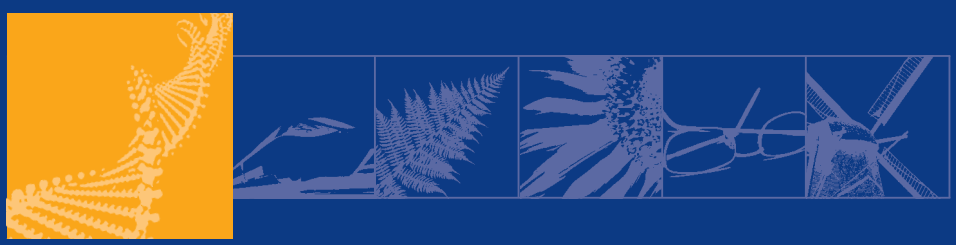
PORTRAITS

Project Stories from the CENTRAL EUROPE Programme

Technology Transfer and Business Innovation



CENTRAL EUROPE
COOPERATING FOR SUCCESS.

EUROPEAN UNION
EUROPEAN REGIONAL
DEVELOPMENT FUND

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Contents

Editorial

Innovation helps drive regional competitiveness on all levels. As the business world becomes increasingly complex, and competition becomes more intense, companies are turning to innovation as one of the few reliable ways to achieve a competitive advantage.

Many regions in central Europe still face the challenge of frail framework conditions for supporting innovation. Expenditure for research and technical development is relatively low, as is the participation of non-urban actors in cooperative clusters. To take advantage of innovation, businesses need more efficient technology transfer, as well as ready supplies of finance and appropriate business skills.

CENTRAL EUROPE projects work on these challenges by building better connections between regional actors. The centrope_tt project (p.34) for example improves regional innovation management systems, CNCB (p.44) creates opportunities for internationalising clusters while CluStrat (p.42) creates new cluster concepts to support emerging industries. ACCESS (p.16) looks into assessing sector-based innovation potential and C-PLUS (p.46) helps implementing measures for cluster excellence.

CENTRAL EUROPE projects also help small- and medium-sized enterprises to unlock their innovation potential and promote the use of research results to create business opportunities. This is done by testing tools for innovation and technology transfer like in the CEBBIS project (p.22) or the LiCEA project (p.66). PROINCOR (p.74) is a project that supports businesses in innovation management, while INNOTRAIN IT (p.60) helps fostering human capital for the innovation process. Matching innovative ideas with funding is the objective of projects like CERIM (p.36) or FORT (p.52).

This booklet introduces you to the CENTRAL EUROPE story, showcasing 31 innovation projects that were co-financed since 2007. We hope that it will serve as a valuable starting point for discussing achievements of our projects and that it will inspire you on what can be done further and what directions should be taken in view of the programming period 2014-2020.

Christiane Breznik,
City of Vienna,
CENTRAL EUROPE
Managing Authority

CENTRAL EUROPE

Cooperating across borders for the regions

The cities and rural regions of central Europe share a common history as well as similar social and cultural characteristics. The area covers more than one million square kilometres, stretching from the Baltic Sea in the north to the Mediterranean Sea in the south, with less clearly defined borders to the west and east. It is home to 150 million people – benefitting from transnational cooperation through the CENTRAL EUROPE Programme since 2007.

Despite their common characteristics, the regions of central Europe are marked by diverse features: Major differences are apparent in terms of climate conditions, land use, settlement and economic structures, accessibility, and ecological challenges. There are also big differences in central Europe's political and administrative structures, which are among the most heterogeneous in the European Union. The challenge is to use central Europe's diversity as an opportunity to promote more sustainable development of the area – by fostering increased cooperation among a wide range of actors from various countries and regions.

CENTRAL EUROPE 2007-2013

The CENTRAL EUROPE Programme has generated ample opportunities for closer cooperation among public authorities, institutions and private businesses from nine central European countries: Austria, the Czech Republic, Germany, Hungary, Italy, Poland, Slovakia, Slovenia and Ukraine. By co-financing 124 projects, the CENTRAL EUROPE Programme has helped to improve local and regional innovation, to increase accessibility, to preserve the environment and to enhance the competitiveness and attractiveness of regions within central Europe.
Since 2007 the CENTRAL EUROPE Programme has invested more than EUR 230 million on transnational projects supporting:

- Technology transfer and business innovation
- Sustainable public transport and logistics
- Environmental risk management and climate change
- Energy efficiency and renewable energies
- Demographic change and knowledge development
- Cultural heritage and creative resources

Programme: CENTRAL EUROPE
ERDF funding: € 231 million
Duration: 2007 - 2013 (2015)
Website: www.central2013.eu

498 000 000

Euros of investment being prepared by CENTRAL EUROPE projects

22

Euro cents spent per citizen per year on financing CENTRAL EUROPE projects

1 331

Partners involved in CENTRAL EUROPE projects

Cooperating for citizens

CENTRAL EUROPE projects all involve joint efforts by stakeholders from different countries. This approach is designed to improve people's day-to-day lives by addressing problems that do not necessarily recognise national borders. Issues have been tackled at the territorial level where they occur, which is the regions in central Europe. Transnational cooperation allows partners to take advantage of the added value of doing things together, so they can prevent duplication and speed up developments with a higher impact.

More concretely, CENTRAL EUROPE projects:

- Carry out pilot investments and actions
- Leverage additional money and investment
- Come up with new economic strategies and involve local communities
- Increase efficiency on various levels
- Improve spending of public money
- Support the adaptation of EU directives to regional contexts
- Strengthen regional networks and involve local communities
- Influence the policy agenda on all political levels

> "We need to build on the rich and valuable experience gathered through transnational cooperation. There is much evidence that a series of challenges cannot be tackled solely at the level of a single Member State, or even at regional level, but only in a cross-border context."
>
> Johannes Hahn,
> European Commissioner for Regional Policy

Photo: © iStockphoto.com / EHStock

Photo: © iStockphoto.com / Fred Freese

Contributing to Europe 2020

Transnational cooperation driven by the CENTRAL EUROPE Programme is firmly embedded in the strategic policy frameworks on the European, national and regional levels. Many of CENTRAL EUROPE's projects have already been contributing to the Europe 2020 Strategy and its mutually reinforcing goals of smart, inclusive and sustainable growth in Europe. This approach to development is expected to help the EU and Member States deliver high levels of employment, productivity and social cohesion. Concrete actions of the 2020 Strategy are designed to reach ambitious targets in five areas: employment, innovation, education, social inclusion and climate and energy.
The CENTRAL EUROPE Programme, and the transnational cooperation between actors on the ground, plays an important role in meeting these targets on the regional level – even though the programme only used 0.07 percent of the total budget available for EU Cohesion Policy in 2007-2013.

CENTRAL EUROPE 2014-2020

In the programming period 2014-2020 the CENTRAL EUROPE Programme will continue to support regional cooperation among central European countries. Croatia is the latest country to join the programme, which also includes Austria, the Czech Republic, Hungary, Poland, Slovakia and Slovenia, as well as parts of Germany and Italy.

The overall objective of the CENTRAL EUROPE Programme is "to cooperate beyond borders to make central European cities and regions better places to live and work". Put more precisely, transnational cooperation should become the catalyst for implementing smart solutions that answer to regional challenges in the fields of:

- Innovation and knowledge development
- Low carbon cities and regions
- Environmental resources
- Cultural resources
- Transport and mobility

Topics like demographic change will be tackled horizontally. The focus of activities will be on policy-learning and implementation-oriented approaches at the transnational level. More concretely, actions will include the development and implementation of strategies and action plans, the development, testing and implementation of tools, the preparation of larger investment, the implementation of pilot actions – including pilot investments – as well as capacity building measures including training.

More detailed information on the new CENTRAL EUROPE Programme is available online at www.central2020.eu

COOPERATING ON INNOVATION 2007-2013

CENTRAL EUROPE AT A GLANCE

COUNTRIES, REGIONS/CITIES, AND INHABITANTS COVERED

148 million citizens

80 cities & regions

9 countries

INNOVATION PROJECTS CO-FINANCED

31 innovation projects out of 124 in total

1 out of 6 themes

313 partners in innovation projects out of 1331 partners in total

DURATION OF PROGRAMME

2007	2008	2009	2010	2011	2012	2013	2014	2015

PUBLIC MONEY WELL INVESTED

BUDGET INVESTED

54 million euros = **23%** of the total programme budget of **231 million euros**

With roughly **0.05€** **spent per citizen per year,** the programme achieves:

Future investment prepared by projects **11** million euros

0.34 million euros Total **investment** carried out by projects

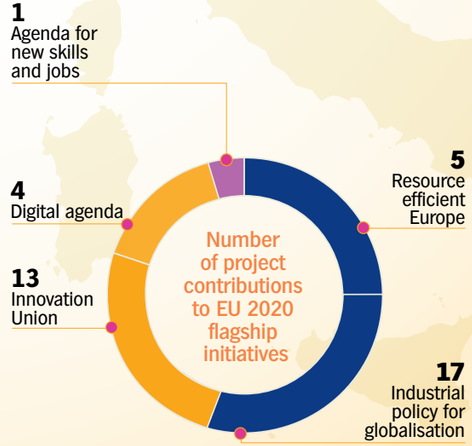
Permanent **cooperation networks** established: **217**

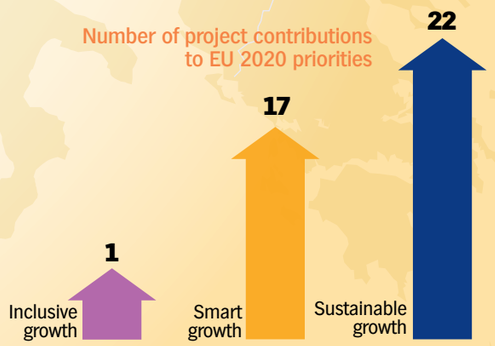
Local **pilot activities** carried out by projects: **370**

Jobs created: **397**

CONTRIBUTING TO EUROPE 2020

CENTRAL EUROPE contributes to the European Union 2020 Strategy and reaching its goals of smart, inclusive and sustainable growth. Concrete targets for employment, innovation, education, social inclusion as well as climate change and energy were set on the European level and CENTRAL EUROPE project results help to meet them on the local and regional levels.





Design: studioQ.at

Data: April 2014

ANALYSIS

Cooperating to support innovation and uptake of technology

> The CENTRAL EUROPE Programme clearly presents added value and fills an existing gap within the EU policy context, by offering innovation policy makers and intermediates a unique 'open framework' for development, sharing and experimentation of new innovation approaches towards technology transfer and business innovation.
>
> Inova +, Portugal

Innovation is vital to remaining competitive and achieving economic growth. Researchers working with smaller, more flexible firms that seek to make new ideas pay off can lead the way for innovation. But the ideas and the investors need to be brought together, and the policy framework needs to support innovation.

The CENTRAL EUROPE Programme seeks to address these needs through projects falling under the theme of "Technology transfer and business innovation." In the 2007-2013 period, 31 of the 124 projects in the CENTRAL EUROPE Programme belonged to this category.

According to an analysis conducted by Inova +, CENTRAL EUROPE projects under this theme deal with the issue well, by fostering vital cooperation and by helping innovative businesses overcome barriers. The analysis noted that these projects support EU policy goals to promote innovation – and that they add value by offering a transnational framework for encouraging cooperation on innovation and policy development.

31 technology and innovation projects worked in two subthemes: Projects aimed at "Cooperating to build better connections between regional actors" involve joint learning and information sharing, especially between those who make and implement policy. Projects aimed at "Cooperating to increase innovation in regional businesses" give more direct support to help businesses realise their full innovative potential and to bring new research to the market.

Policy learning a dominant activity

The analysis found that 17 out of 31 projects under the theme of technology transfer and business innovation are focused on policy learning and information sharing.

The analysis noted that there are several challenges involved in implementing effective cooperation and learning processes among regional actors to improve innovation policy. Locally, officials need assistance in measuring the effectiveness of policies and programmes – with better benchmarking and formal review mechanisms. Transnationally, there is a need for mechanisms to find good practises and a need for support in implementing those practices. The analysis found that the 17 CENTRAL EUROPE projects focusing on policy learning for technology transfer and innovation did a good job of providing support to address all these needs – support that is not otherwise adequately provided by other EU and national efforts.

When it comes to directly assisting businesses, especially small- and medium-sized enterprises (SMEs), the analysis noted that barriers faced by businesses include: a shortage of financial resources, a shortage of innovation managers, insufficient marketing of innovation and innovative products and services, lack of research capabilities (especially for SMEs), and weakness in networking and cooperation with external partners. According to the analysis, for all of these areas support is provided by projects either dedicated specifically to that topic or addressing it jointly with other topics. The most common activity among the 14 innovation-oriented projects that sought support businesses was in the area of improving innovation management skills. One reason for the prevalence of this focus is that it is relatively easy to implement effective training on the transnational level.

In addition, six of the 31 projects in the technology transfer and innovation theme had what could be called a "blended" focus, with activities aimed at both addressing policy needs and at directly supporting businesses. According to the study, the two activities are complimentary, so it makes sense to blend them.

For the future, the analysis recommended that CENTRAL EUROPE projects continue to focus on technology transfer and business innovation. In addition, a formalisation of the two subthemes of policy efforts and more direct support to businesses was also recommended. At the same time, the analysis said, projects that take a "blended" approach and address both these subthemes can be particularly effective.

