFICER, TMG

The research, technology and innovation network focused on technology transfer between science and business. This raised awareness of the importance of co-operation with research institutes and of publicising the services these institutes can offer to businesses. New products were developed for high performance materials such as polymer nanocomposites which fuse metal and natural fibres.

Fostering co-operation

The 38 pilot projects funded by the RIO programme succeeded in nurturing collaboration between research, education establishments and businesses. More girls were encouraged to pursue technical careers and one pilot project brought a business and a university together to share material testing facilities.

EU funding

RIO received

€2.55 million

from the ERDF for the period 2004 to 2006

The networks served to transfer skills to businesses via best practice events, newsletters and other forms of communication. Three of the networks are now self-sustained – human resources, design and media, and logistics. Clusterland Upper Austria Ltd hosts the secretariat of two of the networks, while a logistics association took over the logistics network.

Early stage involvement of all actors is characteristic of the RIO programme and one of the reasons for its resounding success.

More about this project can be found at:
http://www.rio-ooe.at

Networking provides a basis for advancing innovation at work

Padova, Veneto, Italy

Making nanotechnology work for industry

The Nanofabrication Facility located in VEGA science park is one of the first European laboratories applying nanotechnology to industrial production. Innovative techniques for treating leather and natural fabrics, anti-reflective 'moth-eye' surfaces and cold spray technical coatings are all examples of areas in which nanotechnology is able to make a difference.

The facility has helped to turn around the once crisis-stricken region of Veneto in northeast Italy by transferring technological knowledge and industrial research results to local companies. This has helped the local economy to take a major stride towards knowledge-based production.

Fostering nanotechnology research

The Nanofabrication Facility is managed by Nanofab, a non-profit organisation created by the VEGA science park and the Civen association. The essence of the venture is to open up advanced laboratories to manufacturing industries in order to support technology and scientific expertise, as well as links with national and international academic institutions.

Nanofab research activities are organised into two or three-year projects. The first five projects have already been conducted and nine other projects are ongoing. They are carried out by Civen researchers, a team of 45 people and a scientific director, together with students from the associated universities.

> "Strong ties have been forged between universities in the Veneto region and NanoFab as a direct result of this project. The level of expertise now available thanks to this partnership has raised the profile of the facility and drawn interest from many of the region's top companies."
>
> **DIEGO BASSET,**
> NANOFAB DIRECTOR

In general, the research projects focus on surface treatments and coatings such as hard and low friction, anti-scratch, anti-corrosion, anti-bacterial, anti-shrinkage, impact resistant and fire retardant.

Outlook bright based on early success

While the NanoFab project is still young, it has already achieved outstanding results. In its first year alone, the facility was involved in no fewer than 40 projects led by regional companies. NanoFab acts in an advisory capacity for 36 projects funded by the research and education ministry. On top of this, it also takes orders from companies to conduct feasibility studies. Around 300 companies are benefiting from NanoFab services.

The fact that Veneto was an industrial area in decline made it easier to gain financial support to develop this high capital intensive facility and to upgrade the existing infrastructures. The money has been used to create 2 700 m^2 of labs and technical offices, and to acquire 80 pieces of specialist equipment for the production of nanomaterials and research control.

A strong partnership with local universities and companies is one of the key features of the project and has led to its expansion towards new fields of application.

More about this project can be found at:
http://www.venetonanotech.it/en/

Workers in protective clothing handling high-tech equipment

Saarbrücken, Saarland, Germany

SAAR develops innovative approach to space

Space ventures – in particular long-term missions to the Moon and Mars – will require cutting-edge software and hardware of the highest standard. To make this a reality, the SpaceInnovation SAAR initiative is bringing expertise from non-space related sectors to bear on the European space community. Industries, small businesses and research institutes in the Saarland region are accessing new high-tech markets.

Innovation used in IT, nanotechnology, energy, biomedical and automotive sectors can add value to the space community. The SpaceInnovation SAAR initiative coordinates the innovation process in collaboration with the European space community and non-space sectors in the Saarland region.

Customising the approach

Closer co-operation is being forged between innovative industries, small and medium-sized businesses (SMEs) and research institutes in Saarland and the European Space Agency. The project is the first of its kind to bring the expertise of a non-space oriented region to the space sector.

The individuals behind the leading-edge technologies in Saarland's nano-bio, automotive, IT and healthcare sectors are being involved to bring improvements to the space sector. Software and hardware technology are crucial elements of any long-term mission to the Moon or to Mars. Guaranteeing this technology is reliable and safe is one of the ways Saarland can contribute to the space sector.

> "The European Space Agency has initiated a consultation group to analyse the potential for a Europe-wide regional approach to complement its future innovation strategy for exploration activities."
>
> **PETER BÜTFERING, ADAM ALVA & NEIL,** INTERNATIONAL SPACE CONSULTANTS

The Verisoft consortium comprising academics and SMEs in Saarbrücken could provide this expertise. It specialises in the security of embedded systems and the verification of complex software and hardware systems. Through this project, Verisoft is working alongside research and telecom experts from the space sector to see where improvements can be made.

Converging developments

The SpaceInnovation SAAR initiative has become a benchmark project for convergence mechanisms between space and non-space industries and SMEs in Europe.

Examples of valuable projects include intelligent logistics being developed by the German centre for artificial intelligence (DFKI) in Saarbrücken, smart nanostructured surfaces for the experiment facilities of the International Space Station, and customised technology from a company mainly developing medical applications (Sarastro GmbH).

The innovative partners from Saarland are benefiting from new contracts and customers, while the space sector is benefiting from leading-edge technologies and solutions from outside traditional supply and delivery chains.

More about this project can be found at:
http://www.spaceinnovation-saar.de/

EU funding

From October 2007 to September 2008, SpaceInnovation SAAR received

€79 800

from the ERDF

Space equipment being produced using expertise from diverse German enterprises

Sigulda, Latvia

All eyes on floating humans

People often wonder what it would be like to float in the air. Well, Sigulda, Latvia is one place they could visit to find out. Drawing on the enthusiasm for experiment, risk, excitement and technological advances at one company, the project dubbed 'Development of a Mobile Wind Tunnel Prototype' has taken humans and technology to new heights. The success of the project's technological development is evident in the fact that it has been sold to more than 10 countries.

The main idea behind the project was to find technological solutions that would enable the construction of an open-air wind tunnel suitable for show business, including stunt shows for the public. Aerodium was the company that rose to the occasion, and in 2006 became widely recognised after its machine was used in the closing ceremony of the Winter Olympics in Torino.

Not for the faint-hearted

The project aim was to develop a mobile, vertical wind tunnel prototype and produce a device ready for distribution beyond Latvia's borders. The pioneering spirit of the company Aerodium, based in the popular tourism region of Sigulda, was what was needed. The company owns and runs the first ever vertical wind tunnel in Eastern Europe. The spectacular Olympic Games show that brought it renown featured flying acrobats in a tunnel blowing a wind stream of 200 km/h within a diameter of 3.7 metres.

The main challenge was to make the electrical device truly portable and easy to transport from one show to the next. The developers also needed to improve the air quality of the wind tunnel and boost its level of power, all the while ensuring safety. Given the challenges inherent in such a project, several scientists were brought into the team during the development process. The technological superiority of the final result was so dominant, that the Latvian company eventually took over its parent company Aerodium Canada in 2009.

> "The technological progress made as a result of this project has brought job security as well as international recognition for our company."
>
> **IVARS BEITANS,**
> OWNER AERODIUM LTD

Educating through entertainment

The finished product soon attracted attention, with the Ministry of Education filming it and producing an educational movie for schools explaining the physics of aerodynamics. The prototype was also extensively used for training flying acrobats. Since the project was completed, Latvia has become the leading country in this very specialist industry and its know-how is now recognised worldwide.

A design with many uses

The 50 staff at Aerodium are reaping the benefits of the project's success in terms of job security as well as insight into understanding the technology. Subcontractors are also gaining from the development through the rise in exports of the equipment. Apart from the entertainment industry now being able to offer more breathtaking excitement to the public, the military is also using the device, in this case for sky diver training.

More about this project can be found at:
http://www.aerodium.lv

EU funding

€47 400

was allocated from the ERDF to 'Development of a Mobile Wind Tunnel Prototype' over the period 2004 to 2006

Thrill-seeker experiences the wind tunnel

Estonian enterprise on the rise

Regio is an Estonian company specialised in geographical maps and related software. Its expertise and success have not gone unnoticed, with 2005 awards including the Entrepreneurship Award and Most Innovative Enterprise in Estonia. With the support of EU funding, the company has been able to capitalise on this success and provide a boost to key components of the business: training, export and R&D activities.

Developing team spirit, quality control, export plans and cutting-edge software systems were just some of the areas covered. The markets for their products remain competitive, but already Regio's success across the globe, including Saudi Arabia, India and Europe, has shown the benefits of well-targeted funding support.

Training for growth

Life at Regio revolves around mapping, geospatial data, geographical positioning systems and mobile positioning. The human factor at Regio is a key ingredient, which is why funding support was used for training courses that matched personal development plans, particularly for IT specialists. Training was also used for devising a quality management system and clear company marketing strategy, vital in this highly specialised market.

Mapping the way forward

The Regio project also included putting together and implementing a plan for exports to Finland, as well as an export plan for its GIS (geographical information system) products. Results were not long in coming, with large-scale exports of its mobile phone software heading to Saudi Arabia, the United Arab Emirates, Slovakia, India and elsewhere.

> "Thanks to support from European Structural Funds, Regio has been working in the field of innovation for years, and now we are reaping the benefits in markets abroad."
>
> **TEET JAGOMÄGI,**
> CHAIRMAN OF AS REGIO MANAGEMENT BOARD

The development of LOGISME and GISSER systems was covered by the project as was a pre-study into mobile software for location-based services. Regio keeps its eyes looking towards the future with ways it can advance and grow and also continue benefiting the region through jobs and high quality services.

More about this project can be found at:
http://www.regio.ee/

EU funding

€1.16 million
was allocated from the ERDF and the European Social Fund to Regio over the period 2004 to 2009

A company showing the way with mapping technology

New opportunities for innovation in Poland

The gap between high levels of scientific potential and low levels of innovation in business is being bridged in the Lower Silesia region of Poland thanks to the Incubator Technology Centre. The centre offers a place for businesses to interact with the academic world, namely the University of Wrocław, the Wrocław University of Technology, and the Wrocław University of Environmental and Life Sciences.

This collaboration has resulted in the creation of over 24 technological start-ups including five set up by professors and six laboratories covering research into biotechnological processes, board and electronic circuit production and vacuum technology.

Shared facilities, greater possibilities

The Incubator Technology Centre attracts small businesses interested in making the most of cutting-edge technology. It is part of the Wrocław Technology Park, a business support and technology transfer initiative which encourages and advises knowledge-based businesses.

The park provides the ideal conditions for businesses, both large and small, to develop and interact in a mutually beneficial environment. The premises offer high-quality office space, laboratories and workshops, conference rooms, guest rooms for visiting scientists, telecommunications services, and advisory and support services.

The six laboratories installed in the technology centre cover: board and electronic circuit production and diagnostics; vacuum technology; biotechnological processes; electronic processing; low temperature research; metallic properties diagnostics; and advanced mechanical technologies.

> "Nexwell Engineering company was established in 2006 in Wroclaw Technology Park academic enterpreneurship incubator. Since then, Nexwell has been using the electronics laboratory to build and test new designs."
>
> **MICHAŁ KOWALCZYK,**
> NEXWELL

Each laboratory is run by a company located in the technology park that is committed to training users. This means knowledge is shared while testing prototypes. The laboratories are available to any company wishing to make use of them. This arrangement has led to research being commissioned from outside and novel know-how being transferred.

Innovation comes to Poland

The Wrocław Technology Park offers companies unique facilities and services. This has clearly filled the existing gap, as it now hosts the highest concentration of innovative companies in Poland and is still expanding. Approximately 96 companies are located in the park. The park also draws interest from large research institutions elsewhere in Europe – Deutsches Electronen-Synchrotron, the Max Planck Institute for Plasma Physics and the European Organisation for Nuclear Research, CERN.

The laboratories, which are equipped with hi-tech equipment, are open to interested companies. The companies do not have to make heavy investments; they can simply rent the equipment for short periods of time. Staff at the technology park are there to provide assistance in testing and training.

EU funding

€4.2 million

was allocated from the ERDF to the Incubator Technology Centre over the period October 2004 to September 2007

Thanks to the project, the technology park supports newly established companies with the best business ideas. The supported companies located in the Incubator Technology Centre pay decreased rent, can take advantage of consulting services and also take part, at preferential rates, in training courses on how to run their business. The park also helps companies to finance their business ideas by arranging meetings with representatives of funds, such as venture capitalists and seed capital business angels.

More about this project can be found at:
http://www.technologpark.pl/

Home to interaction and innovation in Lower Silesia

Research and industry combine forces for cross-border growth

Local government, businesses and universities across the Swedish-Danish border are working hand-in-hand to further knowledge-based economic development in this cross-border region. The Øresund Science Region initiative is designed to sustain the momentum gained following the opening of the Øresund bridge.

The initiative embraces the unique strengths of the region, namely a highly educated population and market-leading technology. It has forged a partnership between the region's 11 universities, 6 science parks, 2 000 companies and some 12 000 researchers. Together these parties are bridging the gap between research and industry by overcoming challenges relating to the different arrangements that exist in each country, such as intellectual property rights, funding mechanisms, capital requirements, business traditions and academic educational structures.

Co-operation to drive growth

The Øresund Science Region (ØSR) is a regional development project designed to boost innovation and research by linking authorities, industry and universities across the Swedish-Danish border in identified core areas of expertise.

The following platforms are part of the ØSR: Øresund IT, Øresund Environment Academy, Øresund Food Network, Øresund Logistics. These platforms secure and develop an innovative environment for new knowledge and an efficient structure for commercialisation. They integrate the various disciplines among academia, industry and the public sector.

> "This project has had real impact and has overcome language, legislative and physical barriers by building inter-regional partnerships that had previously been non-existent. It is an excellent example of a bottom-up triple helix approach. The project has a good administrative foundation, good working partnerships and is a good example of successful networking."
>
> **JUDGE HANDING OUT THE 2008 REGIOSTAR AWARD FOR 'SUPPORTING CLUSTERS AND BUSINESS NETWORKS'**

One of these platforms, Øresund Food Network, initiated a network project, called Unlimited Health, to establish a health industry in the Øresund region. Major university hospitals, universities, authorities and food and pharma industries from Sweden and Denmark are part of this network. The outcome has increased innovation and regional company growth in new health promoting food products, thereby improving general public health in the long run.

Model for growth

The ØSR developed a unique model for growth, known as the 'double triple-helix'. This model is based on knowledge in a cross-border region that brings together local government, businesses and universities from two different countries, with their different administrative and legal cultures, industrial landscapes and languages.

EU funding

The Øresund Science Region received

€1.93 million

from the ERDF for the period February 2002 to May 2005

The ØSR achieved: state-of-the-art scientific clusters and networks; creation of new knowledge in areas where the Øresund Region is competitive on a global scale; the development of an innovative environment and efficient commercialisation structure; setting up of global branding and marketing for the Øresund Region as a high-tech region; securing sustainable economic growth while maintaining a high ethical standard; promotion of integration across the borders of Denmark and Sweden; a worldwide inflow of students, scientists, capital and companies into the region.

More about this project can be found at:
http://www.oresund.org

Building on the Øresund bridge

Four regions gain leading-edge technological experience

Fostering competitiveness through technological innovation and the information society is what ESTIIC is seeking to achieve by pooling the specific expertise of four regions – Asturias and Cantabria from Spain, North Rhine-Westphalia from Germany and the Southern and Eastern region of Ireland.

ESTIIC brought together local and regional government, development agencies, business organisations, third-level education establishments, and research and technology centres from all four regions for projects reflecting the regions' development priorities. Ultimately, ESTIIC aims to improve the effectiveness of related policies and instruments and their responsiveness to the needs of small and medium businesses.

Making it happen

The main element of ESTIIC was a mini-funding programme for projects furthering technological innovation and the information society. Contracts were negotiated and drawn up and then launched in the spring of 2006. The outcome was the approval for funding of eight subprojects involving interregional co-operation.

The eight approved subprojects covered Radio Frequency Identification (RFID), nanotechnology, individualised publishing strategies, adapting academic research to the needs of small businesses, broadband and regional development, the business potential of eHealth, and the use of spatial information in business processes.

> "The idea emerged thanks to the joint efforts of the Government of the Principality of Asturias, IDEPA, the laboratory and the appellation of origin Cabrales cheese, and recognition of the need to support those small producers who work to produce high-quality cheese, ensuring that this quality is approved on the market through the introduction of new technologies such as radiofrequency."
>
> **ALBERTO MEANA,**
> INTERPROFESSIONAL DAIRY LABORATORY OF ASTURIAS

As an example, RFID technology was used to develop a prototype to track and trace foods like Cabrales cheese using special tags. Dissemination activities such as seminars and exhibitions helped to promote RFID technologies in the small businesses of the four regions.

A show of potential

The subprojects yielded very positive results, the value of which could be seen beyond the four regions involved.

The RFID subproject was of great interest to SMEs in the agri-food sector. Cabrales cheese is only made by family-owned businesses in relatively small quantities yet farmers must comply with EU laws requiring the tracking and tracing of the product throughout the production process. The developments showed that it is possible to tag individual cheese with RFID and to record and maintain specific data to track and trace each cheese.

EU funding

From July 2005 to June 2008
ESTIIC received

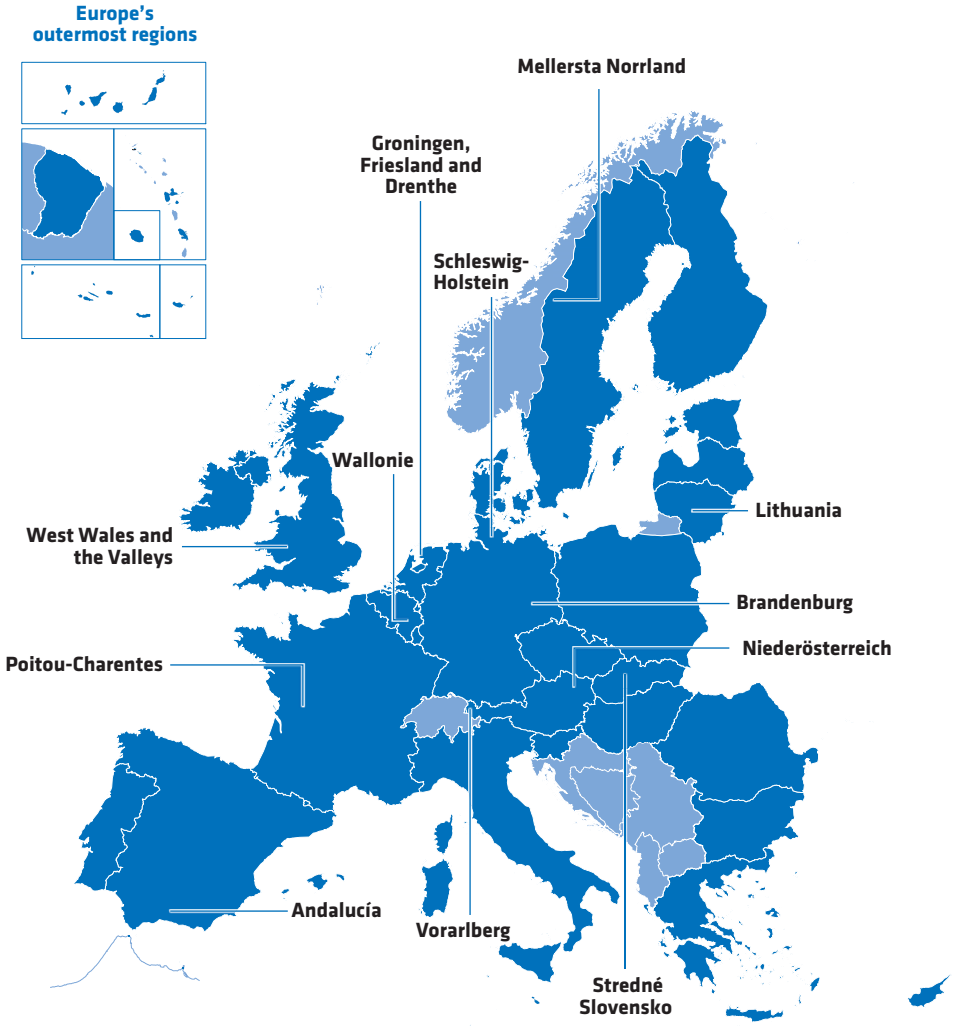
€3.16 million

from the ERDF

During the final phase of ESTIIC the regional partners discussed and approved the development of additional activities linked to the topics tackled by subprojects, such as five regional studies, two workshops for SMEs, five international conferences and two study visits, thus ensuring the achievement of the initial objectives in each region. Additionally, these activities helped with the drafting of the European ICT Manifesto for the Regions to support regional policy makers in their attempts to develop successful strategies for delivering the Lisbon and Gothenburg agendas. The activities helped to identify ICT trends and showed how to incorporate these into proactive regional policies.

More about this project can be found at:
http://www.idepa.es

Cheese quality benefits from modern technology



Andalucía, Spain: Horizons expand for natural stone industry

Charleroi, Hainaut, Wallonie, Belgium: Bringing sophisticated solutions to aeronautical research

Groningen, Friesland and Drenthe, Netherlands: LOFAR hails new generation of radio telescopes

Kiel, Schleswig-Holstein, Germany: Building expertise to harness wind power

Lithuania: Laser vision gives Lithuania competitive edge

Niederösterreich, Austria: Technology to the power of three

Östersund, Mellersta Norrland, Sweden: National winter sports centre goes for gold

Poitiers, Poitou-Charentes, France: Helping hand for hydrogen energy and CO_2 storage

Potsdam, Brandenburg, Germany: Wider horizons for Potsdam-Golm Science Park

Swansea, West Wales and the Valleys, Wales, United Kingdom: DIPLE breathes new life into Welsh printing industry

Vorarlberg, Austria: Vorarlberg gets virtual reality centre

Žilina, Stredné Slovensko, Slovakia: Tackling tough transport problems

Territorial Co-operation

CZ, ES, IT, NL: Matching technologies and opportunities

Research and Development (R&D)

Research, talent and education are crucial components of growth and innovation. However, there are large disparities between EU Member States and regions in terms of spending on research and development. The EU as a whole is also lagging behind its closest competitors, investing less on research and development than the US or Japan. This means that a much greater effort needs to be put into creating an environment that encourages innovation and R&D. Europe needs to step up a gear – become more inventive, and react more quickly to changing market conditions and consumer preferences. Plugging the R&D gap is crucial. However, this can only be achieved with a strategic partnership approach involving business, research institutes, academia and public authorities.

In response, the Union has put in place a comprehensive set of policies and strategies, at European, national and regional levels, aimed at bolstering investment in research and technology. A large slice of this (€50.5 billion) is directed towards developing R&D facilities, supporting technology transfer and collaboration between research institutions, government and the business sector, improving research capacity in small firms, and helping small and medium sized enterprises to promote environmentally-friendly products and production processes.

The projects highlighted over the next few pages give a taste of how the EU is trying to turn the deficit around by investing in projects such as Belgium's Cenaero research centre, which provides world-class technological services and solutions to industries in the aeronautical sector. Support from EU regional funds has also helped to increase the competitiveness and develop the export potential of a group of Lithuanian hi-tech companies specialised in laser technology. By helping to create strong research capabilities, investment from the regional funds is helping to boost regional economic activity.

Horizons expand for natural stone industry

Macael marble hewn from Almería's mountains can be seen in the Roman and Arabic architecture that abounds in Granada's Alhambra, Mérida's Roman theatre and Córdoba's Great Mosque. Today, having overcome make-or-break challenges, the industry comprises roughly 400 companies employing some 9 000 people. This is thanks largely to the ingenuity of the Andalusian stone technology centre (CTAP).

Made a reality through EU funding, this centre was set up to develop innovation in Andalusia's masonry sector. By working closely with businesses to assess and adapt to market trends, the centre is successfully promoting the Andalusian region's special craft heritage. Businesses are offered scientific expertise and lab facilities, as well as support for new designs, technological development, training and marketing strategies.

Ingenuity in action

As the first industrial technology centre in Andalucía, the centre itself represents a pioneering endeavour. ERDF assistance was used for the construction of a building to house the centre and for the acquisition of scientific and technical equipment, such as a test laboratory. Before beginning operations, the centre conducted a rigorous analysis of the stone sector from the perspective of local companies.

Then CTAP set about identifying a range of possible services and projects to improve the activities of the companies. These services include R&D, quarry restoration, waste recovery, industrial design, quality control and guidance for innovation. Close co-operation with universities helps the centre to identify areas of research from which specific development projects could benefit.

> "CTAP is the best platform in Andalucía for the innovation and development of a traditional sector. The centre collaborates directly with entrepreneurs and is fully committed to continuous improvement and the promotion of R&D&I. CTAP helps entrepreneurs to develop new products and to find their niche in the market."
>
> **ANTONIO PASTOR SOTO,**
> MANAGER OF MÁRMOLES ANTONIO EL DE PURA

One spin-off company, Macaedis, makes urban furniture in natural stone. Through its innovative products, Macaedis is opening up a niche for itself in the well-designed urban furniture market. This high-end niche has been created in co-operation with prestigious architects and designers.

Changing mentalities, finding new markets

Companies in the region are now thinking more in terms of their innovation potential. Increased pressure from competitors has opened their eyes to the need for the kind of professional help that CTAP can provide. Wary at first, the companies now appreciate that CTAP can help them gain a competitive edge – thanks to support and training in line with their needs, not to mention a specialist research team.

EU funding

€2.55 million

was allocated to the Andalusian Stone Technology Centre from the ERDF for the period 2002 to 2006

CTAP also helps companies adopt longer term strategies, rather than simply continuing in what they have always done. The general development of the stone sector is overseen by the CTAP's 53 paying members which include the Government of Andalucía, the Provincial Government and the University of Almería, as well as private organisations and companies.

CTAP in 2008 has participated in more than 27 innovation projects in two years with more than 545 different companies. Andalucía is now responsible for some 42% of the total production of marble stone in Spain, the second biggest producer in the EU, after Italy.

More about this project can be found at:
http://www.ctap.es

Marble stone being worked on by expert hands

Bringing sophisticated solutions to aeronautical research

Cenaero is a research centre located in Charleroi's Aeropole business park providing sophisticated services and technological solutions to industries in the aeronautical and related sectors. Set up in 2002, Cenaero has played an important part in Wallonia's economic turnaround.

Cenaero's mission is to support innovation among aeronautic companies by providing them with focused expertise in numerical simulation and modeling methods. The centre bases its success on well-developed co-operation between universities and industry.

From the virtual to the real

Simulation ranks high among today's design cycle priorities, boosting profits by reducing time to market. Cenaero develops software to model certain manufacturing processes allowing designers to reduce tedious manual tuning and to optimise the resulting manufactured part. One such software, Morfeo, has become a reference in unified simulation for wide-ranging applications. Morfeo is designed to handle large and complex mechanical components within a real industrial environment.

In order to develop multidisciplinary simulation technologies for aeronautics, Cenaero relies on the scientific and technological expertise provided through a partnership of four universities (Université de Liège, Université Catholique de Louvain, Université Libre de Bruxelles, Université Mons-Hainaut), a research centre (Von Karman Institute) and EWA (the association of Walloon companies in the aeronautical sector). A local development agency for Charleroi (IGRETEC) also became a member of the centre in order to fully integrate its growth within the regional innovation strategy.

> "It's ideal to be able to make use of a centre specialised in numerical methods as we look for the new tools and applications we need."
>
> **STÉPHANE MALJEAN,**
> TECHSPACE AERO

Gaining well-merited recognition

Cenaero is now recognised all over Europe for its expertise and performance. With a team of more than 50 highly qualified engineers and PhDs and the biggest High Performance Computing (HPC) centre of the region, Cenaero has become a reference for numerical simulation.

In terms of impact, Cenaero has led to the creation of more than 75 jobs. The Centre is now entering its second phase of development and aims to consolidate its position at European level while at the same time diversifying its market opportunities. By 2015 some 50 additional jobs should be created as well as two start-up companies. The full self-financing of the structure should also be achieved.

As part of the regional innovation strategy, Cenaero has clearly contributed and will continue to play an important role in the economic development of the Hainaut area, and, more generally, in the competitiveness of the Walloon region.

More about this project can be found at:
http://www.cenaero.be

EU funding

From April 2002 to June 2008, Cenaero received

€4.13 million

from the ERDF

Modern research centre helping to boost Walloon economy

LOFAR hails new generation of radio telescopes

A new window on the universe, this is what the LOFAR radio telescope hopes to offer through a network of 7 000 small antennas spread across 45 stations in the north east of the Netherlands, Germany, the United Kingdom, France and Sweden. Enthusiastic astronomers and engineers will be looking to LOFAR to help answer age old questions about the origins and evolution of the universe.

The LOFAR project is being led by the Netherlands Institute for Radio Astronomy, ASTRON, and forms part of the organisation's plans for the Square Kilometre Array (SKA) project to build the world's biggest radio telescope capable of shedding light on such things as gamma-ray bursts, extrasolar planets and dark matter. Sensor technology is another rapidly developing field with a broad range of potential applications, from agriculture and healthcare to traffic management and oil production.

Astronomy at low frequencies

LOFAR is a multi-purpose sensor array whose main application is astronomy at low frequencies (10-250 MHz). An array of telescopes made up of many relatively inexpensive antennas are organised in aperture array stations located in the north of the Netherlands, Germany, the United Kingdom, France and Sweden. A wide area network connects these stations with the central processing facility and a Blue Gene/P supercomputer processes the data at the University of Groningen.

What sets LOFAR apart from traditional telescopes is its flexibility. Instead of the traditional mechanical signal processing with a dish antenna, LOFAR detects the incoming signals using an array of simple omni-directional antennas, the electronic signals from which are digitised.

> "LOFAR is a cutting-edge, low-frequency, multi-field aperture array telescope that is using innovative technologies and novel software approaches. This telescope has very recently started producing unique data in a relatively unexplored spectral window."
>
> **PROFESSOR MIKE GARRETT,**
> ASTRON & LEIDEN UNIVERSITY

This is why LOFAR is also referred to as a software radio telescope. Innovative information and communication technology hardware has been developed to reduce and manage the huge amounts of data streaming from the antennas (roughly 10 Tbit/s).

Other sensors are also being attached to the shared networking and processing facilities; geophones and infrasound sensors for geophysical studies, as well as other dedicated sensors to monitor the climate in crops and the movements of animals for precision agriculture. Further sensors and/or applications may follow.

Stimulating local business

LOFAR has stimulated local businesses to invest in technology development. This has resulted in 12 collaboration agreements with companies that were active in the R&D phase of the project. These investments have led to an increase of the level of expertise and competitiveness of these companies.

LOFAR will look for signs of the first stars and galaxies in the very early universe. It will detect and study the highest energy cosmic ray protons, the very existence of which theoreticians cannot explain – thereby providing essential physical information not otherwise available.

More about this project can be found at:
http://www.lofar.org/

EU funding

From July 2004 to September 2008, LOFAR received

€10.84 million

from the ERDF

Some of the 7 000 antennas taking us deeper into the universe

Building expertise to harness wind power

The wind is a precious resource with great potential for energy production and propulsion provided the right systems are in place and the right expertise is at hand. To do just that, a competence centre for wing system and wind tunnel verification was set up in Schleswig-Holstein, Germany. The centre offers services rarely available elsewhere and works in tandem with the maritime industry.

The technological achievements of the project so far include what is known as a twist flow wind tunnel. This is being used to test sailing yachts and other wind-driven systems, particularly wind turbines for renewable energy. Thanks to the centre, technological know-how is being transferred to support the local maritime industry.

Wind-driven industry

The goal of the project was twofold: to set up a competence centre (CCTS) to serve as a contact point for industry which would address any technical or scientific difficulties, and to develop aerodynamic research and optimise wind-driven systems.

Until recently, little was known about how wind-driven systems could be optimised in the light of the phenomenon of 'twist flow' or 'shear flow'. Now, however, the process is raising considerable interest in the maritime industry.

The new twist flow wind tunnel which is easily adaptable – not only to boats and sails of varying sizes but also to wind turbines and aircraft – shows that even variations as small as one millimeter can have a significant impact on the speed of a boat.

> "Our flow investigation services proved to be an outstanding example of working technology transfer. It helped the local sailmakers, yachtdesigners, boat and shipyards to stay competitive, while allowing the university to carry out R&D programmes in co-operation with industry to improve the level of science and technology in the field of fluid dynamics."
>
> **DR ING K GRAF,**
> SENIOR SCIENTIST / YACHT RESEARCH UNIT KIEL

Optimising sails

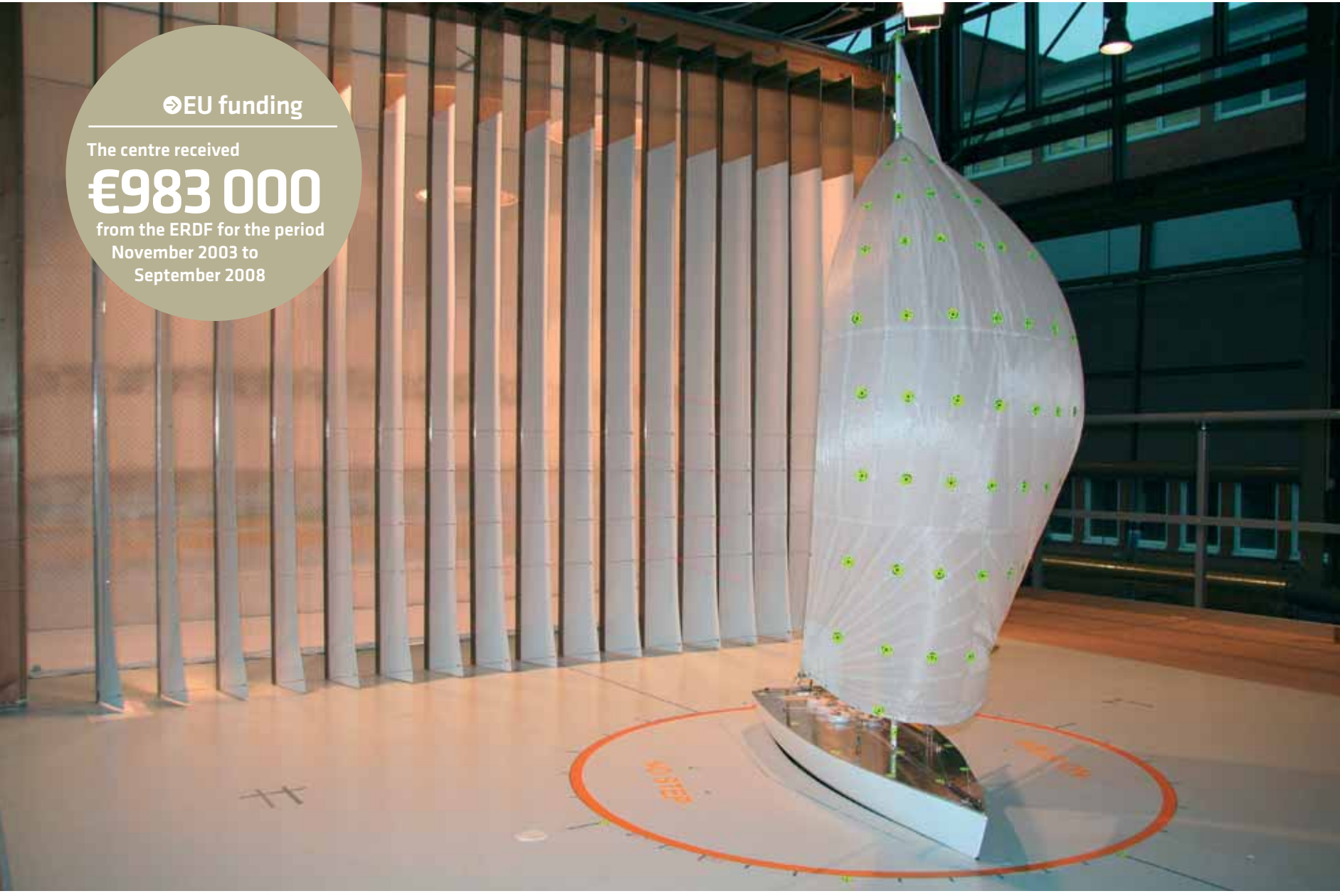
Since the wind tunnel began operations in March 2006, several local sail makers have used the tunnel to optimise their sails. The Kiel Yacht Research Unit which has been heavily involved in the project has succeeded in obtaining two research co-operation projects with large international sail sport campaigns, demonstrating the competitiveness of the venture.

Small businesses are also benefiting from the technology which is helping them to design better sails and thereby boost their sales. They are able to improve their sail sets and offer regatta sailors and ambitious sportsmen a promising alternative.

Another development placing the research unit at the forefront of science and engineering in this particular field is the 'Fluid Structure Interaction Method' for analysing sails which makes use of experimental as well as simulation techniques.

The project which has been successful in transferring the results of academic research into industrial application for local industry has been supported by the regional government and by the University of Applied Sciences in Kiel.

More about this project can be found at:
http://www.yru-kiel.de/



EU funding

The centre received

€983 000

from the ERDF for the period November 2003 to September 2008

Model demonstrating how to harness wind for power

Laser vision gives Lithuania competitive edge

The development of industrial lasers for micromachinery has given four specialist companies in Lithuania the leading edge in the global market for micromachinery and diagnostics. Ekspla, Light Conversion, Optida, and Standa have combined forces to design more advanced, powerful and robust lasers for industrial use.

The project is contributing to the growth of Lithuania's knowledge-based economy through the development of competitive laser systems, material micromachining and spectroscopy technology.

Pooling resources

Four Lithuanian laser and photonics companies joined forces to devise specific lasers for the industrial market. The companies participated in leading international conferences on lasers and cooperated closely with each other and with specialists from outside the country. Laser testing then followed and prototypes were created.

Ekspla, Light Conversion, Optida, and Standa have been creating new laser technologies for industrial application to enter Southeastern Asia. Ultra-fast laser impulse technology makes these manufacturers competitive with other well-known laser companies.

The desire to exploit novel applications of laser in industry stemmed from the constraints of the scientific laser market. Lithuanian companies would be limited to a maximum of 10% global market share in scientific lasers. By widening their horizons to industry, the companies were able to tap into the increased demand for industrial laser equipment.

> "The project significantly contributed to the development of the laser industry in Lithuania. Based on the project results, a new branch of industrial lasers has been introduced at Ekspla. Two fast-growing startup companies were also launched."
>
> **ANDREJUS MICHAILOVAS,**
> TECHNICAL DIRECTOR, EKSPLA

Innovative lasers

Ekspla, Light Conversion, Optida, and Standa are working on providing the global market with innovative new lasers that satisfy industrial application requirements. This should boost the hi-tech sector's contribution to economic growth in Lithuania. It is forecast that sales in the laser industry sector could reach LTL 0.5 billion (€145 million) by 2017.

By developing technologies that give access to the world's industrial laser market, the expectation is that Lithuania's export potential will grow. This will then lead on to higher turnovers for the companies involved and to greater investment in human skills and knowledge. Already Light Conversion alone holds 80% of the global market of tunable femtosecond lasers.

As many as 20 students were given the opportunity to follow placements in the laser companies, with some staying on in permanent posts. Ten new jobs were created as a result of the collaboration.

EU funding

From April 2005 to October 2007, the lasers for micromachining and diagnostics project received

€1.09 million

from the ERDF

Laser industry propels forward with advanced technology

Technology to the power of three

An innovative technology programme aimed at boosting the competitiveness of Austria's largest state companies has generated more than 50 different projects. Launched in 2004, it centres on three high-tech Technopol sites in Lower Austria, with respective expertise in biomedical technology, agrobiotechnology and environmental biotechnology, and modern industrial technologies.

The Technopol Program of Lower Austria has its roots in a decision by this state earlier this decade to focus on applied research as a means of developing the economy. The four-year programme focused on the towns of Krems, Tulln and Wiener Neustadt – three Technopol locations that combine technology with business centres.

Seeking critical mass

The programme started in April 2004 and was established around recognised educational and research institutes at several Technopol sites. The main goal was to develop a critical mass in the areas of R&D, education and the economy at each site, with a view to finding a new platform for interdisciplinary scientific work and for application-oriented collaboration.

Guided by Ecoplus, the Business Agency of Lower Austria, the programme concentrated on five core areas, namely innovation, technology, co-operation, internationalisation and mobilisation of start-ups. The total cost of €2 888 000 was co-financed by the European Regional Development Fund and Austria.

> "The close networking of research activities between research institutions and educational facilities guarantees the creation of expertise on the front lines of the international R&D community."
>
> **CLAUS ZEPPELZAUER,**
> TECHNOPOLS, ECOPLUS

At each of the three sites, a designated manager was responsible for the activities of the R&D facilities, business operations, and the educational and training institutions based there. They were also tasked with management of marketing, business development and key accounts.

Higher profile

Under the programme, international benchmarks have been established and top-level research is being carried out at the three Lower Austrian Technopols. All of these activities provide valuable new stimulus to the state's economy, while enhancing its profile as a centre for world-class applied research.

More than 50 different projects were successfully developed with the support of the Technopol management, including co-operation between local R&D facilities and companies. Among these was the ONLAB project, developed at the Wiener Neustadt site, which offers a state-of-the-art nano-analytics laboratory. This new infrastructure is used in projects shared with industrial companies as well as by masters and doctorate students. A further benefit has been the creation of several new posts for highly qualified employees.

EU funding

€960 000

was allocated to the Technopol Program of Lower Austria from the ERDF for the period April 2004 to March 2008

State-of-the-art in Austrian R&D

National winter sports centre goes for gold

The technical expertise of the Mid Sweden University is being applied to ski research in the Mid-North Sweden region, helping skiers raise their performance levels to the very highest standards. By bringing together researchers, coaches and athletes, the Östersund National Winter Sports Centre (NWC) has become a unique and inspirational meeting place.

The region now attracts many athletes – the majority of the Swedish cross-country skiing and biathlon squads live and train in Östersund. With this development, many jobs have been created and the centre is now internationally renowned for winter sports and adventure technology.

Creating the winning team

The idea to set up a winter sports centre in the city of Östersund, in the region of Jämtland at the heart of Sweden, originates at the Jämtland-Harjedalen regional sports confederation. This sports confederation formed a partnership with the Östersund city council, Jämtland country council and various private companies to create a world class sports centre, focussing on winter sports and public health.

The centre became part of the Mid Sweden University Östersund campus in 2007 and is operated by four institutions, sports organisations, the city council and the county council. The centre has four different purposes: to promote R&D; to host a university lab for the sports science students; to act as a testing centre for world class sports; and to provide training for the Swedish Olympic Committee.

> "Unique lab resources and research competence in close proximity to sports make it easy to choose the Mid Sweden University."
>
> **MATEJ SUPEJ,**
> VISITING LECTURER FROM THE UNIVERSITY OF LJUBLJANA

Six teams of athletes, whose disciplines cover cross-country, biathlon, alpine, freestyle, snowboarding and skating, work side by side with the centre testing techniques and technologies in a mutually beneficial arrangement. Thanks to this input from elite athletes, the centre is now able to develop and upgrade specialist sports equipment.

From new cross-country skiing and pole jumping techniques, whose value has been demonstrated by Olympic gold winner Björn Lind in Turin in 2006, to wiser nutritional choices thanks to research into the metabolism of sugar during hard physical exercise, there is no doubt that the test centre is a goldmine for athletes looking to better their performance.

Getting on the map

Östersund has become one of the main R&D sports centres in the whole of Sweden. By combining elite sports and research, it is helping both the athletes and the university. Athletes are given the opportunity to improve their techniques as well as the possibility to continue their studies. The university is benefiting from research laboratories of a world class standard, especially in physiology and biomechanics.

The region is now firmly on the global winter sports map. Most of Sweden's participants in the

EU funding

The National Winter Sports Centre was allocated

€1 million from the ERDF for the period 2000 to 2006

Olympic Games in Vancouver in 2010 are connected with the NVC and the university, using its facilities for various purposes. Through the use of global positioning systems, the centre is also able to re-create certain environments such as Vancouver's ski stadium. This gives athletes an added advantage when they compete.

Although at the beginning the main focus was on world class athletes, the same equipment used for testing these athletes can also be used to assess various public health projects. In the past couple of years, the NVC has been working with other universities in Austria, Germany, France, Italy, Finland, Norway and the USA. One example of collaboration is in the field of human development and ageing.

More about this project can be found at:
http://www.miun.se/Mittuniversitetet-In-English/Presentation/Our-Campuses/ostersund

Ski movements being tested for peak performance on the slopes

Helping hand for hydrogen energy and CO_2 storage

Environmental challenges linked to hydrogen energy and CO_2 storage are a step closer to being solved, thanks to a project at Poitiers-Futuroscope. With a unique new mechanical testing platform, researchers are assessing the feasibility of carrying hydrogen over natural gas pipelines and of storing CO_2 in facilities lined with rubber seals.

The new facility is part of a project hosted by the Graduate School of Engineering in Aeronautics, Transport, Mechanics and Energy (ENSMA). Project results could pave the way for faster rollout of innovative clean energy solutions.

High-tech platform

The development of hydrogen as an energy source and the possibility of permanently burying CO_2 are vital for the EU, due to declining fossil energy resources and increasing demand to reduce CO_2 emissions. Yet much remains to be done to develop storage structures and a reliable transportation network.

The platform for mechanical testing under hydrogen (H_2) and carbon dioxode (CO_2) project addresses some of these challenges. It is an EU co-funded project run by ENSMA, the young graduate engineers school next to Poitiers-Futuroscope, a European theme park based on multimedia, cinematographic and audiovisual techniques.

> "This unique new testing platform opens up significant prospects for the development of hydrogen as a new source of energy and for storing CO_2."
>
> **JEAN-CLAUDE GRANDIDIER,** PROFESSOR, ECOLE NATIONALE SUPÉRIEURE DE MÉCANIQUE ET D'AÉROTECHNIQUE IN POITIERS

The size of a large wardrobe, the platform is in the Laboratory of Materials, Mechanics and Physics (LMPM). This facility conducts fundamental studies and analyses the behaviour and durability of materials under very different conditions of stress, temperature and environment.

Work started in May 2007, with several industry and university partners. It included characterising new generation steels and polymers, to see if these new materials could be used in hydrogen transport pipelines, calling on pipelines designed for natural gas. Research suggests pipes may crack in the presence of hydrogen. Other tests are focused on rubber seals for use in CO_2 storage facilities, since this gas can affect their integrity.

Testing times

The LMPM mechanical testing platform has been used for testing metallic materials, polymers or composites, with pressurised hydrogen, carbon dioxide and nitrogen gas at temperatures up to 150°C. The aim now is to reduce the risk of pipeline leakage and rupture, and optimal use of existing or new pipelines.

EU funding

€230 000

was allocated to the Poitiers-Futuroscope ENSMA mechanical testing project from the ERDF for the period 2000 to 2006

The platform will also improve knowledge of complex interactions between the presence of gas and the mechanisms of deformation and damage of materials. This should lead to better materials prediction models.

More about this project can be found at:
http://www.lmpm.ensma.fr/front/page.php?id=1

Testing platform for carrying hydrogen and storing CO_2

Wider horizons for Potsdam-Golm Science Park

Potsdam-Golm Science Park is transforming into one of the most innovative and promising locations for scientific research in the state of Brandenburg. Since the mid-1990s, the science park has grown to host three Max Planck institutes, two Fraunhofer Gesellschaft institutes, an incubation centre (GO:IN) and many innovation-oriented businesses.

Spread over an area of more than 50 hectares, this science park attracts the brightest of minds to lead international research on anything from biotechnology to gravitational physics. The park offers excellent infrastructure and ideal conditions for renowned scientific research institutes, technology-oriented and research-based companies and innovative entrepreneurs.

Where science and business meet

Renovation started on the old buildings of the former University of Potsdam in 1993. Previously run by the Ministry of State Security in the GDR period, the site attracted much investment from national sources in its initial construction phase. In the second and third phases, the project was financed in part from the European Regional Development Fund.

The main aims of the project were to create a park which would integrate both science and business, combine research through greater interinstitutional co-operation, initiate spin-offs, support know-how and technology transfer to local and regional businesses.

> "We joined GO:IN a year ago because it offered us the optimum conditions for turning our scientific ideas into marketable propositions. The fact that the design of laboratory and office areas could be individually selected by each leaseholder was also a crucial factor in our decision. Furthermore, GO:IN offers us a broad spectrum of additional services. These include the use of consultation rooms, presentation technology and a secretarial service if required. In a nutshell GO:IN makes every effort to ensure that we feel at home."
>
> **RAINER WETZLER,**
> CAVIRA BIOPHARMACEUTICALS AG

In 1999 the Max Planck Institutes for Gravitational Physics, Colloids and Interfaces and Molecular Plant Physiology opened their doors. With investments of more than €75 million from national funds, Golm marked the biggest investment in the history of the Max Planck Society.

The Fraunhofer Institute for Applied Polymer Research joined Potsdam-Golm Science Park in 2003 and in 2006 the Fraunhofer Institute for Biomedical Engineering started its research work in a new and modern building.

Creating conditions for growth

The extensive research potential offers optimal conditions for new product developments and services and new enterprises. Consequently many start-up companies arose from the research institutes and the university. In order to support technology transfer and to foster networking between science and the economy, the city of Potsdam created GO:IN, the Golm Innovation Centre, co-financed by the ERDF.

EU funding

From 1997 to 2007, the Potsdam-Golm Science Park received

€74.3 million

from the ERDF

GO:IN opened in 2007 and offers 4 000 m² of office space, laboratories and storage. It provides ideal starting conditions for new entrepreneurs with services like conference rooms, joint marketing and a coaching service. By the summer of 2008, 80% of available space was booked and 28 enterprises were housed within GO:IN.

The strategic decision to concentrate specific research institutes and important Potsdam University faculties within the Science Park at Golm made it possible to establish within a decade a research cluster which is recognised at international level. More than 1500 scientists are working at the science park and the different university institutes boast 7700 students.

More about this project can be found at:
http://www.wisspark.de/en/index.html

Bird's-eye view of the science park

DIPLE breathes new life into Welsh printing industry

Working with small businesses to develop best practice and come up with innovative uses of printing to create high quality products, DIPLE has reinvigorated the printing sector in the Welsh town of Swansea and beyond. Digital Technology and Colour Control, Industrial Printing, Packaging, Lean Manufacturing and Environmental Improvement, otherwise known as DIPLE, performs case study projects with partner companies using the experience gained as a basis for knowledge transfer.

Through these case studies, DIPLE has developed a toolbox of solutions which have been conveyed to the wider printing industry in Wales through networking and company visits. These provide the links necessary for sustainable transfers of technology and offer a source for identifying new topics for investigation.

Targeted research for effective solutions

DIPLE identified specific areas for research together with the printing industry so that each project would have a direct impact on the company in question. In this way, case studies have been used to reduce waste and improve certain printing processes.

The best practices were developed using the facilities of the Welsh Centre for Printing and Coating (WCPC), the first European Regional Development Fund project financed by the West Wales Objective 2 programme in 1996. These practices are of particular benefit to small businesses where printing is used as a quality manufacturing process, as in the automotive, aerospace, medical and pharmaceutical sectors.

The geographical spread meant DIPLE had an impact across the whole of Wales, where the printing industry employs over 28 000 people and is considered one of the main driving forces of the economy. The benefits of the case studies are being applied across the whole of the industry. Cross-industry themes include: colour consistency, benchmarking of colour reference books, environmental impact, employee health and safety, ink consistency, and innovation.

> "DIPLE has worked with small Welsh printers to develop best practice so that they can become more competitive. It's also encouraged them to innovate new products – smart packaging, biodevices."
>
> **DR TIM CLAYPOLE,**
> WELSH CENTRE FOR PRINTING AND COATING

New chapter for the printing industry

The Welsh Centre for Printing and Coating for technology transfer into industry is just one of the projects funded by the ERDF. A further four printing process networks were formed under the ERDF, bridging the technology gap between fundamental science and industrial applications.

In total, the DIPLE project which ran from January 2004 to April 2008 led to 118 collaborative projects between the WCPC and industry. Advice was given in 169 cases concerning innovation and R&D and 170 jobs were safeguarded. An independent review conducted in March 2008 considered the project worthwhile and successful, with targets exceeding expectations.

Its main objectives were to: deliver new technologies to industry; encourage indigenous industry to innovate; support knowledge and technology transfer programmes; promote the wider application of clean technologies and reduce the use of natural resources.

More about this project can be found at:
http://www.swan.ac.uk/printing/DIPLE_Project/index.htm

Printing industry moves forward with innovative processes

Vorarlberg gets virtual reality centre

Bordering three highly developed countries, Germany, Switzerland and Liechtenstein, Austria's westernmost state Vorarlberg is ideally located for innovative minds and projects. The example of the virtual reality centre is no exception. Stretching the boundaries of computer science, the centre is able to explore and invent new multimedia applications.

With backing from the EU and the Austrian government, the centre is able to bring these applications to bear in sectors ranging from medicine, architecture and industrial production to the entertainment industry.

Virtual reality studies

Although Vorarlberg has no university of its own, its workforce of roughly 145 000 has a very high standard of education. Besides the primary, secondary and higher education establishments, the polytechnic institute offers highly technical subjects such as production automation, internal process management and intermedia. A trainee programme is also an important part of the vocational education provided.

The virtual reality centre was set up at the polytechnic institute as part of its user centered technologies research unit. Activities undertaken at the centre have been incorporated into the institute's degree course in media design. Virtual reality has now become a major new field of study at the institute.

> "Virtual Reality Research Lab has been established with support from ERDF and has become part of the user centered technologies research institute at the polytechnic institute of Vorarlberg. Using this new research infrastructure we were able to build a new co-operation network with regional companies such as Benninger AG, Coaster GmbH, Doppelmayr GmbH, and ZF Friedrichshafen AG. What's more, we were able to implement virtual reality as a new major field of study at polytechnic institute of Vorarlberg."
>
> **PROF DR GUIDO KEMPTER,**
> HEAD OF THE USER CENTERED TECHNOLOGIES RESEARCH INSTITUTE

One example of the new and improved facilities is a stereoscopic projection wall which enables users to interact with a virtual environment.

Opening up opportunities

The centre has created new opportunities for research and development with universities and companies in the region. It currently collaborates with 48 regional companies, undertaking market analysis, among other things.

The project is helping Vorarlberg attract and retain high-skilled workers after a period of exodus to industrial firms in the neighbouring countries.

In addition to product visualisation for architecture and specifically for museums, virtual reality is now being used in the centre for product evaluation for ergonomics and orthopaedics.

EU funding

€23 900

was allocated to the Virtual Reality Centre from the ERDF for the period 2000 to 2006

Virtual reality on display

Tackling tough transport problems

A new Centre of Excellence is emerging in northwestern Slovakia, integrating four research facilities for the development and production of intelligent transport systems. The two-year project will create a multidisciplinary institution studying solutions to common transport and traffic challenges.

Piloted by the University of Žilina, the project will look at everything from signal processing to user-friendly data display. Researchers will call on the institution's wide experience of transport and communication issues.

Four new facilities

Established in 1953, the University of Žilina specialises in transport and communication education. It works closely with firms in these sectors, and with public and private bodies in the region and nationwide.

