

The Role of Regions in innovating EU Economy

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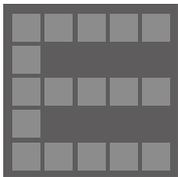
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# The role of Regions in innovating EU economy

Duccio Campagnoli – Regione Emilia Romagna, Secretary of Industry

This is a difficult moment for the European economy. Nevertheless, right now we must stress the importance of the big challenges underlined in the Lisbon document and make a common effort to build a competitive, modern and sustainable European economy - a basic factor for a stable regional cohesion in the Union, especially after the enlargement to 25 member states. The role of regional governments and of development and innovation policies at the regional level is essential for facing these challenges successfully.

By now, it is generally assumed that innovation is not anymore an exclusive task for big public or private research centres only. To make innovation a real factor for socio-economic dynamism and change, to make it a continuous, not isolated process, it is necessary to establish strong linkages among the involved actors, i.e., research centres, industry, professionals, public initiatives. Furthermore, such networks can not only involve a limited number of high level protagonists at the national or international level, but it is increasingly important that local organisations, SMEs, regional technology transfer initiatives, etc., are also involved.

Several Commission documents emphasised the crucial role of SMEs in the diffusion of innovation, its implementation in several specific fields, the realisation of incremental steps, and a greater involvement of local and regional communities in the process of change. Appropriate regional policies may indeed play an essential role in accelerating dynamism, stimulating new actors and maximising the impact of innovation on the EU socio-economic system for achieving the objective of regional cohesion.

A second element stressing the centrality of Regions, is the tradition - prevailing in a large part of Europe - to favour and manage bottom-up development processes. The presence in many regions of a large number of industrial clusters is a clear indication of the strength of many local communities to give rise to endogenous processes that have led them to high levels of competitiveness, employment and income. Regional governments have to deal now with keeping and improving competitiveness of such complex systems in the context of global competition.

If such clusters still represent a strategic resource, we cannot avoid considering their need of change and innovation in order to face competitive challenges. Not only is there the question of introducing ICTs in the management processes, but it is also particularly important to promote a more general evolution of clusters in the perspective of knowledge and innovation, as was discussed in the first ERIK workshop in Bologna. This not only means caring about current production and serving the present markets, but also valorising the potential of knowledge accumulated within clusters, and destining increasing resources for evolving present products, technologies, and markets. It also means making European clusters and regional systems able to minimise the impact of low cost competitiveness from emerging countries and favouring co-operation among clusters at different stages of development within the Union.

Many European regions that experienced such forms of development do possess the resources and energies for this cultural change. From our side, in Emilia-Romagna, we can say that the major share of the limited resources for our industrial development program is now destined to research, technology transfer, and University-Industry co-operation, instead of supporting ordinary investment. This implies involving all actors in a change of mentality, and a greater effort to foster cooperation between industry and research.

Finally, the importance of creating a knowledge economy as the basis for a continuous innovation process is emphasised. This is an objective that necessarily requires a crucial role for the regional dimension. It is not possible to create a knowledge economy without a knowledge community; this is made by institutions and enterprises, but most of all by people working for research, innovation, advanced consultancy in the different organisations, and by their reciprocal relationships. As in the experience of manufacturing clusters, the network effect is of basic importance also for the knowledge economy; first of all, this is needed at the regional and local level, that must represent a critical mass for activating global relationships. The consolidation of strong knowledge communities in the Regions is the base for generating new research intensive businesses from Universities, research centres, innovative companies, but also for innovating existing clusters, if able to enter in such communities.

With these big challenges, it is clear that the responsibility of regional governments increased very much in the last years. First of all, in front of the regional communities themselves, since their competitiveness and prosperity in a context of global competition, depend in larger measure on the effectiveness of regional policies: definition of adequate objectives, action programs and actors involved. Secondly, because of the impact of their actions on the performance of the Union, its cohesion, its international competitiveness.

In this scenario, it is evident that regional governments cannot act isolated from each other. They need to exchange experiences and work together, whenever it is possible. There is the need to learn and to find reciprocal synergies, to co-operate to help the weaker ones, not in the old approach of reducing disparities, but in the new one of promoting innovation and accelerating the dynamics of change. There is also a strong need of Commission support to define adequate common schemes of action and exchange of experiences.

In this sense, a great appreciation must be again addressed to the Commission for the current experience of the promotion of Regional Programs of Innovative Actions within the ERDF, and of course of the network programs like ERIK, that indeed respond to this need of exchange and collaboration. Of course, we hope that the valorisation of such experience, in the context of the increased relevance of regional policies, will lead to emphasise more, in the future EU structural policies, the role of Regions for the promotion of innovation in the European economy.



## Issues from the Bologna workshop

Silvano Bertini - Regione Emilia Romagna, Department of Economy

The first ERIK workshop "Innovation, Knowledge and Clusters", held in Bologna on the 30th of June and 1st of July 2003 (<http://www.eriknetwork.net/actions.html>), gave the opportunity to compare different academic and expertise opinions and concrete regional policy experiences on the concept and policy relevance of clusters. The issues and reflections raised during the workshop can be summarised as follows.