To download the complete analysis visit
http://www.central2013.eu/thematic-studies

Technology transfer and business innovation

Cooperating to build better connections between regional actors

Cooperating to increase innovation in regional businesses

PROJECT STORIES

A sectoral approach encourages innovation

Photo: © iStockphoto.com / DNY59

Small- and medium-sized enterprises (SMEs) are often drivers of innovation, especially in certain technology-dependent sectors. But in the face of economic slowdown, it is difficult to maintain the momentum of innovation in SMEs. The ACCESS project attempts a different solution to this challenge: Taking a sector-specific approach to encourage innovation that can spur the economy.

The ACCESS project focuses on three sectors where innovation has historically made a big difference: Biotech, mechatronics and agro-food. Eleven partners from eight central European countries are working through the project to foster innovation by seeking the answers to two key questions:

- What tools and techniques of regional innovation management might help to improve the capacity for innovation?
- What is the potential of a sector-based focus to improve innovation management?

More specifically, the project seeks to reveal what kind of impact innovation makes in these sectors, how innovation is currently being encouraged and what is being achieved by these efforts. It also tries to determine what support actors in these sectors really need to assist them in innovation. Because the project is transnational, ACCESS can perform a region-wide knowledge audit of innovation capabilities in specific sectors. This approach is used to identify the best innovation management tools and techniques for encouraging new ideas in each sector. These tools and techniques can be presented to the relevant target groups.

> “The project can serve as a good orientation for national and regional regulators, and other stakeholders in the sector, to form a supportive environment encouraging innovativeness.”

Janja Kokolj Prošek,
Ministry of Agriculture and Environment - Comprehensive Countryside Development and Village Renovation (CCDVR) Programme, Slovenia

Sharing the knowledge

ACCESS makes it a priority to share the findings of its sector-specific research into innovation with the appropriate stakeholders in central Europe, including government regulators, researchers and managers involved in the industries being studied.
Using the information they gathered, participants in the ACCESS project offer a special “Transnational Innovation Management Training” course, to help ensure that the knowledge is disseminated widely. The skilled experts emerging from this course are able to make recommendations to competent ministries and other actors about how to support innovation systems. Furthermore, the experts offer managers in the three sectors of biotech, mechatronics and agro-food information on how to improve innovation systems and introduce supportive measures in the future.
The researchers for the various sectors also helped share their knowledge through the ACCESS project’s “Peer Review Methodology”, in which professionals who examined innovation in the region meet and discuss their findings with their peers – local government and administrative actors, universities and private research institutes, innovation and technology intermediary organisations, venture capital investors and private enterprises. Knowledge was shared through events like three regional meetings involving food sector professionals, four meetings involving mechatronics professionals and three meetings for the biotech sector.
These, and other activities in the field, encourage a systematic approach to fostering innovation, while also bringing together a range of different stakeholders who can cooperate to support continued knowledge transfer well beyond the lifetime of the project.

99
Percentage of all enterprises in the EU-27 food sector that are small- and medium-sized enterprises (SMEs)

200
Field interviews conducted by ACCESS researchers

3
Pilot actions by ACCESS in the biotech, mechatronics and agro-food sectors

Photo: © iStockphoto.com / RainerPlendl

Project: ACCESS
ERDF funding: € 1 578 642
Duration: 2010 – 2013
Website: www.central-access.eu

Photo: © iStockphoto.com / gilas

Making central Europe clean and competitive

Companies in central Europe can greatly reduce any negative environmental impacts created by industry and business if they know how to take advantage of the latest technology. To help ensure that local businesses have the knowledge they need to be more environmentally friendly, the ACT CLEAN project created the first area-wide network for cleaner production.

The ACT CLEAN network works through the cooperation of ACT CLEAN national contact points (NCPs), which have developed stable cooperation structures and permanent services for supporting small- and medium-sized enterprises (SMEs) in using and applying cleaner production technologies and management systems.

Stony path towards EU compliance

Cleaner production is not just a good way to become more efficient while reducing pollution, it is also a legal obligation: EU directives and regulations require enterprises to comply with environmental standards and ensure eco-efficient production processes. Many SMEs lack access to cleaner production technology that has been developed and put to use in other regions. At the same time, those SMEs that can provide customers with cleaner production technology often lack access to the relevant market players. ACT CLEAN addresses these problems by offering SMEs a range of products and services to make their production processes more eco-efficient and to ensure that they comply with relevant EU legislation.

> Through the ACT CLEAN network, our companies were introduced to highly innovative issues and are currently following up on them. The concept of 'eco-design' proved to be especially interesting and resulted in concrete initiatives, such as regular organisation of trainings.

Carlotta Ranieri, CNA Bologna,
National Confederation for the Craft Sector
and Small and Medium Enterprises,
Coordinator Policy, Energy, Environment, Italy

For example, as part of this project, Corvinus University in Hungary adapted one of the tools provided by the Slovak Cleaner Production Center: A database on EU regulations called "Complex". This concept was converted into a simpler database called "Greenlex", which is an interactive tool that allows SMEs to easily check which EU and Hungarian regulations are relevant for them – and to check that they are in compliance with those regulations.

No need to reinvent the wheel

Along with collecting such tools in the ACT CLEAN tool box, the project has also identified and publicised good-practice examples. Much can be learned from a transnational exchange of these good practices, which are called "Cleaner Production Highlights".
In one example, a German company developed an adsorption chiller – solar cooling technology that uses much less electricity compared to standard room air conditioning techniques. Water is used to replace the usual refrigerant, hydrofluorocarbon, which has a high global-warming potential. In the winter time, the device can be operated as a heat pump, to support heating. The result is not only a safer environment but also energy efficiency, which produces immediate savings for SMEs.
ACT CLEAN has collected and assessed examples like this one and built up a shared pool of innovative solutions for SMEs. Around 500 examples have been selected for the project database, and they are also promoted via brochures and other dissemination means.

Matchmaking events provide direct support

The ACT CLEAN network has established a continuing programme of industry workshops and business-to-business training on cleaner production. In the last three years, the main subjects covered by this training work have included resource efficiency, waste management and environmental management systems, but the network can also meet specific requests of SMEs by addressing any important topics pertaining to cleaner production.

Encouraging cleaner production on a regional scale

The project also developed the ACT CLEAN transnational agenda, which is currently being promoted as a way to support policy for fostering, developing and deploying cleaner production. The agenda's action plan focuses on three areas:
- Facilitating networking activities
- Improving awareness of cleaner production solutions
- Improving the financial framework

Each of the action plan's recommendations is addressed to the specific institution responsible for acting on the suggestion.

The way forward

The cooperation mechanism of the ACT CLEAN network is now well established and sufficiently robust to endure beyond the initial project. The project website continues to operate as an interface between various central European countries and enterprises. Recommendations in the action plan should be taken up, to further shape and improve the framework for cleaner production in central Europe. In addition, continued awareness raising is needed to educate SMEs about cleaner production and to promote and market the tools and instruments that have already been developed.

1990

Year in which the term 'cleaner production' was coined by the United Nations Environment Programmes

Project: ACT CLEAN
ERDF funding: € 1 914 082
Duration: 2008 – 2012
Website: www.act-clean.eu

Driving the auto industry with innovation

When it comes to steering central Europe's automotive industry in the right direction for the future, innovation is the best driver. Forward-thinking automotive firms and research institutes can keep their regions competitive by working together to develop new processes, materials or products. AutoNet helps jump-start innovation by uniting actors in the industry, in central Europe and beyond.

The goal of AutoNet is to create a stable network of companies, research centres, universities, international organisations and public institutions, who can work together to promote innovation in various aspects of the automotive industry. The project introduces key actors in the sector, allowing them to exchange knowledge and work with one another.
AutoNet's activities included the organisation of three international "Exchange of Experience Seminars", held in Nitra (Slovakia), Reggio-Emilia (Italy), and Rzeszow (Poland). These meetings allowed for thematic discussions between 172 participants – including representatives of enterprises, managers, policy makers and intermediary bodies that are interested in innovation-oriented, network-based development of the automotive industry.

Making matches

AutoNet also specialises in tools and meetings aimed at matchmaking, to help create long-term partnerships between European actors involved in the automotive industries.

> The EU is the world's largest producer of motor vehicles; the industry is a huge employer of skilled workers and a key driver of knowledge and innovation. I believe that AutoNet provides one of the best opportunities for networking and cooperation in central Europe.

Andrea Hrčková, Project Manager, SIM PLAN, Slovakia

The project's MatchMaking database makes it fast and easy to search for partners online. The database currently consists of more than 470 registered organisations, and this number is continuously growing, thanks to new entries from small- and medium-sized enterprises, research and development institutions, universities and other organisations involved in the automotive industry. The potential partners joining the database are not only from the European Union, but also other countries with strong automotive industries, such as Ukraine, Turkey and Russia.
To help users get the most out of the MatchMaking database, AutoNet held 27 special training sessions in nine regions around central Europe. More than 800 participants had the opportunity to receive a first-hand overview of the database and its functionality.
The project also facilitated in-person networking that lead to real cooperation by holding 12 MatchMaking events – including nine events in different regions of the EU and one event each in Turkey, Ukraine and Russia. These events brought together more than 550 participants and resulted in the signing of six agreements to create long-term partnerships intended to develop innovative solutions in the automotive industry.

AutoNet does its own networking

In seeking to improve cooperation among actors in the auto industry, AutoNet also engages in cooperation – for example by working on developing synergies with AUTOCLUSTERS (see also www.autoclusters.eu). In addition, AutoNet signed agreements with CLEPA (European Association of Automotive Suppliers), which represents the official voice of the automotive suppliers industry, and EASN (European Automotive Strategy Network), which aims to strengthen the EU automotive industry by improving its competitiveness and long-term sustainability.

As the initial project's duration wound down, AutoNet was ensuring that its opportunities for networking are carried on, through continuation of the MatchMaking database and other sustainable networking efforts.

470
Entries in the MatchMaking database

800
Trained MatchMaking database users

1 300
Bilateral meetings at MatchMaking events

Project: AutoNet
ERDF funding: € 1 324 726
Duration: 2010 – 2013
Website: www.autonet-central.eu

Turning research into business

Photo: © iStockphoto.com / Stefan Thamm

Scientific and technological breakthroughs being made in Europe's universities can provide exciting new business opportunities for forward-thinking small- and medium-sized enterprises (SMEs). But companies can only take advantage of the latest innovations if they know about them. The CEBBIS project is seeking to promote innovation in SMEs by improving communication between universities and industry.

Made up of a partnership of research centres and technology parks in seven central European countries, CEBBIS was created to break down barriers of communication between researchers and business people. As the project's research has shown, these barriers include a lack of understanding between researchers and entrepreneurs, inappropriate systems for funding universities or scientific institutions and improper systems for managing universities.
To address these problems, CEBBIS is organising a series of workshops and conferences that encourage better communication while allowing professionals and stakeholders from around the region to share their knowledge on how to improve communication in a way that can boost innovation.

Sharing experiences

The project opened with a gathering dubbed the Prague Summer Conference on Intellectual Property & Innovation, which was attended by leading professionals in technology transfer as well as representatives of industry and venture capital. Participants in that conference helped identify the challenges involved in ensuring that universities and businesses communicate more effectively in order to turn new ideas into commercially viable ventures. The conference allowed participants from around the region to share their ideas on technology transfer, and initiated activities that CEBBIS partners could carry out in their home countries.
For example, the project enabled the creation of a strategic technology roadmapping service, offered to public and private sector organisations by the AREA Business Park in Italy. Technology roadmapping is an approach that involves creating specific plans to take advantage of new technologies – it constitutes a strategic approach to bringing science into practice. AREA developed 16 different instruments to help with this work, including tools that assist with product design management, demand evaluation, 3D-visualisation and business intelligence.
Another project initiative was the organisation of round-table discussions among representatives of major local and international businesses and experts from the Czech Technical University. Inovacentrum, the university's technology transfer office, put together seven discussions involving more than 200 participants from companies like Siemens, Skoda, Bosch, etc. The opportunity for open conversation between academic and industrial professionals promoted better understanding among the two sectors and resulted in a number of commercial orders.
The countries partnering in the project – Austria, the Czech Republic, Germany, Hungary, Italy, Poland and Slovenia – held a number of meetings and conferences to exchange good practices. To help share the knowledge generated through these gatherings, members of the CEBBIS network kept one another informed about the results of their undertakings. Participants in the CEBBIS project overcome the gaps between universities and industry and bring the best innovations to commercial application.

> "In all the partnering countries we now have the option to use the experience gained in other partnering countries. We regularly exchange information and experience in the area of innovation. The international network also brings new opportunities for cooperation."
>
> Stephen Taylor,
> Executive Director of Technology Transfer
> in the AREA Science Park in Trieste, Italy

5
Competence centres created by CEBBIS to offer innovation to businesses

16
New tools developed to improve technology transfer

38
Workshops and seminars encouraging commercial use of new technologies

Project: CEBBIS
ERDF funding: € 1 654 712
Duration: 2010 – 2012
Website: www.cebbis.eu

Helping SMEs clean up production processes

As major contributors to pollution, businesses can greatly reduce strains on the environment if they clean up their production processes. Using a software tool created by the CEEM project, businesses can figure out by themselves how to use new technologies that will improve their efficiency and their environmental performance.