The Centre of Excellence for Intelligent Transport Systems and Services project started in May 2009 and is managed by the Faculty of Informatics and Management Science. It follows on from several completed projects, including one on intelligent transport systems and another creating a European Network of Excellence. Since 2002, the University of Žilina has been involved in more than 30 European projects on road, rail and shipping transport.

The project is 85% co-funded by the EU, with national funds making up the rest of the total cost. Its main aim is the establishment of four research facilities for intelligent transport. They will respectively cover means and transported objects; infrastructure; subsystems for control, management and monitoring, and developing knowledge databases; and systems and services.

> "Our initial focus is to create a national Centre of Excellence for Intelligent Transport Systems and Services."
>
> **PROF. KAROL MATIASKO,**
> DEAN OF THE FACULTY OF INFORMATICS AND MANAGEMENT SCIENCE, UNIVERSITY OF ŽILINA

Practical applications

Sixteen separate laboratories will support the work of the four facilities. They have expertise in areas such as embedded systems, payment systems, speech synthesis, and safety and reliability.

The University of Žilina has long developed practical applications for industry and business in Slovakia and the rest of Europe through international research and technology projects. Under this project, researchers have already created and successfully tested a unique procedure for generating transport timetables from complex databases, for easy display on mobile consumer devices. A simplified version of this is now used by Slovak Railways.

The project has also developed promising solutions for designing evacuation plans for places that are threatened by a disaster of some kind. The aim is to optimise the assignment of vehicles to evacuate people to shelters, and to minimise evacuation times.

More about this project can be found at:
http://ceids.uniza.sk

EU funding

€1.19 million

was allocated to the Centre of Excellence for Intelligent Transport Systems and Services project from the ERDF for the period 2007 to 2013

Mobile train timetables make life easier for passengers

Matching technologies and opportunities

Stimulating technology-driven innovation in four complementary European regions – Catalonia, Lombardia, North Brabant and South-West Bohemia – was the ambitious aim of the three-year MATEO project. Working both at policy level and directly on the ground, MATEO helped to boost innovative processes in small businesses throughout all four regions.

Twelve interregional sub-projects were undertaken in eight important sectors: biotechnology, aerospace, advanced materials, pharmaceutical and medical technologies, mechatronics, renewable energies and process and production technology. Through the international partnerships formed, companies were able to develop new products and reach new markets.

Innovation unlimited

Navisto is one such sub-project which helped companies to identify where they could use and make the most of Global Navigation Satellite Systems applications. Through technology matching events, companies in Catalonia, Lombardy and North Brabant were able to create partnerships with each other – increasing their competitiveness through the connections made and know-how shared.

Tetrinno SMARTEX, another sub-project, helped small businesses in the textile sector to compete with foreign companies with cheaper production costs. Knowledge and practical solutions were shared regarding the use of smart fabrics and interactive textiles. Applications for these innovative textiles include clothes that will monitor the heart, thereby providing a new approach to healthcare and emergency services.

> "We have identified five companies in Spain which are interested in developing the SMARTEX project to industrial level – one is interested in the integration of solar cells into fabrics and another in the integration of electro conductive material for dual effect."
>
> **LAURENT AUBOUY,**
> PH.D., LEITAT TECHNOLOGICAL CENTER, SPAIN

These sub-projects, together with ten others, were approved for co-financing in March 2006. CIDEM, which led the operations, ensured that the activities undertaken all fulfilled the project's dual aim of promoting technology transfer to small companies and fostering the creation of new technology-based companies. CIDEM was supported by a total of 53 different public bodies in the four countries concerned.

Knowledge shared and multiplied

The most tangible results of this project are the concrete sub-projects which companies in the respective regions were involved in, developing new products and reaching new markets through new international partnerships. The project also served to enhance knowledge of innovative techniques and access to more advanced sources of technical know-how.

The MATEO project formed an international system of technology transfers between research centres and small businesses. The involvement of other countries helped companies to obtain better results than would have been possible within a regional or national context.

The efforts have had a strong impact on the creation of new businesses in the eight targeted sectors, with many new business opportunities and possibilities for the creation of start-ups.

More about this project can be found at:
http://www.mateoproject.org

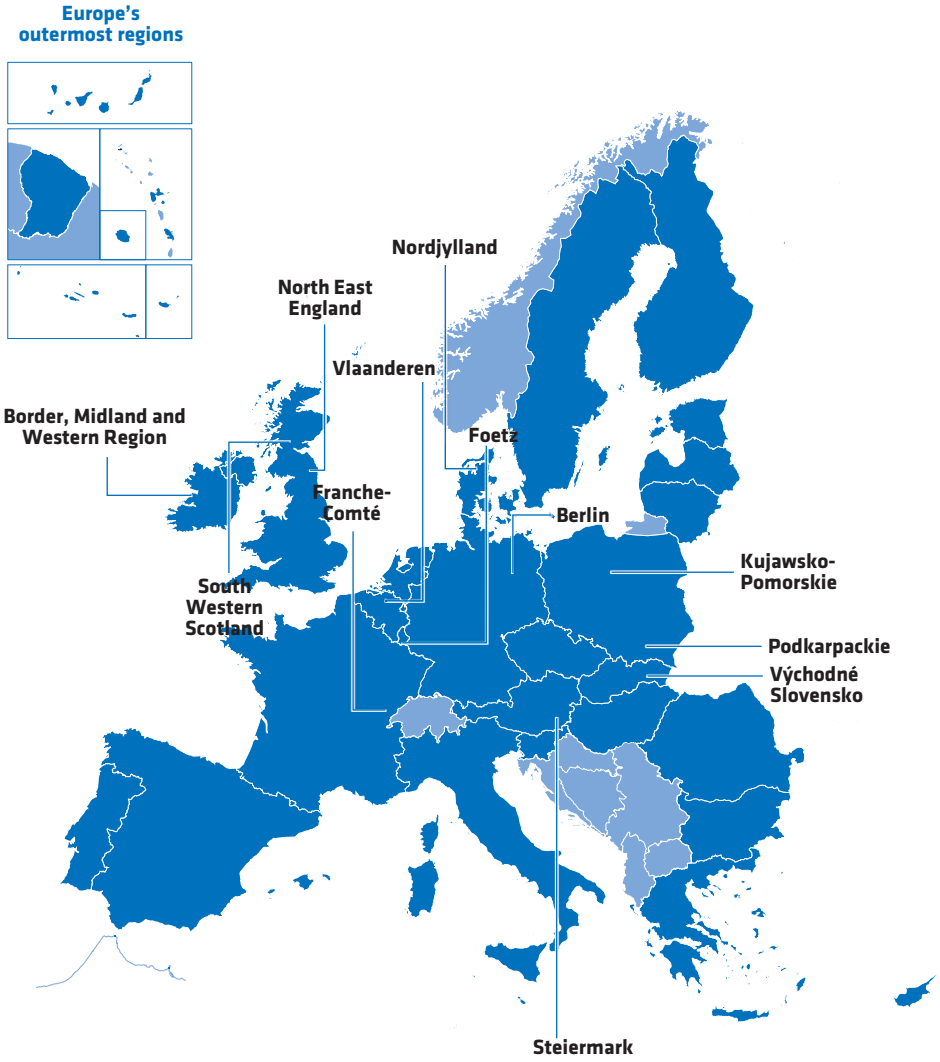
EU funding

The MATEO project was allocated

€4.4 million

from the EU for the period 2000 to 2006 as part of the INTERREG IIIC programme

Combining expertise to boost innovation in small businesses



Berlin, Germany: Giving creativity a chance to flourish

Besançon, Franche-Comté, France: Fast-tracking microtechniques to market

Foetz, Luxembourg: Entrepreneurial spirit alive in Luxembourg

Galway, Border, Midland and Western Region, Ireland: The business of innovation

Glasgow, South Western Scotland, United Kingdom: Glasgow university gives small businesses a helping hand

Mol, Antwerpen, Vlaanderen, Belgium: Lowering barriers to green technologies uptake

Nordjylland, Denmark: Northern Denmark generates export growth

North East England, United Kingdom: Turning research into business

Podkarpackie, Poland: High-flying firms land at Aeropolis

Prešov, Východné Slovensko, Slovakia: Taking on the world of technology

Steiermark, Austria: Technological help on hand for Styria's businesses

Toruń, Kujawsko-Pomorskie, Poland: Tailor-made services open doors for entrepreneurs

Territorial Co-operation

DE, EE, LT, LV, PL, SE and NO: Baltic Sea innovation boosted with new tools of the trade

Business support

Boosting the number of businesses, in particular small and medium sized enterprises (SMEs), and helping them grow through competitive funding and support, is a key way in which EU regional policy helps to strengthen regional economies. In 2007-2013, some €55 billion from the regional development fund is being spent on business support, with half of this targeted at SMEs.

SMEs account for 99% of businesses in the EU and up to two-thirds of private sector jobs. But often these smaller companies find it difficult to access capital, or cope with structural change in the market. Whether through direct investment to help companies to start up or by directly funding business support services, EU regional policy is firmly focused on growing business across the EU by tackling these problems at the grassroots. A rolling programme of investment in the new 'knowledge economy', in higher value sectors like bioscience and information and communication technologies (ICT), is helping to stimulate business innovation and creativity for decades to come.

Regional policy funds provide a complete toolkit for business to thrive. Small businesses can find help for entrepreneurship and start-up, accessing finance, improving research and innovation capacity, upgrading information and communication technologies and boosting environmentally friendly production.

Projects featured in this section will show you how this money is being spent. Initiatives such as the JOSEFIN project in the Baltic Sea region which helps SMEs to secure financing, or the United Kingdom's groundbreaking North East Proof of Concept fund which takes forward market-focused business ideas from ambitious entrepreneurs, show how the EU is making an important contribution in increasing rates of business start-up and helping businesses to grow.

Giving creativity a chance to flourish

Berlin stands out in Europe as one of the most cultural cities with over 170 museums, 150 stages, 11 symphony orchestras and 300 cinemas. The creative industry in 2004 in Germany alone generated a turnover of as much as €117 billion. Fostering this creative environment is the *raison d'être* of the Kreativ Coaching Center or KCC in Berlin where experienced coaches offer valuable advice to up-and-coming entrepreneurs.

A team of 20 professional consultants help entrepreneurs rise to the challenge of succeeding in the creative industry, tailoring their expertise to the specific needs of the company in question. Skilled input is given in a number of areas ranging from financing and strategy to marketing and distribution.

City as stage, catwalk and music mecca

Whether design, fashion, multimedia, advertising, music or architecture, creative industries are thriving in the German capital. These industries have enhanced the image of the city – visitors now number around 240 million per year. And, the jobs created as result of the activities greatly bolster economic growth in the region.

The KCC project was set up to build on the positive experience of the Technologie Coaching Center (TCC). The coaching model used by this centre for over ten years was applied to the KCC in 2008 to assist creative businesses in Berlin. The underlying purpose of the centre is twofold – to strengthen the setting up and growth of creative businesses in Berlin and to provide support for creative entrepreneurs on matters related to business management.

> "The KCC management consultant gave us the necessary impetus and direction to really succeed. The support given has offered us further possibilities for growth and strengthened our company's foundation."
>
> **DIPL. ING. HAUKE HELMER,**
> MANAGING DIRECTOR OF WERK5

A sustainable business model

Since it was set up in March 2008, the KCC has successfully assisted 111 projects. It has offered professional business management advice and facilitated valuable networking whereby entrepreneurs have made useful, and even lucrative, contacts. Depending on the project, clients have managed for example to find funding, improve their business strategy and gain access to well known stages, all thanks to the contacts made.

The KCC enables growing creative businesses to solve business related problems themselves by providing advice and conveying know-how. It instructs so that businesses, when faced with similar issues in the future, are prepared to handle them. This contributes to a highly prosperous creative sector in Berlin.

More about this project can be found at:
http://www.tcc-berlin.de/das-Kreativ_Coaching_Center.phtml

EU funding

The Kreativ Coaching Centre was allocated

€525 000

from the ERDF for the period 2009 to 2010 as a pilot project

Consultants seize the creative energy of entrepreneurs

Fast-tracking microtechniques to market

The TEMIS microtechniques science and technology park in eastern France is a magnet for emerging and innovative companies. One part of the park, the microtechniques competitiveness cluster, has worked with some 60 companies over the last three years.

Founded in 2000 near Besançon, the park is an incubator for microtechniques and healthcare firms. It has a major economic influence on the region of Franche-Comté, as well as nationally and across Europe.

New technology cluster

Franche-Comté specialises in precision engineering and has several related higher education institutions. They increasingly focus on microtechniques – used to make tiny parts for consumer and industrial goods.

Covering 130 hectares, TEMIS (*Technopole microtechnique et scientifique*) is home to some 35 laboratories, both public and private, as well as transfer centres, research and educational institutions, and so on. Since the park's launch, the companies and research laboratories on site have benefited for their projects from co-financing from the EU's ERDF programme and the Franco-Swiss INTERREG III programme. Thirteen of these projects were awarded a total of €2.2 million from these European funds, out of a global budget of €4.6 million. The remaining funds were provided by the projects' partners – the companies, laboratories and training organisations.

> "The Scout-M project enabled us to appreciate the importance of networking and reinforced our urge to diversify in the biomedical sector."
>
> **DENIS LYAUTEY,**
> MANAGING DIRECTOR, CRÉATECH

Among the organisations at TEMIS is the microtechniques competitiveness cluster (Pôle des microtechniques). It has contributed to several innovative collaborative projects, which bring together groups of researchers, technical or transfer centres, and businesses. One such project was SCOUT-M, which helped ten firms (mainly SMEs) that design and make medical devices (ADS, Alliance, Createch, Deco-jura, Décolletage de la Garenne, Schrader, Plastigray, GEP, STS industrie, VP Plast) with market studies, training, client prospecting and manufacture. They were assisted for one year by four consultancies and supported by Johnson & Johnson.

Getting close to market

Of more than 80 commercial or R&D projects approved by the microtechniques competitiveness cluster, almost 30% are medical and health innovations. Three of the park's first biomedical projects are being finalised. Among the SCOUT-M firms, two are seeking international quality certification and three now work together. Potential clients are also being followed up and partnerships established with Johnson & Johnson.

Some 400 jobs have been created at TEMIS over seven years. Almost 180 are in TEMIS Innovation, *Maison des Microtechniques*, created between 2002 and 2004.

More about this project can be found at:
http://www.temis.org/com_presse_fr.php

Microtechniques becoming a weapon in competitive markets

Entrepreneurial spirit alive in Luxembourg

To address the difficulty faced in attracting major investment projects to Luxembourg and to maintain the country's industrial structure, there is a need to develop new projects with high added value. The ECOSTART project is doing just that by offering a business support structure in two buildings covering some 8 000 m² and providing 6 500 m² of assembly and production facilities and 1 500 m² of office space.

The support is targeted specifically at innovative businesses, including high-tech start-ups and other businesses looking to get established in Luxembourg. The ECOSTART centre has already helped with the start-up of 16 new and innovative companies, including the creation of some 132 new jobs.

Converting ideas into reality

The Ministry for Economic Affairs launched ECOSTART in 2002, a first of its kind in Luxembourg. With support from the ERDF, the acquired 'Thomas & Betts' building was soon renovated and converted into the support structure that stands there today. In 2007, the newly built ECOSTART 2 was inaugurated and entered into operation. The structure is an effective instrument for creating the type of companies targeted by ECOSTART, namely individuals setting up innovative businesses (young graduates, researchers, managers, etc.), innovative companies at the idea or start-up phase, and small high-tech companies looking to establish themselves in Luxembourg.

> "Joining the ECOSTART center in February 2008 provided us with a perfect working environment and the necessary support to allow us to concentrate on R&D in order to develop our unique dynamic 3D foot scanner for biomedical applications. We have already hired three developers, specialising in optical applications, and have produced the first working prototype. We are now looking forward to commercialising our product."
>
> **MR GUIDO BECKER,**
> CO-FOUNDER OF LION SYSTEMS

Dual function

The buildings act as a business incubator, welcoming the entrepreneur and project from the initial idea stage and supporting them for a limited time, including drawing up and implementing business plans. Companies can benefit from tailor-made services provided by Luxinnovation, the national agency for innovation and research, and specialised consultants. ECOSTART is also a relay centre for companies coming out of the start-up phase and needing to leave the business incubator, and also for foreign companies looking to set up new business in Luxembourg. As businesses move through the development phase, they can use the temporary accommodation available to stabilise their growth.

EU funding

€1.55 million
was allocated from the ERDF to ECOSTART over the period 2000 to 2006

Expansion on the horizon

The centre has helped the start-up of sixteen new and innovative companies with high growth potential. The fields covered by the companies include plastics processing, multi-scale modelling and development of intelligent composite materials, merchandising evaluation for retailers, optical applications and innovative services for production companies.

More about this project can be found at:
http://www.innovation.public.lu/html/portal/EN/81/87/105/C134/

Luxembourg attracting investments through targeted support

The business of innovation

Creative minds are being given the chance to flourish in the Galway region of the west coast of Ireland. In areas as diverse as e-document management and implantable vascular devices, the Innovation in Business Centre (IiBC) at the Galway-Mayo Institute of Technology (GMIT) is fostering the development of new businesses by providing a space in which new ideas can be nurtured and commercialised.

The success of the project, both in economic and regional terms, is evident in the 82 new jobs created and in the eight potential start-ups now benefiting from the services offered. The risks often associated with starting out on your own in business, especially when it's of an innovative nature, are shouldered by the IiBC which works to develop both business and region.

Innovation in context

The IiBC has a twofold objective: to support and facilitate the emergence of new market-led and knowledge-based companies in the region and to forge strategic links between the college and the world of industry and commerce.

The centre is part of the Regional Incubation Centres measure in the Border Midland and Western region in Ireland which provides for the development of incubation centres on the campuses of the region's institutes of technology.

The measure is a central element of the innovation strategy of Ireland's indigenous enterprise support agency, Enterprise Ireland. It supports the objective of increasing the number and regional spread of high potential start-up enterprises, particularly in new technology sectors.

> "Every entrepreneur is faced with an enormous amount of challenges on their journey to success or failure. To have people of the calibre of George McCourt, the IiBC Centre Manager to assist in the process of overcoming these challenges is a tremendous resource. To have access to programmes such as Midlands & West Enterprise Programme (MWEP) for start-up business is akin to putting the most solid of foundations in place, into what one day every entrepreneur hopes to be a skyscraper."
>
> **JOHN MCGUIRE,**
> MANAGING DIRECTOR, ACTIVE MIND TECHNOLOGY

Entrepreneurial culture

The IiBC enables companies to work in a secure, innovative and entrepreneurial environment as they progress through the various stages of a new company start up. A range of supports are available to the companies, ranging from financial and legal to marketing and networking.

Total revenue from IiBC clients in 2008 amounted to €2.5 million and as much as €6 500 000 investment funding was raised. One start-up company, EcoOla, a bio-diesel firm, was awarded two licences to produce 270 000 litres and 9 million litres of biodiesel. The company has subsequently been acquired by Grow Oil.

The IiBC is developing an entrepreneurial culture by integrating GMIT students with real-life projects for incubator client companies and by offering a one-year Entrepreneurship Start-Up Programme which has already attracted 54 participants.

More about this project can be found at:
http://www.gmit.ie/iibc

EU funding

The Innovation in Business Centre at the Galway-Mayo Institute of Technology (GMIT) received

€2.3 million

from the ERDF for the period 2000 to 2006

The centre where ideas grow into business

Glasgow university gives small businesses a helping hand

Helping businesses in the west coast of Scotland tap into the potential benefits of one of the largest research bases in the United Kingdom was the main goal of the Dialogues initiative which helped support Scottish companies between 2002 until the programme ended in 2008. Traditionally, Scottish businesses have been slow to exploit the expertise available to them from universities and academics have been slow to recognise the benefits of working with businesses.

All this has become a thing of the past, however, as the Dialogues project's aim to create mutually beneficial relationships met with resounding success. The scheme has supported and advised over 265 businesses, creating 50 new jobs. As many as 1 600 new links have been forged between the University of Glasgow and small businesses and research institutes.

Filling market gaps

The Dialogues project was all about developing and communicating business opportunities to fill existing market gaps. It pulled together all the key players in the region's economic development, from Scottish Enterprise, the city council, the private sector, the National Health Service and the research community.

The Dialogues team developed online resources to help small businesses find research that was in line with their interests, as well as a website providing off-the-shelf licensing agreements to iron out any formalities of working in partnership.

> "It has been very rewarding to see University departments and so many businesses enriched by their association."
>
> **ELIZABETH GRAY,**
> DIALOGUES' SENIOR BUSINESS DEVELOPMENT MANAGER

Dialogues worked closely with the business community and Sciencesoft, a local company which develops and supplies technical computing software to the oil and gas industry, went from strength to strength as a result of a Scottish Executive SCORE project with the university. As a result, a unique software package was developed which would for the first time allow energy companies to use accurate scientific analysis to extract oil economically.

Business incubation space was also created for a number of start-ups, with a wide range of networking events and seminars held to spark new partnerships and raise the profile of the project among the business community.

One example of a start-up made possible by Dialogues is Paper Filament. The Dialogues project helped two product design and engineering students to set up an innovative design company which brought solutions to real-life problems. Their signature inventions are a child-safe door hinge and a portable epilepsy alarm.

A rewarding experience all round

A whole range of activities are being undertaken as a result of the Dialogues initiative. An outreach programme saw Dialogues representatives visit small businesses to offer consultancy support from university students in areas such as product

EU funding

Dialogues received

€707 500

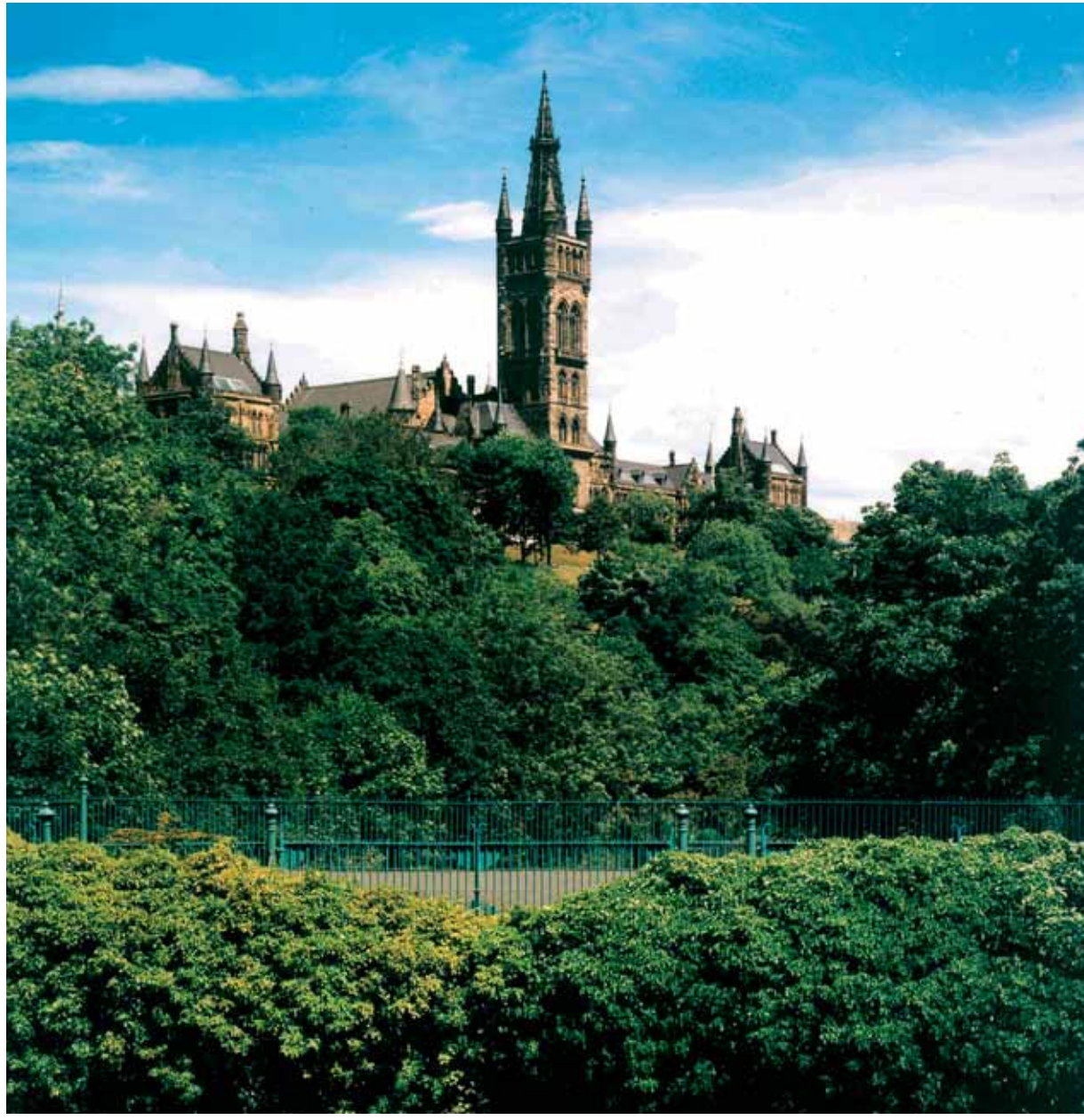
from the ERDF for the period 2002 to 2006

innovation and market research. The bioscience network, Nexxus, was created to support existing bioscience companies in the region and to forge collaborative links with the research base.

The lessons learnt from Dialogues have helped to foster a more joined-up approach between the different public and private organisations involved and improve the delivery of knowledge transfer.

Following on from the successes of Dialogues, the university has launched the Innovation Network, which was created to increase engagement by Scottish companies in innovation, product development and new supply chains. Companies are able to access funding of up to €5 700 for collaborative R&D projects, therefore giving companies the opportunity to develop strong partnerships with the university which could assist their long-term sustainability.

More about this project can be found at:
http://www.gla.ac.uk/innovationnetwork/



Glasgow university welcomes business co-operation

Mol, Antwerpen, Vlaanderen, Belgium

Lowering barriers to green technologies uptake

More than 300 small businesses in Flanders have benefited from professional advice, coaching and operational training on sustainable technologies at the Prodem centre in Mol in the northeast of Belgium. Launched in 1996, the project has been renewed several times, partly financed with European funds.

The project is hosted by VITO, the Flemish Institute for Technological Research. It supports small businesses in taking the step towards sustainable production by setting up demonstration projects and feasibility studies.

Advice, studies and demonstrations

In Flanders, most small businesses know their core business. But few have the time or knowledge to introduce more sustainable development practices into their workplace and operations.

VITO is an independent and customer-oriented research organisation. It provides innovative technological solutions as well as science-based advice and support to stimulate sustainable development and reinforce the Flanders region's economic and social fabric. It decided to focus on sustainable development practices through Prodem, which stands for PROmotion and DEMonstration Centre for environmental and energy-friendly technologies for small businesses.

The project has continued more or less continuously since it began in 1996, with several different Flemish regional partners. It has also benefited from EU co-funding through the ERDF since 2000.

> "Prodem helped us to validate technologically an innovative procedure to maximise the benefits of mechanically deboned meat. The demonstration project enabled us to assess the feasibility of setting up a new business line and we've invested €12 million in a new production plant."
>
> **CONSTANT VANNESTE,**
> MANAGER, PROLIVER

At the centre in Mol, companies learn how to green up their production processes. They can for example assess the appropriateness and feasibility of existing and proven environment-friendly technologies. Or they can participate in demonstration projects to test new technologies, before deciding to invest in them.

Encouraging sustainable investment

During its partnership with Antwerp and Limburg provinces, the project helped a number of Flemish companies to make more sustainable investments in areas ranging from sewage to odour and dust remediation. It also pioneered environmental technology verification (ETV), helping one firm and its technology-supply partners to select for instance photo-oxidation as a way of tackling odour in its production process. Under Prodem, the technology verification check cost around €15 000 for the small business and its technology-supplying partner, but could represent a significant breakthrough of an innovative technology.

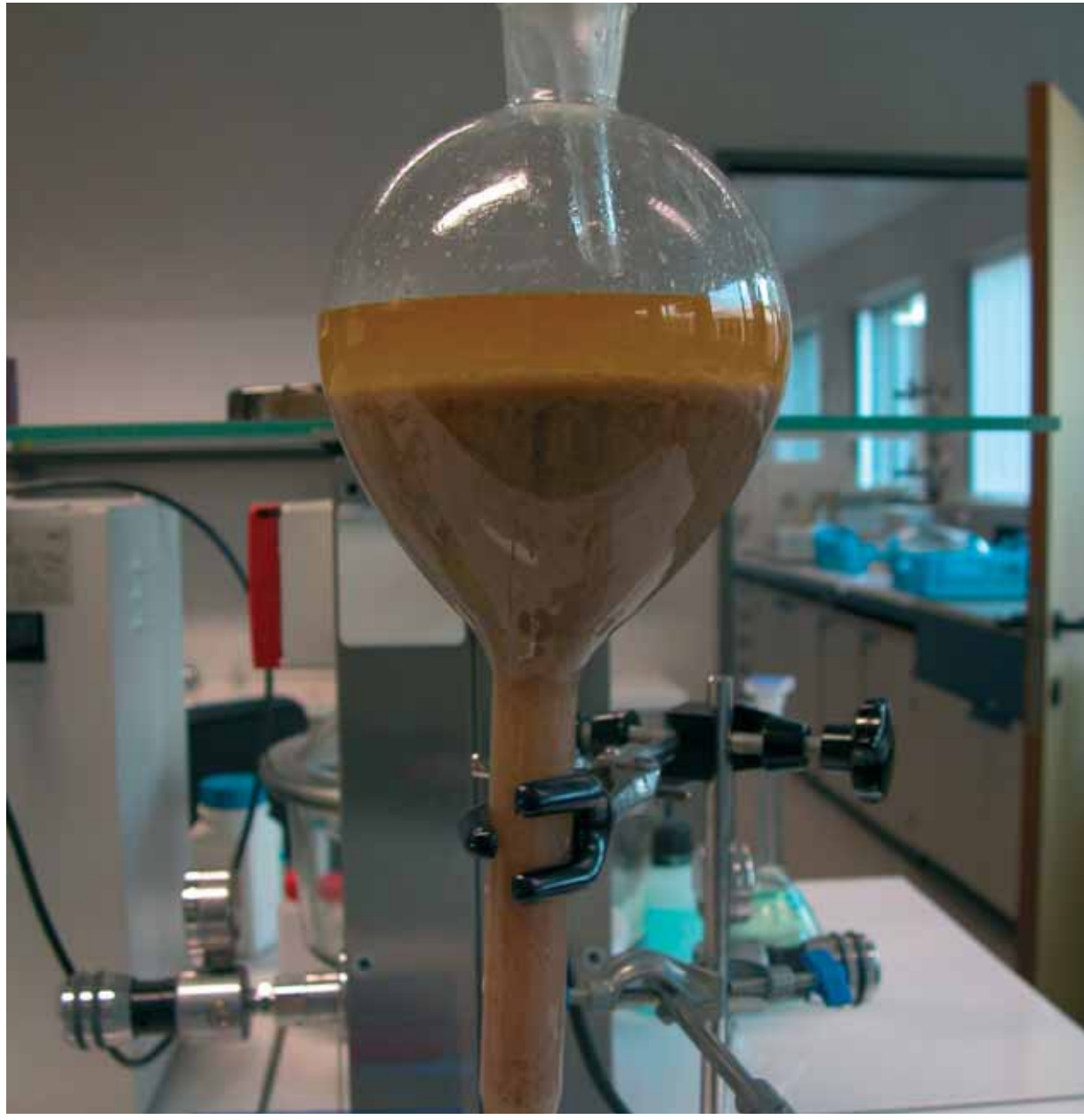
EU funding

€499 500

was allocated to one phase of the Prodem project from the ERDF for the period December 2007 to March 2008

Prodem also organised several seminars highlighting success stories for use of environmentally-friendly technologies in Flanders. Towards the end of the project, the focus was increasingly on renewable energy technologies, in response to questions from small businesses about smart energy networks.

More about this project can be found at:
http://www.vito.be/



Experimental works benefit from Prodem support

Northern Denmark generates export growth

With an untapped export potential for the region estimated at €540 to €670 million, the North Jutland Export Programme in Denmark has been instrumental in providing support to small businesses to boost regional exports and job opportunities. Figures calculated following the conclusion of the project period showed marked increases in both exports and turnover.

The programme was launched in 2000 following a study by the University of Aalborg which showed that the economy of this region of 500 000 inhabitants in the northernmost point of the Danish peninsula could benefit from a strategic programme focused on seizing lucrative export opportunities. Some 87 businesses saw this opportunity and soon benefited from the programme in the form of high sales figures and grants for consultancy costs.

Providing support behind the scenes

County authorities initially set up a working group to design a method that SMEs in North Jutland could use to promote exports. The main aim was to increase employment and revenues from exports. Following this, a network of consultants began providing tailor-made services for the specific needs of businesses, including market studies and advice on what strategies to deploy when it comes to exporting. The grants provided covered 70% of consultancy costs.

On board and on target

This programme has clearly shown that the innovative and effective use of financial support from EU regional funding does work. With a total of 87 businesses already benefiting from the programme, a new phase has been launched and is looking to get some 150 businesses on board.

> "The export programme proved a resounding success with 124 private companies taking part from 2004–2008. Exports were up 35% and 900 new jobs were created."
>
> **ANDY JENSEN,**
> REGION NORDJYLLAND

Numbers tell a success story

Since the initiative began, aggregate turnover of the businesses taking part has increased by €8.6 million, while the aggregate sales value has also risen by €6 million. The North Jutland region has benefited in terms of employment, with an estimated 404 additional people securing work either directly or indirectly as a result of the project.

More about this project can be found at:
http://www.rn.dk/

EU funding

€670 000

was allocated from the ERDF to the North Jutland Export Programme over the period January 2002 to December 2004

Danish exporters discover their potential

Turning research into business

Catalysing technological innovation in academia and the business community is the main goal of the North East Proof of Concept fund (NEPOC) which invests in early stage science and technology projects. Ambitious entrepreneurs unable to raise finance for their project, due to the unproven state of the technology, can call upon the NEPOC to help them maximise their growth and return potential.

The high risk nature of such ventures means funding is hard to come by through conventional means such as banks. The NEPOC fund helps to plug this equity gap in the form of convertible loans ranging anything from €76 000 to €113 000. The fund is currently managed by NorthStar Equity Investors.

From drawing board to market

In sectors as diverse as nanotechnology, communications, ICT, biotechnology, healthcare, chemicals, processing and renewable energy – NEPOC takes forward market-focused business ideas from ambitious entrepreneurs.

Investments are made up to a value of €76 000 for commercial projects and €113 000 for university projects. These funds are managed by NorthStar Equity Investors, a venture capital firm specialising in early stage high-growth opportunities and regulated by the Financial Services Authority.

The fund managers look for three key elements in each potential investment: novelty of idea; market potential; team enthusiasm. The ideal candidates are considered to be market-driven companies with capacity for rapid expansion.

> "The Proof of Concept fund provided us with the initial funding to allow us to demonstrate that the technology worked before raising another small round of funding to develop prototypes. We could not have taken the technology from University labs without it."
>
> **CLIVE DYSON,**
> CLARIZON

Transforming the North East

In total, over the last five years nearly €125 million of investment fund initiatives have been developed in the North East region. This has helped the region to overcome capital market failures and has led to unprecedented levels of investment from outside the North East region into small businesses.

The fund is part of a broader strategic regional approach, known as the Strategy for Success. This strategy focuses on the commercialisation of the region's knowledge base by boosting innovation research into emerging technologies for growing markets. The advantage of this commercial approach is that it prepares investees for the rigours of later stage venture capital investment and it addresses many issues which would restrict later stage private investment.

The ERDF 2007-2013 programme is expected to create and safeguard 28 000 new jobs, start 3 000 new businesses and increase the North East's productivity by €1.26 billion per annum.

More about this project can be found at:
http://www.onenortheast.co.uk/page/proofofconceptfund.cfm

EU funding

From October 2004 to December 2008, North East Proof of Concept received

€5.63 million

from the ERDF

Entrepreneurs now able to turn science and technology projects into real successes

High-flying firms land at Aeropolis

A Polish region known for its aviation expertise is encouraging innovative businesses to set up in a new science and technology park. Covering some 118 hectares, Aeropolis has attracted 16 companies, among them a world-class maker of aircraft engines.

Podkarpackie Science and Technology Park (PSTP) Aeropolis benefited greatly from a European co-funded project over some three years. This equipped the land with the technical infrastructure necessary for business activity and for attracting further investors.

Focus on aviation

Situated in southeast Poland, Podkarpackie was able to benefit from funding equivalent to €10 million under the ERDF for the PSTP Aeropolis – a project capitalising on one of the region's major strengths, the aviation industry.

The project was implemented between January 2005 and November 2008 and managed by the PSTP Centre of Management, part of Rzeszów Development Agency. Another unit, the Inward Investment Centre, provides companies with complex services.

Aeropolis is ideally located alongside several main roads and rail lines, as well as Rzeszów-Jasionka International Airport. There are plans to extend the existing railway to Warsaw, underlining the park's strategic importance for Podkarpackie's development and competitiveness.

> "Criteria affecting our decision to invest in Rzeszów were the attractive infrastructure, availability of qualified staff, excellent inter-regional transport connections and an attractive financial package."
>
> **RICHARD MAIER,**
> MTU AERO ENGINES GMBH SENIOR VP PRODUCTION DEVELOPMENT & SUPPORT

Of the park's three zones, the largest (70 hectares) is next to the airport, with a second one (47 hectares) in Rogoźnica town. The third (997 square metres) is at Rzeszow University of Technology. Known as the 'Academic Preincubator of PSTP', it supports development of entrepreneurship in the Podkarpackie region – especially innovative ideas connected with technology and company organisation.

Infrastructure in place

The project resulted in the construction of significant infrastructure. This includes almost 49 000 square metres of road, the Academic Preincubator premises, and systems for sewage, water, gas, electricity and so on.

Aeropolis has already found 16 of its target of 30 companies. They employ around 1 225 people and have invested some €142 million in the park. By mid-2009, two companies there had started their production: MTU Aero Engines, making turbines for airplane engines, and Borg Warner making turbochargers. As a result, the park is widely seen as a showcase development for promoting technology transfer and enhancing the skills offer through its associated academic centres.

More about this project can be found at:
http://coi.2.ires.pl/en/portal_inwestycyjny/podkarpackie_region/science_and_technology_park

View over the home of innovative aviation

Prešov, Východné Slovensko, Slovakia

Taking on the world of technology

Staying ahead in business with the right tools of the trade is vital to any company success. With the prospects of expanding yet competitive global markets, businesses also need to be well equipped to meet tough customer demands. The Spinea project embraced these challenges by supporting the expansion of one of Europe's leading robotics developers and producers of high-precision reducers, the result of which saw greater production levels, job creation and a 10% increase in its share of the European market.

The company SPINEA, based in Prešov, is in Slovakia's third largest town. It produces gearing systems for use in high-precision robotics and is the only producer in Europe working in this field. Under the EU's sectoral Operational Programme 'Industry and Services', the company received financial support to build a new production site for robotics and introduce new technologies.

More value, greater growth

The company SPINEA was established in 1994 to develop and produce reducers based on new technology developed in Slovakia. It supplies numerous sectors, including the automotive sector which has a strong presence in Slovakia, and also targets areas such as high-precision applications in healthcare. This project ensured continuation of the company growth, which saw sales almost double between 2004 and 2008. With the support of EU funding, SPINEA's position was thus strengthened, generating greater added value and higher levels of production.

> "This project created new jobs for highly qualified workers in production, testing and development (which saw growth of some 37% between 2004 and 2008). This was a major benefit for the Prešov Region, which has one of the highest unemployment rates among Slovakia's regions."
>
> **JOZEF PUSTAY,**
> EXECUTIVE DIRECTOR, SPINEA

Staff also benefited, with average wages in the company increasing by 42% between 2004 and 2008.

Regional and global leader

The company's existing capacities were enhanced under the project, with new production capacities improved in the form of new technologies – 21 pieces of technological equipment were acquired. The project generated real benefits through higher levels of labour productivity, due in part to the implementation of management systems, development of co-operation with major suppliers, and increased competitiveness of its products in EU, Asia, North America and Australasia, becoming a veritable competitor of the global market leader, Japan.

Indirect benefits have also resulted in the form of more intensive co-operation between SPINEA and the Technical University of Košice. SPINEA has thus had a strong influence locally, in terms of innovation and technical development of the Prešov region.

More about this project can be found at:
http://www.spinea.sk

Expansion of robotics company produces jobs, growth and a competitive edge

Technological help on hand for Styria's businesses

Comprehensive technological expertise tailored to the needs of business – this is what Technofit Pro has offered to small businesses in the southeast of Austria. Three universities and a major R&D institute combined forces to assist small businesses in their uptake of modern technology.

Businesses with little or no experience in innovative processes were taken under the wing of Technofit Pro whose staff of seven transfer specialists drew on the expertise of 1 000 scientists to help in areas of need. As many as 160 small businesses attended specially organised Technofit Pro events; 30 were coached by an individual expert or given guidance on innovation projects.

Redressing the balance

By addressing the specific needs of small businesses established in the peripheral areas of Styria, the Technofit Pro project sought to redistribute innovation performance levels more evenly. The relatively high performance levels of these areas had up to that point been attributed to several large industrial companies, four universities, two polytechnics, two major R&D institutes and nine centres of excellence rather than Styria's small businesses.

To redress this balance, the four Technofit Pro partners (3 universities and 1 R&D institute) offered consulting and coaching services tailored to the needs of the business concerned. These services were provided through a neutral, not-for-profit transfer network and were based on a coordinated and standardised approach.

> "We used ERDF funding to make universities and R&D institutions accessible for regional SMEs in a very hands-on way. Dozens of projects kicked off in the course of TECHNOFIT PRO demonstrate the sustainability of our technology transfer team effort."
>
> **CHRISTOPH ADAMETZ,**
> TECHNISCHE UNIVERSITÄT GRAZ

The activities undertaken include: the development of four packages of innovation services; the hosting of events attracting 160 small businesses; and the delivery of individual expert meetings to 30 small businesses.

Targeted change

The Technofit Pro project saw EU funding targeted directly at facilitating innovation in small businesses. Support – which otherwise would have been non-existent – was channeled into expanding the knowledge and technological expertise of these businesses.

From the 90 individual innovation audits, 25 projects got underway. While these projects received a modest amount of funding, their combined activities acted as a lever for a new segment of the regional economy to engage with academic institutions.

The steps taken so far are just the beginning. Styria's Regional Competitiveness programme which runs from 2007 to 2013 will continue to give support to small businesses by building their innovation levels through various transfer networks.

More about this project can be found at:
http://www.sciencefit.at/

EU funding

The Technofit Pro received

€97 400

from the ERDF for the period from April 2005 to March 2006

Combined R&D and academic talent help local businesses

Tailor-made services open doors for entrepreneurs

Entrepreneurs in Kuyavia-Pomerania Voivodship are being offered professional advisory services in a variety of domains as the Toruń Technology Park (TTP) looks to stimulate technological uptake and to commercialise ideas from scientists. The Centre for Technology Transfer (CTT), which has become the focal point of the park, provides a market analysis and subsequent personalised service for entrepreneurs.

The Park occupies six buildings covering 8 660 m² and hosting 33 firms employing over 260 people. The project is breaking new ground in the region by encouraging co-operation between industry and the scientific community. This is leading to technology transfer and concrete initiatives to increase innovation in the region.

Room for technological development

The project addressed the need to transfer high levels of technological know-how to individual businesses in order to make them more competitive in the field. By providing low cost, high-quality office space, CTT helped entrepreneurs in the early stages of their business as well as scientists wishing to commercialise an idea. This well-equipped and hospitable space increased their chances of fruitful collaboration.

The building of the centre began in 2002 and, by 2005, consisted of four technology halls, 86 offices, a modern conference room, two training rooms, a computer laboratory, two meeting rooms, cafeteria and offers attractive land for development, occupying a total area of 10.5 hectares. The services provided by the centre include: support for innovation and technology transfer; a consultation point managed by Polish Agency for Enterprise Development; the Enterprise Europe Network of the European Commission which offers free consultation services to small businesses; and training courses for entrepreneurs.

> "Toruń Technology Park gathers together companies with great technological potential, giving the companies prestige and recognition and attracting people looking for innovative solutions. By setting up my business in the Torun Technology Park, I am able to work alongside other businesses with high levels of technical expertise."
>
> **KRZYSZTOF ŚWIECHOWICZ**

One of the key services provided conducts technology audits to identify a company's capacity for collaboration and its ability to get involved in activities aimed at developing specific clusters in the region. Clusters are formed in the following industries; machine-tools, spa-tourism, wood-furniture and IT.

Modernising the technology base

Toruń Regional Development Agency played a key role in the project, acting as an interface between politics and business in order to develop the centre. The agency has a long tradition of consensus building and of finding the right balance between supply and demand. University co-operation is desirable and a close and active partnership is being forged with the Nicholas Copernicus University and University of Technology and Life Sciences in Bydgoszcz to unite business and academia.

EU funding

€1.25 million

was allocated from the ERDF to the CTT over the period October 2002 to December 2004

Annually some 2 000 people are trained at the centre in anything from company management to industrial property protection. A special team from the university prepares econometrical and comparative analyses which can then be used in economic and business activity.

The example set by the centre – the first project of its kind and size in Kuyavia-Pomerania Voivodship – is being followed in several other projects. The Regional Centre for Innovation Support and Technology Transfer and sector clusters are two examples. CTT is considered a benchmark for the delivery of effective services to entrepreneurs not just in Torun but in the entire region.

The concentration of high-tech activity is stimulating innovation in the region as well as raising the overall level of technological uptake, thereby modernising the technology base for companies and research centres.

More about this project can be found at:
http://www.technopark.org.pl/ and
http://www.tarr.org.pl/

Poland proud of its centre for technology transfer

Baltic Sea innovation boosted with new tools of the trade

The Baltic Sea region is recognised for its strong knowledge-based and innovative economy, with small and medium-sized enterprises (SMEs) playing a key role in this innovation process. To help these SMEs with financing as they look to expand internationally, the recently launched JOSEFIN project is introducing a range of practical instruments designed to support them in their endeavours, including a European counter guarantee and a new risk-sharing model.

SMEs are often faced with reluctance on the part of banks when it comes to securing financing for transnational projects. This often prevents them from developing their full potential. To address this issue, JOSEFIN (Joint SME Finance for Innovation) is offering strategic services to SMEs in the Baltic Sea region, including individual coaching and tailor-made advice.

Baltic Sea business looking to new horizons

Development of the Baltic Sea region depends to a large extent on the ability of key actors to take part in international markets. However, SMEs often focus on local markets rather than international ones, due partly to the difficulty in securing financing. The JOSEFIN project has been introduced to stimulate direct transnational co-operation and provide improved access to finance, enabling them to innovate and exploit new products and services.

> "One impulse for this project is the success story of an IT company in Berlin we worked with, Condat AG. We arranged special financing and technical support for them, which soon opened up markets in China for their IT systems."
>
> **TORSTEN MEHLHORN,**
> PROJECT MANAGER FROM INVESTITIONSBANK BERLIN

Seizing the innovation potential

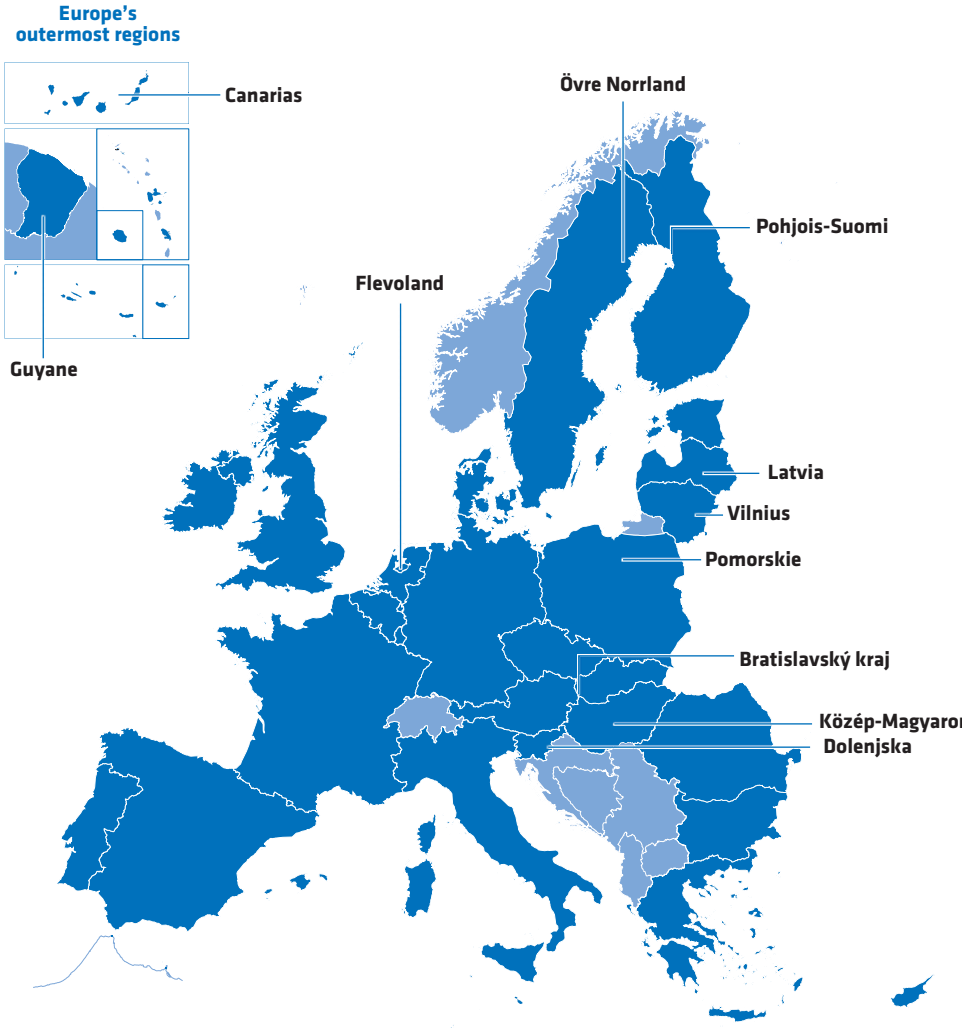
The main players in the innovation process, namely incubators, technology transfer centres and public development banks will jointly develop concrete tools and instruments to be used in the countries involved, namely Germany, Poland, Latvia, Lithuania, Estonia, Sweden and Norway. To reach its goals, the JOSEFIN partnership includes organisations with business development expertise, such as partners of the Enterprise Europe Network, public authorities in charge of policy development and implementation, public financial institutions and research and technology development organisations.

Secure backing for SMEs

The main achievement of the project will be the use of a European counter guarantee fund. This will back up SME loans, guarantees and seed or venture capital, thus reducing the financial risk of transnational business activities of companies and financial institutions and boosting co-operation and international business. For financial institutions, a new risk-sharing model for safer credit provision will be introduced, enabling more realistic assessment of SME creditworthiness.

More about this project can be found at:
www.josefin-org.eu

Stockholm is one of the places that could see SMEs benefiting from the JOSEFIN project



Almere, Flevoland, Netherlands: Entire Almere community goes online

Bratislava, Bratislavský kraj, Slovakia: Building communication bridges

Dolenjska, Slovenia: Slovenia embraces digital culture

Gran Canaria, Canarias, Spain: Maximising island mobility

Guyane, France: French Guiana takes first step on information superhighway

Gyógyszervonal, Közép-Magyarország, Hungary: Medical products given a voice in Hungary

Kujawsko, Pomorskie, Poland: Rural Poland embraces the digital age

Latvia: The digital face of Latvian libraries

Luleå, Övre Norrland, Sweden: Smart technology comes to Norra Norrland

Oulu, Pohjois-Suomi, Finland: New impetus for digital content services in Finland

Vilnius, Lithuania: Extending education beyond the blackboard

Information and communication technologies (ICT)

Information and communication technologies (ICT) have transformed the way in which we do business, learn and entertain ourselves. To remain competitive, Europe needs to be at the leading edge of technological change and harness the power of the digital age for the benefit of its citizens and businesses.

This is why the EU's regional policy is targeting substantial resources on ICT: €15.3 billion is being invested between 2007 and 2013 to develop 'knowledge-based' service economies. Support is available for activities such as ICT education and training, high-speed internet infrastructure (particularly in rural or remote areas), and for developing online services to businesses and citizens. Regional funds have backed new ICT companies and helped many companies adopt new e-business practices. Investment in broadband connectivity has brought the internet to thousands of local firms, putting them at the cutting edge of ICT. Provision of online e-government services have also been stepped up giving the public easy access to the most up-to-date government information without having to spend time, energy and money to get it.

Projects highlighted in this section, such as the broadband network in the Polish region of Kujawsko-Pomorskie, show how EU support is helping to reduce the digital divide in remote areas by installing high speed internet infrastructure and services. Another example is an online portal in the Netherlands, funded by regional policy grants, which makes it easier for local people to find out all kinds of practical information about their community. These projects and many more, show how in helping to provide the right ICT training and infrastructure, the EU is ensuring that employees and businesses can compete in a digital world.

Almere, Flevoland, Netherlands

Entire Almere community goes online

A health centre has tapped into the potential of the virtual world, bringing with it a whole range of other community services. Through an online service portal, the brainchild of Herman Linzel, the inhabitants of Literatuurwijk in Almere West are able to access many kinds of information and services all in the one place.

Whether it's booking an appointment with a doctor, informing the police of a particular incident or just reading the local news, the Wijkportaal Literatuurwijk offers key online services to its inhabitants bringing them closer to those running the town and improving their own welfare.

The benefit of going local

The Literatuurwijk project which began in 2004 was the first of many projects in the Almere region to bring local services closer to their intended public. From the portal's homepage, local inhabitants can find all kinds of practical information to help them in their day-to-day lives. By posting requests on the website, people can get the answers they need without even having to leave the house.

For those inhabitants without internet access, facilities were opened in the health centre itself, available free of charge. The interactive nature of the portal service allows inhabitants not just to communicate with service providers but also with the local community.

In addition to being highly practical, the portal made the most of multimedia, broadcasting live webcams and local WebTV. Visitors to the portal could get international, national and local news, as well as weather and traffic reports. Young people are catered for too in a specially designated section. And through the local guide, Wijkklapper, visitors can find information on government, businesses and organisations.

> "This portal enables us to expand the services of our health centre, a real focus point in the neighbourhood, to the online world reaching even more clients. People should feel safe and comfortable in their neighbourhood and we believe that a portal like this can evoke such a feeling. We invite everyone who wants to offer information and services to post them on this portal."
>
> **HERMAN LINZEL,**
> DIRECTOR OF ARCHIPEL HEALTH CENTRE

Improving the model and passing it on

The mayor of Almere, Annemarie Jorritsma, opened the portal on 25 June 2005. It rapidly proved to be very popular and, consequently, it didn't take long for the initial content to grow. When a local radio station enquired about the usefulness of the portal, locals rated the service 8.5 out of 10.

The portal experience proved instrumental in raising awareness about social media, online services and user-generated content. The DIY approach adopted in the beginning highlighted the need to give participants more technical support and to adapt the content management system to allow for users, whether professionals or inhabitants, to upload content (text, images, videos) more easily.