Managers of small- and medium-sized enterprises (SMEs) receive valuable support from CEEM as they seek to optimise pollution reduction, waste management, efficient energy use and raw material supply. Hundreds of companies have used the project's simple instrument to enable sustainable, clean production at reduced costs. These companies provide an example for others as they cut pollution and increase efficiency.
Partners in the CEEM project developed a software called the Eco-Energy-Efficiency Management Tool (3EMT) and made the tool available online. SMEs, which usually lack the capacity to conduct their own energy audits, as well as larger companies, can use the tool to get a real understanding of the energy they consume. 3EMT also makes it clear how companies can achieve better energy performance by adopting environmentally friendly technologies throughout the supply, production and shipping cycle.
The tool helps raise awareness of environmental issues among manufacturing companies in traditional sectors, such as construction, food, and automotive – all types of production that have a strong impact on the environment in central Europe. By encouraging these companies to adopt environmentally friendly technologies, CEEM provides a concrete contribution to sustainable economic development in central Europe.

> The CEEM project is a valuable component of innovative industrial policies for central European regions because it helps companies to assess their impact on the environment and their energy habits and gives hints on how to better perform.
>
> Sergio Bolzonello, Vice President
> Autonomous Region Friuli Venezia Giulia, Italy

Testing through a pilot action

During a pilot action aimed at testing the 3EMT, enterprises were asked to use the tool: They entered their company data on energy use, environmental habits and green investments into a questionnaire. Their answers to these questions can be contrasted with those of other companies, and broken down by sector and country, for fruitful comparisons. The user-friendly 3EMT toolkit allows enterprises to self-assess their eco-energy management performance. The tool also generates a tailored strategy for each company, suggesting ways for them to reach greener production processes, with steps like reducing supply chains, cutting CO2 emissions and eliminating wasteful practices, all changes that reduce production costs.
As the first step of the pilot, 100 companies used the tool, and their case histories were documented. The CEEM project eventually involved at least 500 SMEs in using the tool and testing their efficiency.

The policy level

Along with showing individual companies how to improve their efficiency and environmental performance, the 3EMT toolkit makes it possible to compare the situations of participating firms. The statistical data gathered with the tool will be useful for policy makers who want to design new sustainable industrial policies that are harmonised throughout the central European area. To encourage these policies, the 100 case histories of companies that used 3EMT are discussed in a forum that involves companies, policy makers and other stakeholders. This forum seeks to design a transnational strategy for encouraging sustainable production processes in central Europe.

80

Percentage of EU SMEs that say they plan to implement resource efficiency actions in the next two years

500

SMEs self-assess their green performance using the project's online tool

100

Case studies show how companies can act to improve their energy efficiency

Project: CEEM
ERDF funding: € 1 281 327
Duration: 2012 – 2014
Website: www.ceemproject.eu

Photo: © Roberto Barnaba

Helping innovative light shine on the market

Innovative light sources (ILS) act like exceptionally powerful microscopes, giving us new information about atoms and molecules and how they can be manipulated. ILS technology can improve our lives in many ways, but the field is still mostly known only by researchers. CENILS encourages the kind of networking that can help us get the most out of ILS by bringing practical applications to the market.

The information that ILS can give us about the formation of matter, and how matter reacts to external stimuli, promises novel applications in a broad range of innovative scientific and technological fields, ranging from fundamental science to biology and medicine, and from nano-electronics to material science.
Centres hosting ILS therefore represent a crossroads between fundamental science, state-of-the-art technology, high-level education and training, and the business sector. The centres thus provide a formidable environment for human capital development.

CENILS seeks to take advantage of the opportunities provided by ILS by creating a transnational network of universities, laboratories and businesses, to promote use and development of the technology in central Europe.
It is clear that not all regions of central Europe are presently able to realise the great potential offered by the development and use of ILS. This disparity among different regions is an obstacle to the full exploitation of ILS technology.
The project used a database of one of the project partners Elettra Sincrotrone, a concern that can generate ILS light. Their database showed that more than 90 percent of the interest in ILS in the last 10 years came from universities or public institutes – an indication of a poor connection between industry and researchers on this matter.

> “Thanks to the free electron laser and synchrotron radiation, we were able to test the potential of our innovative beam position monitor and to confirm the high flexibility of the control software we developed.”
>
> Dr. Augusto Mandelli, National Instruments, Scientific Research & Big Physics Segment Manager, Italy

Getting industry involved

For this reason, CENILS involves universities, laboratories and business entities in a transnational network to promote effective use and rational development of ILS in central Europe. The project works to increase the knowledge and contacts of entrepreneurs, scientists, engineers, technicians, students and professors coming from all central European regions. This group receives training through two pilot actions, which use cutting-edge science that is also closely linked to industrial applications.
To increase the effectiveness of the project results, CENILS partners are working with the European Strategy Forum on Research Infrastructures, a separate initiative that supports a coherent approach to policy-making for research infrastructures in Europe.

Pilot actions

The pilot actions operated by CENILS promote commercial interest in two promising applications of ILS. The first pilot involves experiments aimed at characterising the properties of the light generated by the FERMI free-electron laser. This pilot is expected to help entrepreneurs and scientists choose the best-suited European facilities for developing their ideas involving free-electron lasers.
The second pilot exploits light generated through high-order laser harmonics to study the process of energy transfer from light to electricity in a solar cell. The experiment, which uses an ILS to learn more about an important means for generating clean energy, has high potential for important industrial applications.

0.000000001

Size in meters of objects that can be seen using innovative light sources

20

Proposals to gain access to the use of beam times at the facilities of project partners’ laboratories

10

Percentage reflecting the proportion of time devoted to industrial applications of ILS as compared to other scientific applications

Photo: © Elettra Sincrotrone Trieste

Project: CENILS
ERDF funding: €881 745
Duration: 2012 – 2014
Website: www.cenils.eu

Photo: © Janez Kotar

Transforming the region into a laboratory for innovation

In the Living Lab approach, the world is a laboratory where partners co-design solutions for challenges facing society. This new style of cooperation fosters innovative solutions that meet the needs of the intended beneficiaries. CentraLab uses this approach in a range of pilot initiatives, addressing such diverse issues as eco-tourism, waste management, rural development and energy.

The CentraLab project applies the Living Lab approach to designing information and communication technology (ICT) solutions in a broad range of policy fields. The project uses a set of transnational pilots that build partnerships to co-design innovative platforms and services for issues of shared concern.

A Living Lab is an environment for experimentation and co-creation that involves the end users in designing new products, services, solutions and business models. The target audience for these innovations works with researchers, companies and public institutions in real life situations. As a user-driven approach, the Living Lab model brings ICT development infrastructures into real-life contexts, such as rural areas or residential neighbourhoods. The special qualities of the people and territories involved bring added value to the resulting innovative ICT products and services.

Pilot actions

Through pilots, CentraLab addresses ten areas that are of importance to central Europeans: Eco-tourism, energy, micro-networks for small- and medium-sized businesses, media and creativity, mobility, environment and education, climate change, waste management, rural development and eHealth.

Some examples of the pilots include:

- In Austria, electric cars were tested with following objectives: User involvement, innovation in mobility, efficient use of existing electric cars and encouraging innovation in the area of sustainable transportation.
- In the Czech Republic, a smart catalogue was developed, detailing users' requirements for educational materials about the environment, so that organisations developing such materials can serve the public better.
- In Hungary, project partners tested a system where ecological, economic and public administration requirements can be harmonised in the waste management domain. This ICT platform supports data-driven and agile policy making on waste.
- In Italy, municipalities, researchers and disabled associations tested and created an app that allows public authorities to have a unified system to control parking cards for disabled people.
- In Poland, start-ups in Kielce Technology Park cooperated with people who have business ideas to add functionality to an information system that supports management of knowledge, resources and relationships with companies.
- In Slovakia, a pilot involved local citizens in addressing the difficult financial situation of rural municipalities. Pilot activities are intended to improve the financial situation, and therefore quality of life, in these municipalities through a set of tools for effective spending management.
- In Slovenia, tourism service providers shared their offerings and tourists shared their experiences in a platform that lets both sides co-create new and innovative tourism routes. The platform enables immediate collaboration and feedback between stakeholders, and users can share, rate and comment on the content.

> "CentraLab helped to contribute to the development of the territories involved, using European funds to aid local growth. For example, in our northern Italian village of Campodenno, it created the opportunity to test very innovative solutions that do not normally find space to be implemented through national or regional funds."
>
> Daniele Biada, Mayor of Campodenno, Italy

2006
Year in which the Finnish EU presidency introduced Living Labs to Europe

10
Living Lab pilots

340
Existing Living Labs in the European Network of Living Labs

Photo: © GoGorenjska / Aleš Zdešar

Project: CentraLab
ERDF funding: € 2 515 464
Duration: 2011 – 2014
Website: www.centralivinglab.eu

Opening up the lab to enhance innovation

Photo: © Shutterstock / Franz Metelec

Innovation has become a dynamic and complex process, and research has expanded beyond the realm of private enterprise. Business development now depends on researchers and cutting-edge firms sharing knowledge. Central Community creates an open-innovation platform, to facilitate exchanges of knowledge and technology in the life science sector, thereby stimulating advances in business and medicine.

When scientists conduct a laboratory experiment, they work hard to remove the unwanted influence of outside variables. But when it comes to innovation, it is impossible for any scientist to control what is going outside of the lab. No longer a simple linear procedure led by one researcher, innovation has become a complex process that goes beyond the influence of a single company.
Open innovation is therefore essential for firms seeking to capitalise on new ideas and technologies. Partners in business and research must collaborate to develop new products and to encourage transfer of technology from the lab to the market. That is why stimulating an open innovation approach is one of the key aims of the Central Community project.
Companies benefit from sharing their discoveries with others and taking advantage of synergies. While individual innovators can make important discoveries by themselves, when they look at what others are doing they can avoid unneeded duplication and benefit from knowing the state of the art in their field. And companies and researchers can benefit from sharing: Researchers have new ideas and companies have the means to monetise them.

> The platform can answer requests from life science companies, which are always looking for new contacts to develop their business and their products. It allows operators to easily get in touch with companies with the same development needs and with the same desire for expansion.

Rita Fucci, Technical Scientific Coordinator for Assobiotec-Federchimica, Italy

Innovation, product development and diffusion of innovative ideas can be carried out in parallel – and involve different communities of actors, such as suppliers, end users, researchers and the public. All these stakeholders can collaborate with the same final aim: Bringing innovation from an idea to the market. This project especially seeks to deal with the need to improve innovation in the life science sector.

Online platform facilitates group innovation

The Central Community project has set up an online platform, specifically devoted to life science. The platform encourages collaboration, and provides an online meeting place where anyone involved in the life sciences can find partners to develop new products, processes and services. The platform facilitates commercial, technical and research collaboration, using both public and private funds.
The Central Community platform makes the situation in the life sciences field more transparent, which can be a big help for small- and medium-sized enterprises seeking partners who can work with them in mutually beneficial collaboration.
The international approach of the project means that those using the platform can take advantage of the expertise and experiences of life science sectors in different countries – where business support and business development policies are different. The platform will be promoted to life science clusters and other organisations in Europe, but partners have the ambition to spread the project everywhere, eventually making it possible to address innovation in the life sciences as a worldwide endeavour.

1
Online platform helping to enhance the innovative abilities of SMEs

100
Biotech sub-sectors covered by the platform

2014
Year of finalisation of the platform

Photo: © shutterstock

Project: Central Community
ERDF funding: € 1 412 623
Duration: 2012 – 2014
Website: www.central-community.eu

Photo: © centrope agency

Cooperating to create an integrated region

At the intersection of Austria, the Czech Republic, Hungary and Slovakia, Centrope is emerging as a new transnational region. Since the first partners got together to initiate the idea of Centrope in 2003, a total of 16 regions and cities have been committed to strengthening cooperation in the region. The CENTROPE CAPACITY project further develops the overall framework for this cooperation and sets up lead initiatives in key thematic fields where regions can work together.

With 6.5 million inhabitants, complementary markets and cross-border mobility, the Centrope region offers a model of successful European integration. The region boasts the knowledge of 25 universities and hundreds of research institutes, the competitive edge of innovative, outward-looking entrepreneurship and the creativity of people living in a confluence of languages and cultures. The central European region of Centrope has the potential to achieve sustainable growth and high liveability through balanced development in a borderless, polycentric area.

To help unleash this potential, CENTROPE CAPACITY organised top-level semi-annual summit meetings that have created a new political framework for forging a common agenda. Supported by a transnational agency – with dedicated offices in all four partner countries as well as a coordination office – Centrope cooperation allows the regions and cities involved to translate their leadership into a multi-faceted development programme. In the process, the agency generates ideas for new projects, develops plans, involves stakeholders and publicly promotes the Centrope concept.

> In the beginning, we agreed that infrastructure and mutual accessibility should be major concerns for the Centrope region. Now we move forward with an ambitious agenda, and our citizens will soon be able to enjoy improved and customer-friendly public transport services between our regions.

Pavol Frešo,
President of the Bratislava Self-Governing Region, Slovakia

Activities focus on four areas of strategic cooperation:
- Regional knowledge
- Human capital
- Spatial integration
- Tourism and culture

The CENTROPE CAPACITY project provides the platform for working groups, symposia and expert circles to develop a set of multilateral lead projects ready to be implemented in the years to come. A professional branding process was used to define the cornerstones of a cohesive regional brand that specifies core elements of the Centrope identity (unique selling points, brand values) and resulted in the slogan "Meet Europe. Meet Centrope". Future marketing efforts of the Centrope partners can build on this emerging brand.

Pilots boosting the project at large

Three large-scale pilot activities have been undertaken to encourage the development of the Centrope agenda:
- Regional Development Report (RDR) providing regular analysis and policy recommendations for a highly integrated economic area.
- Infrastructure Needs Assessment Tool (INAT) aiming to point out the most pressing bottlenecks in cross-border transport connections and to take the first steps towards an integrated public transport association in the Centrope region.
- Centrope tourism portal representing a new tool for marketing the destination to residents and visitors alike.

These pilots also support the overall political process of strengthening ties within the Centrope region. For example, results of the INAT pilot were used for a paper that calls for formulation and implementation of a comprehensive transport strategy. Likewise, RDR results will facilitate activities to strengthen cross-border cooperation in research, technology and innovation.

16
Regions and cities cooperating in Centrope

6 500 000
Inhabitants living in the Centrope region

60
Distance in kilometres between the two Centrope capitals Bratislava and Vienna

2003
Year when the Centrope region was initiated

Project: CENTROPE CAPACITY
ERDF funding: €3 480 250
Duration: 2009 – 2012
Website: www.centrope.com

Photo: © iStockphoto.com / mtr

Unlocking research and development potentials

The region known as Centrope – a border quadrangle that includes Austria, the Czech Republic, Hungary and Slovakia – is characterised by a high density of research institutions, universities, innovation centres and research and development (R&D) oriented enterprises. This wealth of knowledge can be used to help the four Centrope countries face their current challenges. However, realising the region's true potential requires a coordinated approach.

In order to tap into Centrope's knowledge base, the project centrope_tt established an international expert community to support innovation and encourage transfer of technology in the region. Backed by EUR 2 million in EU funding, and under the project leadership of the business agency of Lower Austria (ecoplus), 13 centrope_tt partner institutions established different tools to stimulate transnational technology transfer between enterprises and universities or research institutes.
To make it easier to visualise the great potential of R&D contacts in the Centrope region, the centrope_tt experts developed an online database listing more than 2 400 R&D institutes and related enterprises. Company executives and scientists of research institutes can search the database by region and discipline, to obtain quick and targeted information about research providers in adjoining regions. Based on this database, the project prepared a brochure called the centrope_tt "SME Innovation Guide", which comprises around 100 detailed profiles of R&D institutions from Centrope and includes valuable information about contact data, research focus, main projects, achievements, etc.

centrope_tt voucher – a cross-border financing instrument

It is not enough to know that cutting-edge research is available; businesses also have to be ready to invest in innovative ideas. To that end, centrope_tt developed a voucher, which functions as a financing tool to promote cross-border cooperation between business and researchers. Within 10 months of receiving the vouchers, SMEs could apply to finance activities, such as developing new products or prototypes, creating business plans, tailoring training in new technologies or analysing technology transfer potential. In total, centrope_tt financed around 35 cooperative initiatives, and it is now planning to maintain similar services after the end of the project.

centrope_tt academy – a training tool for R&D experts

In order to establish successful transnational and interdisciplinary cooperation, it is often necessary to have intermediaries who are familiar with the unique needs of different branches of research and industry. For this reason, the centrope_tt network founded an academy, which trains R&D experts on how to establish transnational partnerships, how to overcome intercultural obstacles and where to find potential financing sources for projects in the Centrope region. The courses are held in four sessions in all four Centrope countries, and all courses are accompanied by innovation clubs, which include site excursions to meet innovation leaders and meetings with local experts and successful start-ups. So far more than 40 R&D experts have passed the training and were invited to take an online exam to earn certifications as research, technology and innovation (RTI) managers. Efforts are currently being taken to establish the centrope_tt academy as a permanent qualification tool in Europe.

> Using the centrope_tt voucher, we were able to establish a virtual network of companies that are currently active in aerospace in Centrope. With this financial support, we obtained a detailed overview about the different aerospace markets, their demands and cooperation needs.

Heike Koch,
CEO of MD-K Consulting and
Mechanical Engineering, Germany

40
Experts trained to become research, technology and innovation (RTI) managers

2 400
Research and development institutes and enterprises in the Centrope database

35
companies and institutions financed by centrope_tt vouchers

Photo: © STU Bratislava

Project: centrope_tt
ERDF funding: € 1 235 449
Duration: 2009 – 2012
Website: www.centrope-tt.info

Photo: © Nikolaj Kondratenko - Fotolia.com

Bringing high-tech innovations to the market

Businesses can benefit from the work of researchers, but only if they are aware of the research that is out there. To encourage commercial use of new innovations, ten technology transfer organisations came together in the CERIM project to jointly work on improving conditions for bringing research results to the market.

The project partners screened and evaluated more than 100 studies containing research results and identified 20 with commercial potential. The project helped develop intellectual property and commercialisation strategies – and supported the establishment of ten start-up companies.

Transferring technology: Desirable but challenging

Given the importance of innovation when it comes to remaining competitive in the global economy, it is widely understood that higher education and research institutions can make a vital contribution to the European economy. Although countries and regions of central Europe have a strong interest in creating innovation systems that can enable commercialisation of academic research, experience shows that the process is challenging. In particular, there are problems related to unclear policy and legal frameworks, a situation that creates uncertainty in the distribution of responsibility for technology transfer. Furthermore, there is a lack of motivation in publicly funded research institutions to engage in technology transfer, and there is a pronounced absence of qualified personnel managing technology transfer. Meanwhile, there are few strong networks that bring together regional, national and international support organisations, industrial partners, technology transfer experts and venture capitalists.

> “Thanks to CERIM we made huge steps in the commercialisation process of our inventions. We benefited to a large extent from the partners’ expert knowledge with regard to technology transfer and will continue cooperating with them in the future.”
>
> Prof. Dr. Saleh Ibrahim,
> Head of Research at the start-up company Immungenetics, Germany

Strong partnerships necessary for effective tech transfer

The partners in CERIM have been facing similar challenges. In particular they note the lack of a seamless service package for technology transfer – one that ranges from screening of innovations to identifying buyers and/or venture capital. The project helped address this challenge: The partners noted that their ability to offer more and better service has increased markedly due to the project. Evidence of the improvement includes the large number of high-potential cases analysed and the promising start-ups that have been supported.
Most of key outputs of CERIM are tools and instruments that already have been taken up by the project partners. A good example of this is the University of Žilina, which benefited from CERIM by increasing its knowledge with regard to technology transfer. Although it had a good background in the area of technology foresight, the university still lacked a conceptual approach for the whole process – from idea selection to commercialisation. Through participation in CERIM, the University of Žilina received useful information on how to select innovative ideas, how to prioritise these ideas and how to promote high-potential innovation projects. Based on CERIM methodologies, the University of Žilina further developed its own “commercialisation index” for evaluating the commercial potential of innovation.

10
Start-up companies established with support from CERIM

100
Commercialisation cases assessed by CERIM, with 15 cases selected for further strategy development

Photo: © Pavel Losevsky - Fotolia.com

Project: CERIM
ERDF funding: € 2 222 492
Duration: 2008 – 2011
Website: www.central2013.eu

Supporting clusters to boost competitiveness

Companies and researchers cooperating in clusters foster innovation that benefits their members and keeps Europe competitive. ClusterCOOP promotes cluster-friendly regulations as a way to support innovation through cooperation. The project encourages policy that lets clusters work across borders while also identifying emerging industries that can benefit from such transnational cooperation.

Innovation is a crucial driving force for economic growth, and promoting innovation is essential for Europe if it wants to stay competitive. Clusters support innovation by encouraging information sharing among researchers and businesses involved in high-tech industries, so that new ideas are promoted and commercialised. Clusters provide conditions conducive to the kind of information sharing that makes "open innovation" possible. Clusters can be even more effective if they cooperate across borders, but regulations create bottlenecks preventing this cooperation. That is why joint actions by policy makers are needed to facilitate cross-regional and cross-border cluster cooperation in central Europe.

ClusterCOOP helps clusters reach their full potential by identifying common challenges to cross-border cooperation and encouraging policies that address those challenges. The project brought together a broad partnership of national, regional and local public authorities, national public agencies, and public knowledge providers. The partners worked with relevant stakeholders to produce several qualitative and quantitative analyses, and to elaborate case studies and pilot actions. This research helped project partners identify areas where there is room for development by providing them with a full understanding of the current central European landscape of cluster policies, the types of emerging industries and the current state of cross-border cooperation.

Proposing common policies

Based on these analyses, the project's partners elaborated a set of common proposals and recommendations designed to optimise and harmonise national regulatory frameworks for transnational cluster cooperation. These proposals included the alignment and integration of different funding schemes, and other modifications to create more innovative and efficient practices.

ClusterCOOP helped ensure consistent quality and harmonisation of efforts by setting up a joint central European cluster qualification system. The project also brought together an international network of Cluster Contact Points within central Europe, to establish a virtual interactive platform providing extended knowledge on the possibilities and framework of transnational cooperation.

Just as cooperation helps foster innovation among individual cluster members, transnational networking among different clusters can do even more to drive innovation. By promoting these networks of clusters, ClusterCOOP is essential to establishing research and innovation strategies for smart specialisation, a strategic approach to economic development through targeted support for research and innovation. Because so-called smart specialisation will remain topical in the future, the results of ClusterCOOP will continue to be useful as we move to the next phase of supporting innovation.

158

Measures and activities analysed by ClusterCOOP

30

Average number of members per cluster

1990

Year when Michael Porter introduced the term "business cluster"

Project: ClusterCOOP
ERDF funding: € 1 696 732
Duration: 2011 – 2014
Website: www.clustercoopproject.eu

Photo: © iStockphoto.com / Wittelsbach Bernd

Taking clusters to the next level

Since its popularisation in the early 1990s, the concept of a "business cluster" – a group of related companies and institutions that work together to increase innovation and competitiveness – has generally implied that the partners are in geographic proximity. But CLUSTERS-CORD is seeking to use the proven innovative power of clusters internationally, through the creation of "meta clusters".

Governments have come to see the wisdom of encouraging business clusters, which allow businesses and researchers working in the same field to feed off one another, thereby fostering competitive innovation. The potential of clusters to strengthen innovative industries is demonstrated in high-tech centres like the Silicone Valley in the United States or Baden-Württemberg in Germany.
For the most part, clusters have been credited with helping particular regions stay competitive in the global economy. As the European Union seeks to remain competitive, it needs to consider the possibility of spreading the benefits of clusters beyond single regions. Cooperation among professionals in the same industry can involve partners in several countries who work in meta clusters, which build international cooperation while also assisting local cluster managers. This is the concept promoted by CLUSTERS-CORD.

Cooperation serves innovation

The project's general objective is to strengthen cooperation among stakeholders who are geographically distant but are working in the same thematic field, as a way to support international cooperation on research and development while encouraging transfer of innovative concepts into commercial products. This goal is being reached through the development of five strategic cooperation plans that result in the creation of five meta clusters. Based on an analysis of 70 clusters in ten European regions, the project has selected five key industries for closer examination: Information and communication technology, tourism, health sciences, food processing, and energy and environment.
32 cluster managers were among the diverse participants in the project, which provided a platform for increasing international cooperation on research and development projects and commercialisation of new innovations.

> "CLUSTERS-CORD gave me the chance to get in touch with other cluster managers in the energy and environment sector and opened new possibilities for international cooperation and exchange of experiences."
>
> Břetislav Skácel,
> Chairman of CREA Hydro&Energy Cluster,
> Brno, the Czech Republic

Exchange of ideas

The project organised thematic exchange forums for the various fields covered. These meetings brought together cluster managers and other interested stakeholders, so they could discuss the establishment of international cooperation as well as ways to strengthen competitiveness on the global market.
Participants in the project also work to enhance the environment for innovation, and to improve conditions for research and development in different regions. They exchange their know-how and experience regarding regional cluster policies, which are essential to creating better conditions for regional innovation, and work with local decision makers on improving these policies.
Among the lasting results of the project is the creation of five meta clusters, whose members signed future cooperation agreements that define main goals for continued development. These meta clusters are open for new members, who can increase the opportunities for enhanced cooperation. Another key result should be providing inspiration for similar cooperative efforts in different industrial sectors, to increase innovation throughout the European Union.

5
Number of meta clusters created by CLUSTERS-CORD

32
Clusters involved in the project's five working groups

70
Clusters analysed in a benchmarking study

Project: CLUSTERS-CORD
ERDF funding: € 958 694
Duration: 2010 – 2013
Website: www.clusterscord.eu

Photo: © Alex Loidl

New cluster concepts nurture emerging industries

By cooperating in clusters, innovative firms and research institutes that work in emerging industries can make their regions more competitive. The CluStrat project suggests new ways to support cross fertilisation of creative ideas through clusters. CluStrat provides a joint strategy on enhancing the capacity of clusters in central Europe while promoting a dialogue about helpful policy changes.

Some clouds on the horizon have silver linings: Global challenges, like ageing societies and climate change, are creating new market opportunities and new industries. Creative European enterprises that can address these challenges with innovative, complex products, services and business models can take advantage of new market demands.
CluStrat seeks to develop new policy approaches and instruments that support these new industries by encouraging cross fertilisation between traditional and emerging industry and technology fields to develop innovative solutions.
The focal point for CluStrat's work are clusters, which are regional groupings of businesses, research and development institutions and other actors who cooperate in a related field, bringing together a critical mass of competencies along the value chain of a particular industry or type of technology.
In their effort to support clusters, CluStrat partners develop a joint strategy with new cluster concepts, to equip innovation policy makers across central Europe with new approaches for fostering the cross-fertilisation of new ideas.
The project focuses on cooperation between clusters not only within, but also across regions and countries.