The Literatuurwijk model has since inspired other projects in Almere and other Dutch cities.

More about this project can be found at:
http://www.literatuurwijk.nl

People in Almere can now make their next appointment online

Bratislava, Bratislavský kraj, Slovakia

Building communication bridges

Towns and villages in the Bratislava region are being brought closer to their local administration thanks to a newly developed internet network. The new network increases the effectiveness of public services via a secure, integrated system. Carefully designed search engines enable residents to easily access the information that interests them.

Whether in the field of employment and social affairs, health and safety, or even urban planning, Bratislava's population of roughly 605 000 residents now have rapid access to the data they require in the form of tables, charts and interactive maps.

A two-way communications system

The geoportal enables users by way of an internet connection to conduct targeted searches using particular attributes. It makes it possible for data exchange between many local bodies – the Office of the Bratislava Self-Governing Region, its towns and villages, state administration, academic establishments, and the public and private sector.

Users no longer need to be familiar with the entire administrative system as information can now be simply retrieved at the click of a mouse from one portal. And, in contrast to standard web pages, geoportal publishes information in 3D using maps, charts, tables, documents, pictures, etc.

Computers have been purchased for the Bratislava region and training offered to government staff so that they are able to upload all of the latest information. Secured workstations ensure the integrity of the data as only authorised people are able to make modifications.

> "With the data obtained from the geoportal on building plans, we have been able to conduct analyses on the development and needs of the region and thereby contribute to strategic decision-making. The data available on the geoportal has also helped us to create tariff zones for Bratislava's integrated transport system"
>
> **RUDOLF BRÍDZIK,**
> DEPARTMENT OF SPATIAL PLANNING AND GEOGRAPHIC INFORMATION SYSTEM

Moving into the digital age

The geoportal represents an important step towards the informatisation of this Self-Governing Region. Until recently, only one in ten municipalities in the region published basic information on their web pages. With the geoportal, there are now established conditions for better online communication between regional and local administration, and the general public.

The system also means enhanced communication between other regions of the Slovak Republic and their own information systems, state administration bodies, and certain institutions such as the statistical office, the cartography and cadastre authority and the national roads authority.

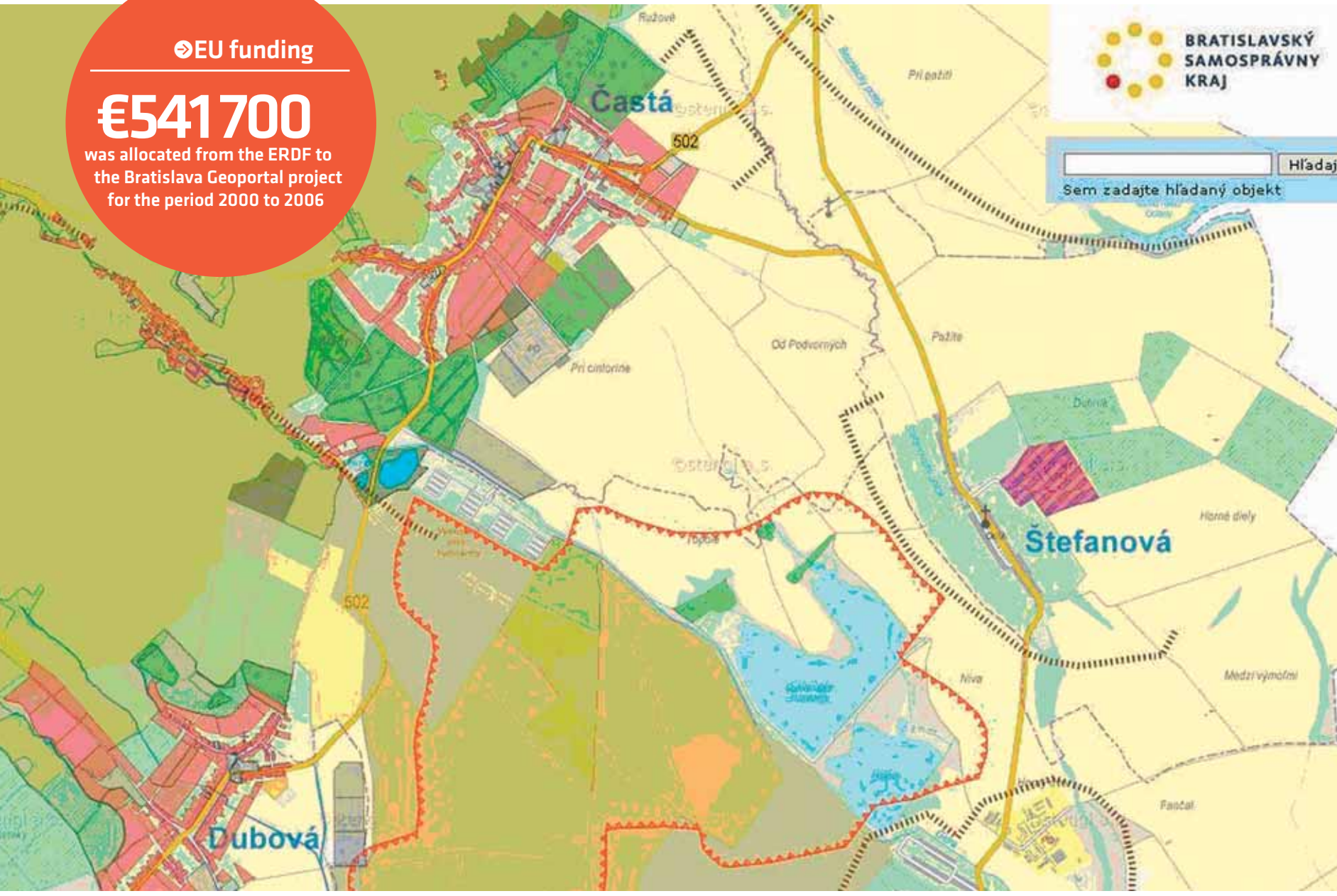
Advertising is another key feature of the geoportal which attracts visitors to the area by promoting its museums, cultural events and historical monuments.

More about this project can be found at:
http://www.region-bsk.sk/clanok/informacny-system-verejnej-spravy-geoportal-bsk-290253.aspx

EU funding

€541 700

was allocated from the ERDF to the Bratislava Geoportal project for the period 2000 to 2006



Locals now more in touch with administrations

Slovenia embraces digital culture

There is no escaping the fact that computers and multimedia equipment have become an integral part of modern society. Access to these tools and also the ability to use them are a necessity, particularly when it comes to technical skills and communication. The project 'Dolenjska Multimedia Centre' has taken strides to addressing this need by establishing a centre where young people can benefit from ICT equipment and also the free cultural and educational activities on offer.

Dolenjska Multimedia Centre, operational since late 2003, was jointly financed by the Slovenian Ministry of Culture and the European Regional Development Fund. The driving force behind the project was the need to ensure that young people, some of whom may not have ready access to such equipment, would have a place to go when undertaking activities such as non-profit projects or learning programmes.

Pioneering spirit

The EU funding covered investment in ICT equipment and also the construction of a gallery, while investment from national funds was used for ensuring the project ran smoothly, preparing and providing training activities and workshops and delivering a multimedia art programme.

The Dolenjska Multimedia Centre is also the founder and an active member of the M3C network of multimedia centres in Slovenia, which brings together multimedia centres and coordinates their work. Services provided by the centre include free educational services, access to computer equipment and even website development.

> "Having developed the Multimedia Centre, the Lokalpatriot institution became one of the key actors in the development and implementation of computer know-how in the southeastern part of Slovenia. Our personnel has contributed to delivering an array of reference projects in the domain of web portals intended for the main providers of culture and education-related activities in the region."
>
> **MARKO KRALJ,**
> LOKALPATRIOT (CULTURAL INSTITUTION)

Culture and computers working together

Dolenjska Multimedia Centre operates within LokalPatriot, Novo Mesto, a local youth organisation for culture, which focuses on supporting quality creativity both in the region and throughout Slovenia. The original and inventive programmes presented here are conceived by youth, for youth. The centre functions as a regional multimedia centre, offering six computers with a diverse range of software installed.

Digital culture has already made considerable strides among the local population, thereby ensuring the centre's popularity. Visitors can use new hardware and software for their own non-profit projects or take part in a range of creative and educational projects organised by the centre. Its new multimedia portal has been developed as part of the future national cultural portal.

More about this project can be found at:
http://www.mcd.si/ and
http://www.dolenjska.info

EU funding

€79 600

was allocated from the ERDF to the Dolenjska Multimedia Centre over the period 2000 to 2006

Quick access to new technology for Slovenia's young people

Maximising island mobility

Bus passengers in the Canary Islands spent several months testing a prototype real-time information system. Designed and built locally, it had static and active screens on an information terminal, so they could quickly check vehicle times or plan wider journeys within the archipelago using other means of transport.

Popular with passengers and the bus operator, the system highlighted the benefits of combining new ICT technologies with transport systems. It may be rolled out across the island of Gran Canaria and has caught the eye of other European transport operators.

Information terminals

In 2000, the archipelago's government drew up a plan to increase the use of ICT in the Canary Islands, including traffic management and resource planning, one aim being to improve public transport systems for inter-island mobility. The SIVR: En Route Passenger System project fitted into this scheme, by developing a prototype terminal that provides passengers with more and better travel information.

Supported by the Canary Islands' government, the project was co-funded by the EU and completed after 12 months in December 2005. It involved municipalities and island councils, plus regional transport companies, technology firms and the University of Las Palmas. The main contractor was local firm DESIC, responsible for coordinating the project, developing software modules, monitoring and other key work.

> "The SIVR offers real-time information to the users and staff of the intercity transport buses of Gran Canaria, regarding the network, destination, lines, locations, timetables, etc."
>
> **PEDRO SUÁREZ,**
> HEAD OF TECHNOLOGICAL INNOVATION FOR GLOBAL

Real-life tests were done in the Santa Lucia municipality on Gran Canaria, the archipelago's second-most populated island. Information terminals in the shape of a totem pole were developed and installed at some bus stops used by vehicles of local public transport company Global.

Commercially viability

Each information point had a static top screen displaying bus timetables and adverts. The touchscreen below allowed users to plan journeys on the island or to consult local tourism information.

Further innovations included WiFi, so passengers could access information via mobile phones or laptops, and central monitoring of the terminals through GPS and radio-contact. The terminals also provided network information to bus inspectors and drivers.

Designed to be transferable to other transport companies, the SIVR: En Route Passenger System demonstrated how ICT could facilitate passenger mobility, improve transport services and enhance the efficiency of transport companies. Gran Canaria's main bus operator may adopt the whole system, while parts of it could be commercialised elsewhere.

EU funding

€138 500

was allocated to the SIVR: En Route Passenger System project from the ERDF for the 2000 to 2006 programming period

Planning your journey around Gran Canaria now much easier

French Guiana takes first step on information superhighway

An overseas department of France located on the northern coast of South America is being ushered into the digital age thanks to the installation of high-speed broadband connections covering the whole of the region. Over 85 km of optic fibre have been laid linking the capital Cayenne to Kourou, where the greatest concentration of the region's 221 500 inhabitants reside.

The days of frustratingly sluggish internet connections are soon to be banished as Guyane Numérique puts in place infrastructure to connect 84% of the population to ADSL always-on technology and the remaining 16% in hard-to-reach areas to satellite services.

A fairer playing field

In December 2006 Guyane's regional council entrusted Guyane Numérique, a public service provider, with the task of putting in place a high-speed internet network to serve the whole community. This network would create a fairer playing field for innovation and business in general.

Arteria, part of the Électricité de France group, was chosen to lay four optic fibres in the region which would 'connect' the vast majority of residents and, importantly, the region's businesses. Through this connection, the prestigious Guiana Space Centre is covered. The centre is crucial to the region's economy. It accounts for 25% of GDP and employs around 1 700 people.

For the more remote locations, a satellite hub near Guyane's regional council has been set up. Cutting-edge satellite technology brings the internet to 17 of the region's hard-to-reach communes.

> "For the use of wifi by satellite to really take hold in this remote location, the Amerindian community must have access to computers and training. As for the young, they are hopeful that this new development will give them greater opportunities to connect with the wider world."
>
> **MR OPOYA,**
> CHIEF OF THE ISOLATED VILLAGE OF ELAE WHERE WIFI IS BEING INSTALLED VIA SATELLITE

Bridging the digital divide

It is expected that the developments currently underway in Guyane will bridge the digital divide, allowing the population to make the most of everything the internet has to offer. Prices will drop with increased competition, making connections more affordable for residents.

The Guyane region will become a more attractive area for new kinds of investment as this sector gains ground. The region will be able to modernise and new opportunities will allow residents to diversify from the region's traditional industries of fishing, gold mining and timber.

This should promote the growth of information and communication technologies and generate employment, especially important for the region given that its current unemployment rate stands at between 20% and 30%.

EU funding

€12.81 million

was allocated to the Guyane broadband connection project under the ERDF for the 2000-2006 period, an additional €15 million will cover the 2007-2013 period

One of the many dishes connecting residents to broadband

Medical products given a voice in Hungary

With greater numbers of new medications and therapies entering the market place, easy access to accurate information on them has become increasingly important. The MedicineLine (Gyógyszervonal) project has provided such a service in the form of an automatic speech-based dialogue system, where package leaflet information on some 5 000 products are now available via telephone, web and WAP (text information).

The system is designed to be accessible by everyone, in particular those living in disadvantaged areas as well as the blind and visually impaired. This innovative approach opens the door to new horizons in terms of access to regularly updated medical information, with patients now able to find out more direct from their hospital beds.

Connecting people and products

The project was carried out by the Budapest University of Technology and Economics, Department of Telecommunications and Mediainformatics (BME TMIT) and the National Institute of Pharmacy (OGYI). With backing from EU funds, their work resulted in an automatic, 24-hour information system, easily accessible via the Internet, mobile phone (WAP and text information) and telephone (equipped with speech synthesis and recognition technology). Hungarian-speaking people therefore have access to the package leaflet information on all medicinal products approved by the OGYI.

New tools of the trade in healthcare

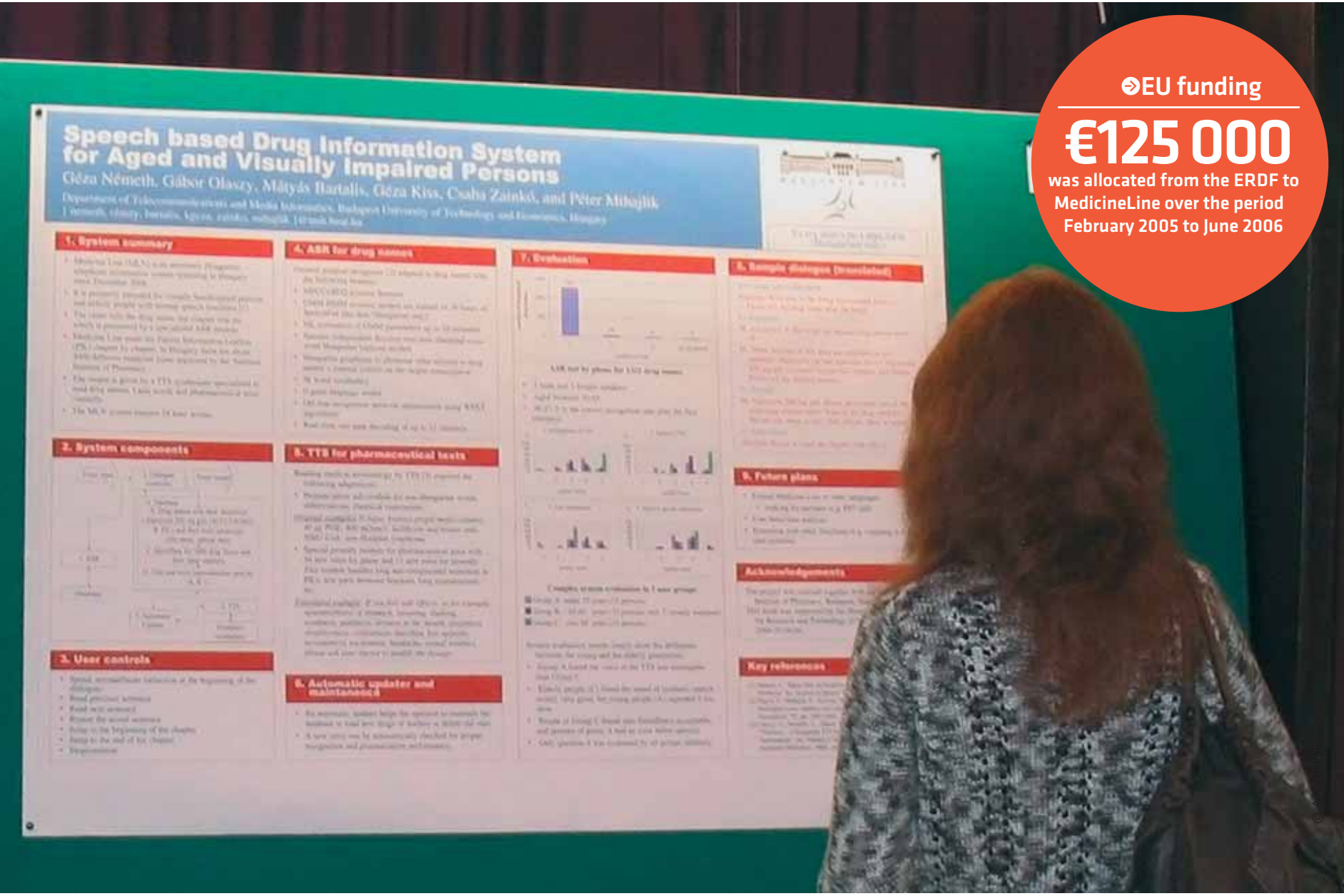
Innovation has been a key feature of the system. The computer employs an automatic speech-based dialogue system to identify the name of the medicine the user is looking for and to provide the information required. People speak to the system (or control it by touch-tone) and the text of the package leaflet is read back by an application-oriented speech synthesizer. Advanced techniques ensure the accuracy of the system, including specialised grapheme to phoneme rules for the generation of automatic pronunciation models.

> "The MedicineLine has brought major changes to Hungary in terms of communicating package leaflet information to patients and healthcare professionals. The MedicineLine is becoming more recognised among people with visual impairments since its special features allow them to obtain regularly updated information on medicinal products."
>
> **CSABA HARASZTI,**
> NATIONAL INSTITUTE OF PHARMACY, BUDAPEST, AND GABOR OLASZY (PROJECT LEADER), BME TMIT

Relevant information for timely decisions

The MedicineLine service meets the needs of several social groups as mentioned above. According to users, the system is the only one that provides real access to medical information. More importantly, the system's automatic updater, a web-based administration tool, refreshes the drug data twice a month. This is a vital component, since there are continual changes to the list of drugs available (new drugs added, others deleted).

More about this project can be found at:
http://www.gyogyszervonal.hu



EU funding

€125 000

was allocated from the ERDF to MedicineLine over the period February 2005 to June 2006

Medical product information moves from paper to voice system in Hungary

Rural Poland embraces the digital age

The 'Broadband Communication Network of Kujawsko-Pomorskie region' (K-PSI) project aims to close the digital divide which has been a characteristic of the region, notably in the more rural and remote areas. With backing from EU funds, the Polish region is installing a high-speed network, connecting 19 counties via fast broadband access throughout the territory, in turn supporting applications in e-government, e-learning, e-business and e-health.

The broadband network is the first and largest regional ICT project in Poland and is the result of the combined efforts of the local Voivodeship (district) and regional universities. The network provides a basis for many applications and e-services, including tax collecting and vehicle registrations, resulting in more efficient and cost-effective procedures.

The changing face of rural internet

The K-PSI project is a result of co-operation between three organisations: Kuyavia and Pomerania Voivodeship, Nicolaus Copernicus University in Torun and the University of Technology and Life Sciences in Bydgoszcz. Several strategic documents such as 'e-Europe 2002 – An Information Society for All' and 'ePoland – Action Plan' provide background for the project's key objective of building and exploiting a non-profit communication network.

Connecting people for the future

The project is helping partner institutions and organisations (mostly clusters and regional networks for telemedicine, libraries, GIS, innovation centres, enterprise development centres), as well as those in remote areas, with access to IT and modern broadband services (e-government, e-learning, e-health, e-work, e-commerce) with the installation of 144 access nodes and a 900-km optical fibre network (backbone) connecting all 19 counties in the Kujawsko-Pomorskie region.

> "The K-PSI project has reduced the digital divide in remote and rural areas. Institutions and people in the region now have access to broadband services through the construction and operation of a non-profit communication network."
>
> **JAKUB KOCHOWICZ,**
> PRESIDENT OF THE FRIENDS OF LISEWO'S COMMUNITY ASSOCIATION

K-PSI leads the way

The Ministry of Economy and Labour regards K-PSI as a model project in Poland. Its success stems from efficient exchanges of information between the participants. K-PSI was also recommended as a model for other projects, including the German-French Twinning Project. K-PSI's positive impact is expected to continue over the long-term, notably as regards fighting depopulation and stimulating economic growth, development and competitiveness. The region should also see better and more effective on-line services including telecentres, systems for transaction processing, passport applications and access to medical data.

More about this project can be found at:
http://www.kpsi.pl

EU funding

€11 million

was allocated from the ERDF to 'Broadband Communication Network of Kujawsko-Pomorskie region' over the period June 2005 to June 2008

Some 19 counties in Polish region now hooked up to broadband

The digital face of Latvian libraries

The ability to source relevant information is important for the public, especially when it comes to research, studies and learning. Through the project 'National Unified Library Information System', libraries throughout Latvia are now embracing the high-tech age we live in and benefiting with fast access to information using the latest equipment, including 748 new computers for librarians and vastly improved internet connections.

Known also under the name 'Network of Light' (SULIN), the project has seen Latvian libraries transform into a social, cultural, educational and information network, reflecting the needs and benefits of the interconnected information age we live in. A broad spectrum of libraries is now part of the network and includes national, academic, public, scientific, school and special libraries.

A network of opportunity

The development and acquisition of software for the library information system and the creation of a library portal were key features of the project. A local network for libraries was also developed and implemented, adding to the source of potential information in other locations, with users abroad also benefiting from the system introduced.

The project has succeeded in increasing the ICT skills of locals when it comes to using resources and has improved equal opportunities in terms of access to information.

> "The Bauska Central Library has turned into a modern information centre, largely thanks to this project. The library now has high-capacity computers with user-friendly software and high-quality images. This has solved the former problems we had – computers breaking down, large files not opening, and impossibility connecting to certain Internet addresses. Users can therefore make better use of the opportunities our library offers."
>
> **ĒRIKA PELCERE,**
> BAUSKA CENTRAL LIBRARY, MANAGER OF INTERNET READING ROOM

For library users, 752 computers were provided, helping people in the region enhance their education and knowledge, especially important in today's competitive labour markets and information society.

Tool training for librarians

Acquiring new tools and technical infrastructure demands that the user knows what to do with the tools. To ensure that the services provided by librarians remain of high quality and relevant, training was an integral part of the project actions. Some 216 training sessions were provided for librarians at level 1 (i.e. without technical knowledge); 384 for librarians at level 2 (with basic technical knowledge).

Reliable internet connections in libraries were also seen as vital to the needs of librarians and visitors. Some 104 internet connections were therefore set up, another 86 improved, adding to the solid infrastructure of the national library system.

Librarians in Latvia using advanced equipment in their work

Smart technology comes to Övre Norrland

Businesses in the north of Sweden take lessons from the Luleå University of Technology to bring their technology up to speed with all the latest applications offered by embedded electronics. Using the internet as a form of remote control is the essence of the Embedded Internet System (EIS) project.

From low-cost GPS technology for mobile phones to boat alarms detecting whether or not a boat has been moved, the university assists each business in developing their own technological product right from the drawing board to the market place. More than 250 companies have benefited from the project and over 40 product prototypes have made it to market.

Finding a methodology that works

The project began in 2000 at the Luleå University of Technology in the EIS lab for research and education in electronics and computer engineering. Two clusters or platforms were set up – the first focusing on industry and the second focusing on research and academia. Together these clusters worked to provide the right conditions for economic growth and sustainable development.

Businesses were contacted by an academic or a consultant with a high level of technical and social skills who explained the possibilities of the technology and invited the business to attend a special seminar. Interested businesses would then come up with an idea so that each product would fill a pre-identified gap in the market.

> "The EIS project has not only developed and marketed a large number of new products and services; it has also greatly improved the region's expertise in the field of embedded systems and established a triple helix based innovation system."
>
> **PROFESSOR JERKER DELSING,**
> LULEÅ UNIVERSITY OF TECHNOLOGY

A group of students would work with the business on developing a corresponding prototype. This formed part of their course work. A senior research was appointed as project leader and would work alongside other senior researchers to decide informally which prototype project offered the most economic potential.

Developing niche products

While the project's impact on the region's economy was relatively minor, it was significant in the sense that it relied on the development of entirely new products featuring embedded intelligence capable of internet communication. In 2006 nine products had commercial customers with a market value of €7.6 million.

The industrial platform gathered more than 250 companies around EIS technology, thereby forming a network of businesses producing actual products, consultants, venture capitalists and manufacturers, all working with the university.

Five spin-off companies were created. One, WarnIT AB, produces mobile alarm technology to protect trucks and wheel loaders, for example. Another, NordNav, sold in January 2007 for €50 million. It aims to develop GPS technology for mobile phones that is available for as little as one euro.

eGPS technology uses embedded electronics

New impetus for digital content services in Finland

Emerging digital content business branches out in the Oulu region of Finland as targeted funding drives new commercial projects. The Mobient project set its sights on the endless business opportunities being offered by new content distribution channels such as the internet, digital TV and mobile phones.

A total of 16 projects were supported to bring consumers all the latest possibilities of digital content. From car parking services (Nextpark) to sound editing (Playtone), the projects were practical at times and playful at others. Mobient brought jobs to the region and paved the way towards an increasingly bright digital future.

Relevant content for a digital age

The Mobient project set small businesses on the expansion trail, by helping them market, sell and distribute their products as well as by preparing them for international markets. It laid down more favourable conditions for those businesses hoping to enter the sector and looked into the hot topic of intellectual property rights and ownership.

Five calls for proposals were published to find ambitious businesses wishing to develop their new modes of production and distribution. From those interested, the Oulu university selected 12 and granted them co-financing of between €5 000 and €20 000 for their production costs.

The resulting projects included a weight control application (MobileCalories), a photo ordering system for camera phones (MobiOrder), an adventure game (Dragon Slayer) and a gardening game for kids (Backyard).

> "Through the Mobient project, our software company which specialises in usability and the development of interactive games grew from strength to strength. We believe that the project is an effective way to boost business."
>
> **PIRJO RITOKANGAS-HUTTUNEN,**
> CEO, BELLEVIEWS LTD

Turning digital content into business

Of the 16 projects funded, 14 had already made it onto the market by the end of the project. And, many are now available on the international market.

Nine permanent posts and seven temporary posts were created, and 33 posts were safeguarded.

The Mobient project served to diversify the region's economic make-up through new tools and know-how. It also promoted digital content in other sectors which led to the creation of one new company and ten new jobs.

In stark contrast to previous ways of networking which were sporadic at best, Mobient managed to forge solid ties between content and media production companies. This changed perceptions in the sector so that the other companies were seen more as potential partners rather than competitors.

A mutually beneficial operation was set up between information communication technology product developers and creative designers which often lack the expertise of the other party. This co-operation instilled a sense of trust and created further opportunities to work together.

More about this project can be found at:
http://www.oamk.fi/mobient/

EU funding

Mobient received

€165 000

from the ERDF for the period dating from April 2004 to March 2007

Digital content rapidly advancing across Finland

Vilnius, Lithuania

Extending education beyond the blackboard

Lithuania boosted its distance learning network significantly over a period of 26 months, with a project aimed at improving dedicated facilities in universities, schools, colleges and education centres around the country. The work included upgrades to video conference studios, ministudios and classes, plus installation of new mini-workshops and distance learning classes.

The main goal of the project 'Development of an information and communication technologies based Distance Learning Network' in Lithuania was to create an information society in a country where the use of IT for education was lagging behind. Some 60 key facilities essential for distance learning benefited.

Network building

Lithuania faces several major development challenges. These include ensuring that all its citizens can successfully compete in the international labour market and master modern information technologies.

The nation quickly recognised the potential of distance learning to address some of these issues, and set up the Lithuanian Distance Education Network (LIEDM) in 1998. The network expanded during the project's lifetime to include numerous national educational institutions, as well as science institutions in the country.

Work carried out during the project – some three-quarters of which was funded by EU money – included enlarging the network of distance learning classes throughout Lithuania, establishing new distance learning centres, and developing the LIEDM network's technical capacities. Video conference equipment was also upgraded.

> "With this software, we established non-formal adult education and started to develop formal adult education. We also benefit from a virtual learning environment that is centrally maintained and supported by the LIEDM coordinating centre."
>
> **DANUTĖ VIZMANAITĖ,**
> SUPERVISOR OF TRAKAI EDUCATION CENTRE

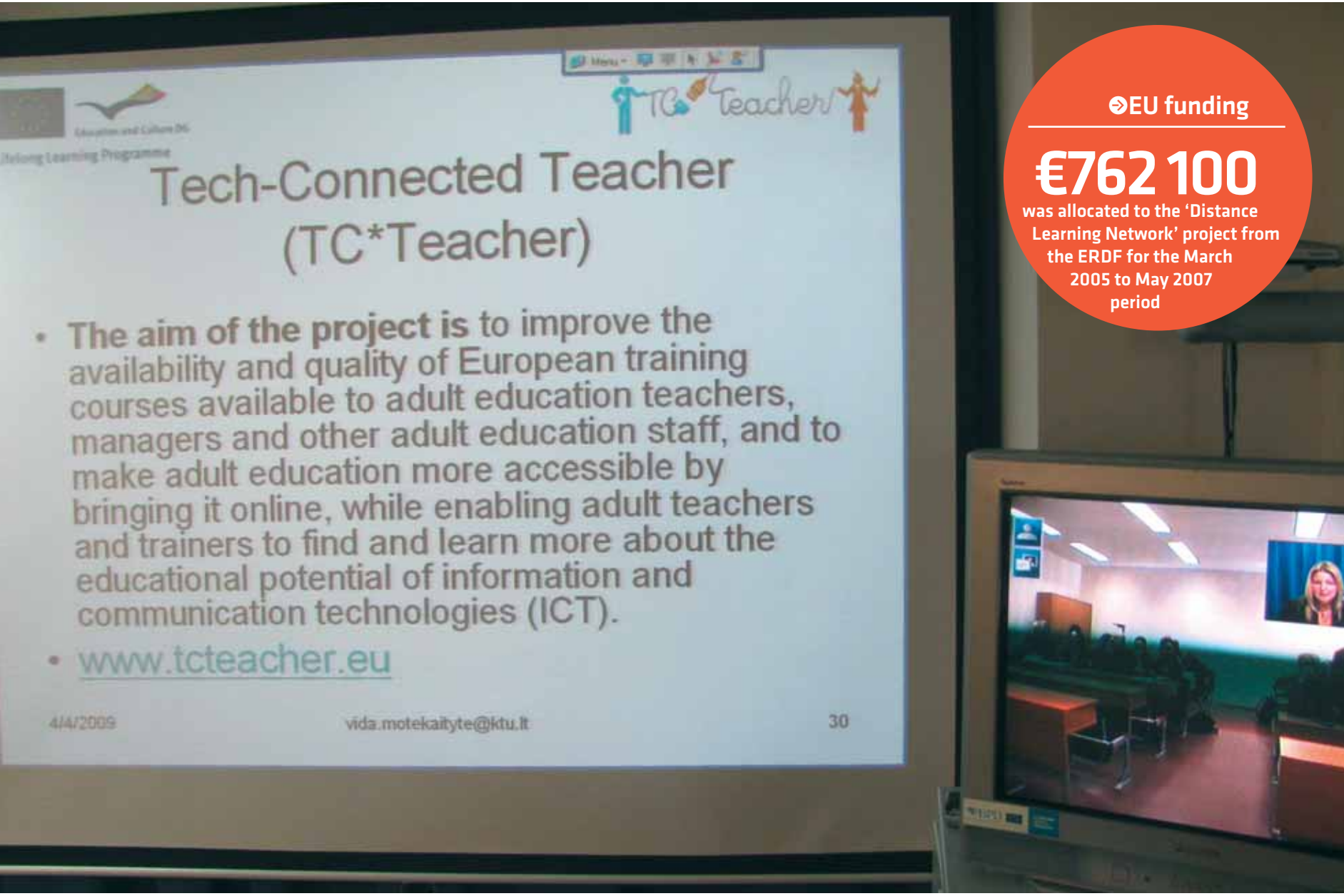
Parallel learning

Facilities were upgraded in three video conference studios, six ministudios and 12 video conference classes. The project also established 10 new ministudios, plus 28 new distance learning classes – 15 in colleges and schools and 13 in education centres. The new ministudios and classes were established as part of LIEDM institutions' structural departments.

The centralised software support was much appreciated. According to project manager Aleksandras Targamadzė, this lowered costs, allowed secure functioning and maintenance, and above all equally high quality of service for all users.

The original goal of providing parallel learning to an almost unlimited number of classes has now been realised. Thanks to the project's achievements, the LIEDM can today simultaneously connect up to 100 classes with video equipment.

More about this project can be found at:
http://www.liedm.lt

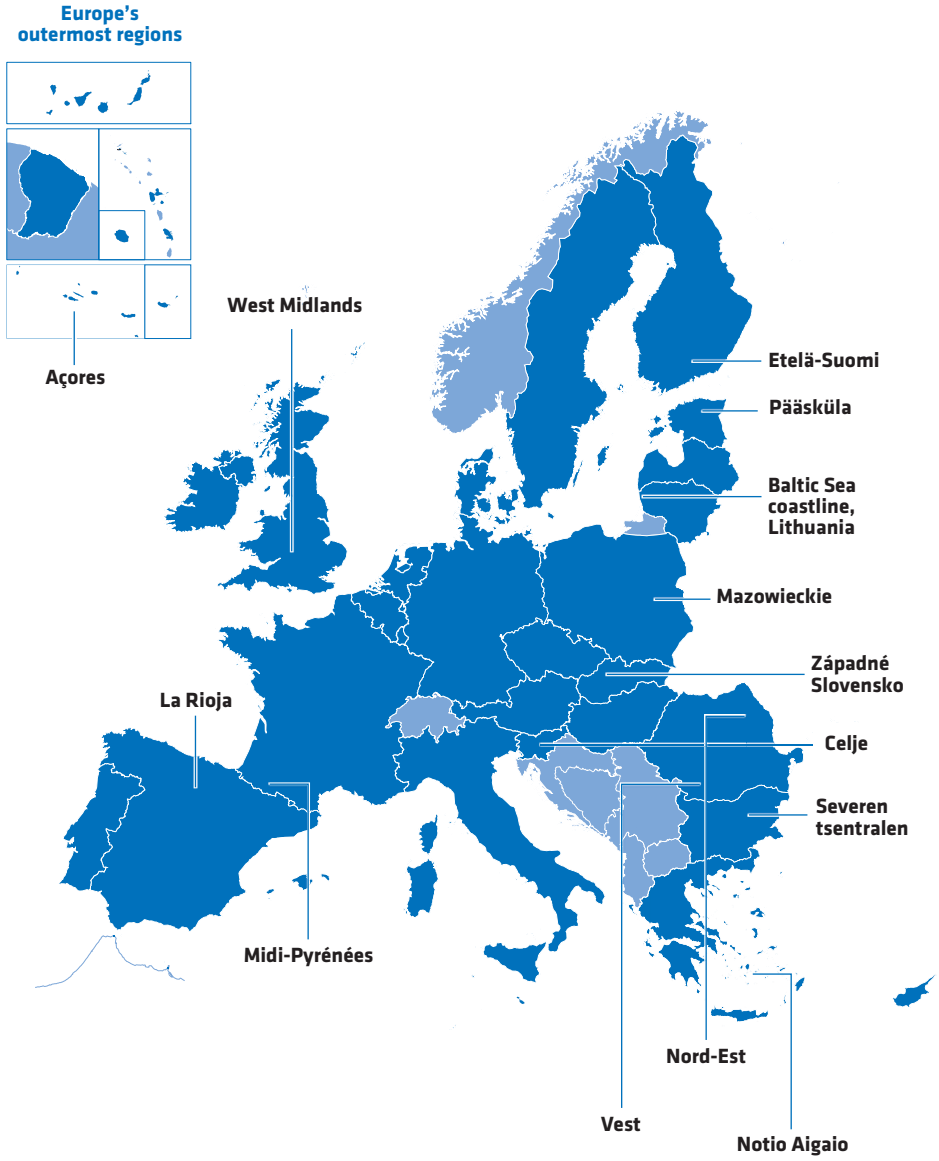


EU funding

€762 100

was allocated to the 'Distance Learning Network' project from the ERDF for the March 2005 to May 2007 period

The faces of modern education



Açores, Portugal: Island sheds light on volcanic past

Bagnères de Bigorre, Midi-Pyrénées, France: Natural resources come to mountain rescue

Baltic Sea coastline, Lithuania: Rebuilding nature for today and tomorrow

Celje, Slovenia: Waste sorting goes high-tech

Gorna Oriahovitza, Severen tsentralen, Bulgaria: River systems given the royal treatment in Bulgaria

Lahti, Etelä-Suomi, Finland: Lahti research goes green

Logroño, La Rioja, Spain: A window of opportunity for waste

Myjava, Západné Slovensko, Slovakia: Respect for river environments

Piatra Neamt, Nord-Est, Romania: Better waste management comes to Piatra Neamt

Notio Aigaio, Greece: Floating factory makes salt water drinkable in Aegean Islands

Pääsküla, Estonia: Yesterday's waste is today's energy

Piaseczno, Mazowieckie, Poland: Clever water handling, a vital ingredient for healthy communities

Valea Jiului, Vest, Romania: Improved wastewater for Jiu Valley residents

West Midlands, England, United Kingdom: Stimulating the uptake of green technologies

Territorial Co-operation

AT, BE, CZ, DE, EE, EL, ES, HU, LT, NL, PT, RO, SK, UK and RS: Turning back the tide in flood-threatened regions

EL, ES, FR, IT: Every drop counts in Mediterranean countries

Environment

Regional development policies need to be sustainable. Protecting and enhancing the environment for future generations is a strategic goal of all EU policies. Matching this ambition means putting money where your mouth is. This is why the EU, through its regional funds, is investing an unprecedented €105 billion between 2007 and 2013 on environmentally-friendly initiatives. By encouraging sources of growth that are smarter, greener and more sustainable, investment from the EU's regional policy offers a real opportunity to reduce energy dependency, boost sustainable regional development and create locally sustainable jobs.

Around one half of this total investment will be spent on providing essential environmental services such as waste and waste-water treatment plants or clean water supplies, but also in protecting biodiversity and decontamination of polluted industrial sites. The other half will go on measures with an environmental impact like promotion of eco-innovation in business, or investment in renewable energies and energy efficiency.

The EU as a whole is putting in place a range of measures to tackle the effects of climate change and reduce emission levels. Regional policy is making a crucial contribution to these efforts at local and regional level. Some €48 billion will be allocated to combating climate change in line with the overall strategy to make the EU a low carbon economy (including €23 billion supporting railways, €4.8 billion renewable energies and €4.2 billion energy efficiency). This commitment gives incentives to the EU's regions to approach climate change as an opportunity and reinforces the EU as a lead market for green technologies.

Projects featured – like Finland's Lahti Cleantech Cluster which benefited from substantial EU investment to turn it into the country's leading environmental technology centre, or the upgrading of the Celje waste treatment plant and recycling facility in Slovenia – are just some examples of how the EU is helping to improve environmental performance across Europe.

Island sheds light on volcanic past

The Capelinhos Lighthouse was built in 1903 on Faial Island in the Azores. When the nearby volcano erupted in 1957/1958, part of the lighthouse was damaged and buried under volcanic ash. Through this project, an Interpretation Centre has been built in the buried ruins and annexed areas of the old lighthouse. It serves as a reminder of the people affected by the eruption, and also provides visitors with information on the region and its volcanic past through high-tech facilities.

3D movies, interactive and artistic models, information panels and computers are just some of the attractions at the Interpretation Centre. Visitors to the region can therefore combine the pleasure of exploring the natural surroundings with learning about the island's history and the dynamics of volcanic activity.

Capturing the region's magic

The entire Azores archipelago off the Portuguese coast is a popular tourist destination, offering natural beauty, stunning scenery and historical heritage. This project has combined these elements and developed the Capelinhos Lighthouse site, at all times following the principle of sustainable tourism. This includes maintaining the biodiversity of flora, habitats and landscape, enhancing resources and promoting environmental harmony. The Centre is now equipped to inform current and future generations about the natural phenomena that have left a lasting mark on both locals and the site itself.

> "The centre gave me a valuable opportunity to learn more. In my capacity as a teacher, I consider the centre's visit to be a rich experience from the pedagogical point of view."
>
> **CIDÁLIA VEIGA FAUSTINO,**
> TEACHER

Exploring an underground world

A unique aspect of the Capelinhos Lighthouse Environmental Interpretation Centre is its location in the buried ruins of the lighthouse. This special structure retains the lighthouse's original appearance and offers tourists a unique underground experience. The lighthouse is also a perfect viewing spot for visitors who can enjoy panoramic views of the entire surrounding area.

The volcanic experience

The centre has an educational purpose, providing explanations on the volcanic activity of the region and how the archipelago was formed, and tracing back the lighthouse's history, including the volcanic eruption in 1957/58 which buried most of its buildings. The main room houses an impressive piece of engineering – a shaft that recreates an eruption. From here, visitors move on to other rooms with permanent and temporary exhibitions on volcanism. When eventually arriving at the ruins of the lighthouse, the visitors can climb to the top and see the stunning dormant volcano.

More about this project can be found at:
http://www.vulcaodoscapelinhos.org/en

EU funding

€3.2 million

has been allocated from the ERDF to the 'Redevelopment of Capelinhos Lighthouse – Interpretation Centre' project for the period 2007 to 2013

Visitor enjoying the underground Interpretation Centre experience

Bagnères de Bigorre, Midi-Pyrénées, France

Natural resources come to mountain rescue

Protecting mountainous terrain from erosion and improving the local environment was the main goal of the Ecovars project undertaken by the Pyrenean Botanical Conservatory. Backed by EU support, this project involved the restoration of plant cover following various types of construction work. By replanting seeds at newly developed ski resorts and on the sides of newly built roads, this project sought to protect and improve the Pyrenees by restoring its verdant alpine grasslands.

Through various partnerships with experts in seed production, plant conservation and genetics, the Ecovars project was able to apply the best possible ecological solutions to the Pyrenees region. Using local seeds, a long lasting protection was erected against erosion.

Replant to restore

The idea of using local seeds was first developed in the 1990s to restore small areas in the Pyrenean National Park. The Pyrenean Botanical Conservatory then recommended its widespread use throughout the Pyrenees mountain range, particularly for the restoration of plant cover following the construction of ski resorts.

The conservatory got together with a geneticist from the French national institue of agronomy (INRA) and set up the Ecovars project. The two parties ran the project alongside the authority responsible for coordinating agricultural development in the Pyrenees (SUAIA-P). While the conservatory provided expertise in plant conservation, the SUAIA-P provided expertise in seed production and the INRA expertise in genetics and social science.

> "One of the main achievements of the project has been the setting up of a network of wide-ranging players: researchers, administrators, ski resorts, territorial authorities, farmers, associations, schools, etc. which have been made aware of the replanting project and of the importance of preserving the Pyrenees surroundings during renovation. Today, these same players make up the promoters of the approach and some are developing their own projects towards better planting practices."
>
> **GERARD LARGIER,**
> DIRECTOR, PYRENEAN BOTANICAL CONSERVATORY

Scaling up from the park to the Pyrenean Massif increased the amount of seeds needed and required the production of seeds of native species. The partners went about their threefold objective of choosing and collecting pioneer species whose ranges covered the Massif, clarifying what local actually covered by taking into account the genetic differentiation of the targeted species along the Massif and producing the seeds.

Knowledge sharing

The use of non-local species for restoration can increase the risk of poor adaptation and pose a threat to local plant populations. It was essential therefore to have on board a range of experts to assess the complexity and specificity of the restoration projects and to find the appropriate solutions.

More about this project can be found at:
http://www.ecovars2.fr

EU funding

The Ecovars project was allocated

€47 600

from the ERDF for 2008

Research taken from lab to rebuild alpine landscapes

Rebuilding nature for today and tomorrow

The spectacular beauty of Lithuania's Baltic Sea coastline, a source of enjoyment for locals and visitors and home to diverse flora and fauna, had been threatened by a gradual erosion process over several decades. A restoration and preservation project has successfully reversed this trend, helping to bring the area back to its former glory by reinforcing the dunes, constructing walkways and providing information on the coastline.

The combined efforts of Klaipeda County and the EU have produced marked results for the region, including: improved business conditions; 15 000 metres of wooden pathways and stairs enabling people to enjoy more of the coast, particularly the elderly and disabled; fences providing protection for animals, water, plants and birds; and 110 000 m^3 of branch covering to protect dunes. With Palanga beach itself attracting some 250 000 holidaymakers on summer weekends, the benefits are enjoyed by many.

Shifting sands tell a story

The erosion process had seen some beaches narrowed to 10 metres, partly caused by hurricane Anatoly in 1999. The coastal seabed, less visible, yet equally important, had also seen destruction. Five dune areas were therefore protected, with some 300 000 metres of wicker fence built along the coastline, and another 1 100 on the Curonian Spit. In total, 40 000 m^3 of sand were unloaded at Palanga beach to replace what had been lost to erosion.

> "We build up protection ecologically, without using cement or the like. We lay out branches from local forests on top of each other. Sand then covers over the branches. The dunes are soon strengthened and the coast stabilised."
>
> **JURGITA MIKSYTE,**
> ECOLOGIST AT THE NATIONAL PARK

Learning and warning about coastal nature

A key aim of this project was to inform the public about the local environment. Some 38 information boards were put up giving background on the coastal zone and also explaining any potential dangers. Informing the public also serves to instil a sense of respect for the natural environment. A booklet on methods for preserving this natural area was also produced, along with articles in newspapers and on the internet. The public can therefore learn about the coastline and also any potential dangers.

Long-term protection

With sustainability at the heart of the coast's restoration and preservation efforts, a research study entitled 'Evaluation of opportunities for sand utilisation and expedience of using hydro-engineering equipment for coast development' was put together. This is designed to provide a basis for the intelligent and sustainable development of Lithuania's Baltic Sea coastline.

EU funding

€2.47 million

was allocated from the ERDF to the project 'Restoration and preservation of the Baltic Sea coast line' over the period 2004 to 2006

Locals enjoy the recently restored Lithuanian coastline

Waste sorting goes high-tech

Dealing with rubbish has been high on the agenda in many European towns and cities in recent years. The municipality of Celje, located in central-eastern Slovenia, is no exception. Prior to the current project, a common waste treatment programme was servicing some 185 000 inhabitants in 17 municipalities. Upon completion of the project, the Regional Waste Management Centre, the RWMC will cater for 31 municipalities representing some 250 000 residents.

The main problems detected in terms of waste management had been the lack of separate waste collection at sources, adequate treatment of municipal waste before disposal, and recycling facilities. This Stage II project therefore focused on the mechanical-biological and thermal treatment of municipal waste and has seen positive results, including a reduction in biodegradable waste deposits at landfills.

Stepping up to the task

With backing from EU funding, the project has helped solve the problem of how to manage communal waste and dispose of sludge from the waste water treatment plant in Celje. With the introduction of modern treatment methods, the quantity of landfill waste in the targeted waste collection region looks set to decrease by 62% in the long-term. The project has also helped ensure that the treatment facilities at the waste management centre comply with European technical and environmental standards covering waste and landfills.

Modern methods for modern challenges

The funds invested were used for two key features: firstly, the construction of a mechanical-biological treatment (MBT) system for municipal waste, with a total capacity of 61 000 tons of waste residue per year; and secondly, the construction of a thermal treatment (TT) system for municipal waste with a total capacity of 25 000 tons per year (broken down into 20 000 tons of biological waste and 5 000 tons of dehydrated sludge).

> "Despite some obstacles, we succeeded in implementing the project thanks to a positive attitude and collaborative effort of the local community, region, country and European Union. Cohesion Fund assistance has helped us meet high environmental standards and has benefited the population of the Savinjska region by delivering an environment-friendly and cost-efficient waste management system."
>
> **BOJAN ŠROT,**
> MAYOR, MUNICIPALITY OF CELJE

Clearing the air for the future

The level of methane (CH_4) and greenhouse gas emissions from landfills has fallen as a result of reduced amounts of organic waste disposed of at landfill sites. There is also less sludge and fewer biodegradable waste deposits at landfills. One important feature is that a heat supply has been generated, thus minimising the consumption of non-renewable energy and ensuring less reliance on fossil fuels. The introduction of such efficient technology means cleaner air and a greener environment for residents and businesses, and also those visiting the region.

More about this project can be found at:
http://www.rcero-celje.si/

Modern waste sorting methods in Slovenia

River systems given the royal treatment in Bulgaria

The Danube River has often seen untreated domestic and industrial wastewater discharged into its waters. To work towards putting an end to this and to ensure that the Danube River and surrounding tributaries remain protected in the future, the Gorna Oriahovitza Regional Wastewater Collection and Treatment project saw the construction of a treatment plant to handle wastewater coming from three nearby settlements.

This project was seen as vital to local communities given the high level of concern for protecting both the environment and residents. The facility benefits the environment in terms of the cleanliness of water flowing into local rivers, and consequently flora and fauna habitats, and residents in the region and visitors to the region in terms of public health and an attractive, clean natural environment. With a full tertiary treatment, reductions in nitrogen and phosphorous will meet the requirements for sensitive areas.

Nearby cities causing less environmental damage

The wastewater collection project was one of the 36 priority projects of the 'National Programme for construction of urban Waste Water Treatment Plants (WWTPs) in the Republic of Bulgaria'. In addition to treating wastewater from the cities of Gorna Oriahovitza (pop. 45 000) Liaskovetz (pop. 12 000) and Dolna Oriahovitza (pop. 4 000), and protecting the Danube River basin, the facility has been designed to meet the requirements of the Urban Waste Water Treatment Directive for agglomerations with population equivalents of over 10 000.

> "Through construction of the treatment plant, the benefits for the population in the region include reduced risk of pollution of soil, groundwater and rivers, thus less risk to human health etc., as well as improved utility infrastructure enabling increased economic activities, improvements in the quality and range of services for the population, better conditions for developing tourism and agriculture, and the creation of new employment opportunities."
>
> **JORDAN MIHTIEV,**
> MAYOR OF GORNA ORYAHOVITSA MUNICIPALITY

Efforts channelled towards clean flowing rivers

This particular project was significant in that it was considered to be a pilot project in the water sector in Bulgaria – it was the first project to finance a tertiary treatment WWTP in the fragile area of the Danube River basin. Apart from construction of the plant, several elements of the collection system were also financed. The Yantra River, which is a tributary to the Danube River, also sees pollution from untreated sewerage discharged into its waters, however this trend looks set to reverse with the new facilities. By 2030, the domestic, commercial and industrial wastewater of some 102 000 people will be treated.

The Danube River benefits from a new wastewater treatment plant

Lahti, Etelä-Suomi, Finland

Lahti research goes green

Innovation and investment in environmental technologies, particularly recycling, energy efficiency, water management and soil decontamination are the focus of Lahti's Cleantech Cluster, located in southern Finland. Cleantech Cluster has transformed Lahti. Once lagging behind in research, it is now host to Finland's leading environmental technology centre.

EU investment of €1.5 million in this project provided the necessary catalyst to promote innovation and develop environmental technologies. Overall, 170 new jobs were created, 20 new cleantech companies set up and the project attracted more than €30 million in total investment.

Bringing pilot projects to global markets

The Lahti Cleantech Cluster helps small and medium-sized businesses access a rapidly expanding cleantech market, with growth per year estimated at 5-15%. The cluster provides services which make it easier for its 200 participating businesses to network and branch out into the international market.

The cluster is also seen as a gateway for foreign companies wishing to find partners in Finland. These companies set up networks with smaller Finnish companies, thereby expanding their own businesses and opening up Finnish companies to international markets.

The cluster is made up of four centres providing expertise on Finland's cleantech sector: Lahti, Kuopio, Oulu and Helsinki. These centres specialise each in a specific cleantech domain, promoting growth in the associated businesses. The centres cover around 60% of Finland's cleantech business and as much as 80% of its cleantech research.

> "Cleantech Cluster is practically indispensable for the companies operating in environmental issues in the region. Many of these companies are small and their chances of getting involved in projects with big companies are so much better with the cluster."
>
> **EERO PEKKOLA,**
> MANAGING DIRECTOR OF OILON OY

Leading the way

The Lahti Science and Business Park which coordinates the cluster has become the leading environmental technology centre in Finland. Between 2005 and 2007, some 20 cleantech companies and organisations relocated to the region. The business development and relocation services of the park have attracted investment worth more than €30 million and some 170 new jobs to the region.

The Lahti Cleantech Cluster has also developed strong partnerships with environmental technology clusters and science parks, higher education institutions, venture capital organisations, the Finnish trade organisation, and the ministry of employment and the economy. The cluster is actively supported by national cluster programmes and the Finnish government.

More about this project can be found at:
http://www.lahtisbp.fi and
http://www.cleantechcluster.fi

EU funding

Lahti science and business park received

€3.5 million in total, of which €1.5 million came from the ERDF and the Fifth Research Framework Programme for the period 2004 to 2007

Wind, just one of the ways of producing clean energy in Finland

Logroño, La Rioja, Spain

A window of opportunity for waste

Northern Spain is taking major steps towards a greener society through the project Ecoparque de La Rioja. This environmental management site is where large quantities of local waste are being recycled and reused, generating products such as biogas and compost and resulting in a sizeable reduction in detrimental impacts on the environment. The doors of the site are also open to visitors in a bid to raise awareness about waste and environmental issues.

With support from EU funds, local authorities have taken concrete steps towards managing waste. Ecoparque de La Rioja, inaugurated in 2003, is a shining example of successful action, with some 148 000 tonnes of waste being processed there each year, most of which is solid urban waste.

Rubbish matters

The Ecoparque has two main waste treatment processes – solid urban waste and light packaging. Larger items such as furniture, personal effects and garden waste are also treated at the site. Any organic matter is separated from recyclable matter such as plastic, paper, cardboard, glass and metal. The organic matter goes through two processes. In the biomethanisation process, the organic part is degraded to produce thermal energy and electricity for use at the Ecoparque itself (25%) and also locally. Thereafter degraded organic matter is stabilized by a composting process to be converted into compost for use in agriculture. To give some perspective on volumes, 17 000 MWh/year of electricity are produced, enough to supply a town of 20 000 inhabitants.

> "When you see these facilities, you realise how much waste we produce and how complex the treatment process required to avoid contamination is."
>
> **GABRIELA SECO,**
> RESIDENT OF NEARBY HARO

Education – key to a clean future

A key feature of the site is its emphasis on educating, particularly the younger generation, about the recycling processes and also the ways in which we can reduce waste in our daily lives. The aims are to raise awareness about waste problems, show how the recycling facilities actually work and demonstrate Ecoparque's role in the strategy: Reduce, Reuse and Recycle. By instilling a sense of environmental responsibility in the minds of youth, our planet should remain green in the future.