> "CluStrat offers a unique chance to gain new insights linked with transnational experience with regard to the implementation of Key-Enabling Technologies in traditional industries – in several of the prospective growth areas defined by Baden-Württemberg's State Government."

Hermann Koch, Deputy Head of
Cluster Policy, Regional Economic Policy Unit,
Ministry of Finance and Economics,
Baden-Württemberg, Germany

Emerging industries need cross-sector collaborations that address concrete problems, while taking account of the practical demands of users. Facilitating this kind of collaboration is a way to unlock regional growth and open up new markets to Europe's small and medium-sized enterprises.

Exploring potentials

CluStrat focuses on three emerging industries:
- Active ageing
- Sustainable development/green economy
- Sustainable/intelligent mobility

CluStrat partners made an assessment of the strengths and weaknesses of the project regions with regard to these three industries. As a result, the regional policy makers better understand the potential of their regions. They know what resources are available in industry and the research and development environment, and they also know what competencies are missing. The project also explored specific market demands in the region through interviews, policy round tables and expert workshops.
This work helps regional policy makers to better access the portfolios of other regions – and identify suitable partners for future cooperation. CluStrat tested instruments for fostering such cluster collaboration between regions, using pilot actions that involved regional cluster stakeholders and other key actors.
The project makes sense in a Europe-wide context, which is why CluStrat has been recognised as a "Light House" project within the EU Strategy for the Danube Region. Furthermore, the focus on deploying local strengths while filling gaps with expertise from other regions is consistent with the idea of smart specialisation, a strategic approach to economic development in which regions concentrate on their strengths to support innovation.

3
Emerging industries addressed by CluStrat

4
Transnational policy dialogue events implemented through CluStrat

1 791
Cluster organisations listed in the European Cluster Collaboration Platform for the EU

Photo: © iStockphoto.com / Miha Peroša

Project: CluStrat
ERDF funding: € 2 945 988
Duration: 2011 – 2014
Website: www.clustrat.eu

Clustering locally to compete globally

A cluster encourages companies and research institutes that work in a related field to cooperate, thereby promoting innovation and making all the cluster participants more competitive. In an effort to help realise the full potential of clusters in central Europe, CNCB supports cluster managers and seeks benefits through international networks.

Training for cluster managers is important because a cluster can be more effective when the cooperation among its partners is coordinated carefully by a qualified professional. The effort to encourage international cooperation is an attempt to give clusters new tools for improvement. Clusters tend to be grouped in one geographical region, like the automotive industry around Baden-Württemberg in Germany, because proximity makes it easier to form centres of innovation. But cluster managers also see benefits in internationalisation – in bringing in partners from neighbouring countries.

To get a better picture of the needs of clusters, the project used an online survey that allowed it to analyse 96 different clusters from Austria, the Czech Republic, Hungary, Italy, Poland, Slovakia and Slovenia. The information gleaned from this analysis was used to produce a manual to act as the basis for developing the curriculum for a cluster manager's training course. Ideally, the course could lead to a standardised form of certification. Creating recognisable standards is an important way to strengthen the profession of cluster manager, and make the field a more attractive area for talented managers.

> "The CNCB pilot optimisation plan was very useful for improving our organisational and management skills, as well as international relations with central European partners."
>
> Petra Papp,
> BIB Cluster Coordinator, Hungary

A desire for training

The results of the survey showed a real need for this kind of specialised training: 57 percent of the responding cluster managers expressed a strong interest in immediate training, so that they can do their job better, while another 37 percent said they saw the benefits of more education in the future.
The respondents said that the most important topics for education on cluster management would be:

- Management of innovation
- Strategic planning
- Internationalisation
- Project management
- Marketing and public relations

The survey also indicated a desire for more internationalisation among clusters: Cluster managers hoped to take advantage of the benefits of cooperation with clusters in other countries.

Further work with three clusters

Based on the survey, the CNCB project chose the following three clusters for further pilot initiatives:

- Biotechnology Innovation Base Cluster in Pécs, Hungary
- Tourism Cluster in Smolenice, Slovakia
- Euro Centrum – Cluster of Energy Saving Technologies in Katowice, Poland

The project put together a group of experts who support these clusters in developing their own action plans and future strategies. These strategies help the clusters optimise their activities, processes and performance, so they can better position themselves on the market.
These clusters were also supported in internationalisation through an expert group set up by the CNCB project. The clusters were encouraged to recruit transnational members, to create a transnational cluster out of two or more regional clusters and/or to initiate international practices in a regional cluster.

275
Clusters mapped by CNCB

96
Cluster surveys analysed by CNCB

57
Percentage of cluster managers participating in the CNCB survey that indicated a strong interest in immediate training

Project: CNCB
ERDF funding: € 1 377 786
Duration: 2010 – 2013
Website: www.cncb.eu

Photo: © iStockphoto.com / EHStock

Building stronger clusters to improve competitiveness

By cooperating in a regional cluster, related businesses and institutions can act as a single unit so that each individual component becomes more competitive and innovative. Unfortunately, many European clusters lack the critical mass and innovation capacity needed to create true centres of excellence. C-PLUS seeks to help by encouraging more effective integration among potential innovators.

There are about 2 000 regional clusters in Europe according to the European Cluster Observatory, but many of these are not as effective as they could be at creating regional hubs for innovation. The main weaknesses of clusters include market segmentation, which means businesses working in related industries are not taking advantage of the benefits they could achieve by cooperating with one another. Poor connections between the worlds of business and research constitute another weakness, which prevents academic innovations from being transformed into money-making ideas. Furthermore, a lack or inadequacy of professional cluster managers weakens clusters.
With the understanding that clusters can improve innovation and competitiveness by integrating businesses, C-PLUS employs a variety of methodologies to investigate cooperation in clusters and reveal the best practices that others can follow.

Researching the clusters

Eight clusters were studied in Austria, the Czech Republic, Germany, Italy, Hungary and Poland, and 25 SMEs were investigated in each cluster. The clusters and businesses were compared through a benchmarking analysis aimed at identifying each company's practices and performances. The clusters were also investigated through other. These included: Methodologies investigating territorial coordination; the "European Scenario Workshop Methodology for Participatory Planning and Increased Awareness"; focus groups; and interviews designed to investigate the characteristics of the territorial system, network relations and local development policies.
Along with collecting data through its research, the project also gathered knowledge by allowing exchanges of good practices between various clusters from around central Europe. Using all of this information, the project defined a common action plan and formed a task force comprised of cluster managers. The task force aims to monitor the clusters, to ensure that they are in good working order, and to ensure that strong relationships within each cluster are effective in transferring knowledge that is based on research and on applications of good practices among local production systems.
The project includes several local pilot activities to stimulate innovation. Typical activities are listed below, grouped according to the five pillars of the transnational action plan:
Cluster excellency: Promoting better representation of the sector, strengthening cooperation among sector actors, improving services for cluster members and improving cluster management.
Cluster marketing: Mastering cluster marketing activities, promoting cluster members and promoting the region.
Research and innovation: Fostering innovation by a cluster's SMEs and setting up a matchmaking platform for technology transfer.
Foster cooperation inside an innovation "triangle": Involving firms, researchers and cluster managers.
Training and education: Training cluster members and matching students with companies.

> San Mauro Pascoli boasts a very strong cluster for semi-finished products that represent added value for contemporary and modern footwear. If we look at the Milan, Paris, London or New York runways, many of the shoes featured there have elements coming from our territory.
>
> Cesare Casadei, CEO and Creative Director of Casadei Calzaturificio SpA, Italy

257
Companies investigated through C-PLUS benchmarking analysis

29
Concrete pilot actions implemented at the local level

300
Stakeholders involved through "European Awareness Scenario Workshops" for a common planning strategy

Photo: © iStockphoto.com / BanksPhotos

Project: C-PLUS
ERDF funding: € 1 603 915
Duration: 2010 – 2013
Website: www.projectc-plus.eu

Photo: © 2 bueto zwo

SMEs can handle logistics like the big guys

To remain competitive and energy-efficient, small- and medium- sized enterprises (SMEs) need access to the kind of sophisticated logistics systems that global corporations use. But such systems are usually beyond the resources of SMEs. ESSENCE seeks to establish a free ICT network that lets SMEs manage logistics and optimise their supply chain by designing their own business networks.

If businesses agree to cooperate in an open network, the supply chain can be simplified. Even smaller firms can drop into this network when needed, so that they can handle logistics with greater efficiency.
That is why ESSENCE seeks to create a common information and communication technology (ICT) platform that helps all its participants cooperate on logistics matters. It offers SMEs the kinds of logistics services they could never establish by themselves.
The project builds on existing initiatives aimed at developing ICT capacity, by helping to establish a network of these initiatives, so that SMEs and the regions can take advantage of them. Then the project adds to these initiatives by offering several eServices to improve the capacity and competitiveness of SMEs. The eServices offered by the ESSENCE project assist in the areas of: Communication, cataloguing, business network planning, operation, document management and performance evaluation.
The objective of these services, and the project in general, is to offer the kind of ICT support that allows SMEs to handle their supply chain more efficient. This support should help them improve their economic performance with enhanced productivity and competitiveness, while at the same time reducing the negative environmental impact of the transportation of goods.

> “The ESSENCE platform is a dynamic starting point for improving the flexibility and the personalisation of eServices in order to avoid waste of time and resources. The platform may be the base for an alliance between businesses involved in a network able to do more with less.”
>
> Giampaolo Colletti,
> Freelance Journalist, Italy

Services customised for each SME

Using the eServices established by the ESSENCE project, SMEs will be able to access a general collaboration framework to customise individual models for coordinating their own logistics network. These custom networks can facilitate the logistics and communication needs of SMEs. The SMEs will be free to enter and leave the system with no constraints. While they are in the system, they can select and use the eServices of interest to them.
By establishing platforms for logistics cooperation in different regions, the project allows for SMEs in those regions to take advantage of the kinds of logistics services that can help them be less wasteful and more competitive.
The project's knowledge base is a common repository, shared and fed by user SMEs, and it includes a multilingual catalogue, multilingual business documents and a set of up-to-date performance indicators. This database adds to the tools provided by the project's networks in offering support for SMEs that need assistance with logistics.
Pilot projects implemented under ESSENCE were designed to explore the way the eServices can be customised to give logistics support to individual SMEs. The SMEs participating in the project were able to improve their competitiveness and increase their international performance using the ESSENCE network.
The project held several events to disseminate its results, so they can be of assistance to other regions in central Europe and beyond. Using this support, even small SMEs can take a state-of-the-art approach to handling logistics.

1
Internet-based software platform created by ESSENCE

9
Business facilities offered on the platform

600 000
Road freight transport companies enabling people to travel and exchange goods in the EU

Photo: © iStockphoto.com / savas kesk ner

Project: ESSENCE
ERDF funding: € 1 292 789
Duration: 2012 – 2014
Website: www.essence-project.eu

A material approach to innovation

We live in a material word, where new ideas in metals, ceramics, electronic conductors and biomaterials are driving future-oriented businesses. But in central Europe, small- and medium-sized enterprises (SMEs) that work with materials face challenges when it comes to encouraging innovation and developing international clients. The FLAME project seeks to unlock the full potential of this sector.

The field of materials science and engineering touches many aspects of our daily life. It includes all classes of materials from a unified point of view, with an emphasis on the connections between the underlying structure and the properties and performance of a material.
Materials science can be a major driver for innovation, competitiveness and economic growth, and European research achievements in this field are excellent. Unfortunately, scientific competence is not always converted into new products or market share. The problem is a poor flow of know-how, technology and expertise, as well as insufficient resources among SMEs to invest in research and development. This problem is especially pronounced in central Europe, where some regions are hot spots in the field of materials sciences and innovation while others lag behind the norm.

Future Labs drive innovation

In an effort to address this weakness in innovation and improve competitiveness in Europe's materials science and engineering industry, the FLAME partnership developed a new model of cooperation called Future Labs. There are three Future Labs – in Veneto, Styria and Slovenia – offering technology transfer and cooperation services. Each Future Lab provides different, but complementary services, depending on the local characteristics and the type of client identified in each region.
Future Labs provide services through a network of facilitation coaches – 20 young professionals, trained within the FLAME project, who act as connectors and intermediaries between the SMEs and research and development organisations. The coaches play an active role in the exchange of information and in fostering collaboration between researchers and entrepreneurs on technology based projects. They work to bring the market closer to science and help to transform research results into industrial applications by making universities, research centres and SMEs – including start-ups – more aware of each other. Facilitation coaches are specifically trained to adopt a common language for the industrial and the scientific world, and to help both sides understand one another's needs.
Future Labs are meant to be a reference point in Europe, showing how innovation and collaboration can become real. When research results and innovation become more transparent and accessible on a transnational level, more companies can enhance their own competitiveness. At the same time, research and technology development units find new partners and learn more about market needs, so that they become more competitive too. By encouraging this process, the FLAME project provides support in the shift to a knowledge-based economy. Furthermore, the model developed by the FLAME project for materials sciences and engineering can be used to encourage innovation in other sectors and in other European regions.

> "Through its facilitation coaches, the FLAME project can help us in spreading the knowledge about what we do inside university departments – which is far more than basic research, though companies outside the local area are not aware of it."

Professor Laura E. Depero,
Director of Chemistry for Technologies Laboratory at Brescia University, Italy

240

Actors in the materials science and engineering field identified in the project's "Competence and Innovation Landscape"

3

Future Labs encouraging uptake of new technologies

20

Facilitation coaches bringing business people and researchers together

Photo: © industrieblick - Fotolia.com

Project: FLAME
ERDF funding: € 1 474 631
Duration: 2010 – 2012
Website: www.flameurope.eu

Photo: © Rolffimages | Dreamstime.com

Helping businesses make the most of innovation

Innovation can drive business success, but only if new inventions reach the market. FORT encourages the uptake of new ideas by sharing information on technology transfer and cluster management, granting cross-innovation vouchers and taking other steps to build a culture of innovation. FORT's pilot actions let partners try out new ideas while involving more institutions in the innovation process.

Within FORT, nine partners from Germany, Hungary, Italy, Slovakia and Slovenia work together to exploit the knowledge base at universities and research centres, and to bring new technologies and research results to the market.
The key strategic focus of the FORT project is to shape an organisational culture that fosters continuous innovation. The project seeks to encourage a more integrated approach to building an innovation culture in public research institutions and enterprises and to raise awareness about the importance of innovation among the general public. To achieve these goals, the project partners reviewed studies, analysed relevant EU policies and good practices – using this information to jointly produce transnational recommendations. These recommendations for enhancing innovation culture are designed for entrepreneurs, researchers, middle management, top management, and policy makers.

Training and networking

With the understanding that highly skilled technology-transfer and cluster managers are key actors in the commercialisation of research and development results, the project partners also elaborated training programmes for these managers. The training is based on the needs of technology transfer and cluster managers. It also takes into consideration internationally accepted frameworks.
FORT strives to bring actors of the innovation system closer together. The project uses a new transnational network of parties involved in innovation, to strengthen collaboration among the different groups and associations on an international level.

Innovation Open House

The project also organised several consultative forums in each project region, providing a platform that allowed participants to exchange knowledge and share experiences. FORT's Innovation Open House events let small- and medium-sized enterprises (SMEs) and public research organisations present their innovative ideas and receive personal consultancy from experts. The best idea put forward at each Innovation Open House event was awarded a voucher worth EUR 5 000 to help the winner realise their innovative idea in one of the project's other regions.
An online database of the ideas presented at these Innovation Open House events helps connect SMEs and public research organisations, bringing together parties who are seeking new research partners and new market opportunities.
Based on the experience gained during the project, FORT partners create and test new services designed to support innovation – ranging from a who-is-who catalogue of technology transfer actors and an intellectual property policy handbook to thematic workshops to improve entrepreneurial skills or networking events to bring researchers and companies together. The good practices from among these services are gathered in a catalogue.

> "FORT helped us to get closer to realising our innovative idea. Our product has now been tested by an external expert and the results are promising. The innovation voucher gave not only financial support, but also the possibility for international cooperation."

Aljoša Vrhunec,
CEO of MikroCaps d.o.o., Slovenia

60 000
Euros awarded in innovation vouchers

60
New innovations brought to the marketplace

178
Participants trained as technology transfer and cluster managers

Photo: © FORT

Project: FORT
ERDF funding: € 1 853 787
Duration: 2011 – 2013
Website: www.project-fort.com

Linking innovations with businesses

Photo: © Dreamstime

Researchers often come up with innovations that could help businesses, but these discoveries are only useful if businesses discover that they exist. The FREE project sought to increase the commercial use of new ideas and technological advances by helping ensure that businesses are aware of useful research while also encouraging practices that facilitate innovation.

While it is necessary to establish good conditions for research and development, this step by itself is not enough to encourage innovation. It is also important to ensure that successful results of research are applied by businesses.
As is indicated by the project's full title – From Research to Enterprise – the main idea behind FREE was to implement actions that bring European research results one step closer to industry. Eight partners from Hungary, Slovenia, Italy, the Czech Republic and Poland elaborated methods that inspire universities and other institutions to conduct research and development in accordance with the needs of companies.

The project also discovered good practices for transfer of knowledge and undertook pilot actions designed to make connections between researchers, entrepreneurs and policy makers.

ResearchDirectory.eu – Yellow Pages for R&D

After gathering information on research groups and research results in their regions, the partners set up a transnational inventory in the form of a website with a multifunctional search tool. The online ResearchDirectory.eu allows visitors to browse three categories: Research organisations; technologies and services; and innovation mediators. The database is free to use and can be extended further to include more organisations dealing with research, development and innovation.

> "FREE has opened up several new opportunities for us. It provided us with an excellent platform for the exchange of ideas with other researchers and entrepreneurs. Also, the online research directory has proved to be a useful tool."
>
> Gábor Zachuczky,
> CEO, UD-GenoMed Medical Genomic Technologies Ltd., Hungary

Innovation guidebooks

Project partners also studied innovation-oriented systems, services and methodologies from central Europe and around the EU. Following an analysis of the various practices found, the project developed guidebooks detailing the best innovation services and systems for supporting technology transfer – with an emphasis on approaches that meet the needs of small- and medium-sized enterprises (SMEs). For example, one approach outlined is a competition in which companies who collaborate with universities on R&D award a prize for "Best Researcher" at the university, as a way of stimulating closer cooperation between researchers and businesses. The guidebooks were distributed among innovation experts to help other organisations take advantage of the good practices the books contain.
More specialised guidance produced by the project included about 40 feasibility studies that helped various SMEs by looking at the commercial application of specific innovative products, processes and services.

Mediators and training

FREE furthermore established a network of innovation mediators who sought to foster better communication between research centres and SMEs. Based on the guidebooks produced, the mediators implemented training seminars in the partners' regions. In another activity, designed to bring together SMEs and researchers, the project organised several regional conferences focusing on technology transfer. The "Technology Transfer Day", a major conference organised in Brussels, had the objective of giving an overview of the situation of technology transfer in central Europe. Other results of FREE were presented at that conference, thus providing a good point of departure for the round-table discussion, where experts met to find new ways to facilitate innovation and technology transfer.

1 051

Descriptions of research organisations, innovation mediators, as well as technologies and services, gathered at www.researchdirectory.eu

479

Persons trained by the FREE network of innovation mediators

40

Feasibility studies carried out for SMEs by FREE

Photo: © Dreamstime

Project: FREE
ERDF funding: € 1 486 393
Duration: 2008 – 2011
Website: www.free.unideb.hu

Photo: © Ross Petukhov - Fotolia.com

Sparking innovation in hundreds of SMEs

Small- and medium-sized enterprises (SMEs) are by far the most common kind of business in the European Union. Research shows that nine out of ten EU companies have fewer than ten employees. While SMEs are a vital part of the economy, they tend to spend very little on research and innovation. I3SME involved more than 800 businesses as it sought to increase support for innovation among them.

In its effort to encourage businesses to use new ideas and innovative approaches, I3SME conducted a comparison of relevant practices at SMEs, offered training for facilitators who can support the use of innovation and initiated pilot projects that allowed companies to test new approaches.

Finding and sharing good practices

One of the project's achievements was a benchmarking study to measure and compare innovation and competitiveness of 802 different SMEs in the central European countries of Austria, Germany, Hungary, Italy, Poland and Slovenia.
In looking for innovative "Hidden Champions", the study measured such factors as strategy, investment and financing, employee potential, research facilities and the output of innovations. Factors measured to gauge competitiveness included customer-orientation, service orientation, use of current technologies and improved materials, efficient purchasing and quality management.
Good practices identified in the study were put into practice through a range of pilot projects. These involved at least ten SMEs in each of the nine regions affected by the project.

> "Our overall impression of the project is very positive. It allowed us to identify real hidden champions who today, thanks to improved awareness, can face the current adverse market situation with more courage."

Luciano Ranieri,
Amministratore Unico Eurtronic studioerre srl. Castel Maggiore (Bologna), Italy

These businesses received support in being more open towards: Using innovative instruments for managing production and human resources, participating in research and development projects, using information and communication technology solutions – and other beneficial approaches found by the benchmarking study.
To help spread these practices further, the project also trained 18 facilitators who have the task of supporting SMEs in undertaking innovation and in improving their use of existing knowledge. The community of SME innovation facilitators were trained during three international sessions.

Transnational approach

The transnational nature of the CENTRAL EUROPE Programme was essential to the success of the I3SME project. Through studying good practices and establishing benchmark comparisons, researchers were able to cast a wide network, gaining useful examples from six different countries. Now SMEs throughout central Europe can benefit from these lessons, which show the effectiveness of investing time and capital in innovations regarding production, management, distribution and other facets of business.

802
SMEs from central Europe benchmarked in an I3SME study on innovation and competitiveness

64
Hidden champions identified in the I3SME catalogue

18
International innovation facilitators trained by I3SME

Photo: © Wiesco Taubert

Project: I3SME
ERDF funding: € 1 828 285
Duration: 2008 – 2011
Website: www.i3sme.eu

Photo: © lassedesignen - Fotolia.com

High-potential workers keep firms competitive

Economic development in Europe is increasingly dependent on innovation and high-tech industries, and therefore also on the potential of human resources. That is why regions in Europe have become involved in a "demographic race" for well-trained employees. IDEA is helping those regions that have experienced brain drain with new joint transnational approaches for increasing human capital.

The skill set that companies require from young job applicants and researchers has become more complex in recent years. The approach of the IDEA project is to address this problem by testing different ways to support the kind of networking that can improve supply-demand alignment in the employment market. The project does this by encouraging action from both sides: Sensitising educational institutions to the needs of companies and making companies more open to supporting training programmes.
The project gives a special focus to working with small- and medium-sized enterprises, which are often the drivers of innovation but also often have limited funds for personnel development. The types of industries on which the project focuses include fields where future demand is anticipated: Manufacturing, energy and resource management and information and communication technology. As for types of training, the project targets occupational orientation for job-starters, undergraduate education and further education for employees.
The project applied measures and instruments that were tested in the Czech Republic, Slovakia, Poland, Hungary, Slovenia, Italy, Austria and Germany. These instruments offer best practices that are easily transferable to all regions of central Europe.

> "The geocaching implemented as a pilot action within the IDEA project gave us the opportunity to get in touch with prospective students and to inspire them to start a career in our company."
>
> Jette Fichtner, Marketing Manager,
> AMS Gesellschaft für angewandte
> Mess- und Systemtechnik mbH, Germany

Improving training to reduce migration

As many regions in central Europe have already learned, the effects of demographic change can be intensified by a mismatch in the supply and demand of workers' abilities. To address this mismatch, employers and educators need to make a concerted effort to synchronise the offerings of advanced vocational training facilities in the region with the actual upcoming demands of local companies. That is why IDEA supports an exchange between businesses and educators that allows discussion of the new requirements for advanced vocational education, as well as the need for companies to create jobs and retain the best workers, even while their business plans are still in an early stage of development.
The results of these discussions are collected and presented in a way that offers students and well-educated workers a better picture of the jobs that are available within their immediate region – giving special attention to regional amenities, locally successful technology fields and the benefits of working for SMEs. By sharing these results, the project helps to encourage workers to stay within their region, thereby preventing the migration that causes brain drain.

Strategy paper summarises recommendations

The IDEA strategy paper collects the experiences of these networking activities in each region and compiles them together, while also offering recommendations for measures and instruments that can be used to foster future knowledge development in the regions of central Europe. The paper focuses on the long-term, offering decision-makers tools to face upcoming demographic changes, which must be addressed in order to maintain the future availability of capable workers.

6.36
Million inhabitants live in the regions participating in IDEA

300 000
Students in IDEA regions prepare for their future career

25
Measures and instruments were tested to find, bind and develop high potential in workers

Photo: © CWE Chemnitzer Wirtschaftsförderungs- und Entwicklungsgesellschaft mbH

Project: IDEA
ERDF funding: € 1 658 342
Duration: 2010 – 2013
Website: www.idea-strategy.eu

Photo: © iStockphoto.com / Jim Jurica

Using information technology to improve innovation

Companies cannot make the most of the latest technology unless it is geared to their individual requirements. Businesses have recognised the need for IT Service Management, which refers to the implementation and management of quality IT services that meet the needs of the business. INNOTRAIN IT helps central European businesses that have limited resources take advantage of IT Service Management approaches.

By offering small- and medium-sized businesses (SMEs) the help they need to employ IT Service Management approaches, the INNOTRAIN IT project makes it easier for these firms to use the latest technology effectively. The project does this by providing a specific IT Service Management method to support SMEs in optimising their IT processes so they can free up resources for raising their innovation capacity. It also develops IT-based modelling tools in local languages and creates an on-line training portal. Last but not least INNOTRAIN IT offers face-to-face training for around 1 000 IT professionals and department heads.

Survey outlines challenges and benefits

The project surveyed SMEs to determine why more of them have not undertaken an IT Service Management approach. The survey found that barriers of using IT Service Management include a lack of awareness, the complexity of existing frameworks, a lack of skills and resources and a lack of capacity caused by the heavy workload that SME staff often face.
Potential benefits of an IT Service Management approach include the cost transparency and cost reduction that can be achieved by focusing on the core tasks of the IT department and by outsourcing non-business relevant functions. IT Service Management also helps standardise and optimise IT processes, and it has a positive impact on value-creating business processes and the ability to make them more innovative and flexible.
In keeping with the findings of this survey, INNOTRAIN IT focused on a method for bringing in IT Service Management that will help companies make resources available, maintain high quality standards during the process and introduce evaluation methods that improve the monitoring of that process.