Ecoparque leads by example

Apart from using its own electricity, the site was also constructed taking into account environmental, logistical and sociological considerations, including optimising the management of waste transport. Low-rise buildings were built to avoid creating an eyesore, closed treatment areas are used to avoid odours and residues being carried away by the wind, a wastewater treatment plant is used for excess water, and biofilters are in place to eliminate bad odours. By embodying the concept of environmental sustainability, Ecoparque de La Rioja is showing locals and those further afield that this approach can and does work.

More about this project can be found at:
http://www.ecoparquedelarioja.es and
http://www.larioja.org/care

EU funding

€12.5 million

was allocated from the Cohesion Fund to Ecoparque de La Rioja over the period 2000 to 2006

Doors open for new methods to handle waste

Myjava, Západné Slovensko, Slovakia

Respect for river environments

How we treat waste water and consequently the environment is a growing concern for many countries, particularly those using inefficient systems and processes. To address this issue and also work towards complying with European legislation, the project 'Myjava – reconstruction and extension of WWTP' was carried out in the small town of Myjava at the foothills of the White Carpathians, and has already proved a real success with a 19% increase in treatment efficiency since the beginning of the project.

The Myjava waste water treatment plant (WWTP) is located in the Trenčin region of Slovakia. The waste water treated there flows into the nearby Myjava River, one of the many natural attractions in the region. The river has a pivotal role to play in terms of eco-stabilisation and vegetation protection. Success in this project therefore looks certain to have long-term benefits for the region and its environment.

Reducing unwanted pollutants

EU funding contributed to achieving compliance with the EU Directive on urban waste water treatment and also to reducing the amount of outlet pollutants as per national stipulations. The WWTP currently serves the town of Myjava, however in the future it will be possible for the municipalities of Stará Myjava, Brestovec and Poriadie to also be connected.

Efficiency is the name of the game

The reconstruction of 15 building features and 10 technology components at the WWTP was needed to achieve a higher efficiency rate. Prior to the project works beginning in 2005, the treatment efficiency rate at the Myjava WWTP was approximately 76%. By the time the project was completed (2007), measurements taken revealed an efficiency rate of 95%. There were also economic gains – 13 jobs were secured as a direct result of the project.

> "Through reconstruction of the Myjava WWTP, conformity with Directive 91/271/EEC has been achieved. The drainage parameters of clean discharged water has also been improved as has the quality of water and life in the Myjava River, with some protected animals now returning to the area."
>
> **ING. VLADIMÍR BOŽÍK,**
> HEAD OF THE EUROFUNDS DEPARTMENT,
> BRATISLAVA WATER COMPANY

Clean waters flowing again

Protecting the water quality of the Myjava River is extremely important from an ecological point of view. The river and its riverside vegetation represent a landscape with a key role, namely the job of eco-stabilisation. This riverside vegetation also protects the river body from pollution by absorbing part of the fertilizers washed away from surrounding land. From the long-term point of view, the newly reconstructed WWTP also sets the scene for preservation of the living environment for several types of fish as well as invertebrates in this protected natural area.

EU funding

€1.9 million

was allocated from the ERDF to 'Myjava – reconstruction and extension of WWTP' over the period October 2005 to October 2007

Waste water being treated at the extended plant in Myjava

Better waste management comes to Piatra Neamt

The people of Piatra Neamt, a mid-sized town in the northeast of Romania, are benefiting from a cleaner, safer environment thanks to better waste management. Through improved waste collection, transport, recycling and treatment, a joint German-Greek venture is restoring the beauty of this region which boasts the most montasteries per square kilometre in the whole world.

The 'Pearl of Moldavia', as it is known, is getting back its sheen as a result of the new integrated solid waste management system developed by Dywidag International GmbH, Heilit Umwelttechnik GmbH (Germany) and Diekat Construct (Greece) which designed and executed all major civil works and supplied and installed all the necessary plants and equipment.

Disposing of waste

Selective waste collection, waste recycling, composting, a landfill closure and a landfill opening – all these measures are turning around the town of Piatra Neamt to the benefit of its 125 000 inhabitants.

Through the acquisition of operation and maintenance equipment, such as waste collection containers, and the putting in place of infrastructure for household waste collection points, the town has optimised the use of EU funding to make a real difference not just to residents but also to the environment.

> "This is the first phase of a bigger programme valued at over €18 million. Part of the ISPA programme, it is the first project of this kind in the country and all over eastern Europe."
>
> **MARIUS BOACSA,**
> ENGINEER AT THE PROJECT IMPLEMENTATION UNIT WITHIN PIATRA NEAMT CITY HALL

A technical centre for the maintenance of trucks, a bottle and plastic sorting plant, a recycling centre, a composting plant for reducing residual waste at landfills and a crusher for construction and demolition waste have all been set up as part of this project.

Disposing of health hazards

Where previously waste was deposited on the streets, thereby posing a health hazard to passers-by and residents, measures have been put in place introducing safer collection methods. There has been a substantial increase in the recycling of waste and a substantial decrease in the volume of waste being disposed of at landfills.

As a direct result of these measures, the town's soil and water are no longer being polluted. The town even looks fresher thanks to the new ways of treating household waste. The people of the town are keener than ever to sustain this new wave of eco-friendly waste disposal and changes are being seen in their day-to-day behaviour.

The closure of the old landfill and the opening of a new one compliant with EU standards have eliminated a major nuisance and health hazard for the community.

Dealing with waste to preserve the beauty of Romania

Notio Aigaio, Greece

Floating factory makes salt water drinkable in Aegean Islands

The water-stressed South Aegean region has built a floating self-dependent water factory which runs on renewable energy to convert seawater into much needed drinkable water. A desalination system developed by the University of the Aegean is providing the region with a cost-effective and environmentally friendly solution to its water scarcity problem.

Since the ecological desalination system was installed the region has experienced a notable economic upturn. The tourism sector – which doubles the region's water consumption in the summer – is able to grow and other parts of the local economy, such as farming, are benefiting from increased water supplies. New business is also being created, making the renewable energy sector more vibrant.

Unmanned desalination plant

This project created the first wind-powered, floating desalination plant in the world. The plant is wholly independent as it operates using energy from a wind generator and photovoltaic system. Electricity is also generated and can supply the islands. A major advantage of the system is that unlike the vast majority of existing systems, it does not use any chemical pre-treatment of the sea water.

Equipped with several sensors, the platform is also able to gather data regarding wind, water and operation-related parameters, making the plant more than a water factory but an actual floating research laboratory.

> "In the past, we would run out of water many times each year. Every summer, up to 2-3 times for 2-3 days, everybody runs out of water and the tourists leave. Last year we got water from the ecological system and, now, we no longer have this problem."
>
> **ANNA,**
> HOTEL OWNER IN THE SOUTH AEGEAN REGION

The University of the Aegean and the South Aegean region worked together on the islands' energy and water-related supply problems. They developed an initial idea and then invited organisations with experience in desalination, energy and marine applications to participate. The consortium proved extremely insightful and led to the creation of a highly innovative unit, both in terms of design and energy management.

Supply for the future

The platform is able to cover the needs of approximately 300 people, producing 70 m^3 of water per day. With an average payback time for this plant of 10 years after investment, the payback time for the plant including maintenance is short at only three years.

After this period, the water will be produced free of charge for 20 years, the expected lifespan of the plant. Given its success, future developments are in the pipeline to increase the scale of the project. An interregional partnership set up at the beginning of the project will see how the project can be taken further.

EU funding

The desalination unit received

€1.31 million

from the ERDF for the duration of the project, September 2003 to June 2007

Floating factory where seawater becomes drinking water

Pääsküla, Estonia

Yesterday's waste is today's energy

A huge landfill site close to Tallinn has been closed down and the area cleaned up. Once an eyesore and source of pollution, the site was shut down in 2003 and underwent significant work to tackle various environmental and health hazards. It today produces valuable biogas, heat and power for a local energy company.

The three-year clean-up led to major improvements locally, among them an odour-free area, better water quality, and the return of certain wild animals. City authorities hope to turn the area into a recreational zone.

Big clean-up

Over the last decade, in order to comply with the 2001 EU landfill directive, Estonia has introduced new waste management centres, promoting recycling and recovery, closing old landfills and diverting waste away from them. It now has only five major municipal landfills, all carefully managed to reduce their environmental impact, down from around 350 mainly unmanaged sites 10 years ago.

Tallinn used to send some 200 000 tonnes of municipal waste to the Pääsküla landfill annually. This resulted in an ugly heap of stinking rubbish, almost 40 metres high and spread over 30 hectares.

Open for four decades, the site was closed to further waste disposal in 2003. Over the next three years, under a major project with 75% of the costs covered by EU funding, the landfill body was capped with a sealant, a 1.8 km road was built around it, and a landfill monitoring system installed. Other work included construction of a leachate water collection system and irrigation system, a vinyl pile wall around the landfill, and a landfill gas collection system – with seven km of pipes, three regulation stations, a compressor and a gas burner.

> "The closure of the Pääsküla landfill means the disappearance of the biggest blot on our landscape. Now it is fresh and clean and new houses have recently been built nearby."
>
> **RAINER VAKRA,**
> ELDER OF NÕMME CITY DISTRICT

End of an eyesore

The project has made a huge difference to the local area and nearby private homes. Bad smells are gone, the nearby river and surface water are cleaner, and there is no more nuisance from seagulls or rodents – replaced increasingly by deer, foxes and hares. Thanks to cost savings during tendering, additional money became available to build a public waste reception and sorting facility, and to clean up the 300 metre-wide sanitary zone around the landfill.

Biogas produced by the landfill has been collected since 1994. It is also now used to fuel two combined heat and power (CHP) systems, selling heat and power to a local energy company. Between 2002 and 2008, annual biogas production fell by more than a factor of ten, while heat and power both increased by more than a third. Total heat energy produced and sold is around 10 GWh/year. Site maintenance and monitoring will continue for 30 years.

More about this project can be found at:
http://www.envir.ee/253896

EU funding

€7.14 million

was allocated to the Pääsküla landfill closing down project from the Cohesion Fund for the April 2004 to November 2008 period

The grass became greener in Estonia, following huge clean-up operation

Piaseczno, Mazowieckie, Poland

Clever water handling, a vital ingredient for healthy communities

An efficient, economical and environmentally friendly system for drinking water supplies and wastewater treatment was the basis of this project in the Mazowieckie region of Poland. The project was carried out in the town of Piaseczno and included upgrading of the Raszynska pumping station, construction of several water mains, staff training, and increasing the capacity of two main sewage treatment plants, Piaseczno – up to 20 000 m³/d, and Wólka Kozodawska – up to 2 800 m³/d.

The project has resulted in environmental, health, economic and regional benefits in the form of better quality water resources, improved sanitary conditions, greater efficiency of water and wastewater management systems and more attractive recreation resources, in turn boosting tourism potential.

Shaking up the drinking water supply

The Piaseczno municipality directly adjoins the southern border of Warsaw and has a population of some 65 000. To improve the water and sewage services provided to them, the project saw the pumping station upgraded through the replacement of the original pump, thus offering greater capacity, and also the building of a reserve pump. Water mains in five streets were also constructed (850 metres) under the project, followed by renovation works of nearby roads and pavements.

> "I believe that this programme has been a great step towards the future for Piaseczno. Thanks to this project, we are much more attractive for new investors, and we can assure suitable living conditions for our citizens."
>
> **JOZEF ZALEWSKI,**
> MAYOR OF PIASECZNO

Dirty business goes clean

Managing wastewater treatment can be a messy affair, yet with the right systems and structures in place, operations can become cleaner and easier. Due to the overloaded sewage treatment plant in Piaseczno, the project carried out extension and upgrading works, including the construction of a new sludge drainage system and a 123 km sewage pipe network.

Elsewhere, turning waste into useful products is now possible in Wólka Kozodawska as a result of developments at the local sewage treatment plant. The process sees sludge transported from Wólka Kozodawska to Piaseczno where it is mixed and dehydrated. The sludge can then be used for agricultural purposes or removed to the municipal waste dump. The other main feature of the project was the construction of the sanitary sewer system in several villages in the municipality.

Tempting the tourists

Apart from offering improved drinking water quality, reduced health risks and economically more efficient treatment systems, the protected surface waters in the area offer more attractive places for recreational activities and constitute an added draw for local and foreign tourists.

EU funding

€31.69 million

was allocated from the Cohesion Fund to the 'Programme of water and sewage management in Piaseczno' over the period 2004 to 2006

Better quality water reaching more people in Polish regions

Improved wastewater for Jiu Valley residents

The Jiu Valley in West Romania recently witnessed a major upgrade project take place at the Danutoni wastewater treatment plant (WWTP), where the number of people connected to the sewerage system grew from 55 000 before the work began to 106 800 at present. Clean drinking water and clean rivers as well as a more attractive environment for recreation and tourism are just some of the benefits that have resulted.

The project included the refurbishment of existing facilities as well as adding extensions to the treatment plant, including a biological stage for environment-friendly treatment and disposal of urban wastewater from the towns of Petrosani, Petrila, Aninoasa, Vulcan, Lupeni and Uricani.

Cleaning up the dirty work

The Danutoni plant, operated by SC APA SERV SA Valea Jiului, was the first of its kind in Romania, which opened for operation in the early 1970s. However, due to lack of maintenance, damage and age, the plant began malfunctioning in the late 1990s. To address these problems, the current project was initiated. It was carried out in two phases: upgrading the existing primary treatment facilities; and extending the plant, including a biological treatment stage.

The first phase concentrated on replacing and renovating the electro-mechanical equipment (flow meters, screens, grit chamber, primary settling tank, sludge pumping station, sludge thickener, sludge stabilisation, drying beds) and refurbishing the existing civil structures (excluding the sludge digesters and the gas holder).

The second phase focused on biological treatment (aeration tanks and final sedimentation tanks – efficiency rate of about 90%) and sludge treatment (digesters, gas holder, digested sludge thickener and mechanical dewatering).

> "What is important for Jiu Valley, an area experiencing economic and financial difficulties, is that the commissioning of the Biological Stage of the Wastewater Treatment Plant will bring substantial benefits to the environment, including lower costs for wastewater treatment downstream and a more attractive tourist destination in the Parang Massif."
>
> **MR FLORIN TIBERIU IACOB RIDZI,**
> MAYOR OF PETROSANI MUNICIPALITY

An environment ripe for healthy living

With the two phases now completed, the economic and environmental benefits deriving from this project include better quality wastewater, compliance with the EU Urban Waste Water Treatment Directive and national effluent standards, improved public health, protected surface and ground water, reduced costs for treating drinking water, a more attractive area for recreation and tourism, and employment created during the construction phase, important in an area that suffers from particularly high unemployment rates. Downstream, the Danube River and Black Sea also stand to benefit with better quality water flowing in.

EU funding

€7.26 million

was allocated from the EU's Instrument for Structural Policies for Pre-accession (ISPA) and the Cohesion Fund to the project over the period 2000 to 2010

Water treatment benefits residents and nature in Jiu Valley

Stimulating the uptake of green technologies

Technical support has been given to small businesses in the United Kingdom's West Midlands region to stimulate the development and uptake of green technologies. By forging lasting links between small businesses and universities, Birmingham City University's EnviroINNOVATE programme has helped to regenerate industry in the region while paving the way towards a more sustainable future.

Seven universities signed up to assist over 120 businesses by identifying new areas of opportunity, providing information on competitors and market share, and offering access to testing and analytical services.

Breaking into the market

The market for environmental products and services is relatively new and can be difficult to enter without a high degree of technical expertise. EnviroINNOVATE created a team of dedicated advisers to identify and arrange links for businesses to suitable resources. The team provided a solid interface which understood business requirements and knew how to encourage academics to work with industry.

EnviroINNOVATE was created in 2003 by a partnership of seven West Midlands universities, supported by the Environment Agency, Advantage West Midlands and several interested parties from the private sector.

The services provided included an environmental technologies market review, a technical market appraisal and, the most popular, a technical scoping study to give access to university testing and analytical services. The technology covered included waste management, renewable energies and water and air pollution reduction.

> "Our initial domestic product proposition focused on household protection. However, significant opportunities exist in home and overseas commercial markets, where water conservation and financial savings are both important. With AWM funding, Birmingham City University's technical support has given us tools to plan strategy more confidently."
>
> **NOEL O'DONNELL,**
> SURESTOP LIMITED

One EnviroINNOVATE-supported business, Surestop Limited, developed a device to control domestic water supplies at the flick of a switch in order to reduce the number of UK homes experiencing leaky appliances or burst water pipes each year – currently estimated at three million.

Moving away from the traditional

Modernising traditional sectors is key to transforming those regions which are underperforming due to a high dependence on manufacturing with a high proportion of traditional, low value-added sectors. This project helped to make small businesses in the region more flexible, innovative and responsive.

In terms of figures, the project attracted investment of €1 711 000, created and protected 80 jobs and raised and protected sales of €1 483 000.

EU funding

€202 400

was allocated from the ERDF to EnviroINNOVATE over the period June 2003 to March 2007

The key achievement of EnviroINNOVATE has been to deploy academic resources in support of small business development in the field of environmental technologies. As a result, EnviroINNOVATE was recognised in the European Commission 2008 RegioStars Awards held in Brussels at the 'Regions for Change – Sharing Excellence' conference. The Commission described AWM's EnviroINNOVATE initiative as "having made a positive link between innovation resources within universities and its SME population in the growing field of environmental technologies."

An example of green technologies developed in the West Midlands

Territorial Co-operation, Austria, Belgium, Czech Republic, Estonia, Germany, Greece, Hungary, Lithuania, Netherlands, Portugal, Romania, Slovakia, Spain, United Kingdom and Serbia

Turning back the tide in flood-threatened regions

Strength in numbers and multi-disciplinarity reflect the approach taken in the FLAPP project where the combined efforts of 15 countries resulted in practical ways to deal with flood danger. FLAPP (FLood Awareness & Prevention Policy in border areas) enabled partnerships to be formed that otherwise may never have taken place and resulted in the introduction of measures including flood forecasting and river basin management to protect people, nature and economic development in at-risk border areas.

Residents in the areas covered by FLAPP are no strangers to flooding, hence the positive input from 37 partners who brought their water management experience from 12 river basin areas. From Ireland to Greece, and from Estonia to Spain, experiences are being shared and put to practical use.

Ideas flow into good practices

The lead partner of the FLAPP network was EUregio Meuse-Rhine (Maastricht, Netherlands). The main goal of project partners was to maximise flood prevention, forecast floods, disseminate information and limit damage. University researchers and NGOs joined local and regional water managers as partners, adding to the depth of talent. The network's ideas for managing river and stream systems were soon incorporated into relevant tools including a Good Practice Map, Good Practice List and policy recommendations for the EU and national authorities.

Flood prevention seen from all angles

With 15 border areas (including non-EU countries) under the microscope, project partners covered diverse catchment areas, including the rivers Danube, Tisza, Evros, Ebro, Nemunas, Meuse, Rhine, Scheldt, Elbe and Oder. The partners examined flood prevention based on structural and spatial measures, sustainable flood management, especially in important ecological areas, calamity management, cross-border co-operation to stimulate a river basin approach, and flood awareness among the public. New flood management concepts ('Fluvial Territory' and 'Room for the River') were introduced and discussed. A website, brochures, signs and leaflets as well as reports on flood policies, information systems and cross-border maps feature in FLAPP's strategy to communicate awareness and prevention.

> "It was interesting to see the Dutch 'Room for the river' project in the field. I saw that flood prevention and nature development can be compatible as long as there is enough room. I can use this information in my own work in proposing measures to our regional government."
>
> **JOSU ELSO,**
> PROJECT MANAGER GESTIÓN AMBIENTAL VIVEROS Y REPOBLACIONES DE NAVARRA (GAVRN), NAVARRA, SPAIN

Co-operation builds up momentum along riverbanks

The project was pivotal in triggering cross-border meetings to examine floods and pollution, including along the Nemunas Delta on the Lithuanian-Russian border. Elsewhere, Irish guidelines on floods are expected to be translated into Greek and used in the Evros Delta, flood management in Szeged and Budapest (Hungary) drew inspiration from the mobile dams in Maastricht (Netherlands), while the Tisza River Basin Flood Information Centre looked to the Saxony Flood Centre for guidance.

More about this project can be found at:
http://www.flapp.org

EU funding

€1.1 million

was allocated from the ERDF to FLAPP over the period November 2004 to August 2007

Areas at risk of flooding now safer with flood-prevention measures

Every drop counts in Mediterranean countries

The threat of water shortages is a major concern for many countries in the western Mediterranean region. The availability and quality of water and soil for different uses are important for the economic development and social welfare of the region. The MEDDMAN project, with support from EU funds, took an integrated approach to addressing this threat, developing strategies and tools for better management of water resources and soils in the region.

The four countries involved, Greece, Italy, France and Spain, are acutely aware of the need to control water consumption and be able to assess the amount and quality of resources available. With this in mind, the project has contributed to integrated management of catchment areas and improved water-demand balance by providing tools for sustainable water use and raising greater awareness among the general public about water scarcity.

Assessing the impact of nature

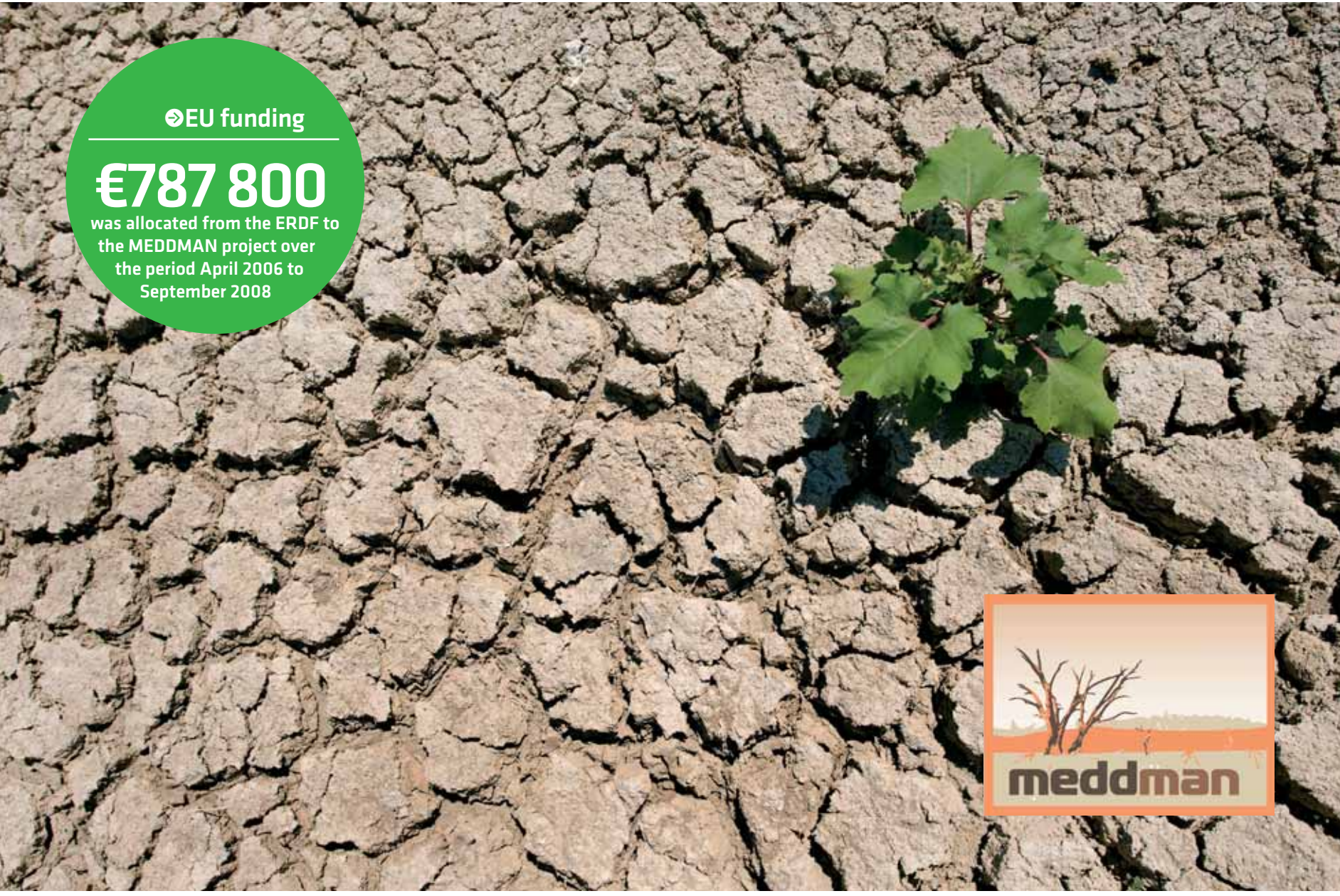
The underlying aim of the MEDDMAN project (Integrated water resources management, development and comparison of common transnational methodologies to combat drought in the western Mediterranean regions) was to ensure continued and improved economic growth in the region. It examined ways of reusing water and promoted co-operation between regions and countries to combat drought, developing an integrated system to evaluate the state of surface water and groundwater resources. MEDDMAN emphasized regional involvement in resource management and conducted environmental impact studies on land degradation. Special attention was paid to the environmental impacts of extreme meteorological and hydrological events which can have a significant impact on local development and the livelihoods of residents.

> "Thanks to MEDDMAN, the Inter-regional River Basin Authority of Basilicata in southern Italy has improved its knowledge in water management policy and analytical methodologies for evaluating water resource availability. This has improved operating methods for water planning as well as management systems in areas often suffering from drought and desertification, thus mitigating water crises and drought risk in the area."
>
> **CLEMENTINA CAVUOTI** (ENGINEER) AND **SONIA PAGLIARO** (GEOLOGIST), RIVER BASIN AUTHORITY OF BASILICATA

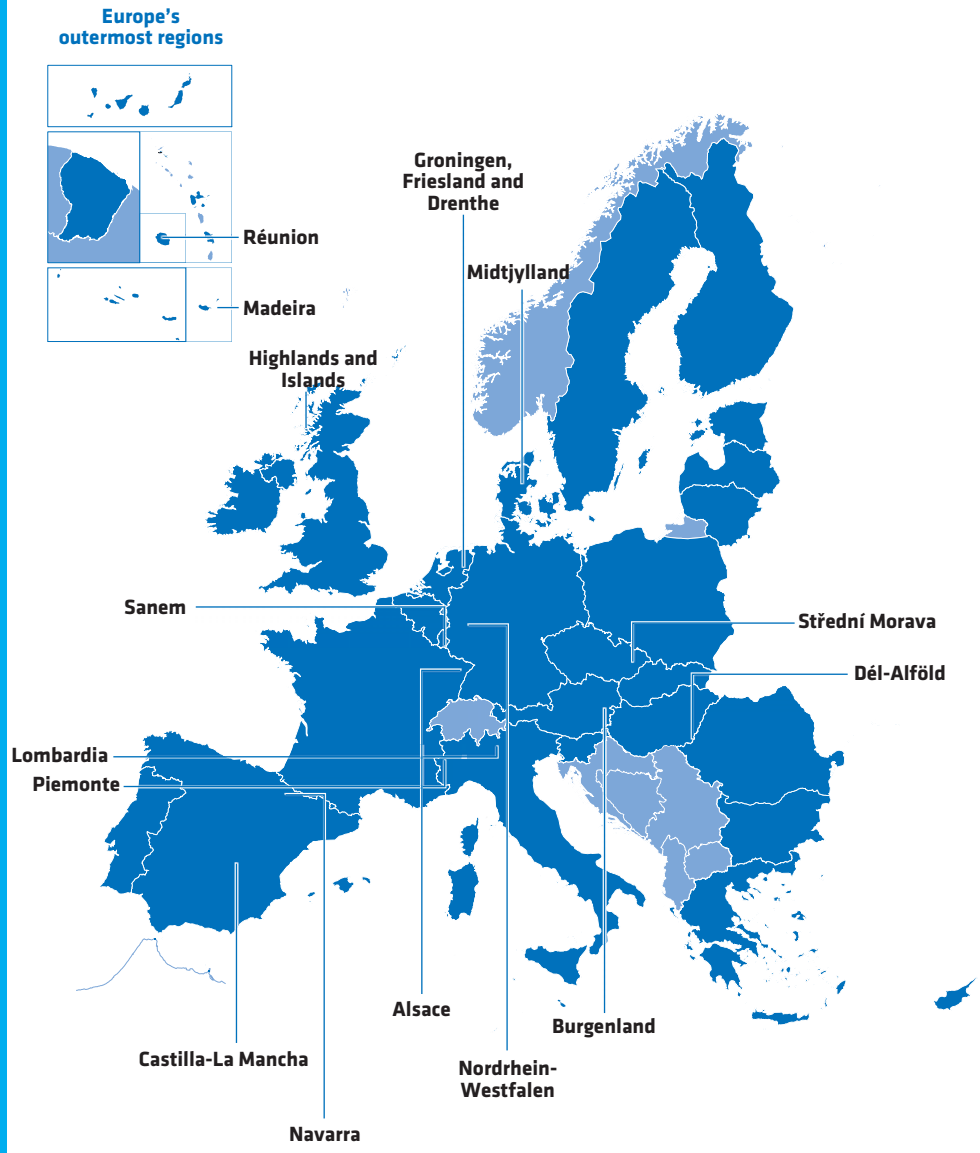
Many experiences, one goal

Several water management projects were undertaken in pilot areas. MEDDMAN consolidated these efforts, turning them into useful tools for wider use. The methodologies developed underwent a trans-regional consultation process, including hydrological cycle analysis, regional models for drought forecasting, the potential for water reuse, integrated water resource management and drought risk management. The advantage of having many regions take part means that the solutions can be applied to different situations and challenges, offering a valuable tool for authorities elsewhere. The general public also plays a key role in how water is used, notably in their daily consumption habits, and was therefore the target of awareness-raising campaigns in the project.

More about this project can be found at:
http://www.meddman.org



The project developed tools for forecasting drought



Alsace, France: Renewable energy turnaround in Alsace

Castilla-La Mancha, Spain: Making the most of solar power in Castilla La Mancha

Groningen, Friesland and Drenthe, Netherlands: Boosting the energy sector

Güssing, Burgenland, Austria: New formula for renewables revolutionises Güssing

Hostetin, Střední Morava, Czech Republic: Ultra-low energy passive house

Isle of Eigg, Highlands and Islands, Scotland, United Kingdom: Eigg goes green

Kistelek, Dél-Alföld, Hungary: Kistelek shows potential of geothermal power

Roncoferraro, Lombardia, Italy: Rural community embraces sustainable energy

Madeira, Portugal: Madeira develops hydropower for use all year round

Nordrhein-Westfalen, Germany: Innovating the way forward for renewable energy in Germany

Piemonte, Italy: Piedmont sets sights on hydrogen economy

Saint-Pierre, Réunion, France: Running Reunion on solar power

Samsø, Midtjylland, Denmark: Danish island energises the environment

Sanem, Luxembourg: A boon to parents and the environment

Sarriguren, Navarra, Spain: Working for sustainable energy

Territorial Co-operation

DE, DK, LT, PL: Construction industry goes green with building standards

Energy

There is little doubt that advancing the global fight against climate change requires a fully-fledged energy revolution. We are at the sunset of the fossil fuel age. But to achieve the goal of a low carbon economy we need to reduce our dependence on volatile energy markets, pump investment into new energy efficient technologies, and come up with new ways to open up green markets for goods and services.

Ensuring affordable, environmentally sustainable and secure supplies of energy is the basis of the EU's twin-track approach to climate change and energy policy. This has been translated into ambitious plans setting out binding targets for EU Member States to reduce greenhouse gas emissions by 20%, and to reach a 20% share of renewable energy by 2020.

Responding to this challenge will fall largely on Europe's regions. And this is why investment in increasing energy efficiency and the use of renewable energies is at the heart of Europe's regional policy priorities. Between 2007 and 2013, some €4.8 billion has been set aside for spending on renewable energies such as wind, solar, biomass, hydroelectric and geothermal. €4.2 billion is earmarked for projects promoting energy efficiency and energy management and a further €1.7 billion will be invested in traditional energy sources including €674 million to develop the energy networks in electricity and gas which criss-cross the EU.

Using the available funds, regions can support various projects looking at, for example, the production and distribution of renewables, research and development, advisory services and energy efficiency for public, commercial and industrial buildings. Projects like the Hostetin Centre for Sustainable Rural Development, an educational resource centre in the Czech Republic which has become a showcase for 'passive house' design, or the town of Güssing in Burgenland, Austria which has, in 15 years, made the switch from fossil fuels to renewables and is now entirely self-sufficient in electricity and heat, show how renewable energies are motors for innovation and growth. These, and many more projects funded by EU regional policy, provide clear examples of how Europe can stand to benefit enormously from investing in new low carbon technologies for future jobs and growth.

Renewable energy turnaround in Alsace

Energivie is bringing innovative strategies for sustainable development to fruition in the Alsace region of France. Co-financed by the ERDF, the Alsace Regional Council and the ADEME, the project is raising the profile of renewable energies in the region, most particularly from solar and wood-based sources.

The project saw the installation of 1 000 individual solar-powered water heaters in 2003 and 10 000 m² of solar captors in 2004. Financial incentives were put in place to stimulate the use of renewable energies in the tourism and farming sectors and grants were given to students looking at renewable energy use at Strasbourg's engineering and architecture school, INSA.

Creating supply and demand

The project was managed directly by the Alsace Regional Council which strengthened local partnerships, particularly with communes and other local authorities in the area.

The Alsace Regional Council pursued three major goals:

- → promoting solar and wood-based energy sources – this was done by setting up a system of regional facilitators to encourage investment in renewable energy equipment and conducting experiments with biogas, low energy consumption in buildings and roofs incorporating photovoltaic cells;
- → stimulating demand for renewable energies – this was achieved through a publicity campaign targeting the general public in the first citizen-based funding operation, experiments on energy use in 12 old buildings in Mulhouse and studies on renewable energy prospects for the future;
- → using renewable energies to reinvigorate the economy – this was accomplished through the setting up of a cluster dedicated to renewable energies (Energivie) and through the creation of a French labeling system on low energy consumption buildings.

> "Thanks to the Energivie project, eco-friendly heating in the form of wood-fired boilers was brought to homes in La Petite Pierre near Strasbourg, the Ambroise Croizat holiday centre and an old people's home."
>
> **MAYOR OF LA PETITE PIERRE**

Ensuring continuity

Renewable energy use in the Alsace region is on the rise as a direct result of the project. The positive results of the project have speeded up the creation of a regional policy to promote renewable energy and to ensure its development.

Private sector involvement in the strategy has led to a greater offer in renewable energy-related equipment and services. The profile of new sustainable forms of energy have grown thanks in part to the publicity given to the project at the international solar fair, Intersolar in Freiburg, as well as to the publicity given at an annual trade fair set up especially for those active in the renewable energy sector in the Alsace region.

Low energy consumption buildings are now also included in the work of the project's steering committee which continues to operate and expand. An Energivie newsletter is published regularly and the Energivie cluster continues to seek new ways forward.

More about this project can be found at:
http://www.energivie.fr/ and
http://www.fonds-europeens-alsace.eu

EU funding

Energivie received

€1.9 million

from the ERDF for the period January 2003 to December 2005. It is also receiving €9 million from the ERDF for the period 2007 to 2013

Renewable energy production high on the agenda in Alsace

Making the most of solar power in Castilla-La Mancha

In the sparsely populated region of Castilla-La Mancha in the heart of Spain, an R&D institute is leading the way forward in the development of technologies which harness solar power efficiently. The Institute for Concentration Photovoltaic Systems (ISFOC) is helping to bring this technology to market and encouraging businesses and universities to get on board.

ISFOC has, in a short time, become the reference point in Spain for the commercial use of solar technologies and is contributing to the region's goal to reach 100% renewable energy consumption by 2012.

CPV technology in action

ISFOC followed on from a project on Concentrating Photovoltaics (CPV) which was commissioned by the regional ministry of education and science and Madrid's Universidad Politecnica. CPV technology has the advantage that it is environmentally friendly, self-sufficient (reducing reliance on foreign suppliers), and it creates employment as one of the largest renewable energy sectors.

CPV works using optical components such as lenses and reflectors to concentrate light on cells. This multiplies considerably the amount of light reaching the cell. The cell or receiver then receives the concentrated light and converts it into electricity.

Since the first CPV technologies were used in the 1970s, the EUCLIDES was installed in Madrid in 1995 and Tenerife hosted the world's largest CPV plant of 480 kW, they have become an increasingly lucrative business. ISFOC is working to develop mature CPV technologies for the marketplace, ensuring quality, reliability and cost competitiveness.

> "Moving from R&D to product needs industry standards and reliable products; all these are being created with the participation of all players and it certainly looks like a CPV sector could be in place much faster than it took for other solar technologies."
>
> **DR PEDRO BANDA,**
> ISFOC

Small steps to begin with

ISFOC has maintained close contact with universities in order to identify areas of research from which concrete development projects could prosper. The idea was for universities to take part in the basic research activities with ISFOC, as well as companies wishing to test the technology.

The various improvements to CPV and its performance reliability mean that the technology now finds itself in a highly competitive position. As it moves towards full-scale deployment, ISFOC has been test benching the technologies demonstrating competitive advantage at a smaller scale.

ISFOC has been financed through regional, national and European grants, as well as through contracts with private businesses. It is also generating funds by connecting CPV plants to the grid for electricity and selling it to public utilities.

More about this project can be found at:
http://www.isfoc.es/

Solar panels populating the countryside for clean energy

Groningen, Friesland and Drenthe, Netherlands

Boosting the energy sector

Set up in 2003 to expand energy-related business, knowledge and sustainable development, the Energy Valley foundation acts as a catalyst and platform for both private and public organisations. With over 50 years experience in the field of natural gas and oil, the Northern Netherlands region is in a prime position to enhance its own economic structure in this sector.

Governments, knowledge institutes and industry from the provinces of Groningen, Friesland, Drenthe and the upper part of Noord Holland work closely together within the Energy Valley region on the expansion of business activities, energy transition and knowledge and innovation. In recent years, numerous projects have been initiated that have put Energy Valley clearly on the map.

Marking out a strategic course

The Energy Valley is founded on three pillars: retaining and expanding existing business activities in the energy sector, promoting the use of sustainable energy, and, developing the knowledge infrastructure in the energy sector. The Energy Valley foundation marks out the course for these three challenges while monitoring the compatibility and connections between the various initiatives supported.

The foundation set about creating the conditions in which public and private sector initiatives would succeed. By stimulating and supporting the companies and institutions forming the Energy Valley, the foundation has established a broad and integrated cluster of energy activities which contributes to economic development in the region.

> "The business climate for energy-related companies in the Northern Netherlands is excellent. Companies can immediately respond to numerous activities, such as gas extraction and transport, the construction of power plants, biomass developments, machinery construction and wind energy."
>
> **GERRIT VAN WERVEN,**
> ENERGY VALLEY DIRECTOR, GRONINGEN

Gaining significance

Through the many new investments both in the field of fossil fuel and sustainable energy, the Energy Valley has become a cluster of national and international significance with great knowledge in the areas of natural gas, heating, cooling, climate control, and wind, solar, geo- and bio-energy. As many as 400 companies make up this cluster, covering roughly 350 projects. By combining forces, public and private organisations are transforming the Energy Valley region into the energy centre of the whole of Europe.

The energy sector employs roughly 25 000 people in the north of the Netherlands. With this strong workforce, the country is in an excellent position for further expansion in a sector with great potential for growth.

More about this project can be found at:
http://www.energyvalley.nl

Capturing energy in the Northern Netherlands

New formula for renewables revolutionises Güssing

A small town in the southeast of Austria is now thriving thanks to renewable energies generated by pioneering technology. A new plant which gasifies timber to produce not just heat for the district but also electricity and synthetic diesel fuel has been developed. The essential difference with other similar plants is the particularly low level of tar produced by the Güssing plant.

A discovery by Professor Herman Hofbauer at the Technical University in Vienna found that by injecting steam rather than air into the gasification chamber, biomass could be turned into gas with very little tar. Now at full capacity when all the gas is burned, the plant produces 14 000 megawatt hours of power a year. With 25% of the energy in the wood going into the mains and 55% becoming heat, the plant has an overall efficiency of 80%.

Breakthrough technology

Following a presentation by the Viennese scientist Hermann Hofbauer about a technology he had developed to make synthetic fuel from wood, the mayor of Güssing and an electrical engineer also from Güssing decided to ask Vienna's Technical University to build a pilot project.

The pair embarked on a massive fund-building crusade, getting grants and approvals from the EU, the Austrian government and the regional government. The result was a plant with two connected fluidised bed chambers, one for the gasification itself, the other for combustion. The breakthrough technology uses steam to separate carbon and hydrogen from scrap timber. The molecules are then recombined to make a form of natural gas.

> "This was a dead-end town and now we're the centre of attention. It seems like every week we read about new jobs from renewable energy."
>
> **MARIA HOFER,**
> A LIFELONG RESIDENT OF GÜSSING

Some of this gas is burned in the combustion chamber to provide heat for the gasification. The rest of the gas is cooled – the heat going into the district heating system – and cleaned. It can then be used in various ways. At present, it is being burned in a gas engine which powers an electrical generator, with the waste heat from that also going into the district heating system. However, the gas can also be used as the feedstock for the production of a synthetic diesel oil or sold, just as it comes, as a synthetic natural gas.

Profitable investment

The plant gets around 15 euro cent per kWh for its electricity. This is much less than the price, around 25 euro cent, being paid by domestic consumers in the area. It is estimated that this plant, together with another wood-fired heating system with a capacity of 42 MW, means that €18 million stays in the district each year that would otherwise have leaked out. This represents massive return on investment.

The availability of cheap heat (30% cheaper) has led to over 1 000 new jobs being created in and around the town, including 100 in a new office building on an industrial estate which houses the European Centre for Renewable Energy. This employs 12 people itself and the other people renting space in the building are mostly from companies or consultancies to do with renewable energy. One of the centre's activities is arranging visits for the increasing number of visitors who come to see what Güssing has done, an activity which itself creates employment in hotels and restaurants.

EU funding

The Güssing project received

€1.3 million

from the ERDF from 1995 to 1999

By making the switch from fossil fuels to renewables, the people of Güssing are now more than self-sufficient for electricity and heat.

More about this project can be found at:
http://www.eee-info.net

Plant gasifies timber to produce heat, electricity and synthetic diesel fuel

Hostetin, Střední Morava, Czech Republic

Ultra-low energy passive house

A new educational resource centre in a remote and mountainous part of the Czech Republic has become a flag bearer for modern 'passive house' design combined with traditional construction techniques and materials. The Hostetin Centre for Sustainable Rural Development uses as much as 80% less energy than a conventional building.

Completed in September 2006, the centre offers practical education and training for authorities, general public and firms undertaking similar initiatives elsewhere in the region and nationally. It attracts many visitors from far and wide to learn about sustainable development and serves as a community centre for its small host village.

A model 'green' village

Hostetin has long been involved in environmentally friendly projects, from solar power to the insulation of buildings with strawbales, and so on. Its new centre continues the tradition by becoming an institution of life-long environmental education – especially on 'passive house' energy efficiency. It was built by Skanska CZ, under contract to the centre's managers, the Ecological Institute Veronica (Czech Union for Nature Conservation). EU funds covered 54% of the budget.

A further goal was to create a platform from which to manage regional sustainability projects in the Zlin province, where job opportunities are limited and the population is in decline. Most of the 36 workers and craftsmen were local residents, overseen by a skilled master builder. Wherever possible, they made use of local suppliers and materials to keep costs down and support the local economy – including larch wood from nearby forests for cladding parts of the building and adobe bricks recycled from old farm buildings on site.

> "Completed in September 2006, Hostetin is still the only public building in the Czech Republic that can be classified as a 'passive building'."
>
> **YVONNA GAILLYOVÁ,**
> DIRECTOR OF THE ECOLOGICAL INSTITUTE VERONICA

The centre was built to the latest standards to minimise energy for space heating, with features such as superinsulation and triple-pane insulated glazing to reduce heat leakage. It is also airtight, has a heat-recovery ventilation system, and systems to reduce use of water and artificial lighting.

Centre hosts 5 000 annual public events

The Hostetin Centre – which includes a 45-seat auditorium, offices, library, space for creative workshops and a 10-room guesthouse – attracts several thousand visitors annually to learn about its energy efficiency features and environmental sustainability through use of environmentally friendly materials. It is also notable for being the first passive house building to be supported by EU funding and the first non-residential passive house to be constructed in the Czech Republic.

The centre has created five permanent jobs, including full and part-time project and course managers, and administrative staff. It annually consumes about 15 KWh per square metre for space heating supplied from the municipal biomass heating plant and the Centre's own solar-power system.

A 'passive' house using 80% less energy than conventional structures

Isle of Eigg, Highlands and Islands, Scotland, United Kingdom

Eigg goes green

The Isle of Eigg has become a shining light for renewable energy. Realising that conventional power would not be a sustainable way forward, islanders decided to branch out and generate as much as 95% of their energy from renewable sources. Now, the island has been decorated with a Green Energy Award in recognition of its efforts.

As a result of the initiative, Eigg's power comes principally from hydroelectric, wind and solar energy. This is a staggering result in the light of the island's tiny size (31 km²) and is a glowing testament to the expertise and knowledge of its residents.

Harnessing nature's resources

Energy feeds into the island's grid system, providing power to the region's homes, businesses and community buildings. The major renewable energy source is a 100-kW hydroelectric generator. This is supported by two smaller generators of 10 kW and 9 kW, four 6-kW wind generators and 10 kW of solar electric cells.

Each of these has been placed in locations guaranteed to minimise the physical and visual impact on the island as a whole. The power generated is centralised and distributed to households, businesses and community buildings through 11 km of buried high voltage cable. Two 80-kW diesel generators have been installed to provide emergency back-up and to cover periods when the power generated from the renewable resources is insufficient to meet demand.

> "Since the commissioning of the Eigg wide green electric system, my life as local shopkeeper and guest house owner has been made so much simpler. It is wonderful to know that freezers and chillers full of valuable stock are unlikely to perish in the event of generator failure. It is also great to be able to operate simple solar powered heating systems using electric pumps."
>
> **SUE KIRK,**
> PROPRIETOR EIGG SHOP AND LAGEORNA GUEST HOUSE

The system was designed and implemented by Scottish Hydro Contracting, sub contractors E-Connect Ventures Ltd, Wind and Sun Ltd, Energy Renewed Ltd, G.G. MacKenzie Contracts Ltd, project managers Synergie Scotland Ltd and the voluntary efforts of many of the islanders.

Finding strength in numbers

The Eigg system is an ingenious solution to a problem faced not only by regions but one which is rapidly climbing to the top of the global agenda. All 44 households, 21 commercial properties and six community buildings on the island are connected to the system and have their very own supply of renewable electricity.

While each household is capped at 5 kW and businesses at 10 kW, this does not appear to have caused any inconvenience. Instead, everyone is pooling together adapting to the new conditions and boosting the system's efficacy and, in turn, its benefit to the whole community.

More about this project can be found at:
http://www.hipp.org.uk/

EU funding

€667 800

has been provided to the Isle of Eigg electrification project under the ERDF for the period 2000 to 2006

Windmills help to produce 95% of this island's energy from renewable sources

Kistelek, Dél-Alföld, Hungary

Kistelek shows potential of geothermal power

A small town in the south of Hungary with a population of roughly 7 600 is leading the way in geothermal energy use. Through a project supported by the ERDF, Kistelek has drilled a well to thermal water 1 700 metres deep that is capable of supplying eight public institutions. The project is breaking new ground for the country and as such is being held up as an example to other local councils.

Hungary is well-known for its plentiful supply of geothermal energy, with temperatures double the average of the rest of Europe. Deep-water springs have long provided spa operators with a reliable source of income. Now this energy is also being harnessed to provide a cheaper, more environmentally friendly heating supply.

Naturally better

Using the €1.16 million from the Environment and Infrastructure Operational Programme, Kistelek drilled a well to extract heat from the thermal water lying in the underground strata. Pipelines stretching five kilometres were then built to carry the thermal water to eight public institutions whose heating systems were all upgraded with less expensive, more ecological technology.

The outdated systems which proved expensive gave way to a system needing next to no supervision which results in heating supply savings of roughly 10% for the institutions concerned and a reduction in the town pollution levels.

> "The energy costs of the Multifunctional Sports and Programme Centre are significantly reduced by the geothermal district-heating system."
>
> **NAGY NETTA,**
> DIRECTOR, KÁRPÁTIA KINCSESHÁZ KFT.

An underutilised resource

For much of the first half of the 20th century, members of Hungary's Parliament warmed their feet from thermal waters circulating beneath the floors of their chamber. Today, the heat is considered a valuable yet underutilised source of precious energy.

The Kistelek project sends a clear sign to other local councils that this new system, which draws on Hungary's ample supply of thermal waters, works and is even cheaper than the traditional gas supply. As demand for electricity grows – for the past decade it has risen by 1 million megawatts per year – it is seen as only a matter of time before the potential of geothermal resources is realised.

EU funding

The Kistelek geothermal energy project received

€1.16 million

for its activities which began on in October 2005 and ended in June 2007

Geothermal energy being harnessed in Hungary

Rural community embraces sustainable energy

A small town in the Po Valley has switched to 100% renewable energy for its municipal energy users. A mix of different technologies now provides all the heat and air conditioning it requires during traditionally cold winters and hot summers.

The new green power plant at the heart of Roncoferraro's district heating and cooling network has been up and running since December 2006. It replaced seven individual boilers and should reduce local CO_2 emissions by more than 250 tonnes a year.

Gas boilers get replaced

Roncoferraro is located some 140 km south-east of Milan. Its 6 700 inhabitants are spread over a wide area, with most working in the agricultural sector. However, several of the town's public buildings – three schools, a swimming pool, sports hall, and two municipal administration buildings – are located within just 700 metres of one another. This close spacing sparked the idea of supplying all local energy needs with a single high-tech district heating (and cooling) network running on woodchips, as a replacement for seven gas-fired boilers.

One of the project's main aims was to provide a fossil-free energy system by using locally produced biomass. This is in keeping with the Po Valley's urgent need to diversify its agriculture beyond livestock rearing and crop production.

EU funds covered half of the project's total cost, with the rest coming from national financing. The main partner was the town of Roncoferraro, with support from the Province of Mantua. Local members of the CNER, a national private farmers association supporting renewable energy, provided a vital guarantee that there would be enough local biomass for the new system.

> "The overall energy profile of the project amounts to a reduction in CO_2 emissions of around 255 tonnes per year."
>
> **CANDIDO ROVEDA,**
> MAYOR OF RONCOFERRARO

Optimal technology mix

While each of the technologies implemented is fairly conventional, together they form an optimal mix for the town's district heating (and cooling) network. At its core is the new and aesthetically designed biomass central station, with an automatic woodchips/pellets furnace able to meet all local heating needs in winter. Its roof consists of 130 square metres of glassless solar collectors, which can produce sufficient hot water in summer for the open-air swimming pool, sports hall showers and the nursery school. Lastly, the central station includes an absorption chiller, itself fuelled by the woodchip furnace, for provision of air conditioning to two municipal buildings.

The new system replaces 96 tonnes/year of fossil energy (natural gas) with the equivalent amount of renewable energy. This has boosted the local economy for farmers producing woodchips

More about this project can be found at:
http://www.roncoferraroambiente.it

EU funding

€455 900

was allocated to the Roncoferraro Fossil-Free Energy project from the ERDF for the 2000 to 2006 programming period

System in place for 100% renewable energy in rural Italy

Madeira develops hydropower for use all year round

The Socorridos hydroelectric power station has been developed to optimise water production for locals and for irrigation, as well as to take advantage of renewable energy sources. Using a system of tunnels and canals 15.5 km long, the project makes the most of the island's geographical layout – collecting water in the mountainous north and transferring it to the south.

The project is promoting social and economic well-being while protecting national resources to sustain the quality of life enjoyed by Madeirans and the many tourists who come to the island each year to take in the spectacular scenery.

Building change

Madeira's public electricity company transformed the Socorridos hydroelectric power station into a reversible system which would allow energy production all year round regardless of rainfall. In the summer season especially, water could be pumped back into the reservoirs and reused for electricity production. Even peak periods were covered as the pumps operated during the night and stored water for daytime use.

Four main stages made this development possible: a tunnel was built to connect Covão and Campanário; a storage gallery was built in Socorridos; two existing tunnels were renovated; and a pumping station was set up in Socorridos.

The Covão tunnel holding up to 32 500 m^3 supplies water for irrigation and stores it to guarantee a reliable supply of water and electricity. The Socorridos storage gallery is an underground reservoir storing up to 40 000 m^3 of water and housing pumping equipment. The Encumeada and Canal do Norte tunnels store up to 55 000 m^3 of water and have gates to regulate the flow of water, allowing some to be sent to a water treatment plant for public consumption and some to be supplied for irrigation.

> "The Socorridos project was crucial in harnessing hydro and wind resources, and in bringing the benefits of this to the entire region. The project made water and electricity supplies more reliable for both general use and irrigation, and it minimised water loss. The main benefits were felt in Funchal and Câmara de Lobos where 50% of Madeira's population reside."
>
> **LUIS PINHEIRO,**
> CONSTRUCTION MANAGER, EMPRESA DE ELECTRICIDADE DA MADEIRA

Assessing the impact

The success of this project can be largely attributed to the environmental concerns which were taken on board by all those involved, from regional government as single shareholder to the engineering and construction companies. Together they managed to ensure the project had no adverse effects on the environment.

This allowed for Madeira's main tourism sector which represents about €250 million annually to continue to expand unhindered. As many as 900 000 tourists come to the island each year to enjoy the beautiful surroundings and stroll along the many canals. It was essential not just to boost energy and water supplies to cover this sector but also to keep construction unobtrusive around the canals.

Building on this achievement, Madeira will now develop the much larger hydropower station at Calheta. This project will be implemented in 2010-2012.

Upgraded hydroelectric power station supplying water for people and irrigation

Nordrhein-Westfalen, Germany

Innovating the way forward for renewable energy in Germany

Sound energy management through innovative technologies and impartial guidance – this is what EnergyAgency.NRW has set out to achieve in Germany's most populated Federal State, North Rhine-Westphalia. With over 18 million inhabitants and 40% of the country's industrial energy consumers, the region is now benefiting from a central contact point for all energy issues whose aim is to ensure energy efficiency, security of supply and environmental responsibility.

The agency is forming a strategic platform with wide-ranging expertise to cover funding for research and technical development, energy consultancy and vocational training. So far, over 65 000 jobs have been created and over 280 000 people have received training as a result of the agency's work.

Raising energy awareness

In the North Rhine-Westphalia region, energy is of particular importance. Not only does the region generate almost one third of Germany's electricity, but it also employs 1.1 million people in the energy sector. To guarantee security of supply and economic growth, the agency develops local strategies for better energy policies and practice in the areas of energy efficiency and renewable energies in business and local government.

The agency has been using the following instruments to bring about change:

> "The Gelsenkirchen science park is a breeding ground for many companies working on renewable energy resources, which are creating jobs."
>
> **ARMIN HARDES,**
> ENVIRONMENT PROTECTION AGENCY,
> GELSENKIRCHEN TOWN

- networks of expertise – helping companies, research institutes and higher education establishments to forge ahead with innovative processes;
- advisory services – providing information on energy weak spots and advising on obtaining funds and reducing energy costs;
- ongoing training – 50 seminars for training institutions, energy supply utilities, federations, institutions of higher education, local authorities and companies in NRW;
- state-wide campaigns – promoting environmentally friendly heating alternatives by means of information brochures, radio publicity and internet portals.