> “To become an innovator was a challenging process. I am now asked for advice by the managing director concerning potential new products and sales strategies. I can truly recommend to everyone to become an innovator with the help of INNOTRAIN IT.”
>
> Günter Strolz,
> Head of IT SWARCO TRAFFIC SYSTEMS GmbH, Germany

Modelling tool and training

The project’s modelling tool to assist SMEs with the IT Service Management process is fully incorporated into a transnational online training platform available at www.innotrain-it.eu. This allows those seeking training to take a “do-it-yourself” approach. The tool is supplemented by regular face-to-face workshops that take place in all six regions participating in the project. These live training sessions provide:

- Basic knowledge about IT Service Management and IT service enabled innovation
- A chance to become acquainted with typical scenarios
- Moderated discussion
- Monitoring of learning progress and feedback
- Moderated, interregional exchange of experience through the online platform

By taking these steps to promote IT Service Management methods in SMEs, INNOTRAIN IT strengthens innovation capabilities in central Europe, empowers information officers of SMEs to run service-oriented IT departments and facilitates better cooperation between IT service suppliers and SME users.

120
Regional trainings organised by INNOTRAIN IT in the participating regions

1 000
SMEs trained by INNOTRAIN IT

100
Pages of digital training content

Photo: © iStockphoto.com / AKodisinghe

Project: INNOTRAIN IT
ERDF funding: € 1 537 356
Duration: 2010 – 2013
Website: www.innotrain-it.eu

Photo: © iStockphoto.com / annestde

Helping business by supporting young innovators

Creative people under 35 are vital to development of a knowledge-based economy in central Europe, but lack of opportunity often prevents young innovators from realising their full potential. InoPlaCe seeks to improve conditions for young innovators, so they will remain in their home regions and come up with innovations that keep central Europe competitive.

The InoPlace project developed a transnational action plan to improve services for young innovators and provides a platform that helps them take advantage of existing services.
With the understanding that young people with innovative ideas are an important driving force for entrepreneurship and economic development, eight European regions joined in this effort to boost the potential of young innovators. InoPlace seeks to provide these young people with appropriate support based on their real needs and requirements.

Regional Innovation Labs

To make sure the results of their efforts are useful to the target audience, partners established so-called Regional Innovation Labs (RILs) in each participating region. The RILs gave young innovators space to formulate their needs and to shape the action necessary for meeting those needs. The young innovators worked together with the project team to identify the supporting services that are most important for them. They also determined which of these services are missing in their area.

> We need to encourage young people in the development of knowledge and learning and simplify the conditions for their research and business. I am convinced that InoPlaCe will not only help young scientists and entrepreneurs, but to some extent also make science and research more popular, especially for young people.

Dr. Jiří Vlach, Director of the Regional Developmental Agency of South Bohemia, the Czech Republic

This exercise resulted in a long list of recommended services covering a wide range of topics, with most suggestions focusing on some form of counselling. From the list of all potential types of assistance, 20 key services were named as having the highest importance. These vital types of support cover a range of areas, such as commercialisation of research results, obtaining venture capital, facilitating technology transfer, training and business start-up assistance.
A map created for every partner region shows the presence or absence of each of the 20 key supporting services, while also measuring the quality of any existing services. The results revealed that, within the participating regions, there already exists significant and complex know-how to support young innovators, assist business start-ups, encourage capitalisation of research and development results, or promote innovative project development. Nonetheless, the results also revealed disparities among participating regions and gaps in the support available for young innovators.

Offering key services to young innovators

A full comparative analysis was conducted, to draw a clear picture of how the needs of young innovators are currently addressed in all partner regions. These results show the differences and similarities of the supporting services provided to young innovators across partner regions and reveal the opportunities and scope for improvements. While conducting this analysis, project partners also did the parallel work of identifying examples of good practices that are transferable from one region to another.
Based on all this research, the project will seek to improve or launch eight key services designed to contribute to the efficiency of young innovators, and further development of their potential, across the central Europe area.

144
Young innovators involved in the project through Regional Innovation Labs

20
Types of service considered essential to support young innovators

8
Support services launched or improved through the project

Photo: © Alex Lodi

Project: InoPlace
ERDF funding: € 1 133 353
Duration: 2011 – 2014
Website: www.inoplace.eu

Photo: © iStockphoto.com / Nick M. Do

Innovation inspired by patients' problems

The staffs of medical clinics have a high potential to assist in developing innovative products, processes and services that improve care. IntraMed-C2C helps doctors, nurses and technicians share their ideas with small- and medium-sized enterprises (SMEs) that supply their clinics. The results of this communication can be commercial products that improve medical care.

If innovative ideas are transferred effectively from practitioners to SMEs, and turned into commercial products, the medical sector can provide higher quality healthcare and services. Better functionality and improvements in administration and work systems mean doctors have more time for each patient, while other types of innovation provide better diagnostic tools – and even new solutions for treatment. Improved transfer of innovation, from concept to commercial application, not only assists medical clinics but also helps SMEs maintain their competitive edge. And society in general gains from improved medical treatment.

Improving daily work

The innovative process in the medical sector can turn a patient's problem into a helpful and economically viable product. When a patient comes into a healthcare unit with a medical complaint, processes designed to solve that problem begin with an examination by the doctor and, perhaps, additional testing – work that involves a range of medical personnel. At each stage of the process, medical professionals may see ways to improve the quality of their services. By implementing their ideas, businesses can create products that help patients. Doctors and nurses who have suggestions for improving the functionality of their work tools can share their ideas regarding modification of existing solutions, or development of completely new ones, in the InTraMed-C2C database, which is online at: http://database.intramed-c2c.eu/

The process of converting the ideas of medical personnel into products requires development by a medical company that is small enough to profit from niche innovation, which generally means an SME. These types of companies have also been shown to be vital for the growth of regional economies. SMEs are encouraged to look at the InTraMed-C2C database, to make use of the ideas provided by medical personnel and to involve them in product development.

Sharing innovations

SME representatives and medical personnel can meet one another and discuss ideas in person at InTraMed-C2C workshops. Their cooperation starts with the signing of an agreement. Then finances are discussed, tests are performed and technologies are selected. The medical personnel and their healthcare unit give the experience and knowledge necessary to organise trainings, analyse legally binding regulations and identify the market. The company implements the idea of the healthcare professional, who remains the creator of the product, and the product is offered to other healthcare units.

Through the InTraMed-C2C project, these innovations can reach markets around Europe, benefiting the companies and clinics involved, as well as their patients. Ultimately, all of us can benefit from innovations that improve health care.

> "Thanks to creativity, even a small idea may turn into a valuable solution on a large scale."

Joanna Czajka,
Animacja Reklamowa, Lower Silesia, Poland

538

Hospital beds per 100 000 inhabitants in EU27

53

Business ideas so far collected in InTraMed-C2C database

Photo: © iStockphoto.com / Johnny Greig

Project: InTraMed-C2C
ERDF funding: € 1 710 479
Duration: 2010 – 2013
Website: www.intramed-c2c.eu

Photo: © Andrea Kunicz

Helping SMEs measure and reduce energy use

As major energy users, small- and medium-sized enterprises (SMEs) can realise big energy savings, if they know how. The LiCEA project develops a simplified energy audit that lets SMEs analyse their power usage and identify ways to save. The project's innovative and sustainable methodology also includes a smart tool to measure resources utilization and environmental performance during industrial production.

Reduction of energy use, and hence energy costs, helps SMEs to stay competitive. Cutting back on the use of fuel by improving energy efficiency in industrial production also helps to lower greenhouse gas emissions. For these reasons, European Commission Directive 2006/32/EC highlights the importance of energy efficiency audits. The directive outlines the need for Member States to ensure the availability of energy-audit schemes, which are designed to identify potential energy efficiency measures for all energy consumers, including SMEs.
The LiCEA project provides a system for energy auditing to its partners from Austria, Hungary, Italy, Poland and Slovakia. The aim of the project is to find a means for discovering unexploited opportunities for energy saving throughout the supply chain of SMEs, in central Europe and beyond. The involvement of energy efficiency experts ensures that the project produces an innovative and professional solution, and guarantees a widespread dissemination of the results to a range of stakeholders. The expectation is that the LiCEA project can provide a standardised tool that all SMEs can use to audit the energy efficiency of their production processes.

> Energy audit is often the very first step in making your company more efficient and cost-effective. The audit can help you to assess how much energy your company wastes and to evaluate what measures you can take to improve efficiency. But remember, audits alone don't save energy: You need to also implement the recommended improvements.

Maurizio Castelli, Council Member of the Province of Mantova for Energy and Innovation, Italy

Life-cycle perspective adds value

LiCEA improves the energy audits that have been used before by adding the life-cycle perspective. Typically, an energy audit is an inspection, survey and analysis of energy flows for energy conservation in a building, process or system – to help determine the best way to reduce the amount of energy input into the system without negatively affecting the output. The LiCEA tool also provides an exact energy flow measurements and generates recommendations on how to decrease energy consumption. Instead of simply auditing the current situation, the tool looks at the potential for long-term savings with the application of environmental supply chain management, a rather strategic, long-term focussed approach.
The LiCEA tool tested SMEs from six production-oriented industrial districts in five central European countries. The project also implemented a pilot action, using the LiCEA tool to give an energy audit to a total of 200 SMEs, involved in sectors as diverse as hosiery, food (baked goods and meat), plastics, wood, machinery and tourism. A major value of LiCEA is that it can be replicated. The tool proved to be ready for dissemination throughout central European regions and beyond.
Along with the businesses that benefit from the audits, the project involves other stakeholders, including 40 local energy agencies, six business development centres and about 300 energy managers, all of whom are now familiar with the LICEA tool. Participants in the project also seek to ensure the results of their work are included in regional and national energy policies, so that the LiCEA tool can set a new standard in the field of industrial energy auditing.

10
Percentage of long-term energy reduction for SMEs thanks to LiCEA audits

200
SMEs received an energy audit of their production processes with the LiCEA Smart Tool

100
European energy agencies working closely with the partners of the project

Photo: © iStockphoto.com / bereta

Project: LiCEA
ERDF funding: €812 601
Duration: 2012 – 2014
Website: www.licea.eu

Photo: © iStockphoto.com / dja_schwartz

Building a better future with nanotechnology

Nanotechnology is the manipulation of atoms and molecules to produce new materials – used in different applications, as for example clothing, cars and medicine. This exciting field can stimulate the economy and preserve the environment. NANOFORCE encourages innovation through better integration of science, industry, finance and public authorities to improve the industrial sustainability in central Europe.

NANOFORCE works to foster the nanotech sector by facilitating research in nanotechnology, by encouraging investment in the results of this research and by promoting the technology as a safe means for producing new kinds of goods without taxing the environment.
Researchers and companies benefit from this project because it lets them exchange more information on nanotech research, development and safety. It also helps them cooperate on commercial uses of nanotechnology. Venture capitalists gain from being able to invest their funds with better knowledge of the risks and opportunities of the nanotech sector.

The safety of nanotech

While there are concerns about the risk that nanomaterials could pose to the environment, a better understanding of how to control these potential risks can improve the safety of these materials, as well as public acceptance of them.
Appropriately used nanotechnologies have been applied for the development of different products that can enhance the quality of life of current and future generations.
NANOFORCE developed a state-of-the-art report on regulations, to identify any gaps in the regulations and to create possible recommendations for the European Commission. Specifically, the project analysed three nanomaterials (TiO2, ZnO, nanoAg) to evaluate their registration within the EU's REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) regulation and to evaluate their potential health and environmental hazards.
After performing a risk assessment analysis, the project partners elaborated safety data sheets and specific exposure scenarios. This work was intended to address all safety concerns and provide toxicological data concerning potential risks. Joint working groups, organised on a local level, have involved national authorities in discussions of topics like exposure assessment and workplace safety.

Nanotech investments

Mobilisation of public and private funding sources is crucial for promoting the commercialisation of nanotech solutions in the European chemical industry. That is why the project proposed development of the Interregional Nanotech Venture Capital Fund (INVCF) to raise funding from international venture capitalists so they could finance promising nanotech initiatives. The proposal of INVCF, with a tentative capital of EUR 30 million, is based on the development of a business plan elaborated by a group of experts. It is intended to serve as the financial part of the CE Nanotechnology Roadmap to foster nanotech research and development in central Europe.
At the moment there are some knowledge gaps in nanotech, which is why it is important to avoid blocking research and innovation in this sector with unnecessary legislative burdens. Indeed, research and development, as well as safety, should be increased, to realise the potential benefits of nanotech and enhance the competitiveness of the EU.

> "The Magic Training Course of NANOFORCE has been a great and valuable experience to get in touch with the entrepreneurial world. It provided its participants the right knowledge and network."
>
> Domenico Centrone,
> Founder & CEO at EggPlant, Italy

14
Joint working tables allowing discussion of nanotech topics with public authorities

3
Nanomaterials analysed by the project

38
Scientific and technological parks with potential for nanotechnology work have been identified

Project: NANOFORCE
ERDF funding: € 1 798 441
Duration: 2011 – 2014
Website: www.nanoforceproject.eu

Better plastics reduce waste

Our relationship with plastics is ambivalent: We love their convenience but hate how they pollute our environment. New bioplastics, which are biodegradable or made from renewable resources, are more sustainable. PLASTiCE promotes joint research that exposes producers to the possibilities of bioplastics and also creates a roadmap for actions leading to commercialisation of these new plastics.