Change for the better

Energy use in buildings has been one of the main focus areas of the agency. The 'Mein Haus spart' initiative which is coordinated by the agency has brought building improvements to as many as 62 000 individual households.

Urban regeneration has also been assisted by the agency. One example of this is Gelsenkirchen, an old mining town undergoing industrial conversion.

EU funding

EnergyAgency.NRW received

€6.31 million

from the ERDF for a project which ran from January 2002 to December 2007

The agency has also gained recognition under the EU's sustainable energy Europe campaign for its significant contribution to achieving a breakthrough in renewable energy use. A mobile energy advice service has been on the road since 1999, bringing advice from engineers to as many as 90 000 visitors.

More about this project can be found at:
http://www.energieagentur.nrw.de

Central contact point for addressing key energy issues

Piedmont sets sights on hydrogen economy

The Piedmont region in northern Italy is opening up its industries to new forms of hydrogen application in preparation for the new hydrogen industry of tomorrow. HySy Lab brings together research centres, universities and small businesses to develop hydrogen-based projects. Overcoming challenges such as fuel storage on a hydrogen-powered scooter is made easier thanks to the combined expertise of the synergies formed.

Today, the Environment Park, home to HySy Lab, is recognised throughout Europe as a centre of excellence in the field. Twenty-three companies have worked on 18 pilot projects, sharing ideas and networking between pilot projects. Achievements include an ultra-light, hydrogen-powered aircraft, low-cost, lightweight metallic bipolar plates for hydrogen fuel cells, and a low pressure hydrogen storage aluminium tank.

Adapting existing skills

Harnessing the existing technical skills and expertise of the Piedmont region's manufacturing industry was the designated task of the Hydrogen System Lab, or HySy Lab, set up in 2002 by the Environment Park. The lab seeks to apply the existing skills of the manufacturing industry to the hydrogen sector.

As research institutes, universities and large companies were already involved, the HySy project targeted small businesses and their potential as key players in the hydrogen market. The project identified the major components in the hydrogen chain and assessed how the Piedmont region could supply the necessary technologies and know-how based on expertise from other industrial sectors.

> "A small company like ours would not be able to participate in projects like this one without public funding but I think that by utilising public funding and some new and innovative ideas then we will be able to get some products which we will be able to sell on the markets tomorrow."
>
> **MAURIZIO CHELI,**
> DIGISKY, SKYNET COMPANY

The small businesses had at their disposal large-scale information and technical assistance, allowing them to adapt their know-how to the requirements of the hydrogen sector as well as to develop prototype technologies as part of pilot projects.

Cooperating for success

Feasibility studies assessed whether or not the pilot projects should go ahead based on technical and financial criteria. The pilot projects required close co-operation between businesses, universities and research centres and have resulted in the creation of prototypes which have placed small businesses firmly in the hydrogen industry.

The first pilot project brought together three small businesses (Termomacchine, Compumat, Technodelta), the Università di Torino and the Environment Park. Together they developed a tank capable of storing hydrogen at low pressure.

Another project saw the creation of the first hydrogen propelled aircraft thanks to an electrical on-board generation unit based on a hydrogen fuel cell.

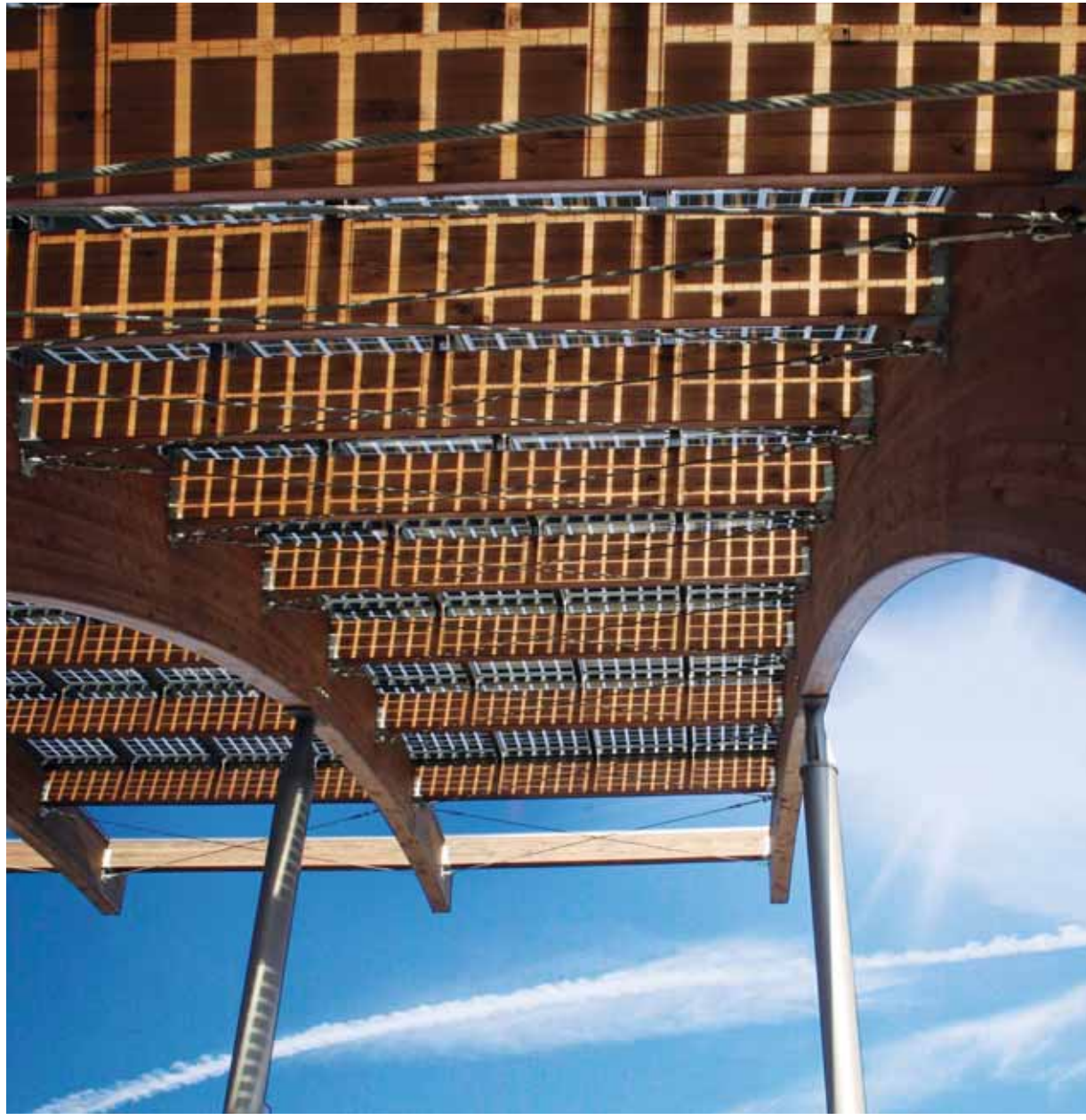
EU funding

€1.7 million

was allocated from the ERDF to the HySy Lab project over the period June 2006 to June 2008

Yet another project saw the optimisation of a fuel cell providng an uninterruptible power supply. This was developed by a local company (Electro Power Systems) and is today a leading product in the market.These projects place Piedmont in a strategic position for the hydrogen sector of the future.

More about this project can be found at:
http://www.hysylab.com/



The HySy Lab aims high as it develops tomorrow's hydrogen industry

Saint-Pierre, Réunion, France

Running Reunion on solar power

The Indian Ocean's Reunion Island is looking to the sun's rays to secure a sustainable power supply for its 802 000 inhabitants. The goal? To become totally energy self-sufficient by 2025. A photovoltaic power plant is already bringing them closer to this goal by generating enough electricity to cover the annual consumption of 850 households.

The power plant draws 2 GWh per year from rooftop solar panels covering 12 000 m² in the municipality of Saint-Pierre in the south-western part of the island. The project has created precious jobs for locals in a region where unemployment is high and called on innovative minds to overcome the challenges of a cyclonic climate. It has required the combined effort of the French state, the national energy provider and other authorities and businesses.

Harnessing nature's resources

The island enjoys around 1 350 hours of sunlight each year. To make the most of this, 8 000 photovoltaic modules have been installed atop three industrial buildings, producing 1.45 MW of photovoltaic energy.

Not only has this boosted the island's own energy resources, it has also cut down on CO_2 emissions by as much as 1 400 tonnes each year. That's equivalent to the emissions produced by one car traveling seven million kilometers.

The company responsible for carrying out the project, the Société de Conversion d'Énergie (SCE) – a subsidiary of the Séchilienne-Sidec group – has installed the solar panels in such a way as to increase the insulation of buildings, reducing the need for air-conditioning and energy consumption in general.

> "Since about the year 2000, more than 600 jobs have been created in the sector. 600 may not seem many but scaled up to the size of France, that's some 50 000 new workers."
>
> **PHILIPPE BERNE,**
> VICE-PRESIDENT OF THE REGIONAL COUNCIL

Climate change means cyclones on the island are more frequent in number and severe in scale. In response to this, the SCE contracted a firm specialising in risk management to guarantee the solidity of the installations. The solar panels are now able to withstand winds of up to 210 km/h and above.

Welcoming positive spin-offs

Job creation has been one of the positive spin-offs of the growing solar energy sector. This is of great importance to the Reunion, where unemployment is at a much higher level (around 30%) than in the rest of Europe.

Under the Prerure plan for renewable energies and rational energy use, whose goal is to make Reunion energy self sufficient by 2025, many other measures have created new sources of employment. These include the distribution of individual solar water heaters (10 000 each year) and wind farms with a capacity to generate more than 40 MW of electricity.

It is expected that thousands of jobs can be created in the next 15 years if Reunion succeeds in placing itself firmly in the emerging global energy market.

EU funding

€623 700

was allocated from the ERDF to the photovoltaic power plant from January 2007 to March 2008

Photovoltaic power plant energising Reunion Island

Samsø, Midtjylland, Denmark

Danish island energises the environment

The 'renewable island' of Samsø in Denmark is now being showcased at the Samsø Energy Academy, which was built with support from EU funding. The Academy has become the focal point for all information on sustainable energy, providing research facilities, a conference centre and the Samsø Energy Office which offers advisory services for commercial and private customers. The Academy's solar cells produce approximately 8 000 kWh/year, equivalent to a 4-tonne reduction in CO_2.

The island offers researchers and visitors the advantage of ready access to facilities such as windmills, straw-based heating systems and thermal solar panel systems, as well as to the people who initiated them. By assisting researchers and educating visitors to the island, the Academy is contributing to a clean future by providing real models of success as well as inspiration for future developments.

Sowing the seeds for green growth

The academy, close to the picturesque harbour village and tourist magnet Ballen, was set up following the Danish Energy Agency's successful 10-year project to establish a renewable energy island. The Academy has since gained practical experience through local energy projects including on wind turbines, CO_2-neutral district heating plants, rapeseed oil tractors and solar energy panels. Today the island produces 70% of its heating demand and 100% of its electricity demand using renewable energy.

> "Our investment in the wood pellet furnace was an economic decision. The savings compared with the cost of heating with fuel oil were substantial."
>
> **BRIAN KJAER,**
> ELECTRICIAN, NØRRESKIFTE VILLAGE, SAMSØ

Shining example of sustainable energy

The Energy Academy facilities follow several ecological building principles and guidelines, including natural ventilation, minimal use of drinking water and use of rainwater for toilets. Its walls and windows are well insulated and the building is heated by the local straw-based district heating plant. The windows are also positioned to maximise passive solar energy contributions.

Education hub

The academy's conference centre hosts companies, scientists and politicians who regularly discuss renewable energy, energy savings and new technologies. Several energy bodies are based at the academy, providing energy advisory services for commercial and private customers, guided energy tours, talks, lectures, workshops and seminars, and promoting 'energy tourism' for professionals.

During the summer, tourists and other interested visitors can see the work of the academy. The experimentarium is used for school fieldtrips, providing a place for students to learn more about renewable energy. More than 2000 politicians, ambassadors, officials, scientists, journalists, students and interested individuals visit the energy island annually.

More about this project can be found at:
http://www.energiakademiet.dk/

Energy Academy contributes to 'renewable' island

Sanem, Luxembourg

A boon to parents and the environment

Luxembourg has a wide range of reception facilities for children of pre-school and school age. A state-of-the-art building in the southwest of the country offers first-rate accommodation for local children outside of school hours and incorporates a host of energy-saving and other green features.

Completed for the new school year in September 2006, the 'Foyer scolaire au Scheuerhof' in Sanem Commune can take in 88 youngsters during term time for short fixed periods between seven in the morning and seven at night. They are permanently accompanied by nine trained adult monitors and can enjoy healthy meals on site.

Purpose-designed reception

Sanem Commune's latest reception facilities form part of the national 'Maison Relais' network, intended for children of nursery school age up to the sixth year of primary education. Maison Relais are aimed at families with two working parents, as well as single-parent and disadvantaged families. Goals include ensuring children become more independent, learn through games and educational activities, and receive help with their homework.

Plans were hatched for the commune's new reception facilities in late 2001 and approved at national level in 2004. Construction started in May 2005 and was finished just over a year later. EU funding covered a fifth of the total cost.

> "A building that can accommodate 88 children, calling on low-energy construction with recovery of heat and rain and with an efficient solar power installation."
>
> **GEORGES ENGEL,**
> MAYOR OF SANEM COMMUNE

The Scheuerhof facilities, next to a school of the same name, include four main multifunctional rooms that can each accommodate up to 15 children. Those of primary-school age stay on the first floor and can access surrounding lawns via a gangway. The youngest children are accommodated on the ground floor and benefit from a terrace where they can play. There is also a shared playground behind the building.

Kid-friendly and kind to nature

The Scheuerhof facilities are conveniently located just metres from nearby schools in the small town of Soleuvre, enabling the young users to walk quickly to and from them while temporarily enjoying a sense of freedom of being outside their classrooms. In this building and the École 2000, two cooks and their three assistants prepare meals for other reception facilities in the commune.

Besides enabling many local families to reconcile their busy working lives with family life, the Scheuerhof highlights the advantages of purpose-built green facilities. These include roof-top solar panels able to generate annual energy savings of 4 026 kWh and energy recovery of between 70% and 80% from the controlled ventilation system. Compared to a standard building, it also offers CO_2 savings of around 50% thanks to various architectural features.

More about this project can be found at:
http://www.maison-relais-sanem.lu
See 'Articles de presse'

Learning about energy savings in a real-life environment

Sarriguren, Navarra, Spain

Working for sustainable energy

Spain's National Renewable Energy Centre (CENER) started as an agreement between the national and regional governments. Today it employs almost 200 skilled professionals, making it an industrial reference centre for the research, development and promotion of renewable energies nationally and internationally.

CENER has a cutting-edge technological infrastructure, with Europe's most modern laboratories and facilities. Its Wind Turbine Test Laboratory, located in Sangüesa (Navarra), is the largest in the world.

From regional expertise to national centre

The Navarra region in northeast Spain is the country's leader in renewable energies deployment, starting with wind energy in the 1990s. By 2002, with 16%, it had already reached the EU goal for renewable sources as a share of energy production.

The purpose underlying the creation of a national centre for renewable energies was to consolidate the region's expertise nationally and internationally. A key objective was to obtain a high degree of self-sufficiency financially, by focusing on economically profitable activities and services. It achieved its sales figure target of €3 million by 2004.

CENER began activities in 2002 under the auspices of the Government of Navarra, the Ministry of Science and Innovation, and the Research Centre for Energy, Environment and Technology (CIEMAT). These authorities, together with the Ministry of Industry, Tourism and Trade, are its trustees. The total project cost was €46.44 million, with EU co-funding of €2.8 million.

> "Thanks to the work of more than 200 highly skilled professionals, CENER provides services across five continents, develops and transfers technology, and has become an international reference in the renewable energy sector."
>
> **JOSÉ JAVIER ARMENDÁRIZ,**
> GENERAL MANAGER OF CENER

Project work included the construction in 2004 of CENER's headquarters in Sarriguren, the 'City of Innovation'. The centre also now has facilities and offices in Sangüesa (Navarra), Seville and Madrid.

Renewable energies leader

The centre identifies, generates, disseminates and transfers scientific-technical knowledge and value-added services to the renewable energy sector. It has its own testing facilities and advanced laboratories, and works with companies, institutions and official organisations to promote the development of renewable energies on a national level and elsewhere in Europe, South America and Africa.

CENER´s research and development projects focus on six areas. They are: solar photovoltaic and solar thermal energies, wind, biomass (biofuels), bioclimatic architecture, and renewable energy grid integration. Revenue from contract R&D and services amounts to some 60% of the centre's annual budget.

The centre has also benefited Navarra through job creation, a better regional economic balance, and decreased levels of CO_2 emissions.

More about this project can be found at:
http://www.cener.com/en/index.asp

EU funding

€2.8 million

was allocated to the CENER project from the ERDF for the period 2000 to 2006

Advancing the use of solar power in Spain

Territorial Co-operation, Denmark, Germany, Lithuania and Poland

Construction industry goes green with building standards

When it comes to constructing modern residential buildings, environmental considerations are becoming one of the key features in the design. In an effort to streamline procedures and practices, the recently launched Longlife project will conduct a comparative review of these among the countries involved and produce guidelines to be used as a basis for constructing a prototype resource-saving residential building.

Sustainability and energy efficiency, combined with new and adapted technologies, will be the main principles underlying the prototype building. By drawing on the best of practices, techniques and institutional structures, the Longlife guidelines will also be suitable for use in other types of buildings such as schools and hospitals.

Sifting through the best know-how

The countries involved, Denmark, Germany, Lithuania, Poland and Russia (associate partner), will share knowledge with each other about how their respective building processes operate. These will be collated and analysed so that a harmonised set of guidelines can be produced. This exercise will also ensure that differences across the Baltic Sea Region will be minimised as regards environmentally-friendly residential constructions.

Clearer procedures for cleaner buildings

This initial comparative stage covers planning, permit and tendering procedures, practices for developing and operating housing and construction technologies. The guidelines will reflect the best and most applicable features of the countries' processes in an effort to introduce new, innovative and higher standards when it comes to energy efficiency, sustainability, resource-saving buildings and low lifecycle costs. A prototype residential building will eventually be constructed based on the guidelines and will be adaptable for country-specific needs. The prototype will also be certificated as a sustainable building.

> "Pro Potsdam GmbH has expertise in the administration and redevelopment of residential areas. In the Longlife project, we will be sharing knowledge about practices and finding real solutions for residential buildings as regards energy efficiency and sustainability."
>
> **HORST MÜLLER-ZINSIUS,**
> MANAGING DIRECTOR, PRO POTSDAM GMBH

Spreading the knowledge

The potential project beneficiaries are not limited to the residential sector. Kindergartens, hospitals and offices should also be able to benefit from the technologies and practices developed. Universities, public administrations and housing associations from the countries involved will be responsible for spreading the Longlife results in their respective countries. Looking further ahead, the 'Baltic Sea Housing Development Association – BASHDA' will be set up to continue the work once Longlife is completed.

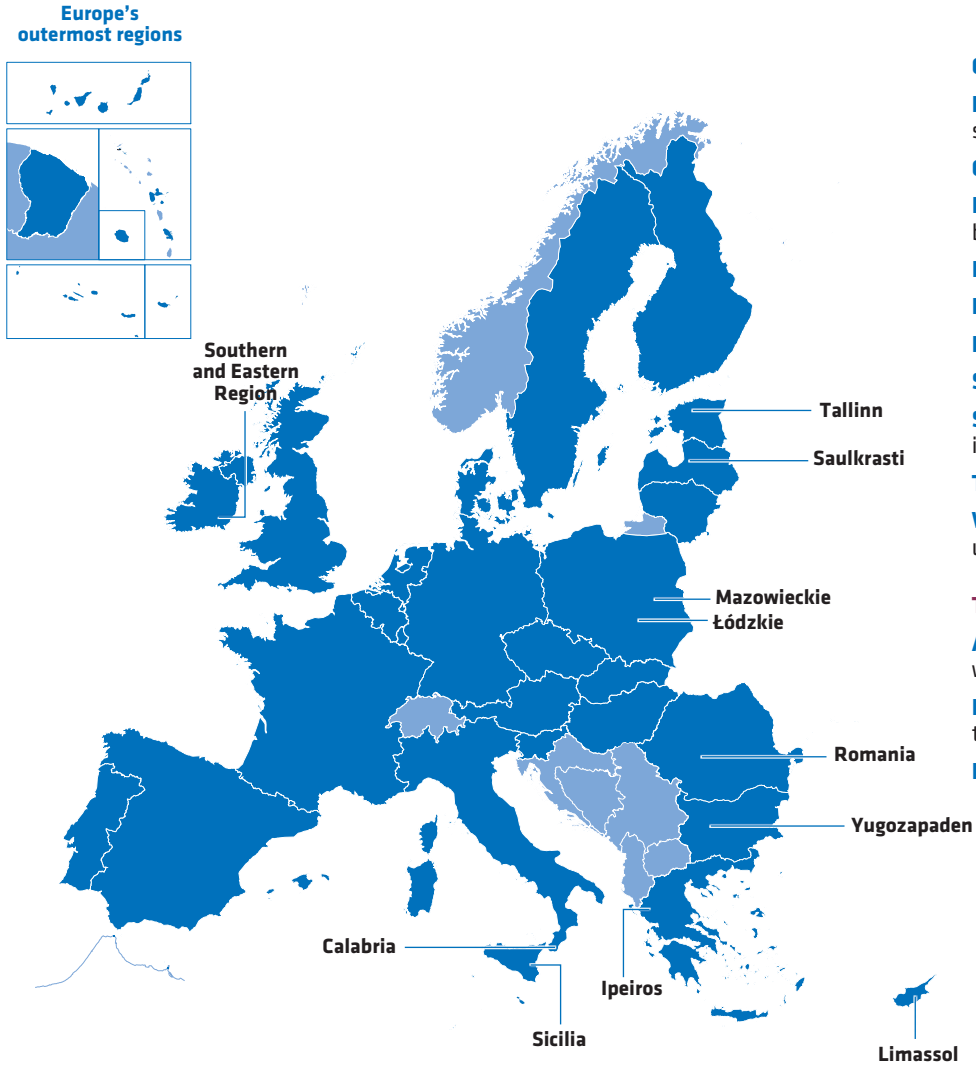
More about this project can be found at:
http://www.longlife-world.eu

EU funding

€1.9 million

is being allocated from the ERDF to the Longlife project over the January 2009 to January 2012 period

Experts look into how to develop construction practices that respect the environment



Catania, Sicilia, Italy: New lease of life for scenic railway line

Dublin, Southern and Eastern Region, Ireland: Travelling light and speedily across the Fair City

Gioia Tauro, Calabria, Italy: Bustling port generates jobs in Calabria

Igoumenitsa, Ipeiros, Greece: Western gateway to Greece grows bigger and stronger

Ipeiros, Greece: Spectacular highway offers a world of opportunity

Limassol, Cyprus: Limassol bypass to beat congestion

Romania: Upgraded local rail line strategically vital for Europe

Saulkrasti, Latvia: Seaside resort benefits from big bypass

Sofia, Yugozapaden, Bulgaria: First-class upgrade to Bulgaria's international gateway

Tallinn, Estonia: Business booming at revamped Tallinn airport

Warsaw (Mazowieckie) and Łódź (Łódzkie), Poland: Intercity link upgrade runs to schedule

Territorial Co-operation

AT, CZ, DE, IT, PL, SI: Smooth journey between Baltic and Adriatic waters

BE, DE, DK, NL, SE, UK and NO: Ships set sail for greener cargo transportation

BG, RO: New Danube bridge to speed up international traffic

Transport

Enhancing accessibility is critical for strengthening regional economies and boosting competitiveness. Poor transport networks stall economic development by slowing down the movement of goods and people. Massive EU investment in transport over several decades has been helping to reduce the inequalities in infrastructure provision which exist between countries and regions in Europe. Landmark bridges, upgraded port facilities, improved railway connections, new motorways, modernised airports, better public transport facilities – all tell a very visible story of how European investment is transforming the way in which we move around.

Between 2007 and 2013, almost €82 billion of regional funds (23.8% of the total) will be spent on transport, with the most part concentrated on those least prosperous regions which need it most. The aim of the investment is to promote sustainable mobility for people and goods, ensuring efficiency, safety and minimising the negative effects on the environment. New challenges have also emerged in recent years. Climate change, energy policy, air quality legislation and tackling congestion are just some examples. The objective is to enhance mobility while at the same time reduce and prevent congestion, accidents and pollution. With a total of almost €41 billion available for road infrastructure and €23.6 billion for rail, EU investment will strike a balance between road, rail, and other sustainable transport modes.

Some €38 billion will be spent on designated priority transport routes i.e. the 'trans-European networks (TEN-T)'. These are projects which aim to coordinate improvements to key roads, railways, airports, seaports and inland waterways to provide long-distance, high-speed routes across Europe. Support is also available for promoting clean urban transport (€8.1 billion), renovation of ports and inland waterways (€4.1 billion), developing multimodal transport and intelligent transport systems (€3.3 billion) and for upgrading airports (€1.9 billion).

Large-scale projects such as the new passenger terminal in Tallinn airport in Estonia, a major upgrade on the key Bucharest to Braşov railway line in Romania, and the multi-million euro upgrade of the Limassol bypass enabling congestion-free travel for traffic from Nicosia and Paphos in Cyprus are just but a few examples showing how EU regional development funds are transforming key transport hubs and helping to move people and goods around more quickly.

Catania, Sicilia, Italy

New lease of life for scenic railway line

The Circumetnea railway line snakes its way around the majestic Mount Etna in Sicily, giving visitors the chance to discover one of Europe's largest active volcanoes. The line, built at the end of the 19th century, heads west from Catania to loop around Etna, arriving in the seaside town of Riposto, roughly 30 km north of Catania. While the line is undoubtedly picturesque, it is unable to meet the demands of a growing city.

To ease congestion in the city of Catania – where car ownership is among the highest in Italy – a new project is underway to expand the current metropolitan railway line, offering a viable alternative to car travel. Intensive volumes of traffic will be covered by this new system – 15 000 passengers per hour compared to 2 000 by bus and 18 by tram.

Smarter, cleaner travel

Huge traffic jams bring Catania to a standstill daily. Over the past 35 years, one quarter of the population has moved out into the suburbs. The result is congestion and environmental degradation. To turn this around, four stretches of underground railway line are being added to the existing Ferrovia Circumetnea line bringing total length from 3.8 km to 12.8 km.

The first two stretches (Galatea-Giovanni XXIII and Giovanni XXIII-Stesicoro), currently both in the construction phase, will increase the extension of the current line in the urban centre of Catania. The remaining two (Borgo-Nesima and Nesima-Misterbianco Centro) will link Catania's city centre to the north west suburbs of the city and to the urban centre of the neighbouring municipality of Misterbianco and its industrial and business zone.

> "Sicily is a paradigm example of poor use of transport systems: regional mobility is largely based on automotive services granted to road transport rather than regional rail transport, which is practically non-existent. The significant extension to the underground railway line in Catania can be seen as the first building block in a new policy for sustainable mobility in Catania and throughout the metropolitan area."
>
> **SALVO FIORE,**
> ENGINEER, CIRCUMETNEA

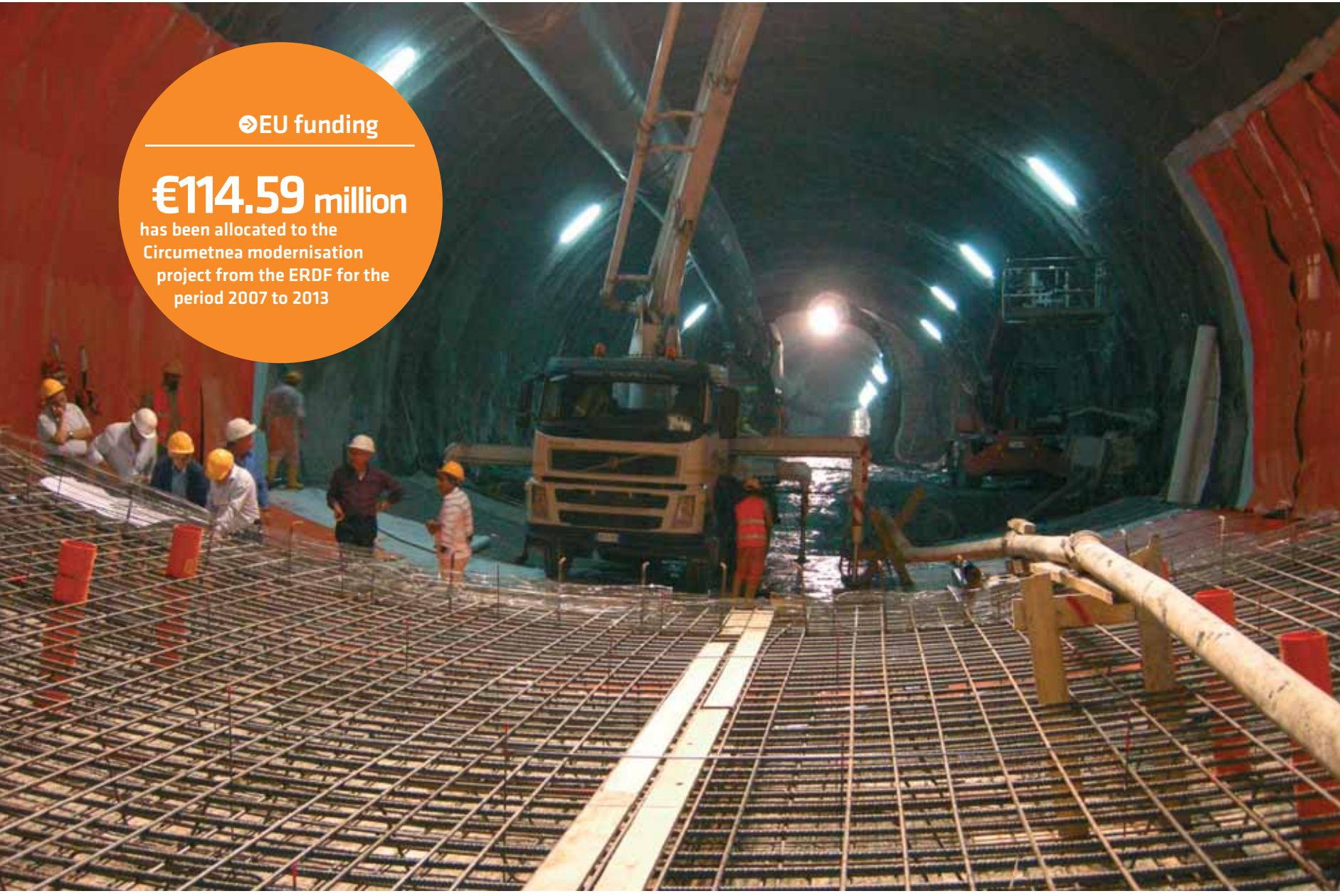
These new lines, like those already built, will be double-track, standard gauge underground railway lines. Overall, the project will result in an operational underground metropolitan railway line in the city of Catania, consisting of 10.8 km of double track line and 2 km of overground single-track line.

Expected benefits

The benefits of the extended line will be felt by some 508 850 residents for whom noise will be reduced, traffic will become more fluid and the air cleaner. The new development is also expected to reduce road accidents.

Economically, the region will stand to benefit with the line expansion giving easier access to local companies for both staff and potential customers. The new underground stations are also expected to offer the opportunity for urban regeneration and development, with urban densification measures halting the process of suburban sprawl.

More about this project can be found at:
http://www.circumetnea.it/



Rail construction under way to create a viable alternative to car travel

Travelling light and speedily across the Fair City

Ten years in the planning, Dublin's light rail transit system has been a huge success since opening for business in June 2004. It achieved operational breakeven in its first full year of service and carried more than 27 million passengers in 2008.

Commuters and visitors to Ireland's capital city today enjoy fast and comfortable rides aboard modern vehicles on the two lines that together total 25 km in length. Major extensions to the system are now underway.

Two new tram lines

Dublin's first tram system began service in the 1870s and was once considered among the world's best. However, increasing competition from more flexible buses and lack of investment eventually led to the end of the service in July 1949.

In the late 20th century, as light-rail transport became more popular because of its speed and efficiency, Dublin decided the time was right for a new network. After years of planning and construction, the city opened two surface light-rail lines in 2004. Operated under contract with the Railway Procurement Agency (RPA) by Veolia Transport Ireland, the city's light rail system is called 'Luas', meaning 'speed' in Gaelic.

The 'Red' line runs from Tallaght in the south-western suburbs to the mainline railway station at Connolly, north of the River Liffey. One third of its construction was co-financed with an ERDF contribution under the Economic and Social Infrastructure Operational Programme. The 'Green' line follows a route from the business/industrial estate at Sandyford in the southern suburbs to St. Stephen's Green in the city centre.

> "Not only has Luas delivered in terms of a very meaningful contribution to public transport capacity, but in itself it is a very significant addition to the public perception of the city."
>
> **JOHN FITZGERALD,**
> FORMER DUBLIN CITY MANAGER, NOW CHAIRMAN OF LIMERICK REGENERATION AND OF GRANGEGORMAN REGENERATION PROJECTS

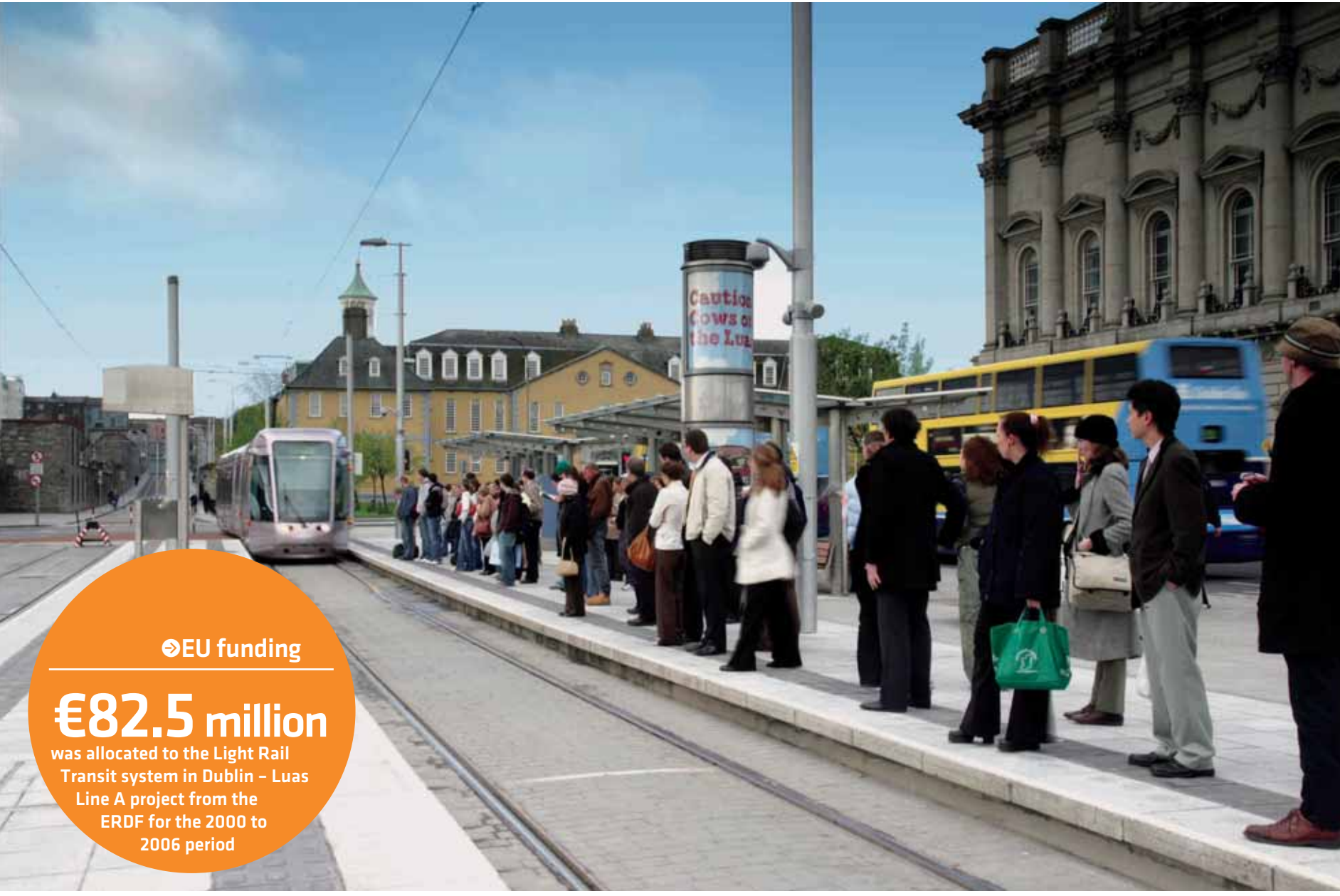
Platform for infrastructure extension

It was anticipated that Luas would require an operational subsidy in the early years, in common with many new major transport projects in Europe. Yet thanks to high passenger numbers, a modest operational subsidy was only needed for the first few months of operation and the service is now profitable. The two lines have proved very popular with Dubliners and passenger numbers grew by 23% in the first three years of operation, at one point reaching 28.4 million.

The system's success is reflected in plans for further investment in light-rail infrastructure in Dublin. Under Transport 21, the Irish Government's 10-year plan for investment in transport infrastructure, the RPA is developing seven new Luas lines and two metro lines.

Under this new investment programme, the Red Line is being extended at both ends, adding a total 5.5 km of additional route. Trams on this line have also been lengthened to accommodate passenger demand.

More about this project can be found at:
http://www.rpa.ie



EU funding

€82.5 million

was allocated to the Light Rail Transit system in Dublin – Luas Line A project from the ERDF for the 2000 to 2006 period

Passengers have been making the most of the sleek, new rail system

Bustling port generates jobs in Calabria

With growing numbers of ships passing through the Mediterranean, Gioia Tauro port at the southern tip of Italy found itself in need of major structural developments. Over a 12-year period (1994–2006), targeted investments using EU funds soon produced the desired outcome, namely secure employment and a highly efficient port system.

For the inhabitants of Calabria, the importance and potential of Gioia Tauro port cannot be underestimated, notably in terms of employment and economic opportunities. It is the busiest and largest container terminal in Italy and the Mediterranean, and the seventh biggest container port in Europe. In 2007 alone, some 3 000 vessels passed through the port.

Channelling efforts towards secure employment

To cope with challenges such as logistics, staff and container movements, a major redevelopment project was implemented. It resulted in 1 500 jobs being created – 750 direct, 450 indirect, the remaining 300 in port operations and public services. The project's success is also reflected in its container activities (measured in TEUs or twenty-foot equivalents). By September 1997, it was already handling 1 000 000 TEUs (original target date was 2001) and had links to more than 35 Mediterranean ports.

Digging deep to build solid foundations

Under the National Operational Programme for Transport (2000–2006), the Port Authority promoted works to improve the port's infrastructure and strengthen its commercial transhipment features and leadership throughout the Mediterranean basin. The work included deepwater docks for large ships, a widened channel, platforms for container and car transhipments, and a multimodal logistical infrastructure. The Programme included defining a strategic framework to maximize the impact of the transformations and increase the commercial and economic activities in a region characterised in the recent past by poor socio-economic indicators.

> "The port project, thanks to the sea bed deepening carried out, has enabled MedCenter Container Terminal to allow ships with a bigger draught into the port and to set up new cranes purchased in China on the revamped quays. MCT can therefore increase its trans-oceanic freight traffic."
>
> **FRANCO N. CUPOLO,**
> MEDCENTER CONTAINER TERMINAL

Eyes on future horizons

There are real prospects for new business with ports worldwide as well as potential stemming from other European projects such as motorways of the sea and plans to build a Berlin-Palermo rail link. By promoting logistics and intermodalities, the current 'Networks and Mobility' Programme 2007-2013 will boost the port's competitive position, enabling it to play a leading role in promoting interconnections among neighbouring European countries.

More about this project can be found at:
http://www.portodigioiatauro.it/index.php

EU funding

€36.1 million

(including €5.9 million for the Interport) was allocated from the ERDF to Gioia Tauro port over the period 1994 to 2006. A further €40 million has been allocated from the ERDF for the period 2007 to 2013

One of many cargo ships now using the upgraded Gioia Tauro port

Western gateway to Greece grows bigger and stronger

Once just a small Ionian port, Igoumenitsa in northwest Greece is developing into a major hub for ferries to Italy (Venice, Ancona, Bari, Brindisi) and the Ionian Islands. Under a three-phase project lasting over a decade, it is being transformed into a port that both rivals Patras further south while taking some of the pressure off it.

One of the 12 major Greek ports, Igoumenitsa plays an increasingly important role in connecting southeast Europe. It is also the beginning of the Egnatia Odos Motorway, which connects Greece to Turkey.

Expanded port and facilities

Over the last decade, Greece has been modernising its ports with a view to enhancing their competitiveness and guaranteeing first-class port services. The challenge is to keep pace with the current and future market demands of national and Mediterranean transport.

The development of Igoumenitsa port is ambitious and scheduled over three phases. The first of these, Phase A, was completed in 2006 and was implemented with the oversight of the Greek Ministry of Environment and Public Works. It is managed by the Port Authority of Igoumenitsa (OLIG S.A.). Slightly more than half of Phase A funding came from the EU's Cohesion Fund.

The main work included construction of a new port some 300 metres away from the old one, with piers 160 metres long. Several new buildings were erected for a passenger terminal, port control and administration. New equipment was installed and a start made on creating a new land zone.

> "The new port of Igoumenitsa has vastly improved the facilities for passenger and freight transport to and from Italy, benefiting the local region, Greece and international travellers."
>
> **NIKOLAOS KOTSIOS,**
> MANAGING DIRECTOR PORT AUTHORITY OF IGOUMENITSA

Phase B is well underway and will ensure that the port can accommodate large ferries and cruise ships. Work involves construction of a wharf connecting the old port's south pier with the Phase A piers. The land zone behind the piers is being reclaimed, and two new terminal stations and other key facilities for passengers and freight are under construction. This phase also involves widening and deepening the Igoumenitsa sailing route, and protecting the port's entrance.

Good hinterland links

When Phase C is completed by 2013, the port will have a new freight centre and a terminal. These will further equip Igoumenitsa with the infrastructure needed for maritime tourism transport – which more than ever require first-rate port facilities and services. The work to date is paying dividends, with passenger traffic growing by a third between 1996 and 2008 to reach 2.69 million.

Northern Greece and the Near East are also benefiting from the new Egnatia motorway. Now completed, it stretches 670 km from Igoumenitsa to the Turkish border. With branches to the neighbouring Balkan states, it will become the main corridor for east-west trade flows.

More about this project can be found at:
http://www.olig.gr

Igoumenitsa port overhauled and playing a vital role in transport links

Spectacular highway offers a world of opportunity

The Egnatia Odos Highway, a major engineering and construction project, spans almost the entire length of Greece. The result so far is impressive: 594 km of new highway already opened up to traffic, dramatically improving access to Northern Greece and the Balkans. One section, which runs through Epirus, proved one of the most challenging from the technical point of view, and included the construction of bridges, access roads and tunnels.

The Epirus region is one of the most mountainous, sparsely populated and least accessible regions in Greece, making human and trade flows within the country and with the rest of Europe particularly challenging. With economic benefits expected as a direct result of the project, notably through large-scale investments, the project looks set to have a major impact on the livelihoods of local citizens and visitors passing through the region.

The challenge

The main Egnatia Odos Highway has been constructed as a dual carriageway, separated by a central reserve, with two traffic lanes and a hard shoulder in each direction. The 9-km Epirus section completed under this project extends from Ioannina I/C to Metsovo I/C. However, due to the difficult terrain, it proved a major challenge to engineers and builders.

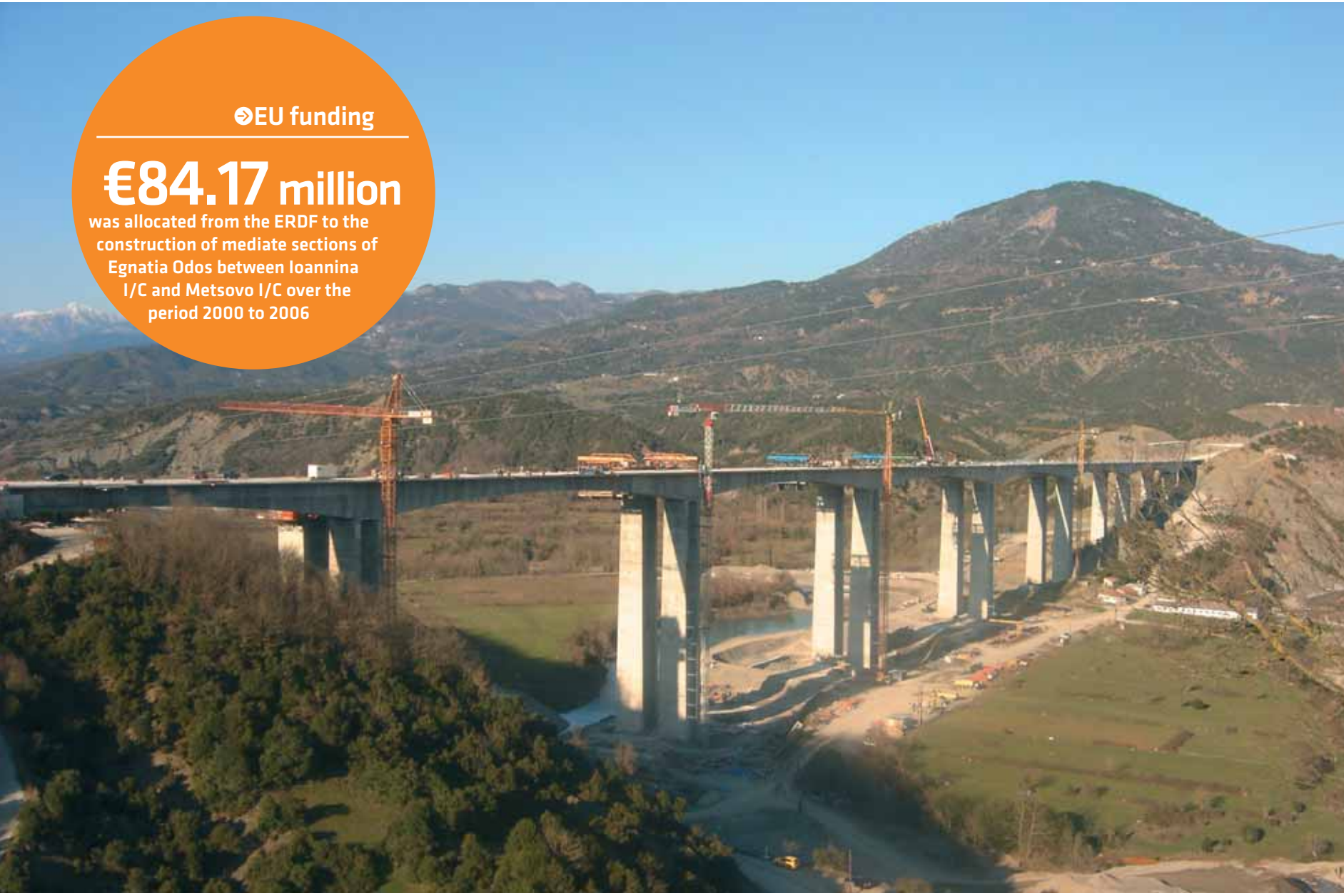
> "The Egnatia highway is playing an important role in local development and the local economy, with significant increases in commercial and tourist traffic from Northern Greece passing through Parga."
>
> **MR SPIROS PIGIS,**
> MAYOR OF PARGA MUNICIPALITY

Despite the challenge, the following were successfully completed: the first subproject involved the construction of access roads (four-lane highway) at both ends of the Driskos tunnel (total length: 5.3 km), and the completion of the T8 dual bore tunnel (total length: 2 620 m per bore). The second subproject involved the construction of the Arachthos bridge (total length: 1 036 m).

Economic and social gains

The main highway is expected to dramatically transform transport in northern Greece, the Balkans (and even trans-Balkan road traffic to Turkey and the Middle East) and have a major impact both on the economy (investments in freight centres, industry and tourism) and on society in general, by improving access to the cities of Thessaloniki and Ioannina which offer better education and medical care.

More about this project can be found at:
http://www.egnatia.eu/page/default.asp?id=5&la=2



One section of the enormous 594-km highway construction in Greece

Limassol bypass to beat congestion

The third largest island in the Mediterranean Sea with a population of around 800 000 is benefiting from a major project to upgrade the Limassol bypass. Improving access to the Limassol port, the bypass enables smooth continuous travel for traffic from Nicosia and Paphos. The project is succeeding in cutting congestion around a seaport which in the year 2000 saw approximately one million passenger arrivals and departures.

Within the last 25 years, Cyprus has built a very dense road network and has almost no need for new roads. This project, supported by the EU's Cohesion Fund, gave priority therefore to the formation of road bypasses for large urban centres and to easy access to ports and airports.

From Nicosia to Paphos

An underpass and a roundabout were built at Agios Athaniasos, a suburb of Limassol, to ensure the free flow of traffic on the bypass road, direction Nicosia-Paphos. The works included two bridge structures of 23.3 metres long each, a pedestrian footbridge, four pedestrian underground walkways, retaining walls and new pavements for the slip roads.

Improvements were also brought to the Germasogeia roundabout. These included a bridge across the roundabout of 304 metres in length, two bridges across the Amathos river of 75 metres in length and 12 metres in width, two new pedestrian underpasses and the construction of a dual carriageway bypass of 2 000 metres in length.

By improving the transport system, these two developments are supporting the country's continued economic and social wellbeing.

> "As someone living on the outskirts of Limassol and using the highway to get to work, I see the positive effects of the bypass upgrade first hand, everyday. Undisturbed through traffic, as well as a reduction in severe congestion are some of the benefits. Cleaner air is another."
>
> **CORALIA MASSOURA,**
> LIMASSOL MUNICIPALITY

Making roads safer

Cyprus is considered to have one of the strongest economies in Europe and unsurprisingly, in the past ten years, transport has experienced parallel growth – the number of cars alone increased by 65%. The Limassol bypass project accommodates this growth and recognises the importance of safety in a country where half the population lives in the four largest cities – Nicosia, Limassol, Larnaca and Paphos.

Road safety suffered year-on-year as transport increased with 2004 experiencing a much higher number of road deaths (117) compared with 2003 (97). The Limassol bypass project developments have brought a marked reduction not just in traffic jams but, more importantly, in fatal road traffic accidents.

EU funding

€25.29 million

was allocated from the EU's Cohesion Fund to the upgrading of the Limassol bypass for the period 2004 to 2006

Limassol bypass set to improve transport links in Cyprus

Upgraded local rail line strategically vital for Europe

A key section of the Trans-European Network Transport is being rehabilitated and upgraded in Romania, on the railway line between the town of Câmpina and the Carpathian resort of Predeal. Scheduled to end in 2010, the project will improve commercial rail services regionally and develop combined sea-rail transport.

The 48 km section was built in the 19th century and needs extensive work to bring it up to modern international standards. When this is done, the line should yield an economic rate of return of around 11-12%.

New infrastructure installed

The Prahova Valley section between Câmpina to Predeal is part of the railway line between Bucharest and Brașov. It is an important link between two main regions of Romania (Bucharest and Transylvania) and part of the Trans-European Network Transport (TEN-T) priority axis 22, which links the Eastern EU countries by rail and is the only connection from southeast Europe to the heart of the EU.

Guided by Romanian Railways (CFR), the project aims to upgrade the Câmpina to Predeal section, which is around 100 km from Bucharest. The section is part of the three main national and international railway lines that make the connection between the Black Sea in the south of the country, including Bucharest, with the central and northern parts of Romania and beyond. It also crosses the country's most important tourist area. Three-quarters of the project's total funding comes from the EU.

> "Completion of the Câmpina Predeal rehabilitation project is essential for CFR's passengers. This will help avoid the current delays, increase the number of trains and the volumes of passengers transported, and lead to a good timetable, with a competitive commercial rate and a journey time of about two hours."
>
> **ADRIAN VLAICU,**
> MARKETING DIRECTOR – CFR PASSENGERS COMPANY

Much of the infrastructure on this section of railway line is very old, including the riveted metal bridges and brick culverts. Moreover the electrical installations, signalling and interlocking system are damaged on many parts of the line due to lack of maintenance and repair. Work is proceeding to address these challenges, although there have been some delays in implementation of the contract.

Faster, better travel

When this new project is completed in 2010, the rehabilitated Câmpina – Predeal section will allow higher speed travel than today, up to 160 km/h for passenger trains and 120 km/h for freight. Station platforms along the section will also have been improved according to European technical standards.

EU funding

€149.61 million

was allocated to the Câmpina Predeal rehabilitation project from the Cohesion Fund for the 2004 to 2006 period

Line maintenance and repairs will be reduced, while comfort and safety should be much improved, encouraging more people and freight to use this rail line. Such improvements should also promote more intermodal (sea and rail) travel on this TEN-T route.

More about this project can be found at:
http://ec.europa.eu/regional_policy/funds/download/ispa/roman/rom_rail_campina_en.pdf

Upgraded rail line connecting people, businesses and goods

Seaside resort benefits from big bypass

A newly completed 20 km bypass to the north of Riga is Latvia's biggest road-building project since the country regained its independence in September 1991. Known as the Saulkrasti Bypass, it forms part of the Via Baltica – a key 670 km road linking the capital cities of Poland and Estonia.

The bypass diverts traffic around the small coastal town of Saulkrasti. As intended, the new road has already reduced much of the through traffic and noise pollution that long plagued the town. It has also cut journey times for the expanding number of international trucks that use the A1 road between Riga and Tallinn.

A brand new road

Located some 45 km north of Riga, the capital of Latvia, Saulkrasti has been a popular health and tourist resort since the 19th century and is best known for its beautiful sandy beaches and unspoilt natural environment. The town has depended for decades on the A1, the only main road serving local, transit and international traffic.

However local residents found it increasingly difficult and dangerous to cross this road, as both car and truck traffic grew. From the 1990s, many also complained of getting stuck in long queues of heavy trucks heading to countries north and south of Latvia.

> "Thanks to the bypass I gain up to half an hour per day when driving in both directions. In the past, Saulkrasti was a real obstacle for me: I was literally forced to crawl at 50 km/h and could not even think about overtaking. The situation has improved dramatically."
>
> **MĀRIS PETROŠINS,**
> DRIVER FROM SKULTE

The Saulkrasti Bypass running from Lilaste to Skulte was opened in September 2007, after two years of intensive construction work divided into three stages. Some 11 metres wide and 20.4 km long, the new dual carriageway forms part of the Via Baltica. It received 36% of its funding from the EU and the rest from Latvia.

Speedier international traffic

Besides the Saulkrasti Bypass, the project also resulted in reconstruction of a part of the existing A1 road. This 14.8 km stretch now includes 15 bridges and overpasses, four railway crossings, pedestrian and bicycle roads, lighting of complex traffic junctions, street lighting, fences, noise-protection walls and bus stops.

The project as a whole has increased the safety of pedestrians and improved traffic safety in Saulkrasti, diverting traffic around the town and allowing vehicles to cover this part of the route faster. The bypass has also helped to split vehicles into local and bypass traffic, the latter mainly made up of huge international trucks cruising up and down the Via Baltica.

A section of the new 20-km bypass north of Riga

First-class upgrade to Bulgaria's international gateway

Sofia Airport's facilities are today the match of any in Europe, following completion in 2006 of a new passenger terminal building and related infrastructure. A new runway was also added to expand overall capacity.

Long in the planning, the airport modernisation and expansion works were designed to cater for soaring growth in Bulgaria's air traffic and to prepare the nation for accession to the EU. They have also provided facilities that bring the airport up to international safety and security standards, as laid down by the International Civil Aviation Organization.

New terminal

Sofia Airport was built in the 1940s some 10 km from the city centre. Despite several extensions over the next few decades, it struggled to cope with growing air traffic and passenger numbers.

Planning for the new terminal began in the 1990s, before the nation was even considered for entry to the EU. A contract was signed in December 2003 for a major project intended to bring Sofia Airport into the 21st century.

The new passenger terminal building and related infrastructure (aircraft parking aprons, taxiways and car parking) were 37% financed by the Cohesion Fund, with the remainder financed by the European Investment Bank and Bulgarian national funds. The new parallel runway, not part of the Cohesion Fund project, was co-funded by the Kuwait Fund.

> "Business is booming at our renovated airport, no doubt thanks in great part to our attractive new terminal and other passenger-friendly facilities completed recently."
>
> **PLAMEN STANCHEV,**
> EXECUTIVE DIRECTOR OF SOFIA AIRPORT

Construction work began in January 2004. The new runway and some taxiways were completed in mid-2006 and Terminal 2 was formally inaugurated on 27 December 2006. An extension was also granted until 2008, for completion of landscaping work to enhance the airport grounds.

The Austrian company Strabag International GmbH built the terminal. The designer and supervising engineer was NACO (Netherlands Airport Company).

Room for expansion

The ultramodern new Sofia Airport is one of the first projects approved for Cohesion Fund assistance by the European Commission in October 2000. It is also the first major project under that fund to be completed, at the time the upgraded facilities were opened in December 2006.

The new passenger terminal can handle 2.6 million passengers a year, 20 aircraft movements an hour, and 26 000 tonnes of cargo a year. In 2008, the airport's two terminals handled over 3.2 million passengers, one third up on the number two years before. Further strong traffic growth is expected as a result of Bulgaria's accession to the EU in 2007, as trade and tourism grow and bring economic benefits to Sofia and beyond.

Air travel passengers getting around Sofia Airport more comfortably

Business booming at revamped Tallinn airport

Due to an unexpected rise in passenger numbers, combined with Estonia's need to meet Schengen area requirements, the passenger terminal at Tallinn airport has undergone a major redevelopment. The work was completed in August 2008 with the development comprising enhanced security facilities, nine passenger bridges, 14 free internet kiosks and free wireless internet, and the extension and modernisation of the terminal building northbound and southbound.

The new T-shaped terminal is twice as large as before, with 14 000 m² of operating space added to the existing passenger terminal. Tallinn airport has therefore firmly established itself as one of the main transport nodes in the Baltic States. The expansion means that the airport can now cater for 2.4 million passengers a year.

Passenger numbers through the roof

There was no question as to the importance of this construction project and the need to increase airport capacity and enhance services. Previous estimates had forecast 1.4 million passengers a year by 2010; by 2007 there were already 1.7 million. The construction works were carried out by EMV AS, while the engineering aspects were handled by the consortium AS Telora-E and Ramboll Finland OY. Funding for this large-scale project came from Tallinn Airport Ltd, with co-financing provided by the European Union's Cohesion Fund.

A return to hassle-free travel

The new building features a 200m-long, 27m-wide two-storey gallery connecting the gates. The main floor of the gallery handles Schengen travellers, while the top floor caters for non-Schengen passengers. Travellers with mobility problems are able to move about hassle-free by using the special lifts provided. Two of the total nine gates now available can service large aeroplanes, including Boeing 747s. With the number of check-in desks increasing from 18 to 27, and extra check-in machines put in place, passengers look set to benefit from more rapid processing. Security has also been stepped up and now includes five security gates.

> "Congratulations to Tallinn Airport on your new and very comfortable building... I found the security staff very helpful and friendly. Such an attitude is often underestimated, but it is highly appreciated, even by experienced passengers. Thank you for this experience!"
>
> COMMENT FROM PASSENGER

Activities on offer for all ages

For passengers wanting to explore a little or take time out to relax, the new building houses a VIP section as well as cafés, restaurants and shops selling clothes, cosmetics, jewellery, books, including foreign-language fiction, travel guides and periodicals, as well as films and music. Estonian culture is also promoted, with local products and souvenirs showcased and sold in many areas. While parents may opt for the shopping or business side of travel, kids can enjoy a large play area which has opened nearby. For those wanting to plan trips, two additional travel offices have been set up in the public area, with an accommodation service also available.

More about this project can be found at:
http://www.tallinn-airport.ee/eng/aboutcompany/photos/?galleryID=3491

Bird's-eye view of the revamped passenger terminal at Tallinn airport

Warsaw (Mazowieckie) and Łódź (Łódzkie), Poland

Intercity link upgrade runs to schedule

Poland is engaged in a nationwide effort to improve rail transport. One major project is modernisation of the 132-km rail line between Warsaw and Łódź, the country's two largest cities. When completed by 2013, it will speed up journey times, increase passenger safety, and reduce rail transport's impact on the environment.

The work includes track replacement, infrastructure improvements and environmental protection measures. A new high-speed route, from Warsaw to Wroclaw, will soon be built to complement this line.

Two stages

The national rail network covers some 23 500 km, mostly managed by Polish State Railways (PKP SA). Under the 2004 to 2006 National Development Plan, Poland has been modernising its intercity lines and those which are part of key European rail routes.

Like many intercity lines across the nation, the one between Poland's capital, Warsaw, and its second-biggest city, Łódź, urgently needed upgrading. With European co-funding that covers 75% of the total eligible cost, a project was started to improve this line and its infrastructure. The main goals were to boost train speeds and curb the negative impact on the local environment.

Design and construction work is divided into two stages, lasting a total of six years. Now completed, the first stage covers a 62.8-km section from Skierniewice to Łódź Widzew. The slightly longer stage two, from Skierniewice to Warsaw, will see the construction of over 69 km of track and is expected to end in 2013.

> "Despite some limited disruptions recently on the Warsaw – Łódź railway line, I believe that the modernisation process will ultimately be very beneficial for this line and the region in general."
>
> **HALINA CIĘŻSZKOWSKA,**
> PRIMARY SCHOOL TEACHER

Faster, quieter and greener

With stage one completed, the Warsaw–Łódź line has two new tunnels for pedestrians. Four bridges, six viaducts and 37 railway level crossings have also been modernised.

Environmental protection structures were installed over more than nine kilometres. These include jointless rails and a layer of stone ballast to reduce train noise. Other new facilities both at stations and along the line help to prevent pollution of underground water and protected zones. Engineers have also created passages and bridges for animals to cross the line safely.

While the modernisation process has caused some disruption to normal rail service, a recent passenger survey showed that almost 70% view this process as 'good or very good'. Once the entire 132-km line has been modernised, trains will run much faster than they do today, at up to 160 km/hr.

Travel times from Warsaw to Łódź have been reduced from an average of 55 minutes to an average of 36 minutes. As a result, passenger satisfaction has increased and the attractiveness and competitiveness of the Łódzkie and Mazowieckie regions has been enhanced. It may also help to shift some regional road transport to rail.

More about this project can be found at:
http://www.plk-inwestycje.pl/linie-kolejowe/linia-warszawa-lodz/etap-i/

EU funding

€161.17 million

was allocated to the modernisation of the Warsaw–Łódź railway line, stage I project from the ERDF for the 2004 to 2006 period

Train carrying passengers on faster, revamped rail lines

Smooth journey between Baltic and Adriatic waters

The SoNorA project focuses on the development of multimodal transport infrastructure and services in Central Europe, providing better connections between the Baltic and Adriatic seas. The approach is unique in that it brings together several South-North network connections under one project. The benefits to be gained by the six countries involved include improved inland waterways, guidelines on strategic planning, impact assessments on development, and use of state-of-the-art systems.

SoNorA is closely linked to the policies and objectives of the Trans-European Networks (TEN). The concept is to provide transportation, energy and telecommunication networks that link regions and markets and help spur economic growth and employment. The project looks to remove obstacles when it comes to putting infrastructure in place and setting up and providing services along itineraries.

The birth of SoNorA

The SoNorA idea – which is now implemented through the CENTRAL EUROPE Programme – merges the initiatives of the AB Landbridge project (financed by Interreg III B CADSES) and the recent German initiative SCANDRIA (Berlin Declaration 30/11/2007). The project is structured around six work packages, each focused on specific areas: project management and coordination; knowledge management and dissemination; transport network flow optimisation; removal of obstacles for infrastructure realisation; activating services along South-North itineraries; and the transnational co-operation platform.

> "As lead partner of the SoNorA project, the Veneto Region (Italy) is showing its commitment to building a connection between the Adriatic and Baltic seas covering Central Europe and providing a facility for traffic, goods and people with a direct and positive impact on strengthening logistics and intermodality in the region."
>
> **MR SILVANO VERNIZZI,**
> REGIONAL SECRETARY OF THE INFRASTRUCTURE AND MOBILITY OF THE VENETO REGION.

Meet the project team

For such a large-scale project, well structured and harmonised organisation is needed for successful completion. Management includes a steering committee made up of legal representatives for each partner body. The committee meets to make high level management decisions. The technical management board, composed of the lead partner, the technical manager and work package leaders, monitors project progress and synergies between activities. The project partners include 34 public or private associated institutions involved on a voluntary basis as well as a scientific advisory board, providing work package leaders with scientific input on work plan methodology when requested.

EU funding

€5.5 million

is being allocated from the ERDF to SoNorA over the period November 2008 to February 2012

Barriers removed, links opened up

With the tools, guidelines, case studies, outputs, new synergies and investment studies, SoNorA will improve access to European seaports for landlocked countries, facilitate intermodality for roads, railways and waterways, establish strategic co-operation between and within trans-European corridors (e.g. TEN-T recommendations), and set up a transnational network to benefit from the synergies and shared objectives of regional development.

More about this project can be found at:
http://www.sonoraproject.eu/

Bringing the ports of the Baltic Sea closer to the Adriatic

Ships set sail for greener cargo transportation

Shifting cargo from road to sea to reduce energy consumption, carbon emissions and pollution is at the heart of the Northern Maritime Corridor (NMC) project. This transnational project which covers 20 regions bordering the North Sea and Europe's northern periphery has led to improved short sea shipping services and greater accessibility to the regions concerned.

Through region-to-region co-operation between private and public sectors, the project is effectively transforming the Northern Maritime Corridor into a 'motorway of the sea'. Such is its success that the network has been extended to cover the Barents region, improving services between the European continent and NW Russia and providing an alternative to St. Petersburg.

Shifting freight off Europe's roads

The Northern Maritime Corridor created and fostered a networking arena between key businesses and governments. The various strands of this co-operation included the promotion and creation of short sea shipping initiatives (around 15 altogether), the improvement of maritime safety through risk management strategies and the strengthening of links between Europe and Russia.

Short sea shipping is a highly efficient mode of transport in terms of environmental performance and energy efficiency. It has great potential to solve road congestion problems. A freight ship crossing from the Norwegian port of Bergen to the Netherlands can take as many as 250 truck trailers off the roads.

> "We expect that the northern part of Norway and the north-western part of Russia will be alternative areas for new routing systems and we are working already on that."
>
> **KIRSTEN ULLBAEK SELVIG,**
> NORWEGIAN COASTAL AFFAIRS DEPARTMENT

A number of standing committees were set up between Norway and Russia following on from the NMC conference in Kirkenes to improve maritime safety in the region, identifying gaps and developing joint approaches to overcome them, and making recommendations for risk management strategies.

Closer co-operation

Co-operation between the shipping companies, forwarders and ports of mainland Europe and the United Kingdom, and northern Norway and the north of Russia are creating a mutually beneficial situation in which sea transportation is becoming much more frequent. European shipping companies calling at Murmansk are already being monitored to build on their experience of taking cargo in and out of the north of Russia.

In terms of innovation, the NMC project developed principle models as well as concrete ICT tools for the intermodal transport industry. In particular NMC brought in the use of radio-frequency identification for tracking cargo. The innovative character of the project was also pursued in other ways. The project was carried out as parallel projects in the North Sea and the Northern Periphery

EU funding

Spread over two project periods, the Northern Maritime Corridor received

€2.64 million

from the ERDF from March 2002 to June 2008

Interreg programmes and the project included partners in more than 20 regions in nine countries, including Russia. Many regions set up maritime clusters with as many as 10-20 partners.

The NMC project had an important impact on the expansion of maritime services in the North Sea regions. The most significant achievement was the European Commission's approval to extend the motorways of the sea layout towards the Barents region.

More about this project can be found at:
http://www.northernmaritimecorridor.no and http://www.northsearegion.eu/iiib/projectpresentation/

Travelling by sea – a greener way to shift freight in Northern Europe

New Danube bridge to speed up international traffic

A new bridge spanning the Danube River along the 430-km border between Bulgaria and Romania is due to open in 2011. Carrying road and rail traffic between Vidin and Calafat, it will provide a vital link on a key priority route of the Trans-European Transport Network (TEN-T).

The bridge will facilitate increased long-distance traffic and trade between southeastern Europe and Turkey and central Europe. Planners also expect investment in the project to stimulate the local economy and generate employment.

Replacement for ferries

Regular ferries cross the Danube between Vidin in Bulgaria and Calafat in Romania. But this service is unable to cope with the transportation needs between Bulgaria and Romania, and countries further afield. In June 2000, the two nations agreed to build a new bridge across this part of the river.

One main objective is to restore a cross-border rail connection between Bulgaria and Romania. The new bridge, only the second one on the shared section of the Danube between the two countries, will also ensure better integration of the Bulgarian road and rail networks with pan-European transport networks – linking Germany with both Greece and Turkey.

The project's total cost estimated to €226 million, with an EU contribution of €70 million. Construction work started in February 2007 and will end in 2011, delivering a bridge with two lanes in each direction for road traffic and a single railway track. There will also be a walkway for pedestrians and non-motorised traffic on one side, and an emergency walkway on the other.

> "The bridge creates favourable conditions for promoting combined transport by applying environment-friendly river-road-rail logistical solutions."
>
> **VESSELA GOSPODINOVA,**
> BULGARIA'S DEPUTY MINISTER OF TRANSPORT, 2008

Benefiting international traffic

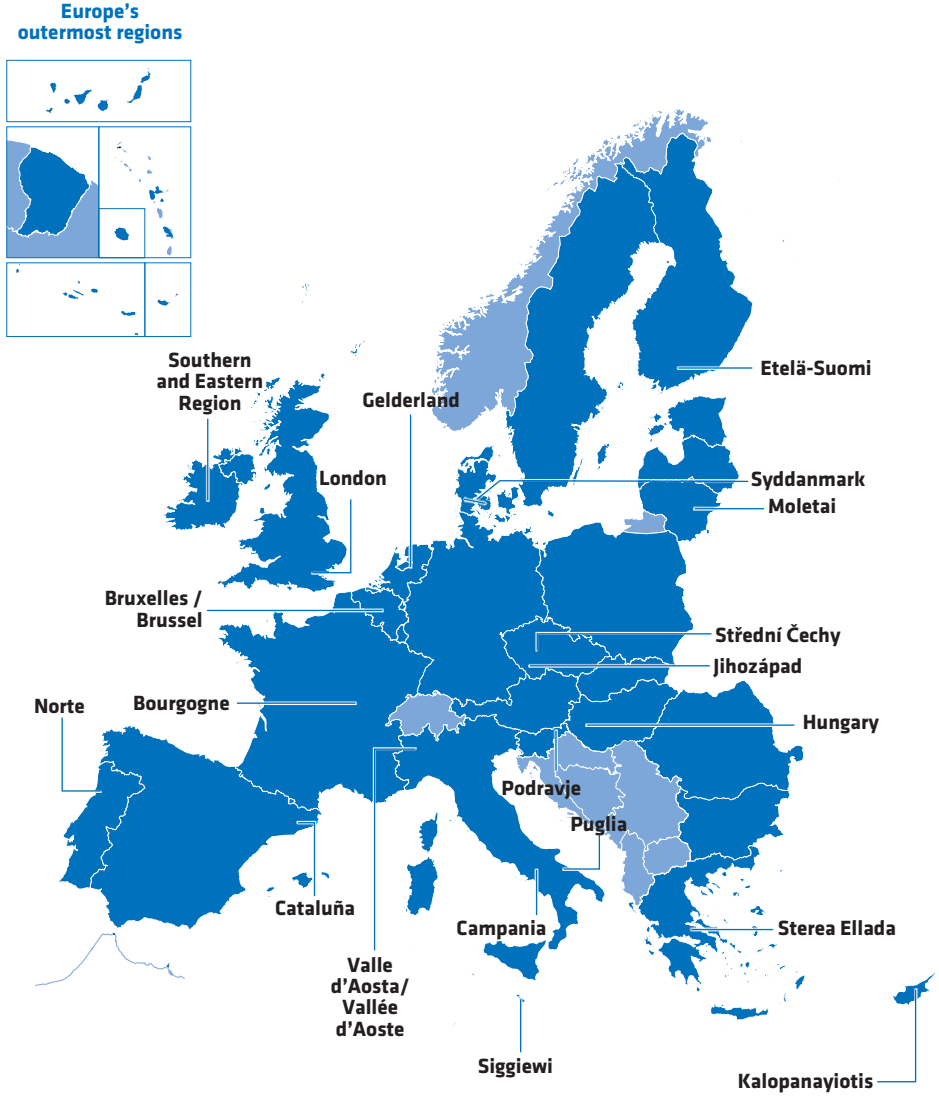
Construction is already underway on the Calafat-Vidin bridge, with the foundations, piers and first deck segments already complete. The main road structures on the Bulgarian side are essentially completed too.

An existing short stretch of rail track is being rehabilitated, and more than 9 km of new rail line is being built and electrified, in coordination with the national railways infrastructure companies. Various switching and shunting tracks are being added, alongside construction of a new border freight station.

The new bridge will have a total length of up to 1 440 metres in the case of the combined road-rail section, plus 1 040 metres for the approach railway bridge. A good example of bilateral co-operation between Bulgaria and Romania, it should remove a major bottleneck for international long-distance transport to Romania and Central Europe.

More about this project can be found at:
http://www.danubebridge2.com

Scenic view across the river to the new Danube bridge



Barcelona, Cataluña, Spain: Curtains up on new Barcelona exhibition centre

Bari, Puglia, Italy: Urban regeneration brings hope to Italian town

Bruxelles/Brussel, Belgium: Contemporary art finds a special home in Brussels

Campania, Italy: New face of rail travel in Campania

Ciulenai, Moletai, Lithuania: A truly cosmic experience

Le Creusot, Bourgogne, France: Speedy 3D prototyping and production

Csurgó, Nagyatád, Barcs, Sellye and Siklós, Hungary: Eco-tourism flows into the Dráva River basin

Etelä-Suomi, Finland: Restoring the calm after the storm

Fyn Island, Syddanmark, Denmark: New lease of life for island castle

Gelderland, Netherlands: Dutch province curbs growing urban noise levels

Kalopanayiotis, Cyprus: Mountains come alive in Nicosia, Cyprus

Liscannor, Southern and Eastern Region, Ireland: Natural wonder comes to life on Irish coast

London, England, United Kingdom: Empowering disadvantaged women through work

Orchomenos, Sterea Ellada, Greece: Disused industrial park undergoes major restoration

Písek, Jihozápad, Czech Republic: Historical river area renewed and restored

Podravje, Slovenia: Revamped stadium lights up Maribor skyline

Porto, Norte, Portugal: Metro do Porto enhances citizens' mobility

Praha, Střední Čechy, Czech Republic: Plan rescues ravaged castle

Siggiewi, Malta: A rock-solid attraction

Valle d'Aosta/Vallée d'Aoste, Italy: Alpine sentinel stands tall again

Territorial Co-operation

LT, LV: A breath of fresh air for Baltic arts and crafts

SE, UK and NO: Revealing the local magic

ES, PT: Bridge unites communities on the Iberian Peninsula

Urban and rural development

Responding to specific geographical challenges and opportunities is at the heart of the EU's ambition for its regional development policies. This means ensuring that the needs of both urban and rural areas are addressed. Cities and their immediate surroundings are home to more than 70% of the EU's population, as well as most of its universities, jobs, and highly-skilled employees, making them the motors for growth and jobs. However, despite this potential, cities can also be trouble hotspots suffering from higher crime, unemployment, inequalities and social problems than their rural counterparts. Developing economically competitive, socially cohesive and sustainable cities remains a challenge. Rural areas also play a vital role in preserving the European way of life. They represent a rich part of our European inheritance, with rural businesses making a valuable contribution to the economy.

Regional funds invest in both rural and urban areas. Some €21.1 billion of regional funding has been earmarked for urban development between 2007 and 2013. Of this, €9.8 billion is targeted at urban and rural regeneration projects, €7 billion for clean urban transport, €3.4 billion for the rehabilitation of industrial sites and contaminated land areas, and €917 million for housing.

Ensuring the sustainable development of rural areas and protecting the rural environment is also an important priority. By creating new opportunities – developing the tourism offer, supporting the preservation of natural and cultural assets, improving transport linkages between towns and rural areas – EU regional funding plays a significant role in improving the overall quality of life in rural areas.

Urban regeneration projects such as that undertaken in the historical centre in the city of Bari in Italy is one of many visible legacies showing how European funds can act as a catalyst to spark the transformation of an area. This is also true of the new state-of-the-art facilities hosting the eco-friendly Visitor Experience Centre at the Cliffs of Moher on Ireland's west coast. Supported by EU funding, this large-scale upgrade has vastly improved the visitor experience, and helped to boost visitor numbers in a rural region heavily dependent on tourism. These projects and others highlighted over the next pages show some examples of how the EU is targeting investment and delivering results, in both urban and rural areas.

Curtains up on new Barcelona exhibition centre

A project to expand the Fira de Barcelona has given the city one of the largest exhibition centres in Europe. Designed by one of the world's most innovative and influential architects, Toyo Ito, the new development is also one of the most cutting-edge as far as design, innovative technology and services are concerned.

Ideally located with underground metro links and parking space for more than 5 000 vehicles, the Fira de Barcelona was conceived with convenience of access in mind. Its functional and efficient architecture also create a welcoming environment for the visitor.

Iconic architectural design

Two new towers have risen up from Barcelona's skyline as construction of the new Fira de Barcelona complex nears completion. The two towers, of Venetian inspiration framing the entrance to the Plaça Espanya, are the work of Japanese architect, Toyo Ito, who was selected in 2003 to design the new complex in the city's Montjuic district.

The driving concept behind this EU backed project combines fluidity of movement as exhibitions draw thousands and ease of access to information and services for members of the general public, organisers and exhibitors.

The grounds of Gran Via have two access points, eight halls, six of which have already been constructed and an auditorium with a capacity of 2 500 spectators. The two access points – one at Plaça Europa, connecting directly to the subway station and car park, and the other at the opposite end near the Zona Franca passage – give maximum comfort.

> "The architecture of the twentieth century was stoic and abstract. This era was characterised by buildings that can be designed and built anywhere in the world. In the twenty-first century, we must rethink how we can express a new way of living."
>
> **TOYO ITO,**
> ARCHITECT

Drawing in the crowds

The Fira de Barcelona project has given Barcelona 368 000 m² of covered exhibition space and over 5 000 parking spaces, making the complex one of the largest in Europe.

The administration and execution of the project were handled by Fira 2000 in co-operation with the Chamber of Commerce, Industry and Navigation of Barcelona, the Generalitat de Catalunya (autonomous Catalan government), the Barcelona City Hall, the L'Hospitalet de Llobregat City Hall, the Diputació de Barcelona (Barcelona City Council Provincial Government) and the Association of Municipalities of the Greater Barcelona Area.

More about this project can be found at:
http://www.fira2000.org/

Sleek new exhibition centre in Barcelona now open

Urban regeneration brings hope to Italian town

Bari is a large town with a population of about 320 000, situated in the Puglia region on the southeast Adriatic coast of Italy. The Bari programme, part of what is known as the URBAN Community Initiative set up to target neighbourhoods in extreme deprivation, was recently able to breathe life back into the oldest and one of the most run-down parts of Bari, the port area of the Bari Vecchia, home to around 8 000 people.

By developing new economic activities, providing customised training for certain social groups, improving social services and regenerating public places, the programme has had an impact not only on the town itself but also on the whole region creating a blueprint for development.

New life to run-down areas

The URBAN Community Initiative typically addresses problems of isolation, poverty and exclusion through a package of projects that combine the rehabilitation of obsolete infrastructure with economic and labour market actions. These are complemented by measures to combat social exclusion problems in run-down neighbourhoods, and measures to upgrade the quality of the environment.

The Bari project itself aimed to support new economic activities through the development of a craftwork sector, a new tourist sector and the provision of new accommodation for university students. These economic activities helped create new employment opportunities for local people in support of other actions included in the URBAN programme.

> "My experience with the URBAN project has been fully positive: the financing available thanks to the project gave me the chance to open an individual enterprise which brings out my abilities after years and years of work experience in other firms."
>
> **DANIELA DISTEFANO,**
> RESTAURO DI OPERE D'ARTE

The Bari–URBAN programme also led to improvements in public services. Two public buildings housing social services were renovated: one in Largo Annunziata and the Biblioteca della mendicità. Crime prevention and public safety have been improved by the upgrading of street lighting, as well as the addition of three new '24-hour' centres run by volunteers.

More than a place of transit

Until very recently Bari was little more than a transit hub for visitors, a place to pass through en route to somewhere else. The renovation of the local surroundings, however, is being used as a way of encouraging more people, not only from Bari itself, but tourists from further afield, to visit the previously run down Bari Vecchia area.

EU funding

The Bari-Urban project was allocated

€8.19 million

from the ERDF for the period 1994 to 1999

Public places and areas of architectural interest have been given a well-needed facelift. A case in point is the Palazzo del Sedile, a private historical building that once hosted the city hall, whose Clock Tower has been completely refurbished. In addition to this, Fortino Sant'Antonio, a Middle Age fortified building, has been completely renewed and transformed into one of the most significant structures dedicated to cultural and leisure events. Together these activities under the Bari–URBAN project have all gone towards turning around a once severely deprived and run-down area.

Locals out enjoying the revamped port area of Bari

Contemporary art finds a special home in Brussels

Brussels now offers a place where people can meet and experience the diversity of contemporary art. The project 'Wiels Centre for Contemporary Art' focused on supporting the operational aspects of the centre as well as renovation work which saw a former brewery transformed into an exhibition centre complete with reception area, bookshop and cafeteria. Three original vats were also restored under the project, lending a unique atmosphere to the centre.

The Wiels Contemporary Arts Centre provides a unique setting for contemporary art enthusiasts. It is designed as an institution rather than a traditional fine arts museum or gallery. Every year sees a series of exhibitions of local and international artists, providing an opportunity for artists and visitors to share their passion for art. The resident artist programme and educational facilities give both budding and more established artists a place to develop their skills and display their work.

Nurturing art talent

The centre is set up as a non-profit organisation. Whilst focused mainly on the visual arts, it also welcomes other disciplines. It covers the entire spectrum of art, including presentation, production and education, all in one location. Several large exhibitions take place every year to illustrate evolutions in contemporary art. The focus is on informing, analysing and exchanging, with the overarching goal being to contribute to the promotion and understanding of contemporary art.

> "As a neighbour of Wiels, I'm really happy that the Wielemans intersection has been renovated and that more and more people are visiting our commune. I'm especially delighted to see young people getting involved in the activities at the centre, which is now a part of our lives."
>
> **CELINA EL BAKKALI,**
> CELINA HAIR SALON

It hosts an international programme for resident artists as well as education and training workshops, projects and seminars open to all – young people, senior citizens and school groups.

Food for food's sake

The project also funded the café and bookshop in the venue. During opening hours, Wiels offers a relaxing, unique environment to enjoy a range of organic food specialities from all over the world. The Wiels café is more than simply somewhere to eat – it is the heart of the centre, a place for meeting, discovering and exchanging.

Construction of the bookshop was carried out in co-operation with French-based company Bookstorming. It offers visitors a wide range of books, postcards, gadgets, t-shirts, CDs and DVDs as well as catalogues and artists' publications. The bright premises are an ideal place where people can also read newspapers and enjoy a coffee.

More about this project can be found at:
http://www.wiels.org

EU funding

€1.1 million

was allocated from the ERDF to the project 'Wiels Centre for Contemporary Art' over the period January 2005 to May 2008

Contemporary art attracting all generations in Brussels

New face of rail travel in Campania

With some 3.5 million people living in and around Naples, frequent, hassle-free and comfortable rail travel has become a priority for Campania. The Regional Metro System (RMS) project addresses this priority, incorporating sustainable mobility and environmentally friendly solutions. Following investments in the integrated use of land, infrastructure and operations, the region is now reaping the rewards, with new stations, better connections, extended lines and revamped surroundings.

Campania's rail network is undergoing a comprehensive makeover, with more harmonised timetables and pricing making rail travel and connecting bus journeys that much smoother. A total of 69 new trains and 1 250 new buses will contribute to the integrated network. Town planning also plays a visible role in the project, incorporating architectural design and bringing new symbolic values to stations.

Rail renaissance

Italy is synonymous with renowned artists and painters – Donatello, Caravaggio, Botticelli, to name just a few. It is therefore no surprise to find creativity a key feature of the RMS project, with novel, fresh and inspiring designs being used for rail stations and their surroundings. Striking examples of this can be seen in the stations of S. Rosa, Dante, Municipio and Duomo (the latter under construction).

The before and after images of areas upgraded show how effective funds have been, not only for the viewing pleasure and comfort of passengers and workers, but also for the long-term growth and development of the region.

> "Metro Line 1 is a great infrastructure born to resolve the problems of city mobility. With a ring route 27 km in length and with 28 stations, the line connects the city's nerve centres: the suburbs, the residential areas, the historic centre, the port, the railway station, the administrative centre and the airport."
>
> **GIANNEGIDIO SILVA,**
> PRESIDENT M.N. METROPOLITANA DI NAPOLI S.P.A.

Buses and trains follow the same map

Away from the facades and foyers of the new look stations, travellers also benefit from new trains and buses. The buses come in 12 different types, are equipped with an integrated information system and more environmentally friendly. Some 171 will run on methane, another 22 on electricity. The new timetable and network map have also been harmonised, making it easier for passengers to plan their journeys.

Greater travel, greener roads

The RMS has already seen 43 km of new railways built, the Metro system of Naples some 66 km. The region of Campania is also now home to 59 new/renewed stations.

Passenger numbers are up in the railway network of Naples, with 75% growth recorded between 2000 and 2007. The environment also benefits, with a 22% reduction in car emissions of PM10 (particles measuring 10 micrometers or less) recorded in Naples between 2000 and 2005.

More about this project can be found at:
http://www.metro.na.it/

EU funding

€790 million

was allocated from the ERDF to Campania's Regional Metro System over the period 2000 to 2006, with another €568 million allocated from the ERDF for 2007 to 2013

Artistic creations feature in many of the revamped metro stations in Naples

A truly cosmic experience

The world's only museum dedicated to 'ethno-cosmology' has vastly improved facilities for visitors to the site, which includes a first-class observatory. Two of the three new constructions are shaped like flyer saucers, creating a unique and attractive architecture.

The public can visit a modern exhibition on astronomy, with exhibits on its origins and culture, before enjoying the views from an observation deck 12 floors higher. Open 24 hours a day, 356 days a year, the revamped site some 70 km north of Vilnius attracted 25 000 visitors in its first year of operation.

Architectural sophistication

In the late 1960s, poor conditions for observing the Vilnius night sky persuaded leading astronomers from the city's university to relocate to a site in Moletai, a rural district in northern Lithuania less affected by light pollution and dust. The astronomical observatory built there was later joined by a public museum on 'ethno-cosmology' – a new scientific discipline that situates humanity and our planet within the wider context of the universe.

When Lithuania joined the EU in 2004, managers of the Lithuanian Ethno-Cosmology Museum came up with a proposal to modernise their tourist facilities. The project was approved, with the EU contributing €4.3 million towards the total cost of €6.4 million.

Local architects drew up designs in 2006 and the reconstruction work on site began in August the following year. The original structure – exhibition premises and two tall steel towers perched atop a hill, connected by underground galleries – was left mainly unchanged.

> "The Lithuanian Ethno-Cosmology Museum, the essence of which is a human being's and humanity's relations with the cosmic world, is the only museum of its type in the world. It will surely encourage other countries to establish their own ones."
>
> **GUNARAS KARARAS,**
> DIRECTOR OF THE MUSEUM

The towers however were covered with reinforced concrete walls, to make them rigid enough to support a new ellipse-shaped viewing platform made of glass and steel. At the bottom of the towers and connected to them, a three-storey irregular truncated cone was built from cast reinforced concrete. This building now contains the administration offices. Another building shaped like a flying saucer, with a tower that mirrors the other two, was built lower down the hill to house the museum.

Observing space and countryside

Work on the Lithuanian Museum of Ethno-Cosmology was completed in 2008. Besides the new viewing platform offering superb panoramas of nearby lakes, the complex now has a modern and attractive museum displaying astronomy-related artefacts and local folk art.

Visitors can also peer through a new telescope, one of Europe's largest for public use. The redeveloped museum is expected to attract around 80 000 tourists a year from around the world.

More about this project can be found at:
http://www.cosmos.lt/ethnocosmology.html

Visitors enjoying an elevated experience at the museum

Speedy 3D prototyping and production

Complex shapes and parts can be designed and manufactured in record time, using sophisticated three-dimensional scanning equipment at the Creusot Technology Platform (IUT) – Plateform3D. Part of the Creusot University Institute of Technology (IUT) in eastern France, this high-tech centre is a place for exchanges between business and national education.

Plateform3D specialises in everything from scanning to 3D design, and from prototyping to rapid manufacturing, as well as inspection and reverse engineering. It brings together teaching establishments and research laboratories physically located near one another and which have complementary fields of expertise.

Ultramodern equipment

The area around Le Creusot, Burgundy, has a history of industrial expertise, in mining and then metalworking. Today it is home to world-class steel companies and a leading educational centre in its region, thanks to institutions such as the University of Burgundy.

The IUT Le Creusot has four departments, all with a focus on engineering and related disciplines, plus two laboratories and the Plateform3D. The campus site also includes a technical school and another university department, Condorcet, managing an Erasmus Mundus Master.

Established in 2001 and certified by the French authorities in 2001, Plateform3D was named 'PFT' (Technology Platform) in April 2008. The goal of Plateform3D is to encourage innovation and research in local businesses and small businesses. It does this by offering them completed work, training, and by providing research and development services and know-how in the field of design and manufacture of complex objects.

> "Thanks to Europe's support, Le Creusot has entered the third dimension."
>
> **RALPH SEULIN,**
> MANAGER OF THE CREUSOT TECHNOLOGY PLATFORM

In addition to the IUT, the platform calls on the know-how of several research and development units on the Le Creusot site, among them the Le2i laboratory specialising in artificial vision and the ICB laboratory dedicated to laser and materials work. It also mobilises the resources of the Léon Blum and Camille Claudel schools.

Made in minutes or hours

To provide an innovative service and education in its specialist field, Plateform3D continues to acquire the latest equipment for making three-dimensional measurements and rapidly producing complex parts. Its technicians, teachers and students call on a 3D scanner, 3D design tools, machines to produce complex shapes, and 3D measuring and inspection tools.

One of the machines to have received support from EU funding is the robotic cell for 3D digitisation. Alongside the other machines, it has been used to produce everything from spare parts for a rare 1950s car to the modelling of old machines, and the reproduction and archiving of an ancient statue for a museum.

More about this project can be found at:
http://www.plateform3d.com

Some of the equipment used at Plateform3D to rapidly design shapes and parts

Csurgó, Nagyatád, Barcs, Sellye and Siklós, Hungary

Eco-tourism flows into the Dráva River basin

The Hungarian section of the Dráva River flows 357-km through spectacular, unspoilt natural areas. The Dráva River project saw five regions and 20 municipalities work together to enhance eco-tourism development of the river area. The success of the efforts can be seen in the wide range of activities on offer, including tour paths, canoe tours, lookout towers and bird parks.

The underlying aim of this project was to develop an accessible, integrated eco-tourism product, yet at the same time preserving the environment and ensuring it continues to be respected. The project has brought the area into the limelight, opening it up to visitors and also locals who in some cases had previously been isolated. Visitor centres, activities, renovated buildings and new bridges combine to bring people and nature closer together.

Tapping into natural assets

The Dráva River is Hungary's most untouched river offering enormous potential for future tourism networks while at the same time protecting existing values. Some of the project's investments targeted the unique habitats, flora and fauna of the region, while others saw inspiration in historical sites, folk traditions, culture and art, as well as the more physical activities already enjoyed, such as horse-riding and cycling.

The official ceremony marking the end of developments took place in the restored Gyimóthy Villa, Nagyharsány. The project has established an integrated and functionally new region which, while driven by its desire to attract the attention of tourists, is also aware of the mutual benefit of working together with other regions. Some 29 settlements in Baranya County and Somogy County are enjoying the fruits of these efforts.

> "The project's real beneficiaries were the small villages, since this project was implemented in one of the most undeveloped rural parts of Hungary. The project was a perfect example of co-operation that has to be further developed in the future, notably together with the Croatian partners from the other side of the Dráva River."
>
> **ÁRPÁD SÁRDI,**
> PRESIDENT OF THE SOUTH TRANSDANUBIAN REGIONAL TOURISM COMMITTEE

An eco-treat for all tastes

The new Rinya Bridge in Barcs, Somogy County links the river pier and the swimming and recreation area, where showers, toilets and changing facilities are now provided for holidaymakers and canoeists. The new exhibition centre set up next to the scuba diving centre in Gyékényes educates and informs people about local features, such as fishing and the national park. Images and models at the visitor centre in Nagyatád also give tourists an opportunity to gain insight into the natural habitat of Inner Somogy.

EU funding

€3.3 million

was allocated from the ERDF to the Dráva River project over the period March 2006 to March 2008

In the district of Teregy, Harkány in Baranya County, an old building now houses a tourist centre, while traditional cottages in the town centre showcase the folk architecture characteristic of the region known as Ormánság. For those wanting to get a different perspective of the area, spectacular views can be enjoyed from the lookout on Mount Kopasz. Future plans include a 655-km tour trail network and habitat trail, ensuring continuous access to all five micro-regions involved in the project.

More about this project can be found at:
http://www.dravamedence.hu

Buildings forming part of the eco-tourism development project

Restoring the calm after the storm

With the possibility that climate change may result in a 15–20% increase in annual precipitation in northern latitudes, new solutions for managing urban floods and pollution problems are needed. The Stormwater project aims to mitigate the effects of excessive urban surface run-off generated from roofs and paved areas during rain storms and snowmelts. Several pilot sites have already been identified for the project, while initial lab tests conducted indicate the role of stormwater in treating pollutants.

The project explores the seasonal quantity and quality of urban run-off and the capacity of the soil to reduce its pollutant concentrations. To help with this, new equipment has been purchased, including stormwater modelling software. The project is also working towards new, sustainable water management solutions that can be implemented in Finland's urban areas.

Establishing a basis for best practice

The recently launched Stormwater project involves the Department of Ecological and Environmental Sciences, University of Helsinki, Helsinki University of Technology, and Lahti Science and Business Park Ltd. By monitoring results of pilot sites, participants can gain knowledge about the quantity and quality of stormwater run-off. Laboratory analyses of lake sediment sampling and soil sampling will also provide information on contamination risks, particularly in industrial areas and city centres, and contribute towards new best management practices.

> "The Finnish market is developing rapidly in the stormwater field and we estimate huge market potential here through legislative regulations and by screening global stormwater solutions for the benefit of Finnish companies."
>
> **ANNUKKA HAVAS,**
> DEVELOPMENT MANAGER AT THE LAHTI SCIENCE AND BUSINESS PARK LTD

Knowledge filters through

By working with local industries (including plastics and chemical manufacturers), local markets stand to benefit with real stormwater management solutions and services. Co-operation and knowledge transfer between university and municipal partners is key: practitioners present real problems to the scientific research work, while scientific know-how, notably for cold climates, helps practitioners.

Ultimately citizens benefit through better use of green space in cities, better water quality and lower risk of urban flooding. Measurement stations and a bioretention test facility serve as demonstration sites for student groups, while short courses and local exhibitions help spread the know-how.

EU funding

€770 000

has been allocated from the ERDF to 'Stormwater: in search of better stormwater management' over the period 2008 to 2011

Stormwater tackles pollutants

The pilot sites identified are located in industrial, commercial and residential land. An underground detention facility at the central park in Kouvola is expected to be built this year, as is a new stormwater management system at Korkeasaari Zoo, Helsinki. Initial laboratory results suggest that stormwater is not a significant source of industrial-related pollutants in the environment. Tests show that it is important to infiltrate stormwater through vegetation and the organic surface layers of the soil, as this enhances the treatment of pollutants.

More about this project can be found at:
http://www.helsinki.fi/ecology/lseg/stormwater.shtml

Plant equipment to help control urban flooding and pollution

New lease of life for island castle

Europe is renowned for its wonderful collection of castles, each offering unique charm. This is especially the case on Fyn Island in Denmark, where one small estate, Broholm Gods, is now offering visitors a chance to experience its stunning castle and surroundings. Changing times means that the traditional agricultural activities have became economically unsustainable. With the support of EU funding, the castle has been transformed and refurbished, adopting a new life as an exclusive conference centre.

Not wanting to lose any of the castle's historic beauty, the refurbishment work retained the original appearance and colours. Since the transformation, the project has produced direct economic benefits for the region, including new jobs and a significant boost to the castle's income, with additional annual turnover of approximately €270 000 (DKK 2 million).

Back in business

Broholm Castle, built in 1642, offers one of the oldest manor houses in Denmark and is located on the eastern side of Fyn Island. The island is the third largest in Denmark and has a population of about 450 000. Following the refurbishment efforts, the castle has now provided the island with an added attraction, the Broholm Conference Centre. This business feature has proved a wise move for the region, with turnover from the conference operations showing strong growth. The project has thus contributed to establishing a solid basis for the future economic well-being of Broholm Castle and the island's inhabitants.

> "We chose Broholm castle because it corresponded perfectly to the black universe of Café Noir. During our stay we experienced an amazing flexibility and a feeling of freedom to create an event which matched our expectations and wishes perfectly. Broholm has a unique location and amazing surroundings, both indoors and outdoors. It is the perfect location if you wish to make an extraordinary event."
>
> **LONE BRANDT,**
> BRAND MANAGER CAFÉ NOIR

Charming location attracts guests

The development of the exclusive Conference Centre included restoration of the main building which now contains stunning guestrooms and meeting rooms. In addition to the meeting activities that already take place, the historical surroundings of Broholm Castle are expected to lead to further increases in business activities through greater numbers of guests and activities. The results from the project are therefore making a vital contribution to the region's competitiveness, development and growth, notably with the creation of six new jobs.

More about this project can be found at:
http://www.broholm.dk

EU funding

€150 000

was allocated from the ERDF to the project 'Broholm Gods' over the period 2000 to 2006

Refurbished interior of former castle, now a conference centre

Dutch province curbs growing urban noise levels

A Dutch province is cutting noise levels from its roads and, in doing so, reducing serious adverse effects on human health as well as improving local residents' living conditions. It is estimated that as many as one in three Europeans is affected by road traffic noise levels above those acceptable by the World Health Organisation. Gelderland province was no exception, until recent developments turned this around.

Gelderland is the fourth largest province in the Netherlands with a population of roughly 1 975 700. Thanks to a project supported by the EU, the region is benefiting from innovative infrastructure which improves traffic conditions. The project shows that reducing noise can be about more than just making silent engines and tyres; new road surfaces can reduce overall noise output by up to ten decibels.

Laying silent roads

A noise-reducing asphalt structure has been applied along 45 km of Gelderland's roads, thereby lessening the noise burden of passing traffic on local residents. A cycling path has also been included in this new development, encouraging recreational use not just by cyclists but also by fans of rollerblading.

Ten separate strips of road were covered in neighbourhoods in Veluwe (Harderwijk, Apeldoorn), Achterhoek (Winterswijk) and Graafschap (Ruurlo, Borculo, Lochem). The din once produced by the heavy traffic that circulated on secondary roads crossing two of the region's largest natural areas has now been reduced to a whisper much, to the relief of locals and tourists.

> "Diminishing noise disturbance for better living conditions and a healthier environment – this is our new approach."
>
> **BERNARD ENKLAAR,**
> PROGRAMME MANAGER, GELDERLAND

For a better quality of life

Many western European countries are concerned by vehicular noise, especially in cities where 60% of residents are said to be exposed to noise levels exceeding 55 decibels. This is the point at which the World Health Organisation considers the onset of annoyance occurs. While people react differently to different noises, their annoyance can lead to feelings of anxiety, helplessness and exhaustion. Through the use of special asphalt mixes on concrete surfaces, environmental conditions and comfort can be improved, leading to guaranteed noise reduction for up to ten years and lessening the likelihood of annoyance caused by road traffic.

EU funding

€3.59 million

was allocated to the Silent Road Surface project for the period 2000 to 2006

Local residents' living conditions have improved due to a cut in urban noise levels

Mountains come alive in Nicosia

Despite being home to UNESCO heritage monuments, the small mountainous community of Kalopanayiotis was until recently one of many declining communities in Cyprus, due in large part to ageing and decreasing population trends. However, through the project Revitalisation of Kalopanayiotis, which saw renovation work to cultural structures, paths and monuments, these trends are beginning to reverse.

Rural and cultural tourism are now seen as one of the answers to keeping this community alive. In the past, visitors tended to stay in the community only long enough to visit its famous Byzantine church, paintings and nearby museum, before moving on to other places. Today, the community has better improved cultural and rural attractions and facilities, including a new cultural centre, which are keeping tourists in the area for longer, boosting business and contributing to the livelihood of locals.

A shining example for rural communities

Several local private enterprises involved in rural tourism activities are financed by state aid schemes, which are also co-financed by the ERDF. This support has resulted in private initiatives establishing accommodation for tourists and opening up tavernas and cafes. And, it's not just Kalopanayiotis that stands to benefit. The revitalisation of Kalopanayiotis is expected to be used as an example of successful integrated programmes for revitalising other rural communities and improving the quality of life for locals.

> "The project will be influential in the redevelopment and rejuvenation of our Community and will result in reversing the abandonment of the village, particularly by the younger generation, a trend which has been taking place over the last few decades."
>
> **MR STAVROS KAZAMIAS,**
> DEVELOPMENT ORGANISATION AND RESIDENT OF KALOPANAYIOTIS

Off the beaten track

The old stone paths of the traditional centre of Kalopanayiotis are being replaced to make getting around easier and safer for tourists and locals. Old structures are also being preserved alongside restoration work of the existing façades of buildings and traditional stone structures in an effort to attract more visitors.

A new focal point

A key feature of the revitalisation effort was the renovation of the Lavrentios residence and its conversion into a cultural centre. The aim was to provide a place where cultural events could be held by organised groups from Kalopanayiotis village and other neighbouring villages. This blend of new and old means that all tourist tastes can be catered for.

EU funding

€1.5 million

was allocated from the ERDF to the Revitalisation of Kalopanayiotis project over the period 2006 to 2008

Natural areas benefit from noise reduction efforts in Gelderland

Natural wonder comes to life on Irish coast

The dramatic and rugged Cliffs of Moher are now home to a Visitor Experience centre which opened in February 2007 with support from EU funding. The cliffs are Ireland's most visited natural attraction, and as a result of the Cliffs of Moher project, this underground centre now houses state-of-the-art facilities and an award winning exhibition – Atlantic Edge – providing a fascinating interpretation of the 319 million-year-old cliffs.

The eco-friendly project has respected the home of local flora and fauna, with protected bird species now experiencing population growth. In addition, the entire site makes use of renewable energy sources including geo-thermal and solar power, in an effort to minimise detrimental effects on the environment. With almost one million visitors every year from all over the globe, the Visitor Experience is proving extremely popular.

Setting the scene

The Visitor Centre is complemented by over 700 metres of cliff-side viewing platforms, paths, seating and steps as well as landscaped parking areas. The opening of the €31.5 million project by Clare County Council went hand-in-hand with the introduction of a visitor management, education and conservation programme. This has gone from strength to strength since its inception, with improved safety for visitors and growing numbers of educational and research visits.

A dramatic experience for visitors

Atlantic Edge is the exciting interpretive centre at the Cliffs of Moher. In the middle of the underground building, a huge domed cave contains images, exhibits, displays and experiences to thrill young and old. The dome is organised into four themed areas exploring different elements of the imposing cliffs: ocean, rock, nature and man, with interactive exhibits and displays showing their relationships with the cliffs. An aerial tour, the Clare Journey, takes place on a central screen, while a winding tunnel evokes the caves in the area, leading to a theatre and its virtual reality cliff-face adventure – the Ledge.

> "Visitors from all over the world have benefited from the improved facilities and visitor management programme at the Cliffs and since 2007 we have seen increased visits from education groups as the education programme develops and from disabled and elderly visitors as the new built environment and management plan has dramatically increased ease of access."
>
> **KATHERINE WEBSTER,**
> DIRECTOR, CLIFFS OF MOHER VISITOR EXPERIENCE

Wildlife protection

The Cliffs of Moher are home to one of the largest colonies of cliff-nesting seabirds in Ireland. The area was designated a Refuge for Fauna in 1988 and a Special Protection Area for Birds under the EU Birds Directive in 1989. Within the designated site are the cliffs, the cliff-top maritime grassland and heath, and a 200-metre zone of open water to protect part of the birds' feeding area. The area covers 200 hectares and highlights how important the wildlife is for the area.

More about this project can be found at:
http://www.cliffsofmoher.ie

EU funding

€10.8 million

was allocated from the ERDF to the Cliffs of Moher project over the period 2000 to 2006

The spectacular Cliffs of Moher are now home to a unique underground visitor centre

Empowering disadvantaged women through work

Although home to one of London's most affluent finance and business centres, Docklands, the Tower Hamlets borough is one of the most deprived areas in the United Kingdom. Thanks to an enterprising local women's training and development organisation, Account3, more than 70 businesses set up and run by women from the area were given a flying start.

The Tower Hamlets Women's Enterprise project built on the achievements of an earlier one (2002-2005), which also received EU funding. It targeted women facing multiple disadvantages in accessing paid work, training or business support activities. Today, many of the businesses it helped to create are thriving and the resulting 72 jobs are estimated to have pumped well over €1 million annually into the local economy during the project.

Stepping stones

Over half of the London East End borough of Tower Hamlets is made up of non-White British ethnic groups, including Bangladeshi, Somali, Chinese and Vietnamese communities. Yet while the area's economy has evolved significantly in recent years, many of the women from the area's less affluent migrant communities face difficulties accessing the business markets. Besides cultural and language barriers, they often lack knowledge or confidence and many also have childcare responsibilities.

The Women's Enterprise project devised a stepped programme of business design support to meet the needs of businesses that were less than two years old and run by women living in the area.

> "Supportive, helpful, informative, friendly and always there to help. Thank you."
>
> **HM,**
> PROJECT USER

These steps included 'Still thinking', 'Preparing the ground', 'Just launched' and 'Established' – guiding the direct beneficiaries in everything from business choice through to ensuring that they kept their firms healthy and growing. A business resource room was created, allowing women to work away from home, and there was marketing support for the design and production of flyers, posters and business cards.

Wealth creation

The project helped to create jobs and develop skills and business awareness in a neighbourhood where one of the biggest barriers to cohesion is poverty and exclusion. It also provided advice to other similar projects in the area and inspired the National Entrepreneurship Development Company in Trinidad and Tobago to look at gender issues and barriers in its delivery of business support.

In all, the project assisted 71 businesses – among them a ladies' fashion wear and accessories shop, a host family accommodation service for students and visitors, and a business supporting local Somali women and young girls. It also resulted in the creation of 72 jobs.

Some of the lessons learned from addressing the gap in business start-up support for women in London are now being transferred to FEAT, a project with similar aims revolving around the 2012 Olympics.

More about this project can be found at:
http://www.account3.org.uk

EU funding

€278 200

was allocated to the Tower Hamlets Women's Enterprise Project from the ERDF for the January 2005 to March 2007 period

Women in deprived Tower Hamlets, London, are given support for starting up businesses

Disused industrial park undergoes major restoration

An industrial complex built at the turn of the 20th century in the Greek town of Orchomenos by the company Lake Copais Ltd has been transformed into a multi-purpose exhibition and conference centre, serving the needs of not only the municipality but also the entire Viotia prefecture.

The new complex also hosts an important educational centre specialising in the retraining of adults and equipping young people with job skills. This is helping to boost the region's human capital as well as to improve the health of the economy.

Restoring and reusing

The disused shells of the old buildings were taken over and refurbished to become a modern centre with conference, exhibition and banqueting facilities. The financial support given by the EU and Central Greece's regional business programme was injected into restoration not just of the inside of the buildings but also the outside, creating a pleasant green space for visitors to enjoy.

The support also covered the costs of furnishing the complex – conference hall, meeting room, foyer and workshop – and equipping it with all the latest technical appliances needed when hosting conferences. The conference hall itself holds up to 75 people.

Another important role of the complex is to cut unemployment in the area. To this end, there is a school offering young people a second chance at getting an education. Marantou-Gouta Aggeliki passed her high school diploma at the centre which, in turn, helped her to find a job.

> "The conference centre was something that was missing not only from our municipality, but from the extended area around Orchomenos itself. In the short time that it has been in operation, it has already contributed substantially. One such example is with the conference organised with the national youth council to raise awareness among young people about environmental issues."
>
> **ZANNIAS GIORGOS,**
> PRESIDENT OF THE ORCHOMENOS YOUTH COUNCIL

The centre also caters for adult learning. Panou Giannis took free evening classes on computer science which has greatly helped him in his job as a physics teacher.

Educating and debating

The centre holds conferences organised by public and private associations, not just from the municipality but also from the prefecture as a whole. In addition to this, the centre attracts locals and tourists interested in the many art exhibitions held there.

While the educational establishments hosted at the complex increase the employability of the locals, the complex itself employs a workforce of just under 100 people, covering posts in teaching, admin, security and hygiene.

This project also sets an example to others in sustainability by showing the value of restoration.

Former industrial complex, now busy exhibition and conference centre

Historical river area renewed and restored

Eighty kilometres to the south of Prague is the Central Bohemian town of Písek, home to the country's oldest stone bridge crossing the river Otava. After years of neglect compounded by the floods that hit in August 2002, the area surrounding the river was left in desperate need of renovation and, importantly, of restoration.

From Písek's stone bridge to the Putim gate, the area has been completely revitalised using funding received from the EU and the Czech government. The project has transformed the place into a popular walking destination and recreation area, now playfully sporting the name of 'Europromenade'.

Renewing the old

The project consisted of completely renovating the sewage system, resulting in a much cleaner environment for Písek's 29 000 residents. What was formerly a pot-holed footpath is now a pleasant walkway, newly laid with traditional stone slabs. And, the weeds and rubbish which previously covered the Royal Castle's 13th century moat have been removed and the ground has been turned into a vibrant park, open to the public after 164 years.