It is hard to imagine modern life without plastics. Plastics enable comfortable, safe living, but they represent a burden for the environment – both in terms of using non-renewable resources as well as in terms of large amounts of waste that pollute nature.
Most everyday plastic items are made from fossil resources and quickly end up as waste. At least some of these could be replaced by products made from bioplastics – environmentally friendly, sustainable materials which are biodegradable and/or made from renewable resources. They now represent one of the most rapidly growing types of plastics used. But in central Europe, the market share of bioplastics remains negligible. The PLASTiCE project encourages use of plastics with improved sustainability by promoting bioplastics which offer the opportunity to fully integrate plastics into natural material cycles. In focus is the entire value chain, from production to waste management, with actions tailored to the particular needs of each segment.

Availability of information

Insufficient access to reliable, well-prepared information has been identified as a key obstacle to wider use of bioplastics by industry and the public. To change this, PLASTiCE prepares unbiased information on key issues, like biodegradation, standardisation, certification, biobased content, etc. These documents are available in five languages and distributed through websites or in printed form. The knowledge and information is spread through events, videos on YouTube and one-to-one meetings with stakeholders in all partner countries and other parts of Europe.
The project created a transnational advisory scheme "Bioplastics - Opportunity for the Future" designed to collect a comprehensive, objective suite of information that will improve understanding about sustainable plastics and the opportunities they bring to all segments of the value chain.

Cooperation between research and industry

Early in the project, experts made an overview of the research and development potential of involved partners and other institutions in the region. The goal was to establish integrated, comprehensive research and development support for industries attempting to create different applications for bioplastics. Core results of PLASTiCE include case studies of partners outside the project group. These examples can facilitate wider uptake of opportunities offered by bioplastics and present a roadmap for action that will lead to commercialisation of new types of plastics.
To support better regulatory frameworks, the project established a portal for certification of bioplastics in two partner countries. The blueprint for this action will be available for use in other countries. To reach a wider audience and improve the impact of the project, partners are establishing contacts with experts in countries outside central Europe that may benefit from the knowledge gained through the project.

> "The PLASTiCE project is a consistent promoter of unbiased information on bioplastics benefiting both industry and consumers in the respective domestic markets. Through the certification system established within the project, cooperation between us and other companies in project countries will be facilitated."
>
> Dr. Oliver Ehlert, Product Manager,
> DIN CERTCO Gesellschaft für
> Konformitätsbewertung mbH, Germany

4
Transnational tools developed by the project to overcome obstacles to using sustainable plastics

9
Case studies involving partners outside the project group

97
Videos posted on Youtube with an average of 10 views per day

Photo: © iStockphoto.com / Peter Burnett

Project: PLASTiCE
ERDF funding: €2 110 928
Duration: 2011 – 2014
Website: www.plastice.org

Efficient production: Making more with less

For companies in the production sector, materials cost more than wages. Yet, material resources are not always used efficiently, especially by small and medium-sized enterprises (SMEs), which may not be aware of possible savings. PRESOURCE helps SMEs become more profitable by exploiting their full resource-efficiency potential through the promotion of transnational incentives for eco-innovation.

Despite the large amount that they spend on raw materials, industrial SMEs have little awareness of the potential for improving the efficient use of resources through such activities as optimising management procedures, improving logistics, developing better product design, and making production processes more efficient. Such firms often lack the know-how and personnel to recognise inefficient procedures and processes that are undertaken as part of the daily routine of business.
PRESOURCE aims to help SMEs become more resource-efficient and thereby more competitive. The project supports SMEs in evaluating their work from a different perspective, and provides them with a tool that was developed by the project to improve material and resource efficiency.
To increase the impact of its work, PRESOURCE also fosters capacity development at the level of authorities and intermediates in six central European countries. The "Eco-innovation Development and Implementation Tool" developed by the project, which is known as the "EDIT value tool" allows for a holistic analytical approach to unveil resource efficiency potential in industrial companies. In contrast to most existing tools, it not only looks at products or processes, but also analyses the potential for savings through improved business strategy, management procedures and realisation of stakeholder interests. Rather than imposing the logic of one specific tool on enterprises, the EDIT Value tool is designed on the basis of the needs of the SMEs it serves. It helps each company discover its own potential for efficiency.
In the experience of project partners, many efficiency measures that can reduce costs require little or no investment. In other cases, companies can best realise efficiency by sourcing extra financing, which can be hard for SMEs to obtain. That is why PRESOURCE maps stakeholders and financing institutions that can help support the costs of efficiency measures. The project also provides a cost-benefit analysis scheme to help communicate the positive outcomes of such measures to both SMEs and financing institutions.

European Commission seeking resource efficiency

Although the issue of resource efficiency has not received much attention in central Europe, Member States are being urged by the European Commission to address the matter. The EC has called for action in its "EU 2020 Resource Efficiency Flagship Initiative" and its "Roadmap for a Resource efficient Europe". Countries of central Europe can therefore benefit from exchanging knowledge on this issue. PRESOURCE supports this knowledge exchange with its online Competence Platform, which brings together stakeholders and promotes exchange and discussion of activities, tools and general information. The platform is complemented with a series of workshops in central Europe, where participants discuss policies and initiatives to support SME resource efficiency.

> The PRESOURCE workshop discussions confirmed for me once more the importance of a standardised approach for improving resource efficiency in SMEs.

Wilfried Denz, Environmental Consultant,
Chairman of the VDI Standard Committee 4598
- Resource Efficiency in SME, Germany

1

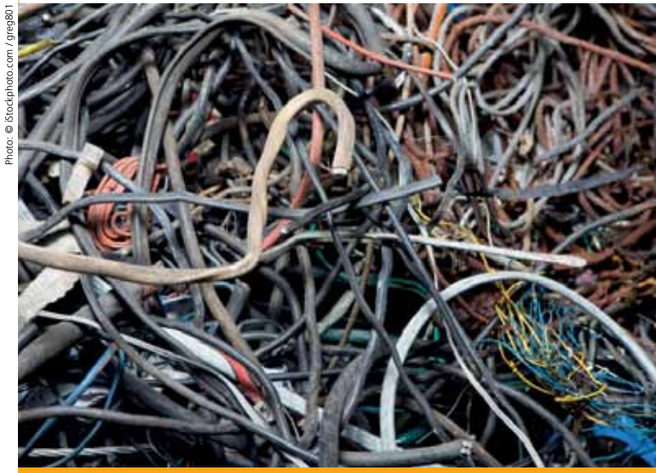
EU flagship initiative puts the spotlight on resource efficiency in Europe

16

Tons of material are annually consumed by each person in the EU

100

Stakeholders in the financial sector – from banks to crowd-sourcing funds – interviewed by the PRESOURCE project partners



Project: PRESOURCE
ERDF funding: € 1 419 068
Duration: 2012 – 2014
Website: www.presource.eu

Priming innovation to keep smaller businesses competitive

With the right technology transfer systems in place, small- and medium-sized enterprises (SMEs) can turn new ideas into new business, thereby keeping their regions competitive. PROINCOR gave innovation audits to hundreds of SMEs in the Baltic-Adriatic corridor, to show these companies how they can facilitate uptake of new ideas and develop the systems they need to act on innovation.

There are several routine practices that an SME can undertake to improve technology transfer – the process of getting an idea from the laboratory to the market. SMEs benefit greatly when PROINCOR innovation advisors provide assessment of their innovation processes and recommend improvements.
PROINCOR involved partners from a broad swath of central Europe, stretching between the Baltic and Adriatic seas, to develop a knowledge-based economic region within this corridor. The process of assisting each SME begins with innovation process mapping.

Audits plumb innovative ability

PROINCOR advisors assisted SMEs in the manufacturing and industrial service sectors, using innovation tools and an innovation assessment approach that was developed through transnational cooperation. The project provided SMEs with an innovation audit, a valuable consultancy service given free of charge. The audit determines the strengths and weaknesses of internal innovation management at SMEs. The purpose of an innovation audit is threefold:
- To familiarise an enterprise with an accurate assessment of its current state of innovation practices and processes
- To assess an enterprise's innovation curve, a measure of the company's strengths and weaknesses, to determine which areas are successful and which areas can be further improved by applying innovation processes
- To produce a set of measures and recommendations that enable enterprises to progress in developing their own innovation path

Where an audit indicated that further assistance could be beneficial, partners from the regional innovation support system were asked to assist in research and technology transfer and help launch a new product or development project. PROINCOR looked at 5 000 SMEs and gave audits to about 500 of them. These enterprises received assistance with improving their internal innovation management and training managers and employees in innovation, so they could develop new products and projects. Assistance included preparation for investments and newly established transnational cooperation.

Transnational cooperation

Although the process of innovation mainly occurs through local and regional level interaction of enterprises and research institutions, the transnational collaboration facilitated by PROINCOR can assist the process by ensuring the flow of information and knowledge between regions in central Europe. PROINCOR's innovation advisor group links the innovation support systems from all ten regions cooperating in the project and provides access to high-level technologies as well as expertise. Furthermore, each cooperating region can take advantage of regional innovation advisor groups, to ensure the sustainability of the project and its results. The project's results will be analysed in detail, in order to prepare recommendations and suggestions for improvement of current innovation policies, especially those policies providing support for SMEs in the Baltic-Adriatic corridor.

> "It is easy to come up with ideas, but it is extremely difficult to make them useful in the real world. The innovation audit by innovation experts was helpful for our company and our project of wheel motors for advanced electric cars."

Gorazd Lampič, CEO,
Elaphe d.o.o., Slovenia

Photo: © Fotolia.com

5 000
SMEs addressed by the project

400
Hands-on measures undertaken by experienced advisors to address specific enterprises' innovation challenges

50
SMEs will have new or improved products and processes

Photo: © iStockphoto.com / Damir Cudic

Project: PROINCOR
ERDF funding: €2 435 128
Duration: 2010 – 2013
Website: www.proincor.eu

Photo: © Astrid Bartl

Cooperating on innovation to boost businesses

Cooperation of small- and medium-sized enterprises and research organisations can lead to the kind of innovation that powers development and increases competitiveness. SMART FRAME lays the groundwork for better innovation in central Europe by providing a database of potential partners for cooperation and distributing know-how that helps businesses and researchers work together on innovative ideas.

SMART FRAME brings together the worlds of research and business, creating a fruitful environment for economic development through new ideas. The project supports the innovative framework in central Europe by elaborating and distributing know-how in the fields of intermediary support, research and development (R&D) cooperation, spin-off support and support for companies seeking to settle in a region.
SMART FRAME preserves jobs and creates new ones at technology-focused small- and medium-sized enterprises (SMEs) by providing a framework of technology structures and innovation networks for cooperation on R&D activities. The economy benefits as companies gain a better understanding of the new technologies being offered by R&D providers: The transnational cooperation facilitated by SMART FRAME shortens the product development process, improves production processes and allows a quicker return on investment.
The project focuses on some of the most promising modern industrial technologies: Materials, surfaces, technology-orientated processes and sensors/actors. The overall aim is the integration of these technologies into new products and production methods. SMART FRAME facilitates this integration by selecting a significant number of experts in the thematic fields and bringing them together with businesses.

> The broad network of experts provided by SMART FRAME is an excellent source of valuable contacts and cooperation partners for CEST.
>
> Prof. Dr. Christoph Kleber,
> Scientific Manager and CEO of CEST Center
> of Electrochemical Surface Technology, Austria

5
Types of modern industrial technologies addressed

123
Ideas for cooperation developed

350
Companies approached to settle down in project partner regions

1
Innovative model elaborated for spin-offs

Encouraging matches, settlements and spin-offs

Along with providing a database of experts, SMART FRAME introduces the experts to one another, and to SMEs, through an array of matchmaking workshops in central Europe. Participants have the opportunity to discuss the technical challenges they face, to deepen collaboration and to create common projects. By participating in the SMART FRAME Community, researchers can find investors and businesses can find new ideas for commercial development. SMART FRAME has encouraged the development of more than 120 project ideas – an indication of the strength of the network as well as the need for this action.
Because it raises awareness of the level of expertise in central Europe, SMART FRAME helps to demonstrate the advantages that the partner regions can offer to technology-focused SMEs. To further encourage such companies to settle in central Europe, the project actively approaches firms and seeks to demonstrate the benefits that make the partner regions attractive for existing high-tech companies, as well as for newly funded enterprises like spin-offs.
SMART FRAME follows international best practices in its effort to support spin-offs – and to promote the benefits of supporting them. The project has elaborated an innovative model to show that early cooperation between spin-offs and their mother company evokes a win-win situation for both sides. SMART FRAME offers workshops for managers and company founders as a way to promote this model, and to offer support and relevant contact points that can assist in developing spin-offs.

Photo: © Hartwig Zögl

Project: SMART FRAME
ERDF funding: € 1 601 977
Duration: 2011 – 2014
Website: www.smart-frame.eu

The Joint Technical Secretariat (JTS) of the CENTRAL EUROPE Programme is based in Vienna (Austria) and can be contacted at any time for queries related to finance, project management, or communication.
We are looking forward to cooperating with you and can be reached by telephone or e-mail.

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