Buildings on the verge of collapse have also been refurbished. The former Malthouse, a forgotten industrial landmark where barley grains for making beer were soaked in water and dried, has been fully renovated after lying empty since 1973. The original wooden structures have been refurbished and the building is now used for cultural and social events. Concerts, seminars, workshops and temporary exhibitions are all now housed in the complex's six purpose-built halls.

> "The moment when our project was granted the funding from the EU proved to be one of the brightest moments in the recent history of our town."
>
> **LUBOŠ PRŮŠA,**
> THE FORMER MAYOR WHO WAS IN OFFICE WHEN THE PROJECT WAS UNDER WAY

Children are drawn to the Malthouse for its permanent exhibition showing fairy tale illustrations and giving them the opportunity to try out a string of interactive games.

Fit for tourists

The splendid views along both sides of the River Otava can now be enjoyed by all, without the eyesore of run-down buildings and neglected land. In addition to the medieval stone bridge, visitors also get views of the historical hydroelectric power station built by the Czech electrical engineer and inventor, František Křižík, in 1888.

The Europromenade leads visitors along the river below the walls of the Royal Castle and up to the fortification and the Gothic moat. Since the project restored the area, this walkway has become increasingly popular among residents and tourist alike.

A once neglected riverside becomes a haven for recreation

Revamped stadium lights up Maribor skyline

Stadiums are often striking landmarks in towns and cities, due partly to their dominance of space and also because they provide a community meeting point for sports, music and cultural events. Supported through EU funding, the city of Maribor, Slovenia, has embraced this notion in the reconstruction project for 'Ljudski vrt' stadium, home ground of the football club NK Maribor. The result is a modern, comfortable complex, with capacity for some 13 000 spectators.

The stadium was first built in the 1950s, but as with many large constructions, time eventually leaves its mark and the stadium was soon in need of a boost. The decision to revamp the stadium has benefitted the region in terms of both the stadium's aesthetics and also the positive impact on local businesses due to the increase in the number of spectators and visitors now attending events.

Culture and sport take to the field

The stadium has been a central focus of sporting and cultural life in Maribor and the Podravje region ever since it was first built some 60 years ago. Over the years, it has become one of the most recognisable sporting landmarks in Slovenia, notably due to its connection with the successful local football team. Located on the banks of the river Drava, the Ljudski vrt stadium is an ideal setting for attracting spectators, and not just for sporting events. With high quality acoustics, the facility is suitable for musical events and other cultural performances, such as the 2008 performance of the musical 'Zorba the Greek' which was attended by 6 000 people.

> "This modern sports, recreational and event facility adds a new attraction for tourists visiting Pohorje and Maribor, giving a boost to related business sectors such as accommodation, restaurants, shopping and transportation."
>
> **MR EMANUEL ČERČEK,**
> REPRESENTATIVE OF THE MUNICIPALITY OF MARIBOR

Business benefits

The decision to overhaul the stadium played a key role in the development of the town and region. The combined efforts of the local community and central government have proved fruitful, with close co-operation resulting in what is now a state-of-the-art sports facility, built to European standards and ready to host international football matches, including 2010 World Cup qualifications. Apart from the direct employment at the facility, the stadium and its surroundings provide further opportunities for boosting local business. There is now better accommodation on offer, new eating places at the stadium and user-friendly parking services, all examples of the positive multiplying effects of the project.

More about this project can be found at:
http://www.nkmaribor.com//dokumenti/dokument.asp?id=342

EU funding

€3.3 million

was allocated from the ERDF to the reconstruction of the Ljudski vrt Maribor stadium over the period June 2006 to the end of 2007

View over the modern 13 000-seat stadium in Maribor

Metro do Porto enhances citizens' mobility

A new light rail system has proved very popular with passengers, carrying as many as 50 million in 2008 around Portugal's second largest city and the surrounding area. In the same year it was awarded a prestigious international prize for its creativity and design as well as its contribution to urban renewal – especially of the historic centre.

The first trams began running in December 2002 and the metro system has now grown to include five lines, 70 stations and some 60 km of track. Neatly complementing bus and suburban public transport networks, the system has significantly increased mobility in the metropolitan area.

Linear expansion

Oporto in northern Portugal has a metropolitan population of some 1.5 million. Plans to improve travel services to them were developed in the 1990s, focused on upgrading the city's transport network with a new light rail system running underground in central areas and overground in the suburbs. Priority was given to linking the new system with other means of transport, particularly the connection to the airport and the two main railway stations.

Initial work involved construction of an underground section between Campanhã railway station and the system's main hub, Trindade station. In some areas, existing train lines were converted for use by the modern 70-m long trams. Regular passengers were first carried in December 2002 and the system was completed in 2006.

> "The new system is faster and more comfortable. Since I started taking the Metro do Porto System instead of using my car, I arrive earlier in the city centre and don't have to worry about parking."
>
> **ANA MAGALHÃES,**
> PASSENGER

Almost 40% of the project's finance came from the ERDF, under Portugal's regional North Operational Programme for the 2000 to 2006 period. The project also received funding from the Cohesion Fund (€68 million) and loans from the European Investment Bank.

Mobility for all

The project resulted in the construction of 57 km of subway line, 37 new surface stations and 11 underground stations as well as renovation of 10 stations. The Oporto light rail system is proving highly popular for its fast, reliable, comfortable and environmentally sustainable travel, carrying around 200 000 passengers daily. In 2007, around 48 million passengers made use of it – up by almost 25% on the previous year.

In June 2008, the International Association of Public Transport (UITP) distinguished the Oporto system with the Light Rail Award 2008 for 'best new realisation'. The award goes to light railway systems around the world displaying creativity and good design. Judges highlighted the project's integrated approach in terms of conception and construction, based on accessibility, design and information for passengers. They also praised the system's overall architecture and design.

More about this project can be found at:
http://www.metrodoporto.pt/en

Oporto's light railway makes for speedy travel

Plan rescues ravaged castle

The richness of Prague's historical heritage is now plain for all to see thanks to a carefully crafted plan by Prague City Council. This plan to restore and preserve the Chvaly castle and its surrounding area has brought new life to an area long considered derelict. The growing pressure to erect new buildings has ceased as the historical and environmental value of the place are now clearly recognised.

Citizens and tourists are benefiting from the new development as it brings local history to life and offers new cultural and social opportunities. Investors are also eager to build on the success of the plan and tap into its economic potential.

Restoring the site

The Chvaly site was preserved to serve the dual function of historical and cultural interest. Throughout, the works were carried out so that the new would complement rather than compete with the old.

To accommodate visitors, new infrastructure was put in place such as roads and parking facilities. State-of-the-art technology was used to equip the buildings. This included fitting motion sensors and electronically controlled boilers. A garden was also planted to make the castle grounds more attractive.

The castle is now a popular destination for cultural events and contributes to the quality leisure time spent by the inhabitants of Horní Počernice and the adjoining city boroughs. Exhibitions, concerts, musical festivals, theatre performances, discussions, lectures and weddings, are all regular activities being held at the castle.

> "One day, back in the nineties, I reflected on the sadness of the devastated Chvaly Castle walls. I was wondering if ever it could become an architectural gem. My colleague said: 'Only a miracle could save it!' And, dare I say, the miracle has happened! Chvaly castle is experiencing revival, one which I hope will last for many years to come."
>
> **MR IVAN LIŠKA,**
> MAYOR OF HORNÍ POČERNICE

Several partnerships serve to publicize these events, such as that with City Borough Prague 14 which covers the cultural listings on a regular basis.

Tapping into the economic potential

The successful renovation of the Chvaly castle provides not only for an improved and more accessible offer of cultural events in the city borough, but also taps into the economic potential and value of the entire Horní Počernice area.

The aim – which the castle is well on its way to achieve – is to become economically self-supporting. It is doing this by renting out its premises for social and business events. Schools are also using the place as a cultural centre, bringing students along for exhibitions and shows.

So far, seven new jobs have been created through this project.

More about this project can be found at:
http://www.chvalskyzamek.cz/

EU funding

From September 2006 to June 2008, the Chvaly castle renovation project received

€1.48 million

from the ERDF

Preserved castle hosting different cultural activities

A rock-solid attraction

The Maltese Islands are said to be the site of the world's first freestanding stones, some 5 000 years old. A thriving visitor attraction southwest of the capital Valletta highlights the culture and heritage still to be seen in the nation's various buildings, monuments and artefacts hewn from honey-coloured limestone.

The Limestone Heritage, Park and Gardens project helped to enhance the existing site and features, including a digital update to the audiovisual show for visitors from around the world. It has also brought valuable new jobs to a rural area where employment has experienced decline over recent years.

Gap in the market

The Limestone Heritage is a family-run 'living exhibition', opened in May 2002 by Manuel Baldacchino with the support of his wife, son and daughter. It lies on the outskirts of Siggiewi village, close to a number of the nation's other top tourist attractions.

The museum/park came about from a desire to contribute to the preservation of Malta's heritage, by offering an insight into the key role of limestone. It traces the origins of the stone some 20 million years ago when the Maltese archipelago came into being, as well as the development of stonemasonry, traditional architectural features, and some of the tools and crafts associated with them.

> "We found funds from the EU very helpful in improving our services and making the attraction better value for money. The Limestone Heritage, Park and Gardens can now give its clients a better and more professional experience."
>
> **MANUEL BALDACCHINO,**
> MANAGING DIRECTOR

The many exhibits and amenities found on the site are designed to familiarise visitors with every aspect of limestone. After taking in the modern visitors' centre, they can walk across an ancient fossilised seabed, admire the internal structure of a typical Maltese farmhouse, and learn from a master craftsman about the back-breaking craft of stonemasonry. Further attractions include a 200 BC Roman/Punic tomb, discovered only recently on-site, a 10-metre waterfall, and examples of the heavy machinery used in the stone industry. The park has also been extended with the opening of a citrus grove, with rows of fragrant lemon and orange trees, offering a safe haven for local animals.

Enhanced visitor experience

Supported by EU and Maltese co-funding between 2004 and 2006, the Limestone Heritage exhibition was enhanced in several ways. The walk-through pathway was given new stone 'cantagura' slabs and more fitted display cases were added. The visitor centre received a new multilingual audiovisual system with cinema-style seating, a digital projector and energy-efficient lighting. The show was also digitised to enhance its quality and the website made more attractive.

EU funding

€21 400

was allocated to the Limestone Heritage project from the ERDF for the 2004 to 2006 period

The project's latest work has paid handsome dividends. In 2008, it welcomed some 58 000 visitors, many of them schoolchildren, and was ranked second in Malta's Best Visitor Attractions. The site also hosts cultural events such as concerts and folk dancing, and won an environmental award for industry in 2005 and a national award in 2007 for 'best tourist shop'.

More about this project can be found at:
http://www.limestoneheritage.com

Stonemasonry on display at visitor attraction

Alpine sentinel stands tall again

A long-abandoned 11th century fort in the Aosta Valley has been restored to its former glory and become a major tourist attraction and cultural centre. The historic site now offers three museums and a five-star hotel – a welcome boost for a mountainous region deeply affected by a declining industrial sector.

Under the regeneration of the Bard castle project, the site benefited from some €11 million in EU funding from 1996 to 2006. The goal was to restore a ruined fort to resemble the military building that had withstood an attack by the French army in 1800. Just an empty shell in the mid-1990s, the newly restored site drew some 80 000 visitors in 2008.

Full restoration

The imposing Bard fort dominates the narrow gorge forming the Eastern approach to the main valley floor of the Aosta Valley, at Pont Saint Martin. A castle since the 11th century, Bard was later turned into a military fort. In 1800, an enraged Napoleon ordered the fortifications be razed to the ground, after they had held up his army for two weeks. Bard was rebuilt as a military fort, but fell into disrepair in the 20th century.

Bard appears somewhat isolated today. Yet a quick glance at a 19th century map of the area shows that it was once part of a network of forts lining the former Savoy region's borders with other countries.

> "We have created many jobs in the fort and in the valley's villages, thanks to the project's overall appeal for tourists."
>
> **SILVIA COLLIARD**

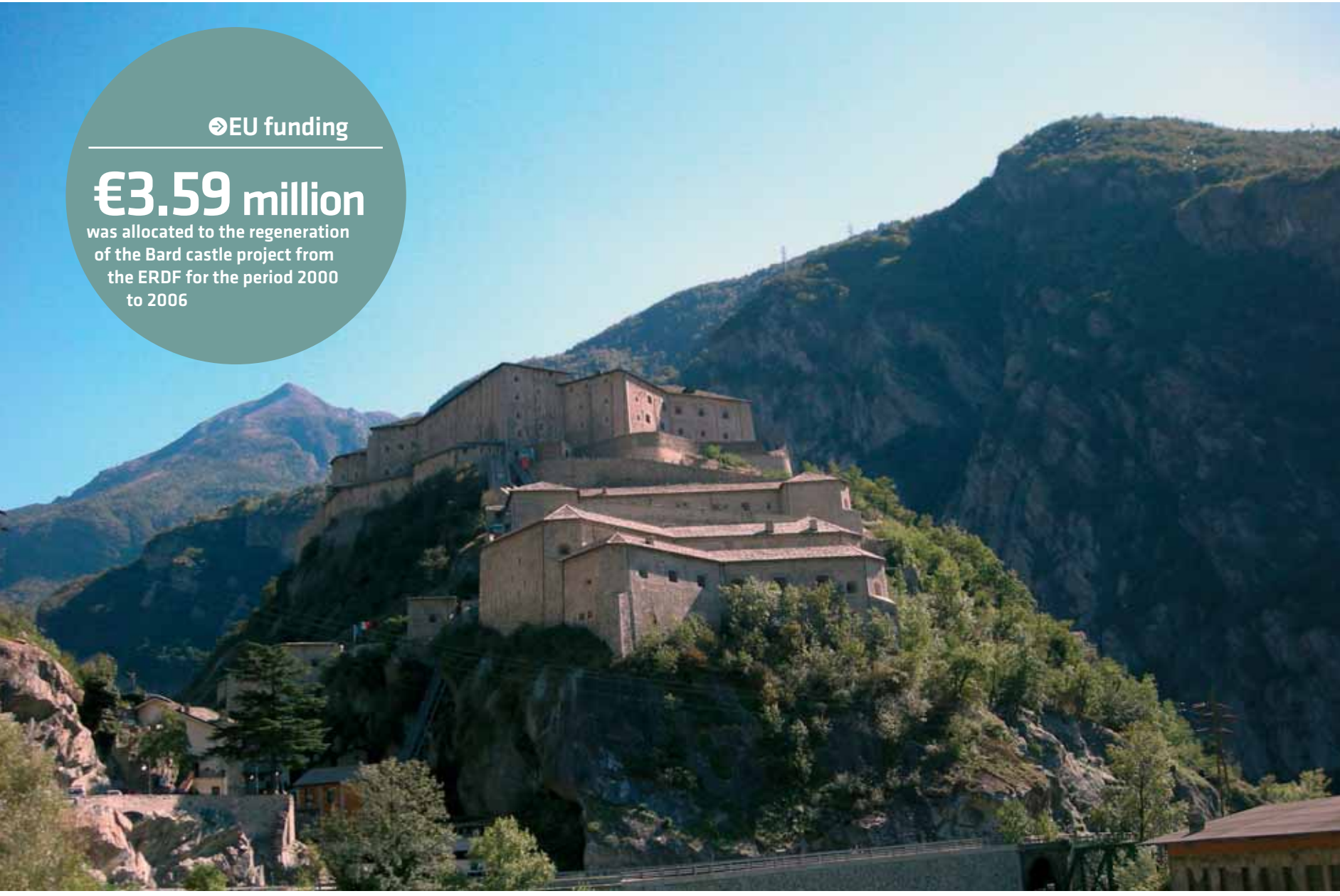
Since taking over the fort in 1990, Italy's Aosta Valley region has been engaged in the immense task of restoring its walls, roofs, rooms and even the road leading up to the building. It was reopened to the public in January 2006, after 13 years of work funded by the EU, the Italian State and the region.

Tourism and culture centre

Covering some 14 000 square metres, the site features three museums. The first to open was the state-of-the-art Museum of the Alps, which aims to stimulate visitors' appreciation and understanding of Europe's highest mountains and local nature. This was followed by the Fort Museum and the Frontier Museum. It also has 3 600 square metres of exhibition space aimed especially at children, and over 280 rooms.

Further attractions include a small luxury hotel, a restaurant and souvenir boutique. Access to the fort is via modern glass lifts and by road.

The fort is making a name for itself as a cultural venue. It has organised several temporary exhibitions, starting with 'The Alpine Dream' that was included in the cultural events for the 2006 Turin Winter Olympics. The site also regularly hosts large events that range from concerts to theatre performances. The project receives further EU funding from 2007 to 2013.



EU funding

€3.59 million

was allocated to the regeneration of the Bard castle project from the ERDF for the period 2000 to 2006

Spectacular setting including the restored Bard Castle

A breath of fresh air for Baltic arts and crafts

Traditional arts and crafts along the Kurshi coastline have experienced a revival in recent years, partly as a result of European funds. The project Craft on the Baltic Coast set out to promote entrepreneurship and tourism in the region by drawing on the wealth of skills among local artists and craftspeople. During the project, some 20 000 people attended art and craft fairs and exhibitions, while more than 100 artists and craftspeople benefited from training sessions which included business and marketing.

With mass manufacturing of technologies on the rise, the craft industry in Latvia and Lithuania had been struggling to compete. However, local craftspeople and artists were still eager to use the talent, work methods, traditions and knowledge inherited from their ancestors and to pass these on. The project saw the Northern Kurzeme Craft Centre (Ventspils) and Klaipeda Arts and Craft Quarter reconstructed for this purpose and also for boosting employment and tourist numbers in the region.

Passing the baton

Four key partners were involved in this project: Ventspils City Council (LV), Ventspils Craftsmen Union (LV), Klaipėda City Municipality (LT) and Klaipėda Culture Communication Centre (LT). Efforts focused on ensuring that skills acquired by locals over several generations would continue being passed on. Training sessions were organised in Ventspils and Klaipeda and covered entrepreneurship, cultural preservation, craft history, art and design. Participants had the opportunity to join study visits and take part in workshops in an effort to boost competitiveness and promote local products in the market.

> "By creating new tourism destinations and events related to traditional Couronian craftsmanship, notably at the North Kurzeme Crafts Centre in Ventspils and the Arts and Crafts Square in Klaipeda, public interest in traditional Couronian art and culture has increased, ensuring that knowledge and skills will be passed on to the next generation."
>
> **ALDIS ABELE,**
> EXECUTIVE DIRECTOR, VENTSPILS CITY COUNCIL, LATVIA

The word is out

The project benefited some 582 craftspeople and artists, with an estimated total of 100 000 people informed about the project. This included the production of two video films (one for Latvia, one for Lithuania) with 150 copies distributed, and the purchase of 15 information stands for use at exhibitions. Press conferences were also organised and complemented by articles published in local, regional and national newspapers, alongside reports and promotional posters. Ten travelling exhibitions were held in Ventspils and Klaipeda and included craft displays, exhibitions, competitions, fairs and thematic days.

EU funding

€1 million

was allocated from the ERDF to the project Craft on the Baltic Coast over the period March 2006 to December 2007

A new lease of life

The impacts of the project set the scene for a healthy future. The industry has seen an increase in the level of employment in the Kurzeme and Klaipeda regions, a rise in the level of their income, less of an income gap among craftsmen and applied artists, greater tourism activities, preserved traditional Kurshi art, and wide-scale economic development in the two regions.

Traditional craft work alive and well courtesy of the Baltic Coast project

Revealing the local magic

The BESST project (Business and the Environment linked through Small Scale Tourism) is based on an innovative approach to developing the tourism potential of rural and urban areas transnationally in the UK, Norway and Sweden. The aim includes preserving local identities, restoring prosperity and ensuring environmental protection. Guidebooks, heritage walks and fish farming are just some of the inspiring results of BESST.

Traditional industries in the North Sea region have suffered a major decline in recent years, and following on from this, less investment and job opportunities. By following the project notion of a 'virtuous spiral', as opposed to a 'vicious circle', local businesses, authorities and citizens are rediscovering the magic, beauty and economic potential of their surroundings.

Regional revival

The project covers a mix of rural, urban and lakeland areas. However, one thing they all have in common is unique tourism potential. This has since proved to be a driver of new business activities, such as the 'Meet the Bees" tourism destination in the Peak District National Park, England, attracting curious visitors from far and wide. The virtuous spiral approach has unveiled what is special in the region and is illustrated in the practice guidebook 'Special Places, Special People', a publication also promoted through regional, national and EU policymakers.

> "BESST has been both an inspiration and a source of enthusiasm and has contributed to our success."
>
> **FELICITY BROWN,**
> HOE GRANGE HOLIDAYS, PEAK DISTRICT, ENGLAND

Paving the way to dynamic growth

Farmers, shopkeepers, craft workers and construction companies are actively engaged in looking towards new horizons for growth and development. BESST project leader, Ken Parker, believes BESST has revealed the magic of the region, with people finding inspiration to follow through on their ambitions, all the while complying with strict guidelines, including quality standards. For instance, the Information Octagon in Femsjö, Sweden was built to benefit visitors and local communities as it tells many stories of Femsjö's history which in turn offers opportunities for businesses to make the most of, while in Fyresdal, Norway, what was once a traditional farm has now been converted into a fish farm and includes a shop for visitors offering local products. In the United Kingdom, hotels, pubs and restaurants have also been encouraged to use new walks developed by local authorities as part of their marketing strategy to customers and guests.

EU funding

€1.05 million

was allocated from the ERDF to BESST over the period September 2003 to March 2008 as part of the Interreg IIIB North Sea region programme

It doesn't stop there

At national level, the project has been recognised as one of the reasons for population growth and positive development in Fyresdal, Sweden. Due to its transnational and cooperative approach, international exchanges were designed to stimulate the range of activities simultaneously held in three places and to allow the partners to share the lessons learned. Looking ahead, links between the three regions, creative business solutions, social networks and economic dynamism look set to continue in an upward spiral.

More about this project can be found at:
http://www.northsearegion.eu/iiib/projectpresentation/

Tourism in rural and urban areas actively promoted under the BESST project

Bridge unites communities on the Iberian Peninsula

The recent construction of an international bridge linking the province of Huelva with Alentejo, in southern Spain and Portugal, is bringing benefits in the form of more efficient transport connections and new opportunities for economic and social development for businesses and approximately 50 000 residents. The distance between the two towns has been dramatically reduced from 138 km to just 12 km.

February 2009 saw the inauguration of the 140-m long, 11-m wide bridge linking the Portuguese town of Pomarao with the new provincial motorway HU-6400. This new motorway as well as other features including the widening and improvement of nearby motorways, new signposting and environmental redevelopments have been backed by local authorities and European funding and are part of an overall redevelopment strategy in the region.

Recognising human and environmental needs

The regions of Andalusia, Spain and El Alentejo, Portugal are today able to enjoy better communication links now that the new bridge built over Chanza River is fully operational. This is in fact the third motorway link between Huelva province and neighbouring Portugal, adding to those already existing through Ayamonte and Rosal de la Frontera. Flora and fauna were not forgotten during the construction, with developments taking into account environmental concerns.

> "We're going to see differences in commerce, in fact in all areas, tourism, social life, economics, politics."
>
> **JUAN M. BURGA,**
> MAYOR OF EL GRANADO, SPAIN

Celebrations for growth and prosperity

The February 2009 inauguration of the bridge was attended by local and national authorities from both Spain and Portugal. The significance of the bridge in terms of economic and social development cannot be underestimated, as the tourism, agricultural and commercial sectors rely heavily on improvements to infrastructure such as this. On the social side, for locals who for centuries have hardly known each other, the bridge has effectively made them new neighbours.

Boost for tourism

Tourists and tourism operators in particular stand to benefit from the new bridge in terms of reduced travel times between the two countries, particularly during peak seasons. For example, Mértola, the main Portuguese town in the region and a source of cultural and archaeological treasures for tourism, now finds itself less than 20 minutes from El Granado and a little over half an hour from Huelva.

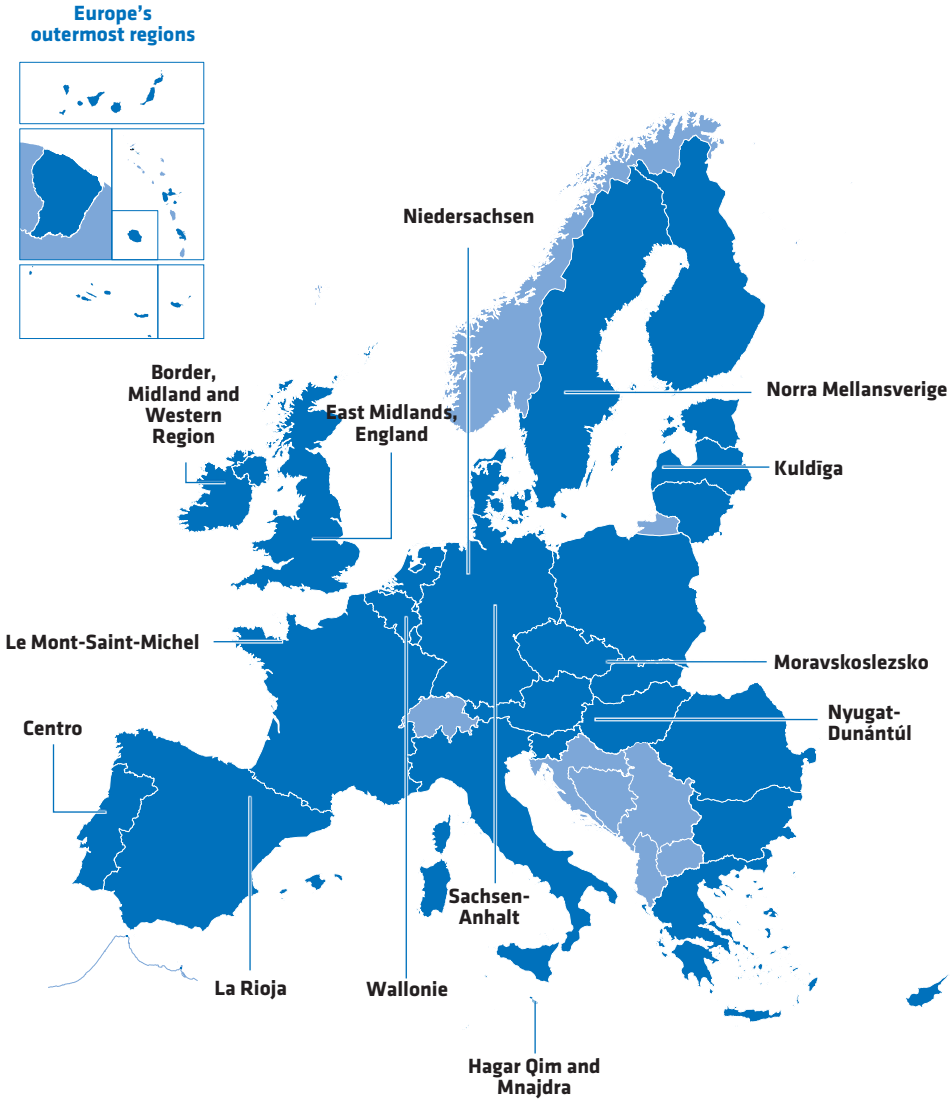
More about this project can be found at:
http://www.elgranado.es /

EU funding

€3.18 million

was allocated from the ERDF to the Puente Internacional del Bajo Guadiana Internacional project over the period 2000 to 2006

Dramatic view over new bridge linking Portugal and Spain



Aljubarrota, Centro, Portugal: Famous battle site returns to the spotlight

Boyle, County Roscommon, Border, Midland and Western Region, Ireland: New lease of life for major Irish landmark

Bramsche, Niedersachsen, Germany: Battle site hosts visitors centre

Gävle, Norra Mellansverige, Sweden: Traditional Swedish ship takes to the seas again

Hagar Qim and Mnajdra, Malta: Ancient temples saved by protective shelters

Kuldīga, Latvia: Restoration produces eye-catching bridge

Le Mont-Saint-Michel, Basse-Normandie, France: Mont-Saint-Michel gets a facelift

Leicester, East Midlands, England, United Kingdom: Culture takes centre stage in Leicester

Liège, Wallonie, Belgium: Newly refurbished Curtius museum reopens to the public

Pannonhalma, Nyugat-Dunántúl, Hungary: A tourism gem in the Hungarian countryside

San Millán de la Cogolla, La Rioja, Spain: Researchers delve into the fascinating world of Spanish

Soláň, Moravskoslezsko, Czech Republic: Centre lays firm foundation for rural tourism

Wangen and Mittelberg, Sachsen-Anhalt, Germany: German countryside reveals the mystery of stars

Territorial Co-operation

LV and BY: Homegrown talent inspires cultural industry

FR, IT: Alpine forts the focus of renewed development

Tourism and culture

Europe is the world's leading tourist destination. Consequently, tourism often plays a key role in underpinning the economic development of many European regions. Closely linked, the creative industries, spanning everything from cultural heritage and the arts, to media and design, have also emerged in recent years as one of the most dynamic economic sectors in Europe. To harness this potential, EU regional funds provide support to improve the quality of tourism at regional and local levels, to encourage more sustainable patterns of tourism, and to forge greater links between business and culture to transform untapped creative resources into growth.

Between 2007 and 2013, more than €6 billion will be made available to support the development of tourism from EU regional policy funds. €3.8 billion of that is to be spent on improving tourist services and €2.5 billion on the protection, development and promotion of natural heritage. A further €6 billion will also be invested on activities to preserve cultural heritage, develop cultural infrastructure, and support cultural services. Improving cultural and tourism infrastructure contributes to local development by creating jobs often in areas otherwise experiencing industrial or rural decline, and helps bring new investment to a region.

Projects such as Arche Nebra development in Saxony Anhalt in Germany show how regional funds can help a hard-hit region bounce back. By creating a multimedia visitor centre where the bronze Nebra Sky Disc was discovered, many more tourists have been attracted to the region, which is also having a knock-on effect on the economic growth of the area. Another project highlighted overleaf is one of France's most recognised monuments, the Mont-Saint-Michel. This famous site has benefited from EU regional funding to help restore both the surrounding landscape and architectural heritage. By promoting sustainable tourism, and getting it right, EU regional funds can also help to ensure the preservation and enhancement of Europe's cultural and natural heritage.

Famous battle site returns to the spotlight

A new interpretation centre on a 14th century battle that changed the course of history has opened to universal acclaim in Centro, a region known as 'The heart of Portugal'. The centre stands next to a fine monastery, recently rehabilitated, which was built after the battle to commemorate Portugal's famous victory over Castile.

Located 120 km north of Lisbon, the Aljubarrota interpretation centre and monastery form an integrated tour for visitors. They are expected to attract over 100 000 visitors annually by 2010, boosting tourism and the local economy.

New interpretation centre

Centro is one of Portugal's least well-known regions and often struggles to attract visitors. Yet it is surrounded by World Heritage sites and has plans for a tourist trail taking in the renowned religious site of Fatima.

East of Fatima stands the Aljubarrota battle interpretation centre (CIBA). It was opened in 2008 after work to adapt the military museum that had stood there for over two decades, with EU co-funding for half of the total project cost. The Aljubarrota Battle Foundation invested €10 million in the project, with support from the government and patrons.

The centre's focus is the 14 August 1385 battle, when a small Portuguese force defeated a larger Castilian army, with help from English archers. The victory resulted in Portugal's independence as a nation and cemented the Anglo-Portuguese Alliance – still the world's oldest.

> "This high-quality cultural project has a major impact on the economy of a region that has long been affected by low investment from central government. It also provides job opportunities for young professional staff, preferably locally recruited, with high university qualifications."
>
> **SAUL ANTÓNIO GOMES,**
> ASSOCIATE PROFESSOR OF COIMBRA UNIVERSITY HUMANITIES FACULTY

Aspects of the battle are explored in modern multimedia, including a dramatic 30-minute film that sets the event in the context of the period. The centre also features an exhibits area on the battle, highlighting related archaeological features and artefacts. Among the other rooms are a temporary exhibit area, shop and restaurant.

A few kilometres south lies the Batalha Monastery, erected in the gothic style three years after the battle to celebrate the Portuguese victory. It was the Portuguese monarchy's main building project for the next two centuries, though it no longer functions as a religious centre.

Education is key

Since opening in October 2008, CIBA has welcomed over 40 000 visitors. One third of these are local students, taking advantage of educational programmes and services, to which 1 500 m² are devoted.

A second interpretation centre that is linked to the same battle is now being planned.

More about this project can be found at:
http://www.fundacao-aljubarrota.pt/?action=22

EU funding

€2.7 million

was allocated to the Aljubarrota battle interpretation centre (CIBA) project and €824 800 to the Aljubarrota monastery from the ERDF for the 2000 to 2006 period

A place for visiting the past

New lease of life for major Irish landmark

Lough Key boasts one of the most extensive and picturesque forest parks in Ireland, covering 324 hectares on the west coast of Ireland, 40 km southeast of Sligo. The spectacular views, abundant wildlife, historic buildings and evocative islands draw in many visitors and have done so for centuries. The area is steeped in history from Neolithic and Bronze Age settlements, Cromwellian settlements of the 17th century right up to 1957 when the King family residence was destroyed by fire. The estate was taken over by the Irish State in the late 1950s.

Major development of the site, made possible by EU funding, has brought a cluster of unique attractions adapted to the needs of 21st century visitors, offering a new lakeside centre which forms a gateway to an array of action-packed activities as well as more leisurely pursuits. As a result of this transformation, visitor numbers rose to 57 000 in 2008.

Activities galore

The idea to embellish the Lough Key forest park originated locally and culminated in the creation of a joint venture between Ireland's forestry board, Coillte Teoranta, and Roscommon's county council. The project entailed a string of innovative developments, all set along the side of the lake.

A 300-metre-long treetop walkway – the first in Ireland – that stands 9 metres tall allows visitors to immerse themselves in the history, flora and fauna of the area from a great vantage point. In contrast to these panoramic views are the 19th century underground tunnels, once used by servants, which lead from the quayside to the cellars of the estate.

> "A magic place – we all love it – it was great fun. The staff were excellent to us. The children learned a lot about the history and love the Boda Borg – we'll be back again!"
>
> **AISLING PROJECT,**
> BALLYMUN, DUBLIN

An adventure play kingdom provides a stimulating play area for children with its towers, slides, climbing frames, roundabouts and swings. And, the Boda Borg challenge tests its adult participants' ingenuity and teamwork skills in a number of instruction-free puzzles.

The Lough Key experience

The Lough Key experience enables visitors to discover and engage with the park's history, ecology and nature. The range of activities on offer, since the park officially opened in 2007, has enhanced Lough Key Forest Park's status as a major tourist attraction in the region.

The new developments were all designed in such a way as to minimise any adverse visual and environmental impacts. The whole structure blends easily with the forest and is open for all to enjoy.

More about this project can be found at:
http://www.loughkey.ie/

Activities on offer at Lough Key forest

Bramsche, Niedersachsen, Germany

Battle site hosts visitors centre

Eye-catching springs to mind when describing the visitors centre recently built on the site of the Battle of Varus in Lower Saxony. To date the new centre has welcomed some 150 000 people who have marvelled at the stunning cubic architecture of the building and enjoyed many exhibitions, notably 'Conflict', a look into archaeology and old Germanic tribes.

The centre is located at the entrance to Kalkriese Museum and Park, adding to the cultural attraction of the region for local and foreign tourists. The centre covers an area of 860 m² and has been designed to cope with large exhibitions and events.

History in the making

The visitors centre, Kalkriese Museum and Park, archaeological research and historical battle site together offer a unique attraction where the fascinating history of Germany and Europe comes alive. Since its opening in 2009, thousands of visitors have passed through the doors.

A cash desk, shop and facilities can be found in the centre, with exhibition halls on the first floor. One special exhibition 'Conflict' was part of several archaeological exhibitions and featured the Varus battle fought 2 000 years ago. It introduced visitors to the Germanic tribal world of the 1st to 5th century AD. The wide array of exhibitions planned for the future looks set to continue drawing visitors in.

> "Without the new visitors centre, we would never have been able to meet the technical requirements of the curators for showing extraordinary exhibitions such as the award-winning Conflict exhibition and its display of precious archaeological finds. The whole region and the country can profit from the new and high-class cultural facility."
>
> **DR JOSEPH ROTTMANN,**
> MANAGER, KALKRIESE MUSEUM AND PARK

Behind the scenes of construction

Swiss architects Gigon/Guyer, already with a proven track record through their designs of the museum, took care of the planning together with the Osnabrück planning office pbr Rohling. The general contractor was the company Hermanns from Kassel. In total, a staggering 10 000 m³ of space was enclosed by reinforced concrete.

One of the most impressive moments during the construction phase was the installation of the ceiling when a total of 40 ceiling segments, the largest 18 m in length, about 1 m wide and some 13 tons in weight, were added. A 150-ton truck-mounted crane hauled the concrete and steel parts bit by bit over the trees to position them, that in itself a breathtaking sight for visitors.

More about this project can be found at:
http://www.kalkriese-varusschlacht.de

EU funding

€1.5 million

was allocated from the ERDF to the project 'Construction of a Visitors Centre Varusschlacht Osnabrücker Land' over the period July 2007 to March 2009

Once the scene of a battle, now home to a stunning visitor centre

Traditional Swedish ship takes to the seas again

When a long retired 19th century sailing ship known as the 'Gerda' was dynamited in 1959, it seemed as though the era of the 'brig' was over. Yet five decades later, this elegant wooden vessel with square sails on each of its two masts has returned to duty in the form of a replica in the port of Gävle, Sweden.

The new ship is a close copy of the Gerda, which spent 60 years hauling cargo around the Baltic and North Sea. It is also the first wooden sailing brig to have been built in Sweden for over a century and owes its existence to enthusiasts and numerous sponsors.

Retired then reborn

Scandinavia's last commercial brig made its maiden voyage in July 1869, travelling from Gävle on the Baltic Sea to Grimsby, England. She later enjoyed a busy career, with several different owners, crisscrossing the seas laden with coal, timber and iron.

After 60 years of service, the ship became a financial burden. The Gerda was retired in 1936 and turned into a museum ship in Gävle. She was scrapped in 1959.

In 1984, a small group of maritime fanatics decided to build a copy of their favourite old ship. Construction of the new 'Gerda' was a labour of love, starting within the community of Gävle before developing into a project that involved hundreds of people and groups further afield.

> "The Briggen Gerda ship visits its ports in the Baltic Sea as a representative of an old sailing tradition in commercial shipping. She also represents Gävle as an old maritime city, attends events and offers sailing trips to the public in ports she visits."
>
> **BERNDT ADETOFT,**
> CHAIRMAN OF THE ASSOCIATION BRIGGEN GERDA

Many of the 'workforce' were volunteers or local unemployed. Some 300 private companies also came onboard as sponsors, supporting the project with funds, materials or know-how.

Without a manual, the designers and builders often had to consult a scale model and old photos. The new ship's keel was laid in September 1995 in Gävle, at a yard not used for shipbuilding for three decades. The finished vessel, Gerda Gefle, was launched in July 2000.

Maritime ambassador

The new Gerda has 30-metre masts, ten beams and 625 square metres of sail. It is the only brig in Sweden today, making short voyages from Gävle and longer trips around the Baltic. Since her launch, she has carried several thousand passengers and made over 100 stops along the Swedish east coast.

The new brig is not an exact copy of the original, as she is designed for passengers rather than cargo. Besides 16 sails, she also has modern facilities such as a 500-horsepower diesel engine and satellite navigation. Very popular with the public and media, she is now a sort of floating youth hostel, capable of feeding 100 guests a day and accommodating 25 passengers overnight. The Association Briggen Gerda ably supports her, with more than 1 000 paying members.

More about this project can be found at:
http://www.briggengerda.com

EU funding

€780 000

was allocated to the Brig Gerda in Gävle project from the ERDF for the 2000 to 2006 period

Swedish ship replica floats proudly in the port of Gävle

Ancient temples saved by protective shelters

Two Maltese megalithic temples showing signs of wear and tear have been covered by temporary shelters. To ensure their long-term conservation, Hagar Qim and Mnajdra now stand beneath soaring and elegant steel and fabric structures, which also offer welcome shelter to visitors on hot or rainy days.

Located on Malta's southern coast, these temples make up two of the six on the island registered on the UNESCO World Heritage List and directly managed by Heritage Malta. A new visitor centre has also been set up nearby.

Tall tents

Separated by some 500 metres, the limestone temples of Hagar Qim and Mnajdra date back to the period 3600-3200 BC. Since their excavation in 1839 and 1840, they have attracted thousands of visitors – who marvel at their neatly arranged massive stones and walls. They are the first stone buildings of such architectural complexity anywhere in the world, and feature on the UNESCO World Heritage List for their outstanding universal value to present and future generations.

In recent years they have suffered from deterioration and structural problems arising mainly from exposure to rain, fluctuations in temperature and relative humidity, solar radiation, pollution, and so on. These were the conclusions of a Scientific Committee set up in 2000. Consequently it was proposed to protect the temples with temporary shelters, an idea endorsed by the UNESCO World Heritage Committee.

> "The new visitor centre addresses the long-felt need for better interpretation, to make the site more meaningful and accessible to all audiences."
>
> **DR REUBEN GRIMA,**
> SENIOR CURATOR, PREHISTORIC SITES DEPARTMENT, HERITAGE MALTA

Careful consideration was given to the shelters' design, including the experience of other countries with similar geographical and climatic conditions. In the end, Maltese experts opted for huge open-sided tents with steel arches and fabric. The Hagar Qim tent is over 11.5 metres high.

Erection of the shelters started in 2008, under an EU co-funded project covering almost two-thirds of the total costs. The shelters are designed to last for the next 25 to 30 years. Meanwhile work will continue on consolidating the temples, as well as research to identify long-term alternatives to sheltering.

Part of the project also involves establishment of a visitor's centre. Work on this began in April 2007.

Conservation is key

The new shelters are seen as a vital interim measure for preserving the sites from further deterioration. Visitors benefit too, because they can now walk around the temples without being exposed to the elements.

People's experience of the sites is also significantly enhanced through interpretation on offer at the new visitor centre. The future of Hagar Qim and Mnajdra seems assured for decades to come, which is good news for Malta's heritage and tourists.

More about this project can be found at:
http://www.eu4u.gov.mt/hagar_qim.asp

EU funding

€3.22 million

was allocated to the Hagar Qim & Mnajdra Conservation & Interpretation project from the ERDF for the period 2004 to 2006

Coverings shelter megalithic temples for preservation purposes

Restoration produces eye-catching bridge

The town of Kuldīga (Latvia) has become an award-winning destination due in part to the restoration of the old brick bridge across the River Venta. The impressive bridge, built 134 years ago, is one of the longest clay brick road bridges in Europe. As a result of this project, the bridge is now safer and able to cope with the load capacity of modern traffic levels. It also hosts regular events including laser light shows, open-air performances and cultural festivals.

The underlying aim of the restoration was to promote regional development, particularly tourism. The historic bridge is the most important tourist attraction in Kuldīga, and therefore plays a vital role in achieving the project aims. The surrounding landscaped areas, more accessible waterfalls and spectacular new-look bridge now offer an exciting destination for locals and tourists.

Old and new combine for future development

The project was implemented by the Kuldīga Town Council, with financial backing from the ERDF. Following complex project planning, which included significant research, the bridge managed to retain its architectural qualities, yet had new features added including a new lighting system, new rainwater drainage system, and thickened vaults for extra safety. Viewing platforms were also built nearby, while stairs along the remains of the old castle wall were renovated to improve access to the waterfall.

> "Restoration of the historical bridge has been a real benefit for me, as our hostel is located between the two main local tourist attractions – the old bridge and the largest waterfall in Europe, Venta waterfall, so my guests now have a wonderful view to enjoy. The bridge's technical restoration has also been important as there is no longer rainwater on the surface."
>
> **GUNTIS FREIMANIS,**
> OWNER OF A LOCAL HOSTEL 'VENTAS RUMBA'

The restoration work has helped promote Kuldīga's popularity. In 2007, the town received the European Commission award 'European Destination of Excellence', while in 2008 Kuldīga historic centre was awarded the European Heritage Label.

A crossroads of culture and education

The bridge also plays an educational role, with international conferences such as 'Bridge for Kuldīga – bridge to the world' in 2007 helping locals and visitors discover the old bridge's role in linking the past and future, innovation and traditions. In an effort to preserve the authenticity of local cultural heritage, events such as art exhibitions, music concerts and performances are held on the bridge, often including spectacular fireworks and high-tech laser lighting and projections.

EU funding

€1.42 million

was allocated from the ERDF to 'Renovation of the Old Bridge across the River Venta and Establishment of an Attractive Tourism Territory in the Heart of Kuldīga' over the period March 2006 to August 2008

Natural world on show

The River Venta forms a deep valley in nearby Kuldīga and is home to the Venta waterfalls, a significant geologic-geomorphologic feature. During the fish migration period, residents and tourists can observe the migrating fish in the waterfall. Given its role as a natural barrier during migration, Venta waterfalls has also witnessed the development of interesting fishing styles for catching salmon and vimba with the use of special weirs, adding to the many activities on offer in the region.

Restoration work in progress on old bridge over the River Venta

Mont-Saint-Michel gets a facelift

One of France's favourite tourist destinations, the Mont-Saint-Michel is experiencing radical changes in order to help preserve the beauty of the bay and to offer tourists an unforgettable experience. The project aims to ensure the longevity of this mythical place which has been a rich source of cultural inspiration for many, from Claude Debussy and his *Cathédrale Engloutie* to Peter Jackson and his 2003 film *The Lord of the Rings: The Return of the King*.

To continue to accommodate the three million tourists who come each year from all over the world to admire this rocky tidal island, the French state and joint council launched a major upgrade for the bay which would allow tidal and river currents to swirl around the mount as before.

Washing away the sediment

This wide-ranging project sought to build a new dam to free the mount from the hold of the surrounding salt marshes. Using the force of the sea and of the river Couesnon, the dam would wash away large amounts of the build-up of sediment from the mount. In two years around 50% of the necessary three million m^3 of sediment would be cleared and in eight years this would reach 80%.

As salt marshes rank alongside tropical rainforests in being the planet's most biologically productive habitats, efforts were made to protect wildlife. One example is the parsley frog (or Pelodytidae); during the hydraulic works ten ponds were created to provide shelter for these frogs during their breeding season (mid-February to mid-April).

> "The project's scope is socio-cultural in that it seeks to restore both landscape and architectural heritage, environmental in that is seeks to protect and promote the biodiversity of the bay, and economic in that it seeks to continue to attract visitors by way of its new tourist centre and easier access."
>
> **BRUNO LEGENDRE,**
> SYNDICAT MIXTE BAIE DU MONT-SAINT-MICHEL

A new car park was also put on the table. By demolishing the current parking lot, tides would flow freely again around the mount. The new plans included the building of a prototype to allow for the testing of various surfaces during the construction of the new dam.

Visitors still welcome

Due for completion in 2015, the Mont-Saint-Michel renovation project is already well on its way to changing the face of the bay. The building of the hydraulic dam began in June 2006 and since then all eight water-channeling sluice gates have been laid. These gates close during high tide, thereby preventing the extra water from entering the river.

So as not to hamper tourism during the duration of the works, a visitor centre was set up explaining the project to restore the Mont-Saint-Michel and its state of progress. Visitors were offered free access to the centre and a first glimpse of the Mont-Saint-Michel of the future. Exhibitions, plasma screens and virtual models are keeping excitement alive as the mount undergoes its facelift.

EU funding

The Mont-Saint-Michel project was allocated

€11.1 million

under the ERDF for the period 2000 to 2006

Much research underlies the project. It was conceived in such a way as to leave the natural process of sedimentation in the inner bay untouched. Four years of hydrosedimentary studies were conducted by the specialist laboratory Sogreah. Before operations began, the modifications were validated by an international scientific committee. An impact survey has highlighted the beneficial effects the work will have on the bay environment.

More about this project can be found at:
http://www.projetmontsaintmichel.fr/

View over one of France's cultural landmarks

Culture takes centre stage in Leicester

The new cultural quarter in Leicester is now home to a stunning entertainment venue as a result of the Curve art theatre project. The modern theatre, designed by world renowned architect Rafael Viñoly, adds a vibrant feel to the area, offering business opportunities and a unique entertainment space for locals and visitors in the East Midlands region, including auditoria, a café and bar.

The €71 million flagship project is the latest stage in efforts to transform the St George's area into a cultural hub, and is the most important arts and cultural development in Leicester for decades. In addition to revitalising a run-down district, it has already borne fruit, generating more than €70 million in new development and business.

New design brings audiences closer to the action

The state-of-the-art Curve features two auditoria, one with 750 fixed seats, the other smaller with 350 seats but providing a versatile, smaller space. The 32-tonne steel walls which separate the stage and foyer can be raised, making the stage visible from the street. Behind the stunning glass façade is a magnificent open plan foyer with views onto the café, bars and backstage area and across the stage. The unique theatre design also enables directors to place the audience in a variety of configurations, adding to the magic and experience for theatregoers.

> "If other cities follow Leicester's example, the arts will flourish"
>
> **STEPHEN SONDHEIM,**
> COMPOSER AND LYRICIST
>
> "...an exciting and innovative building. I'm sure it will prove inspirational to all those who are lucky enough to work there"
>
> **KENNETH BRANAGH,**
> ACTOR AND FILM DIRECTOR

Setting the scene for strong regional development

Innovation and the arts play a key role in the development of the East Midlands. Curve has become a landmark, symbolising the city's renaissance and reflecting its position as a centre for the cultural industries in the region. It is attracting investment into the city, helping to bring in visitors, creating new jobs and raising the profile of the arts in the region.

The show will go on

Though lights may be turned off following stage performances, the behind-the-scenes work carries on. The economic, social and cultural value of Curve will be evaluated as part of a long-term study commissioned by East Midlands Development Agency (EMDA) into the impact of this and other investments in regional arts venues. Based on this, equally inspiring projects can develop and eventually become a reality.

More about this project can be found at:
http://www.curveonline.co.uk

EU funding

€2.09 million

was allocated from the ERDF to Curve over the period 2000 to 2006

Stunning new entertainment venue in Leicester

Newly refurbished Curtius museum reopens to the public

Following an eight-year refurbishment, the Grand Curtius museum has reopened its doors much to the delight of locals and the 10 000 visitors who attended the inaugural weekend. The historical centre of the city of Liège is regaining its former prestige and popularity as people flock to step back in time through the museum's many collections dating back nearly 7 000 years.

Backed by funding worth some €50 million from the EU, the Walloon Region, the French Community of Belgium and the City of Liège, the Curtius museum is now a worthy home for its valuable religious art collection and the 5 200 regional and international archaeology, weaponry, decorative artefacts it holds.

Protecting and promoting heritage

The museum itself was built at the turn of the 17th century as a private mansion for Jean Curtius, an industrialist and munitions supplier to the Spanish army. Alternating layers of red brick and natural stone as well as cross-mullioned windows typify the regional style of the time known as 'Mosan', which originated in the valley areas of the Meuse and the Rhine.

Three specialist museums are housed on the Curtius complex: a weaponry museum, archaeology and decorative arts museum, and a museum for religious and Mosan art. The purpose of the re-development was to re-organise the collections held by these three museums and to design two thematic tours for visitors.

> "The popularity of the opening weekend was a very positive sign for the future. It showed that expectations and interest levels were extremely high among the locals."
>
> **JEAN-PIERRE HUPKENS,**
> ALDERMAN FOR CULTURE

Drawing in the visitors

Investment for the project was divided up into three strands: technical equipment and buildings (48.5%), museography and scenography (24.5%) and renovation of the buildings on the Maastricht quay (15.5%). The remaining 11.5% was spent on surveys, marketing and fees.

It is expected the Curtius museum will draw in between 50 000 and 100 000 visitors each year, providing a welcome boost for the region's economy.

More about this project can be found at:
http://www.grandcurtiusliege.be/

EU funding

The Grand Curtius development was allocated

€6.02 million

from the ERDF for the period 2000 to 2006

The Grand Curtius museum has been refurbished and is now welcoming visitors

A tourism gem in the Hungarian countryside

The impressive Arch Abbey of Pannonhalma, one of the oldest historical monuments in Hungary, has witnessed major developments to its buildings and surroundings in recent years thanks to efforts to stimulate more tourism in the region. With financial support from the EU, the work has resulted in renovation work at the entrance, improvement of the interior court and the planting of over 1 000 trees.

The Benedictine monastery was classified a World Heritage site in 1996 and offers a major attraction for cultural and religious tourism. To provide an added boost to this tourism potential, the Benedictine community put together a development strategy. Work began in 2004 and, given its success so far, looks set to continue receiving support.

A monument like no other

The buildings of the Arch Abbey were erected over a thousand years ago on what is referred to as the 'sacred mountain of Pannonia'. Both the buildings and their surroundings have been recognised by UNESCO as a World Heritage site. The Arch Abbey is a worthy holder of this title given its stunning architecture and cultural and scientific collections, which look set to attract an anticipated 100 000 tourists a year.

> "With the work completed on the environmental parts, the project has met the goals of the Arch Abbey. Furthermore, by the beginning of 2007, the monastery of the holy mountain of Pannonia finally had a façade worthy of its traditions and values."
>
> **BÉLA VAJDOVICH,**
> PROJECT MANAGER AND EXPERT FOR 15 YEARS AT THE ARCH ABBEY

Surrounding environment blends with architectural beauty

The site offers a special place for exploring, learning and relaxing, therefore tourism services and infrastructure were important features of the project work. To improve visitors' experiences, the works carried out included upgrading the walkway around the monastery and landscaping, with benches, lamps, outdoor furniture and environmental features placed around the grounds. In the surrounding natural environment, the arboretum was restored, a garden planted, and a display house built for herbs. Less visible, but equally important, were improvement works which included reconstruction of rainwater collectors and pipes. Car parks were also expanded and built as were commercial and hospitality services.

EU funding

€2.6 million

was allocated from the ERDF to the Arch Abbey of Pannonhalma project over the period 2004 to 2006

Life at the monastery continues to thrive

The monastery has therefore become a much more visitor-friendly tourism destination, creating a harmonised space where nature, culture, history and architecture blend together and where guests and people who live, study and work there can enjoy a unique experience.

More about this project can be found at:
http://www.bences.hu/en

Abbey dominates Pannonhalma and surroundings

San Millán de la Cogolla, La Rioja, Spain

Researchers delve into the fascinating world of Spanish

The wealth of history of the Spanish language spans the globe, from its origins in Spain to regions beyond Europe. In recognition of the language's growing importance on the international stage and to support research into its past and present, CILENGUA, the International Centre for Research into the Spanish language, was created in 2006. At present, more than 100 researchers work at the Centre, benefiting from strong links with other academic bodies in Europe, the USA and Spain.

The Centre is located in what once served as a monastery, but is now home of the Fundación San Millán de la Cogolla. It plays a pivotal role as a link with other institutes worldwide and contributes to sharing knowledge and information through conferences and specialist publications.

Three institutes, one passion

CILENGUA is made up of three main institutes: Origins of Spanish, History of Language, and the Hispanic Library Institute, the latter working alongside the History of Books and Reading Institute. In its three years of operation, more than 20 international conferences and colloquia have been held, some 15 monographs published, and 4 periodical magazines produced. Of note is the innovative electronic magazine Interlíneas produced in co-operation with New York's University of Columbia.

Researcher training plays a key role

CILENGUA's main work covers research in the field of philological and historical studies, critical editions, lexicography and other history disciplines and sciences. Training courses and conferences as well as Masters level courses all represent opportunities for developing the skills of researchers and ensuring the work continues to produce beneficial results in the future. The majority of these researchers are made up of members of CILENGUA (from its own staff and also other national and foreign centres).

> "The research projects carried out by the three institutes at CILENGUA, the publications produced and the already numerous scientific gatherings held have firmly established La Rioja's renown in the academic world of linguistic and literary studies."
>
> **DR JORGE FERNÁNDEZ LÓPEZ,**
> HEAD OF THE DEPARTMENT OF HISPANIC AND CLASSICAL PHILOLOGY, UNIVERSITY OF LA RIOJA

International co-operation adds to depth of understanding

Agreements have been signed and relationships established with universities such as Columbia, Oxford, Harvard, Princeton, CUNY of New York, Salamanca, Barcelona and Oviedo, as well as centres like the Spanish Royal Library in an effort to share scientific expertise and enhance the understanding of Spanish language and literature.

More about this project can be found at:
http://www.cilengua.es

EU funding

€1.4 million

was allocated from the ERDF to CILENGUA over the period 2000 to 2006

Premises for researching the rich history of the Spanish language

Centre lays firm foundation for rural tourism

The highlands in the east of Moravia, and their peak – Soláň, have long been popular with tourists. To cater for the continued interest, a new information centre has been built offering not only valuable information to tourists but also a selection of cultural activities. Exhibitions, concerts and similar events are all hosted in the new centre.

The centre was designed to form a dominant feature in the region that would maintain the beauty of the surrounding landscape. The activities organised are drawing in tourists to Soláň and the surrounding villages, thereby building a stable basis for rural tourism.

Tapping into Soláň's tourism potential

The Soláň peak and its surrounding area is considered to be one of the most beautiful parts of the region, offering superb views across colourful landscapes dotted with countless hills and valleys. The area is a favourite among tourists for its winter and summer recreational activities. However, until very recently, Soláň was lacking the services normally available for visitors wishing to plan their stay in the area.

The Soláň information and cultural centre is housed in an iconic building inspired by local religious traditions. The centre stands apart in an easily recognisable bell tower and offers visitors an interesting programme whether they come for the sightseeing, the culture, or both.

The centre opened in November 2006 and so far, the area has received 32 294 visitors. Thanks to new computers, this project also improved the access of local people and those living in distant areas to the information centre's services as well as to the internet.

> "The centre organises roughly three to four events each month. Since the centre was built, the visitor numbers in the whole region have rocketed, at times by as much as tenfold. The centre has become a major cultural and social focal point. This project is also triggering other similar projects in the surrounding area. This will considerably contribute to building a more attractive region."
>
> **JIŘÍ KOTÁSEK,**
> ASSOCIATION FOR THE DEVELOPMENT OF SOLÁŇ

Local culture allowed to flourish

The newly built bell tower has been conceived as an important regional cultural centre. Many local artists – painters, sculptors, photographers and wood carvers – whose activities are inspired by folklore display their works at the various exhibitions held in the centre.

Throughout the year, but especially at Christmas and Easter time, visitors can enjoy any number of events – demonstrations of traditional crafts and folklore customs, cymbal music and performances from folklore dancing groups. Many of the events are inspired by artists who visited Soláň and reflected this visit in their works of art.

The information center is also used for special occasions such as wedding ceremonies when people wish to make use of the beautiful premises. More and more activities are being planned as even visitors come up with new ideas and ask for information about upcoming festivities.

More about this project can be found at:
http://www.zvonice.eu

EU funding

€173 000

was allocated to the Soláň Information Centre project from the ERDF for the June 2006 to October 2006 period

Soláň information centre provides a key reference point for visitors

Wangen and Mittelberg, Sachsen-Anhalt, Germany

German countryside reveals the mystery of stars

People the world over have always been fascinated by the mystery of stars and their place in the history of the universe. The project 'Arche Nebra' has contributed to educating and entertaining people about these mysterious celestial objects by building a multimedia visitors' centre near Mittelberg hill where the bronze Nebra Sky Disc was discovered in 1999. The facility also offers a viewing tower, tours and planetarium for the growing numbers of visitors coming to explore the area.

The underlying objective of the project was to strengthen and improve the economic development and potential of tourism businesses in the region by increasing visitor traffic to this fascinating archaeological find. Already in 2007, some 105 000 people experienced this unique visitor centre attraction.

A journey back in time

At over 3 600 years old, the disc is recognised as the oldest known visual representation of the cosmos and stands as a unique testimony to the cultural history of Central Europe. The bronze disc has been the focus of much attention, particularly cosmology enthusiasts.

The visitors' centre offers something for everyone, including a permanent exhibition with fun virtual characters, a 3D-flight and a puppet show recounting the mystery surrounding the Sky Disc's discovery.

Visitors can take a journey back in time at the digital planetarium where high-tech design and equipment helps enthusiasts experience the Bronze Age. For those wanting real-time fresh air, a viewing tower has been built at the site of the first discovery. Visitors can also relax at the catering and refreshments area built at the centre.

> "The local region has been hit hard in recent years with high unemployment. However, after Arche Nebra was opened, several new jobs were created as a direct result. A local hotel was also re-opened following the inauguration of Arche Nebra and is authorised to use the Nebra Sky Disc in its marketing campaigns."
>
> **MANUELA WERNER,**
> PR & MARKETING, ARCHE NEBRA

Symbolic artefact generates economic growth

The growing tourist numbers, convenient road access and clear signposting are having an impact elsewhere in the region. For example, the Schlosshotel Nebra has expanded its facilities, there are plans for a restaurant in Wangen, and the nearby Memleben monastery and Goseck sun observatory are experiencing higher visitor numbers.

More about this project can be found at:
http://www.himmelsscheibe-erleben.de/en/nebra_ark/

EU funding

€4.7 million

was allocated from the ERDF to Arche Nebra over the period September 2005 to December 2007

Multimedia centre offers a chance to explore celestial objects

Homegrown talent inspires cultural industry

The Art without Borders project draws on the creations and renown of two local artists, providing impetus to the development of the cultural industry in Latvia and Belarus. Marc Chagall (Belarus) and Mark Rothko (Latvia) have made their mark on the art world and are now the inspiration behind efforts to boost co-operation between the twin cities of Daugavpils (LV) and Vitebsk (BY).

Historically, there has been much contact between these two cities given their geographical locations. By drawing on their common history and also the unique talent of two of the region's most famous painters, the project is contributing to the development of the local cultural industry. Reading and art exhibitions, as well as events for children and youth, are just some of the many features of this project, which saw more than 4 000 people take part.

The voice of art echoes across borders

The partnership between Daugavpils City Council (Latvia) and the Culture Department, Vitebsk City Executive Committee (Belarus), played a key role in the project, supporting project activities and implementing joint cultural activities, in turn leading to better accessibility to art across the border. The project highlighted that art has its own language, where even borders are no obstacle to communication.

Tapping into the pool of local talent

The project organisers recognised that for local talent to blossom, there was a need for inspiring events and opportunities. One such event was the international children and youth summer art school at the M. Chagall Home Museum in Vitebsk, where 27 youngsters learned to paint, dance and think in the language of art. Other events drew keen visitors and participants, including the 2 000 who visited the Daugavpils Regional and Art Museum where works of Vitebsk-born Chagall were exhibited as well as the 14 international painters who came to Daugavpils, Rothko's native town, to work creatively together.

> "I've enjoyed attending the International Children and Youth Summer Art School at Marc Chagall's museum in Vitebsk as part of the project 'Art without borders'. It was a great opportunity to meet young international artists, share experience and find inspiration in the native town of world famous artist Marc Chagall"
>
> **RENATE JURJEVA,**
> DAUGAVPILS SECONDARY ART SCHOOL 'SAULES SKOLA' STUDENT

Promoting art and talent

To capture a wide audience, the project partners used a variety of media, including the updated website of Chagall's museum, press releases in local and regional media, TV & radio (mainly Rothko – Chagall art events in the region), 20 000 flyers about art events, joint art publications and cross-border events calendars. With an eye on the future, there are plans to repeat the international children and youth summer art school event next summer, in a bid to ensure continuity in the development of the cross-border cultural industry.

Children take part in one of many cultural activities promoted locally

Alpine forts the focus of renewed development

The forts dotted around the mountainous French-Italian border region offer a wealth of diversity in terms of architecture, culture and history. To ensure the survival of these imposing structures for visitors and locals alike, the project 'Sentinels of the Alps, renovation and development of fortified heritage in the Franco-Italian Alps' has put in place a strategic plan, which includes a quality charter and database of forts throughout the region.

Military strategies, architectural genius, cultural identity and shared histories are part of the fortifications' stories. The structures offer enormous tourism potential for the region which is why an action plan bringing together French and Italians is transforming the region and its monuments into fascinating visitor attractions. The project also draws inspiration from various frameworks, including the Charter of Venice and the Alpine Convention.

Linking the past and present

Built atop rocky promontories, these buildings provide a source for understanding how local cultures and identities have formed over time. The forts also act as a linking mechanism for new co-operation between France and Italy. The project has resulted in a network of people from both the public and private sector, and from both countries, training them, organising seminars and promoting further networking across borders to help managers stay abreast of modern methods for site preservation and cultural tourism.

> "This project aimed to bring to the fore a common heritage: fortifications located in the border region of the Alps, and also to increase knowledge about fortified heritage and facilitate its restoration. More than 40 sites are now participating in the cross-border network and are together developing cultural and tourism projects."
>
> **MURIEL FAURE,**
> FORMER PROJECT MANAGER OF SENTINELLES DES ALPES (MISSION DÉVELOPPEMENT PROSPECTIVE)

Mapping out the way forward

For local residents, a long-term plan is vital for both preserving the buildings and ensuring economic benefits through tourism. Key activities include diversifying the tourism and cultural activities and opportunities, boosting co-operation between local villages and districts, developing and conveying an image of the Alpine region by highlighting its unique features, drafting a quality charter, including an inventory of sites and database of forts, and organising ongoing activities for the networks involved, including seminars, training and forums such as the 1st International Forum on Alpine Fortifications in May 2009.

A comprehensive website 'Sentinelles des Alpes – Sentinelle delle Alpi' also serves as a vital tool for connecting people and providing them with useful information including maps, downloads, thematic searches and charter principles. In doing so, the story of the alpine region will continue to be told for generations to come.

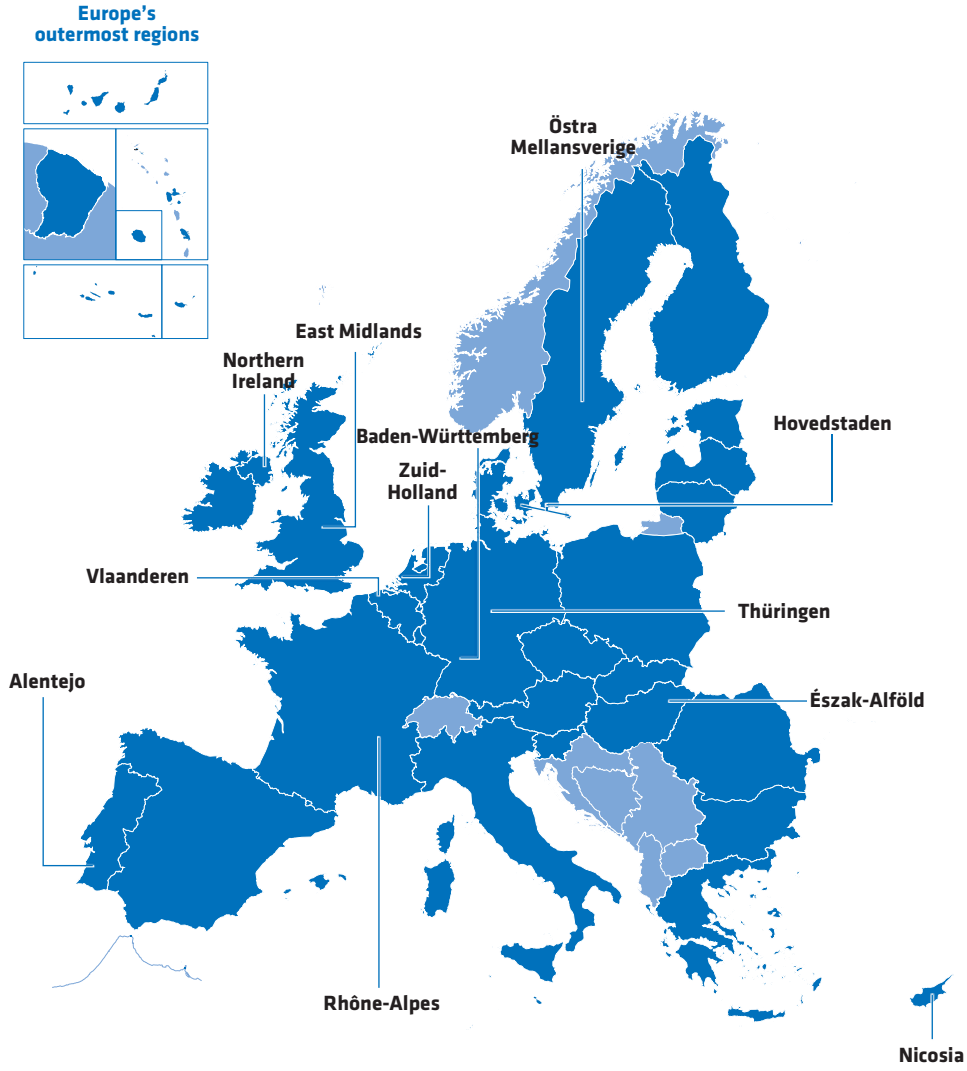
More about this project can be found at:
http://www.sentinelles-des-alpes.com/

EU funding

€1.8 million

was allocated from the ERDF to 'Sentinels of the Alps, renovation and development of fortified heritage in the Franco-Italian Alps' over the period 2000 to 2006

Wonderful scenery surrounds alpine forts



Belfast, Northern Ireland, United Kingdom: Communities resolve differences for brighter future

Bornholm, Hovedstaden, Denmark: Island offers more choice for studies

Debrecen, Észak-Alföld, Hungary: Health centre overhaul in northern Hungary

Lyon, Rhône-Alpes, France: First steps towards a European immunomonitoring platform

Mannheim, Baden-Württemberg, Germany: German pop music industry set for a bright future

Nicosia, Cyprus: Historic building goes contemporary

Nottinghamshire, East Midlands, England, United Kingdom: Ashfield training centre overcomes skills shortages

Oostende, West-Vlaanderen, Vlaanderen, Belgium: Sky's the limit for aviation centre of excellence

Rotterdam, Zuid-Holland, Netherlands: Kids and the art of urban communication

Sines, Alentejo, Portugal: Arts centre bridges city's old and modern parts

Västerås, Östra Mellansverige, Sweden: Smart helpers for humans

Weimar, Thüringen, Germany: New premises for civil engineering

Territorial Co-operation

FI, IE, SE, UK and NO: Healthcare goes electronic under northern skies

Education and social

Developing people – their skills and talent – is crucial for ensuring the long-term competitiveness of Europe. Promoting the integration of all people in society, in particular those on the margins, is a fundamental goal of the EU. The social welfare and support systems in place across Europe are a reflection of this shared value of social cohesion. Yet many groups of people in the Union are socially excluded – it could be because of a disability, because they are low-skilled, because they live in deprived areas with limited access to services. This extends to employment where some people find it difficult to get a job. Promoting more and better jobs, supporting the integration and participation of disadvantaged groups, and developing an inclusive society accessible to all, are objectives which underpin EU investment.

The Union has a broad set of policies, at European, national and regional levels, aimed at tackling the issues that undermine Europe's competitiveness. Many of these set out to improve higher education and vocational training programmes, to up-skill the workforce across Europe, and build better links between these training providers and industry – to ensure that the skills they teach match those that companies need, today and in the future.

Here the European Regional Development Fund works hand in hand with the European Social Fund, funding activities which help to increase the flexibility of the labour markets, modernise social protection systems, support social enterprises, and promote better access to good quality education and training. By investing in a range of community facilities – in educational, social and health infrastructure – regional funds help to strengthen communities and improve access to services across the board.

EU investment in projects like the refurbishment of the Regional Health Care Centre in Debrecen, Hungary, which provides specialist cancer and cardiovascular treatments, or the Bornholm Island Academy project in Denmark which benefited from regional development funding to expand the local teaching centre in this remote community are just some of the numerous examples showing how targeted investment can yield significant results.

Belfast, Northern Ireland, United Kingdom

Communities resolve differences for brighter future

Innovative approach to conflict resolution sees cross-community activists work together in an effort to bring a complete end to violence in Belfast as part of a city-wide partnership for lasting peace.

The Belfast Conflict Resolution Consortium (BCRC), set up in April 2007, aims to assist in shaping policies that will make a real difference in this European capital where sporadic outbursts of violence continue to occur.

Activists unite

Together loyalist, republican and community activists have been working side by side to contain and prevent violent outbreaks and potentially violent situations in certain parts of Belfast, known as 'interface areas'. This term is used to describe the intersection between segregated Protestant and Catholic residential areas.

By fostering tentative contact between activists, the BCRC is helping to create effective working relationships and developing a cross-community steering group and a citywide response network. The consortium relies on partners throughout Belfast, including its partner organisations Charter NI, EPIC, the Falls Community Council and Intercomm.

The work of the BCRC is carried out by a project manager and a team of seven staff, including five community development officers, a secretarial administrator and a financial administrator. The project is given operational direction by its lead agency, the Falls Community Council, and the other three partner organisations Charter NI, EPIC and Intercomm. Strategic direction is given by its steering group which is representative of Belfast's different political and religious communities.

> "BCRC believe relationship and trust-building processes provide the necessary building blocks to forge long-term, sustainable intercommunity partnerships at grass roots level."
>
> **JOE MARLEY,**
> BCRC PROJECT MANAGER

Towards lasting peace

Through the creation and expansion of cross-community strategic alliances, the BCRC provides an integrated response to tension in interface areas. This is helping to prevent outbreaks as well as to enhance conflict resolution skills.

Local leadership is gaining strength, democratic involvement is on the rise and reconciliation efforts are becoming more fruitful as the BCRC continues to work on the issues identified by interface communities across Belfast.

The plan is to give priority to these issues and to work jointly on problem solving. Moving from a situation in which crisis management has been the norm to one in which strategic decisions are debated and then taken is the journey the BCRC has embarked upon.

More about this project can be found at:
http://www.bcrc.eu

EU funding

€378 500

was awarded to the Belfast Conflict Resolution Consortium from the ERDF for the 2005 to 2007 period. The current phase of the project is supported by the Peace III Programme

Locals determined to end conflict in Belfast

Bornholm, Hovedstaden, Denmark

Island offers more choice for studies

Life on an island can often present challenges due to geographical isolation and the infrastructure available. Bornholm Island, located to the east of Denmark in the Baltic Sea, is one such example, where attracting students and teachers has often proved difficult. However, with the help of EU funding, the Bornholm Academy project has resulted in a broader range of courses, larger teaching facility and more attractive environment for studying.

The expansion of the existing Pedagogical Centre has meant that people living on the island now have a greater choice of courses, thus avoiding the need to head towards the mainland. As a result of the project, some 145 additional students can benefit from the education provided.

Isolated but integrated

Quality higher education on Bornholm is seen as a determining factor in the development of the island community, ensuring that the region can fully integrate into the national and international market and knowledge economy. The region's need for highly trained and highly qualified citizens has thus become a priority. The Student Centre Snorrebakken on the island covers some 5 000 square metres. This EU-backed project provides teaching facilities for several institutions offering different bachelor courses covering social education, social counselling and social education assistance. The centre also houses the Educational Resource Centre, providing teacher in-service training and supplying training material to all education institutions on the island. The institutions are antennas of larger educational institutions from elsewhere in Denmark, ensuring higher education on Bornholm that would otherwise not be possible there.

> "It couldn't be better, very nice surroundings. I think it's known to most people that it's easier to learn when the circumstances are right. They have really thought about light, the atmosphere and that's what's making the building so perfect."
>
> **JØRGEN WØLLER,**
> STUDYING TO BECOME A TEACHER (IN HISTORY, SPORT, SOCIAL STUDIES AND MATHS)

Attractive prospects for island education

The residents on the island are already benefiting from the academy's expansion, in that they have a much wider choice of courses, thus not obliging them to head to the mainland. The new building and new education opportunities have also created a more attractive environment, with the result that the centre is now finding it easier to attract both students and teachers to the island. The economic benefits of the project are clearly evident, with eight new jobs already created. The rise in student numbers has also generated significant financial gains for the region, with an additional €2 million in annual turnover.

More about this project can be found at:
http://www.bornholmsakademi.dk

Island life now ripe for studying

Health centre overhaul in northern Hungary

Responding to the challenges presented by the intense development of science and technology, the 'Auguszta Programme' at the Medical and Health Science Centre of the University of Debrecen saw major investments in health, with backing from the EU. It involved large-scale infrastructure works, including the establishment of a Cardiovascular and Oncology Complex. In total, 13 086 m³ of new buildings were built and 3 210 m³ of extensions carried out.

With some 52 000 inpatients and 200 000 outpatients receiving care at the centre every year, the need to provide comprehensive services and modern facilities remains a priority for the region. New consulting rooms, physiotherapy rooms as well as administration and service areas now contribute to the centre's extensive range of health care.

Award-winning health centre

The Medical and Health Science Centre, University of Debrecen (MHSC), currently celebrating its 90th anniversary, offers high standard health services, educational programmes and training courses. In 2006, it was included on the list of Europe's 500 most dynamically-developing, job-creating institutions, and in 2007 won Hungary's Hospital of the Year Award.

Targeting specific problems

To address the notoriously high level of certain diseases in the Northern Great Plain and the Northern Hungarian Regions, a new Cardiovascular and Oncology Complex was built under the project and has been equipped to meet real health care needs. The first Health Observatory of Central and Eastern Europe was also founded through the project to collect, analyse and systematise epidemiological data of these diseases and make the findings available to researchers and health politicians.

> "I've had a good experience. I'm treated politely, and they're compassionate and patient with me."
>
> **ANITA G-J,**
> OUTPATIENT AT THE MHSC

Revamped and ready to care

The project's construction works included a new 2 100 m² in-patient unit at the Department of Radiology, in addition to an 1 100 m² outpatient unit of the 3rd Department of Internal Medicine which was completed and now hosts many facilities including four consulting rooms and two physiotherapy rooms. The Department of Pulmonology moved to a completely revamped building, while the surface area of the Department of Oncology was increased by 1 357 m² over four floors. With these modern, fully-equipped facilities, patients now stand to benefit from an extensive range of services, all in one centralised location.

More about this project can be found at:
http://www.dote.hu/info.aspx?sp=14

EU funding

€35.65 million

was allocated from the ERDF to the Regional Health Care Centre (Debrecen) over the period 2004 to 2008

New buildings and extensions have helped improve services at this centre

First steps towards a European immunomonitoring platform

An innovative project to speed up drug development, focused on monitoring human immune response, is now operational at Lyonbiopôle's new infectiology centre. Around a dozen pharmaceutical experts from industry and academia staff its state-of-the-art laboratory.

The Platine project seeks to create Europe's first immunomonitoring platform, to better characterise the effect on the immune system of new therapeutic molecules discovered by researchers. Goals include meeting the needs of biotechnology companies and the pharmaceutical industry, and ultimately the European market.

Therapy assessment

Many therapies will soon have to be assessed on the initial immunological status of patients and/or their immunomodulatory effects. However, Europe has no industry centre capable of performing efficient and global immunomonitoring follow-up – a service that would enable the rapid discarding of any molecule that poses a risk to patients and allow pharmaceutical companies to concentrate resources on the most promising compounds.

Platine pools the techniques and scientific knowledge of five partners, with a view to creating centralised, robust and reproducible immunomonitoring services. Three partners – Innate Pharma, Transgene SA, and ImmunID – are from the industrial world, with expertise in drug development and immunomonitoring and diagnostics. The other two are academic research labs from Inserm (the French National Institute for Health and Medical Research) and the Léon Bérard Multidisciplinary Centre. The project's total cost is €10 million. In addition to the EU funding (€4.8 million), it benefits from French national and regional funding.

> "We are very pleased to see a project shared by experts in the field of immunology reinforcing the expertise and the image of our cluster."
>
> **YVES LAURENT,**
> GENERAL DIRECTOR OF LYONBIOPÔLE

In April 2009, teams from the various partners moved into the Lyonbiopôle. They work in a special laboratory fitted with sophisticated equipment.

Immunomonitoring expertise

The partners aim to create a commercial structure able to offer high-quality immunomonitoring services to pharmaceutical companies. This would speed up each drug's development process while cutting down costs. Work is based on three tools adapted to sponsors' needs: innovative and traditional technology, scientific assessment, and the development of new biomarkers.

The project has two phases, starting with immunomonitoring of clinical trials of partners' drug candidates and then molecules from French and European companies. In between, the scientific team will build a comprehensive range of immunomonitoring and biomarker discovery services.

More about this project can be found at:
http://www.lyonbiopole.com or
http://www.platine-lab.com

EU funding

€450 000

was allocated to the Platine project from the ERDF for the April 2008 to April 2012 period

Expert engaged in human immune response work at laboratory

German pop music industry set for a bright future

With the music industry often renowned for struggling professionals, initiators of the project 'Pop-Akademie Baden-Württemberg und Musikpark Mannheim' saw the need to provide a dual support system to help the transition from raw musical talent to successful career in music. Musicians and students of the music industry can now study towards a recognised academic qualification at the Akademie, while at the Musikpark, musicians and businesses have more than 4 000 m² of space available where they can develop new business relationships.

Nurturing local talent is the aim underlying all activities at the Akademie and Musikpark. Students attending the Akademie can study towards a BA in pop music, opting for either a conservatory approach for instruments not covered at traditional schools, or a management course. The Musikpark focuses more on giving start-up SMEs in the music industry the opportunity to advance by offering recording facilities and helping with networking, notably when it comes to funding.

Fine-tuning the raw material of music

The Pop-Akademie recognises raw creative talent as a driving force for economic development and the generation of cultural wealth. With society and markets changing, trends coming and going, and the use of digital technology now standard, the Akademie meets the need for new approaches to artist development, marketing and business co-operation, by providing the industry with highly qualified experts and creative artists.

> "More than 70% of all graduates from the programme Music Business find jobs in this field."
>
> **PROFESSOR HUBERT WANDJO,**
> DIRECTOR AND CEO, POP ACADEMY BADEN-WUERTTEMBERG

The Akademie offers a 'Bachelor of the Pop Academy Baden-Wuerttemberg' in music business (event and label managers, marketing experts, artist developers and community managers) and pop music design (drummers, guitar players, DJs, bass players, keyboard players, singers, songwriters and producers). The course lasts for six terms and includes exams and two placements.

Springboard for music entrepreneurs

The EU's creative industry generated turnover of more than €654 billion in 2003. To ensure the industry is ready to face the changing global economy and technology, Musikpark Mannheim provides start-up SMEs in the music industry with a facility where they can develop, learn and source funding in what is often a fragile business environment.

Today some 40 businesses, employing about 140 people, are making the most of the premises, which include a TV studio, sound studio, workshop and meeting rooms. Musikpark also acts as a bridge between artists and booking agents, offering a one-stop shop, with dancers and musicians as well as sound and lighting technicians available.

More about this project can be found at:
http://www.popakademie.de and
http://www.musikpark-mannheim.de

EU funding

€5.5 million

was allocated from the ERDF to Pop-Akademie Baden-Württemberg and Musikpark Mannheim over the period 2002–2008

Drum event at the Popakademie

Historic building goes contemporary

What was once a decaying neighbourhood in the eastern quarter of Nicosia is now experiencing a transformation as part of a series of projects designed to generate social and economic activity. This project involved the restoration of an abandoned historic building (the Old Poorhouse), turning it into a contemporary centre where locals, notably the elderly and immigrants, can benefit from social and cultural services.

Completed on 21 December 2008, the project struck a balance between retaining the architectural beauty of the original building and adding new features, particularly the interior. In total, some 3 000 m² of buildings and open spaces were transformed.

Rundown areas given a boost

With financial backing from the EU, the Department of Town Planning and Housing, in co-operation with the Nicosia Municipality, succeeded in providing a centre for not only the local community but also others in the wider area of the walled city of Nicosia. The Municipality saw the need to breathe new life into traditional neighbourhoods adjacent to the ceasefire line, contributing to regeneration of the eastern parts of the city.

Retaining the old charm

The project included restoration of the existing building complex, with care taken to make only minimum additions and alterations. The works were carried out in accordance with international good practice principles and charters in respect of architectural heritage. However, given the range of specialised activities planned for the multipurpose building in the future, the Municipality also carried out some redesign work of the interior. Other work saw auxiliary buildings added and the surrounding area redesigned for different events, including open-air activities.

> "This project is a very good example of what can be accomplished through the utilisation of the EU regional policy and the available funds for balanced sustainable development at the European, national and local level. It is also the result of targeted co-operation of all levels of governance."
>
> **ABSTRACT OF SPEECH BY MS ELENI MAVROU,** MAYOR OF NICOSIA

A focus for all generations

The main building was designed to host the different activities of the Centre. The northern part is used for administration work, the middle part – which is the older section – hosts the cultural activities, and the southern part is utilised for social programmes for the elderly, immigrants and children, where they have use of different areas and rooms, depending on the group involved. In all, the project covered a total building area of 780 m² and open spaces of 2 150 m².

More about this project can be found at:
http://www.nicosia.org.cy

EU funding

€1 million

was allocated from the ERDF to 'Municipal Centre for Contemporary Social and Cultural Services, within the Walled City of Nicosia' over the period 2004–2006

Abandoned building now a focus of social and cultural activity in Nicosia

Ashfield training centre overcomes skills shortages

Providing training relevant to the local job market is one way in which the Ashfield Skills Centre is boosting employability in a region hit by the demise of the coalmining and hosiery industries. By working alongside employers, the centre proactively seeks to overcome skills shortages through high quality vocational courses.

Partnerships with industry and commerce have made it possible for the Ashfield Skills Centre to design, develop and deliver training in state-of-the-art, real life working environments. Both locally and regionally, students can aspire to brighter futures.

Targeted learning opportunities

Ashfield Skills Centre trains up students in a wide variety of subjects to industry standards thanks to its ability to mimic real industrial and commercial environments.

A fashion design company, 'Angels carrying savage weapons', runs its business from the skills centre. It produces bespoke corsetry, millinery and wedding dresses. A brand new Apple graphic design studio has just opened as well as a Cisco retailing academy and a beauty salon. Small businesses are supported by an onsite centre with Nottinghamshire and Derbyshire chamber of commerce.

Ashfield students can also follow workshops in construction, engineering, hospitality and catering given by industrial training providers such as RAC, Carillion and Charnwood.

> "The school feels that the opportunities opened up by this enterprising venture and the rest of the new developments have been important in promoting a positive awareness in the local community."
>
> **MR R VASEY,**
> ASHFIELD SCHOOL HEAD TEACHER

Ambassador for enterprise

The project has been hailed as an 'ambassador for enterprise' as a result of its unique approach to fostering entrepreneurship in the community, the strength of its links with industrial and commercial partners and the synergy that has been achieved between the school and a broad range of public and private sector partners.

Strong links with employers such as RAC and Carillion help ensure learners of all ages obtain the right qualifications and skills to develop careers in key growth sectors such as engineering, construction, health and care, tourism and culture, leisure and hospitality, food and drink production and financial and business services.

The centre's achievements include: the creation of 50 jobs, assistance and advice given to 67 businesses to aid growth and development, the setting up of over 200 new apprenticeships and 1 500 people assisted in skills development, and new premises for community use.

More about this project can be found at:
http://www.ashfield.notts.sch.uk/skills-centre.htm

EU funding

The Ashfield Skills Centre received

€2.5 million

from the ERDF

The colourful results of efforts made at the Ashfield Skills Centre

Sky is the limit for aviation centre of excellence

A new knowledge, skills and education centre for the Flemish aviation industry opened in 2007 at Ostend-Bruges International Airport. The VLOC (Flemish Aviation Training Centre) currently trains nearly 200 students a year.

Unique in Flanders, though modelled on facilities in the Belgian region of Wallonia, the centre offers a range of courses aimed at everyone from engineers to pilots. It is the product of an extensive synergy between public authorities and private partners, and has quickly become a centre of excellence in a highly competitive field.

Getting off the ground

The aviation and space industry is strategically important for Flanders, supported by several dozen Flemish companies, research centres and educational institutions. Recently it has enjoyed significant expansion and creates high added-value jobs for more than 50 000 people.

However, recent surveys in Flanders highlighted the region's need for an integrated aviation and airport policy, as well as for better education and training for those working in the sector. Aviation professionals also noted the extremely fragmented state of training in Flanders, which held it back from competing with nearby regions and countries.

> "VLOC offers students a unique opportunity to benefit from state-of-the-art aeronautical infrastructure, to facilitate their subsequent transition into professional life."
>
> **IVAN BECUWE,**
> LECTURER, VLOC

Opened in June 2007 at Ostend-Bruges airport, the VLOC is a partnership between the Region of Flanders, private companies, colleges of higher education and universities. The new building and facilities were created by the Catholic University College of Bruges-Ostend (KHBO), with Flemish Government and European funding – the latter covering a third of the total construction budget. The goal is to train commercial airline pilots, aeronautical engineers and aircraft technicians.

JAR-approved training centre

The centre covers both theoretical and practical training. It is open to everyone from students in secondary vocational education to university students and industry professionals looking to update their skills – and even jobseekers in the region.

Calling on aircraft engines, multimedia equipment such as cockpit simulators and system trainers, and distance learning where appropriate, the VLOC is now achieving high performance levels and opening up new career opportunities for some 200 students annually. The target from 2014 onwards is 320 students.

The centre provides direct (full-time equivalent) employment for around 12 trainers, supervisors and employees, while indirectly supporting local jobs in areas such as transport and hotel accommodation. It also meets the need to train or retrain people for aircraft maintenance in line with Europe's Joint Aviation Requirements, in force since 2003.

Honing skills at the training centre at Ostend-Bruges International Airport

Kids and the art of urban communication

The ability to get involved and play a meaningful role as a local resident is becoming increasingly important in rapidly changing urban environments. In many of Rotterdam's neighbourhoods, a large number of residents lack Dutch language skills. This children-oriented project, Language & Media Studio 'De Maakwereld', has already proved a real success in improving both language skills and social interaction, with more than 10 000 people taking part.

Since De Maakwereld first started in 2002, a total of 60 students have been involved in the teaching, thus embodying the project concept to actively take part in the social and economic challenges of living environments. Seven work experience jobs for students and a similar amount of exchange visits have also added to the dynamics of the project.

Language skills, a tool for life

Poor language skills can become a serious obstacle to active involvement in local life. 'Maakwereld' (a word invented by the children in the project) is a workshop/studio in the Oude Noorden neighbourhood of Rotterdam. To better their skills, the children took part in creative and fun activities to learn Dutch. In total, 64 cultural activities took place and included booklets, newspapers, TV, poetry writing, rap, singing and acting, digital activities, etc.

Fun was the key, as children express themselves more easily when enjoying themselves. Their creations also instilled a sense of pride and have boosted their self-confidence.

> "De Maakwereld helped me express myself on paper, and poetry became a part of me. Maakwereld made me realize, language is the key to development. If you know language, you can gain knowledge."
>
> **JERNEY LOUWERSE FORMER STUDENT, INTERNSHIP**
> MAAKWERELD, 2004-2005

Kid talk

To help get kids thinking, each session started with a familiar experience, for example a group discussion where each child was asked to describe 'their front door' or 'the very first thing they did today'. As such they learned to focus and concentrate better. Technology also came into the game – for instance using computers to write short poems of their experience.

The Children's Press Office was also an important feature where they co-operated with another URBAN II project, Cineac Noord which saw children interview other children, residents or civil servants on issues such as urban cleanliness.

Spreading the word

The power of this project has been the personal attention and real contact with both the children and their parents. Through support from a housing corporation, the project is now able to continue. Furthermore, almost every primary school in this neighbourhood, and increasingly schools in other parts of the city, is using this method to improve use of the Dutch language.

EU funding

€298 500

was allocated from the ERDF to the project Language & Media Studio 'De Maakwereld' over the period August 2002 to December 2006

Kids learning to speak the same language in Rotterdam

Arts centre bridges city's old and modern parts

Birthplace of explorer Vasco de Gama, Sines is home today to one of the most modern and attractive arts centres in Portugal. The small coastal city's multifunctional complex was completed in 2005 and includes a spacious library, exhibition centre, auditorium and archive.

The facilities offer an important new learning, meeting and leisure centre for the whole community. Passers-by can even see what is going on through the transparent ground floor.

Contemporary architecture

Located around 100 km south of Lisbon, Sines is perched on a cliff overlooking the Atlantic and has a famous fishing port. Although known for its annual World Music Festival, the biggest in Portugal, the city and its centre suffered for some years from economic decline and a gradual loss of inhabitants.

The project for a new arts centre and library was designed to inject new life into the area. A major goal was to foster better links between local people and the arts and music, as well as to enhance the city's historic centre with an aesthetically pleasing and impressive new building.

EU funding covered half of the project's total cost. Work started in November 2001 on the site of the former Vasco de Gama theatre and was overseen by the Alentejo region. Construction encountered several challenges, including the need to excavate hard rock using explosives rather than machinery. The seven-storey building, designed by leading Portuguese architects, was completed in November 2005.

> "The Arts Centre, especially its integration within the urban community, provides a new perspective on the historic centre of Sines without ever excluding the people who live, work or pass through the city centre."
>
> **RICARDO NICOLAU,**
> DEPUTY DIRECTOR OF SERRALVES MUSEUM

Multifunctional centre

The Sines Municipal Library and Arts Centre features a bold large-brick and glass design, partly resembling a castle. Its innovative architecture led to selection for the European Mies van der Rohe Award 2006. The main facilities are spread over seven floors and include a large library, spacious exhibition centre, a 190-seater auditorium for the performing arts and public meetings, and an accessible archive for local documents. The complex also has two cafeterias and an underground car park.

The centre has boosted Sines' image as an attractive place to live and visit. It is also a new platform to the arts and cultural education. Between January 2006 and August 2009, some 121 000 people attended events there. The exhibition centre alone attracted more than 36 000 to almost 40 exhibitions on everything from painting to sculpture.

EU funding

€2.68 million

was allocated to the Sines Municipal Library and Arts Centre project from the ERDF for the period 2000 to 2006

In the same period, the auditorium hosted 25 900 and the library around 16 500. The centre's educational service reaches out to local people – especially children – and has organised well over 1 350 activities.

More about this project can be found at:
http://www.centrodeartesdesines.com.pt/

Façade of arts centre in Sines

Smart helpers for humans

Robot Valley ('Robotdalen') specialises in robotics for industry, logistics and healthcare. The umbrella project has directly introduced around 150 small businesses in its home region in Sweden to the benefits of robotics, while additional EU funding has raised Robot Valley's profile and established links to similar clusters across Europe.

The national and international robotics equipment-makers involved are working closely with users to test new developments. The project is already half way towards its initial target of creating 30 new operations or companies within the robotics field and 30 new products, among them innovative robots for helping the elderly and disabled with everyday tasks.

A business focus

One of Europe's leading robotics centres, Robotdalen, as it is known in Swedish, covers an area some 100 km across and brings together researchers, developers, manufacturers and academia working in the field of robotics. It was launched with backing from the Swedish government agency Vinnova and will run until 2013. Additional funding granted to the project from the European Regional Development Fund will enable the generation of at least five new products and five new operations or companies during the financing period that ends in 2010.

> "The Giraff allows family, friends and caregivers to visit the elderly in their homes via the internet, just as if they were face to face."
>
> **MARIA GILL,**
> REGISTERED NURSE AND PROJECT MANAGER, ICT IN ELDERLY CARE

Work focuses on developing mature solutions that are easy to programme and use. Most are aimed at industrial clients, but the project is increasingly looking at the promising healthcare market. Some of its latest robots are designed to maintain a good quality of life for elderly or disabled people, by keeping them socially connected and empowered.

Sorting, surveillance and self-help

Recent commercial developments from Robot Valley include the SensActive, a machine that picks up items from unsorted bins using laser scanning and an algorithm to calculate the geometry of objects. A large mining truck that can be operated remotely underground was also launched as a product in 2007.

GroundBot is an 80-cm-wide surveillance robot shaped like a rock. It can move autonomously or be controlled remotely, and has already won orders from the US military. On the healthcare side, the Giraff is a robot that allows people to communicate with friends, family and health professionals via a mobile robot fitted with a two-way communications monitor. There is also a compact table-top robot to help the disabled to feed themselves.

EU funding

€2 550 000

was allocated to the Robot Valley project from the ERDF for the 2008 to 2010 period

Some 150 small and medium-sized local companies have taken up robots, after the project's experts undertook feasibility studies and showed them that robots can be highly efficient and cost-effective. Robot Valley has also introduced a €20 000 scientific award to encourage Europe-wide networking in this field and the recruitment of more robotics graduates.

More about this project can be found at:
http://www.robotdalen.org

Robots becoming part of social interaction

Weimar, Thüringen, Germany

New premises for civil engineering

Today's education and research facilities must be suitably equipped for modern methods of learning, teaching and researching. The region of Thuringia recognised that the civil engineering training campus at the Bauhaus-University of Weimar was in need of an upgrade. With support from EU funding, it designed and built a new building including two seminar rooms, a lecture hall and a modern laboratory, and is now home to a hive of student and researcher activity.

The stylish architecture provides a distinct structure that blends in with the surrounding buildings and landscape. The integrated nature of the facilities means that those working and studying there have easier and more ready access to both people and equipment, an important feature particularly for those working on their doctoral theses.

Proximity equals productivity

The proximity of the new laboratory space, teaching areas and offices provides an ideal working and research environment. Professors, scientists and students have access to well-equipped laboratory and testing areas where research is conducted to high international standards. The areas have had slanted glass added maximising the space available for use.

The new seminar rooms and lecture hall are frequently used for teaching and training both German and international students. About 70 students and 50 researchers and technicians use the rooms. Several scientists have also been able to complete their doctoral theses, covering diverse areas such as soil dynamics, mechanics of partially saturated soils and granular materials.

> "The soil dynamics group could not have achieved its current high international position in such a short space of time without the excellent facilities of the new building."
>
> **DR WUTTKE,**
> HEAD OF THE SOIL DYNAMICS GROUP

From lab table to industry floor

The specialist facilities at the laboratory, such as the climate room, rigid floor with loading frame and extended media wires, have enabled many projects to be undertaken, covering subjects such as numerical geomechanics, modelling the behaviour of soils, rock and salt structures, natural hazard mitigation analysis, complex geomechanics such as tunnels, former open mining areas, dams and foundations for wind power stations.

Currently, projects of the German Research Foundation, Federal Ministry of Education and Research, NATO as well as different local research activities are underway. To ensure that results are transferred to industry, many of the research projects are also conducted in close co-operation with companies.

More about this project can be found at:
http://www.uni-weimar.de/cms/index.php?id=669&L=1

EU funding

€2.7 million

was allocated from the ERDF to the project 'New civil engineering teaching and laboratory building at the Bauhaus-University of Weimar' over the period 2000 to 2006

Stylish, modern building for civil engineering studies

Healthcare goes electronic under northern skies

The modern face of healthcare is rapidly taking shape in the Northern Periphery, notably to the benefit of the elderly and young families. Technological developments, innovation and research are already part of eHealth services and telemedicine provided to people living in remote, isolated areas. In parts of Sweden, remote speech therapy has seen increased use, while in northern Norway, teledialysis is now a routine service. The Competitive Health Services project (2008-2010) aims to ultimately launch and test new pilot eHealth services in all countries taking part.

The region's healthcare providers have until recently been spending large amounts of time and money treating those living in sparsely populated areas. However, telemedicine and eHealth innovations now offer more cost-effective and efficient alternatives, with a focus on primary care, chronic conditions and remote specialist services. The first phase of the project has been completed – good eHealth practices and innovative solutions have been mapped and identified in partner countries along with service needs and gaps analysis.

Taking the pulse out in the field

Four countries in the project (Finland, Sweden, Scotland and Norway) are currently in the process of examining potential pilot sites to see whether or not they are actually ready to provide eHealth services that have been successfully implemented in one of the other partner countries. This second phase of the project involves the combined work of representatives from the public sector, universities and businesses. The work takes account of regional differences and needs and also the methodological approaches suitable for specific regions.

> "Residents of remote and rural communities in Finland, Sweden, Norway and Scotland will benefit from improved access to eHealth services such as teledialysis, speech therapy, remote monitoring of biosignals, a mobile eye screening service and a remote wound clinic."
>
> **MINNA MÄKINIEMI,**
> PROJECT COORDINATOR, NORTHERN OSTROBOTHNIA HOSPITAL DISTRICT, FINLAND

Voices echo across the miles

Innovations being considered for possible transfer include remote speech therapy from Sweden, teledialysis from Norway, mobile eye screening for diabetes and glaucoma from Finland, remote ECG transmission from Scotland and The Bag - a unit for remote monitoring of physiological data - from Sweden.

Two notable innovations, remote speech therapy and teledialysis are already proving beneficial for patients in remote regions. Video-conference systems provide a vital link in this care process, connecting sufferers of aphasia, dyslexia or Parkinson's disease with the main hospitals. Similarly, teledialysis has seen proven success, with better quality patient follow-up and reduced travel time for nephrologists and patients.

More about this project can be found at:
www.ehealthservices.eu

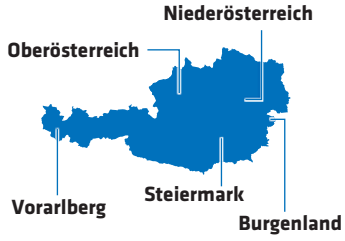
EU funding

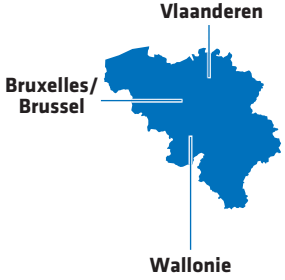
€933 000

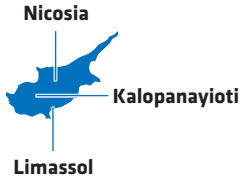
is being allocated from the ERDF to the Competitive Health Services project over the period January 2008 to December 2010

New ways of providing medical help

Index by country







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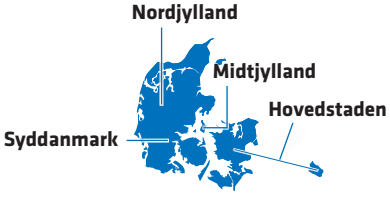

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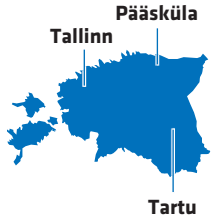

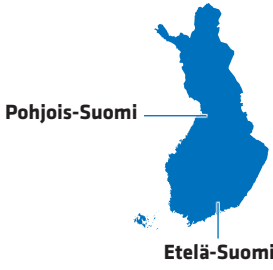

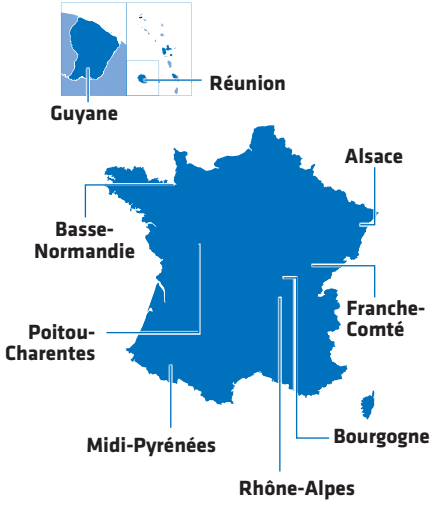

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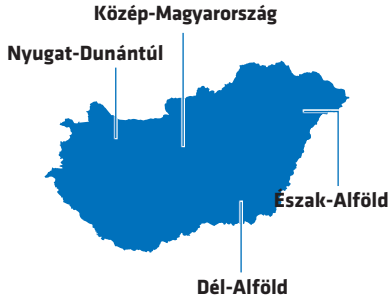

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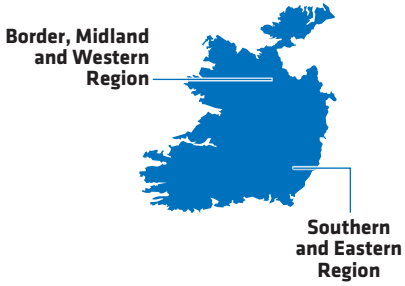

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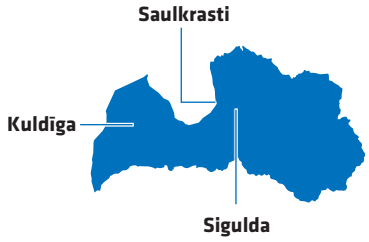

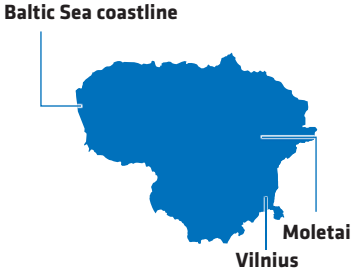

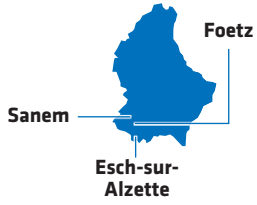

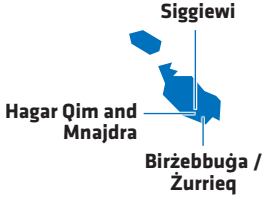

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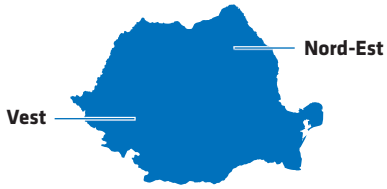

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Slovenia

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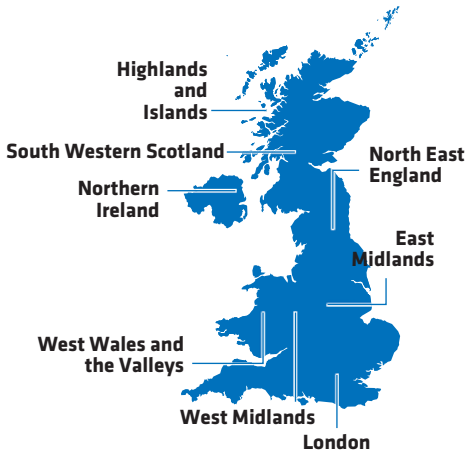

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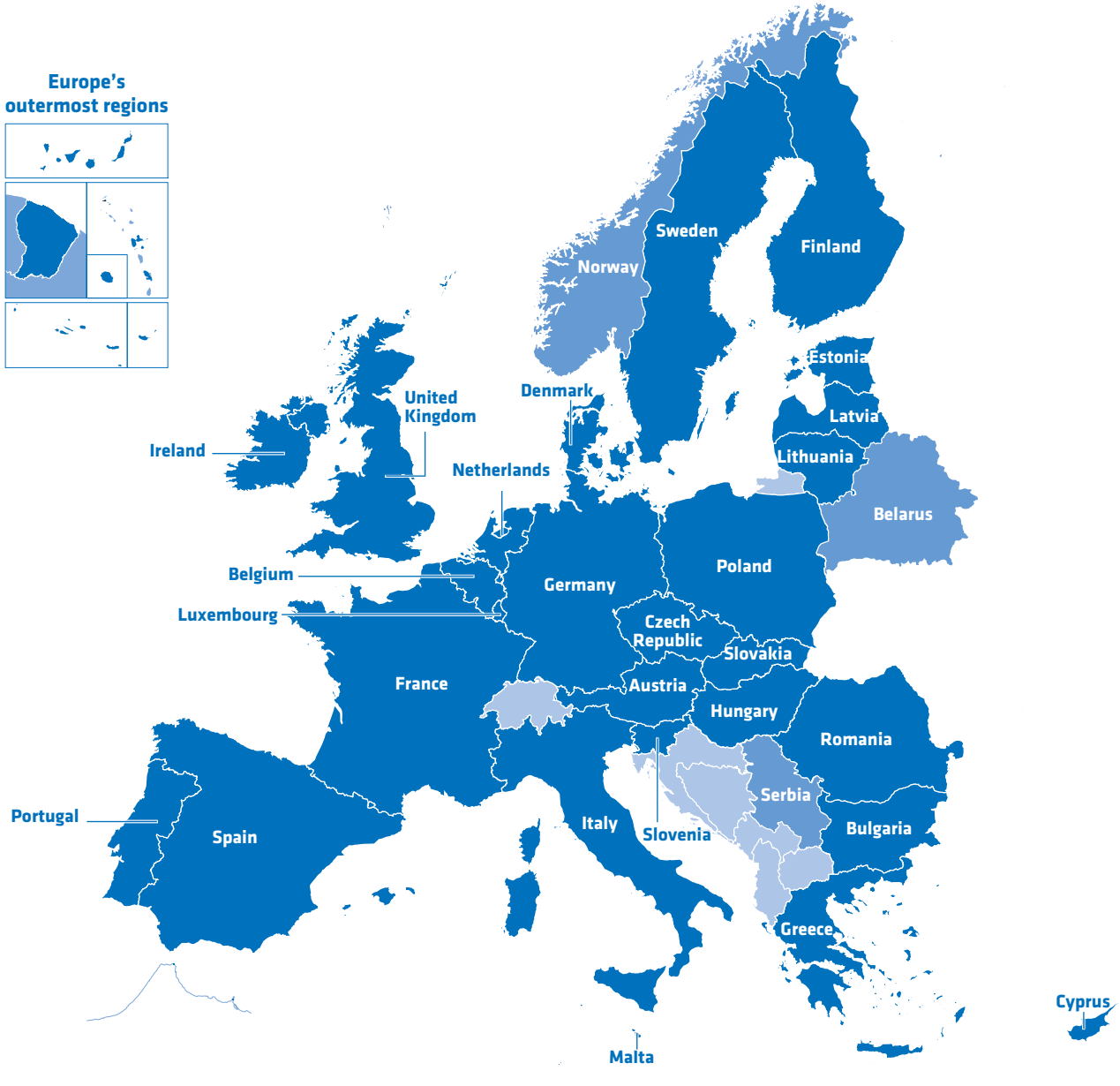
Europe's outermost regions
Sweden
Finland
Norway
Estonia
Latvia
Lithuania
Belarus
Denmark
United Kingdom
Ireland
Netherlands
Belgium
Germany
Poland
Luxembourg
Czech Republic
Slovakia
France
Austria
Hungary
Romania
Serbia
Portugal
Spain
Italy
Slovenia
Bulgaria
Greece
Cyprus
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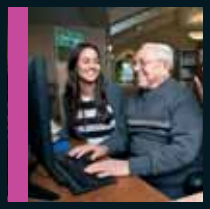
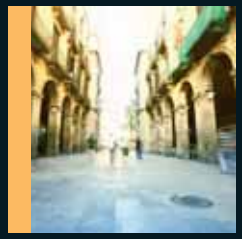
European Union
Regional Policy

INVESTING IN OUR REGIONS

150 EXAMPLES OF PROJECTS CO-FUNDED BY EUROPEAN REGIONAL POLICY







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