1. The definition of cluster has a wide range of declinations: from small groups of identifiable and strongly complementary firms (business networks), up to complex sector-territorial-institutional systems heavily involving local communities, conditioning their perspectives of economic prosperity, their local identity and their knowledge accumulation processes.
2. At any level, it is recognized that business and institutional co-operation, exchange and condision of knowledge, entrepreneurial dynamism, generation of common competitive advantages, are strong engines for growth and competitiveness.
3. Knowledge policies cannot be carried out only on cluster level. But knowledge transfer policies can have a stronger impact within cluster structures, at least when among the actors there is a clear understanding about the common advantages of increasing knowledge, and when there is a context of strong dynamism based on innovation and leadership, more than on cost advantages and imitation.
4. Stimulating business co-operation is not easy. It must be often promoted and encouraged by the public sector and often sustained by intermediate actors. More than horizontal it is easier to favour vertical co-operation, in order not to assembly direct competitors, but complementary producers or suppliers and buyers along the supply-chain and, possibly, the complete value chain.
5. Clusters must grow in an open and competitive environment. They cannot have a close, local delimitation of business and knowledge relationships. Firms have to develop strategic partnerships and to build networks also at the extra-regional, even at the global level. The relevant local-regional dimension must be found not in the production relationships, but in the knowledge identity, in the condision of specific and untransferable tacit elements, in the capacity of upgrading and innovating.
6. Information and telecommunication technologies are essential to improve cluster competitiveness, both for reinforcing reciprocal linkages among local and regional firms and the system efficiency, and for the geographical extension of business and knowledge relationships and the valorisation of the cluster on the global market.

7. The existence of a local, even embryonic cluster, and the realisation of cluster promotion policies, represent not only favourable conditions for local firms, but also a factor of business attractiveness for external firms. This can play a crucial role for local economic regeneration in deindustrialised areas and for growth in less favoured regions. Indeed, cluster development policy methodologies are of basic importance for objective 1 and 2 areas and, especially for the new member countries of Central and Eastern Europe entering in the EU in 2004.

8. Cluster development policies can be classified as follows:

- policies focused on business networks, aimed at reinforcing common competitive factors and strategic business functions;
- policies based on a territorial approach, aimed at increasing the local knowledge base, improving information circulation mechanisms, building common infrastructure, services, initiatives;
- policies for the integration of the cluster, within itself (through the improvement of internal relationships), and in network with other clusters, knowledge centres, etc.
- policies for the attraction of external firms within the cluster.

9. The main key success factor of clusters is knowledge. Knowledge is owned by people. People can valorise knowledge in a context of social cohesion, good living standards, trust and institutional support. Clusters are indeed essential contexts to make knowledge an element of social capital. In these contexts knowledge can multiply its effects on innovation, entrepreneurship, competitiveness, social dynamism and change.

### How to develop new innovative clusters

Ana Cristina Brejo, ADRAL (P)

In this session the focus was on existing examples of developing innovative clusters, where creation of favourable conditions is extremely important. In this context several experiences from different countries were analysed.

One of the first issues is the difference between clusters (local productive systems) and systems that are not defined as clusters or networks. The first ones are considered as a geographic phenomenon, as companies operate jointly. As regards networks, these differ from clusters as they are considered as a relational phenomenon based on a pro-active involvement amongst companies - there does not need to be a geographic closeness amongst them. Taking this

difference into account, how, then, can we develop innovative clusters? One vital factor is the creation of favourable conditions to support their development. In the presentation "The Innovative Clusters: a pilot experiment conducted by DGTRE in Wallonia", the Wallonian case was analysed (see the detailed description at page 7 in this issue). In this region there is a program for the promotion of innovation - based on a study supported by the regional government - whose aim is to stimulate the dynamics of innovation by enhancing partnerships and synergies amongst companies.

On the other hand, the creation of platforms may also lead to the development of clusters. The example of Aragon was presented in: "The Aragon's Experience: Creation of Sectoral Platforms". Here sectoral platforms were created to promote cooperation amongst various companies. Groups of companies (or sectoral platforms) belonging to the same sector of activity work together in a cooperation/partnership scheme with the ultimate aim of improving company competitiveness. While this is still a pilot project, there is hope that some such platforms may eventually grow into clusters. The experience of North Milan shows a cluster in the area of communication. During the 20th century, this geographic area was strongly industrialized. However, the industrial sector suffered a major crisis and developed the need to diversify its economic structure. As industrial diversification took over, high-technology companies came into play, and a cluster in communication developed. At present, a specific program supports this very cluster.

In the English case (see the article at page 8 in this issue), networks appear to be a better option when compared to clusters. Companies involved in an inter-company network are more innovative than the others. Therefore, networks are considered more efficient in leading companies towards innovation.

In conclusion, all these examples exhibit some common peculiarities. All of them show government support or interest in their activities. Such governmental support, visible as various incentives, aims at developing clusters that will contribute towards an industrial structure and, consequently, towards a wider economic structure. Based on a cooperation system amongst companies, the economic diversification deriving from these clusters contributes, to a certain extent, to a more diversified and sustainable society.

The support offered by some governments implies the elaboration of favourable conditions for the development of clusters - not the compulsory development of one specific cluster. In these terms and in these examples, the connection between knowledge and clusters is extremely important. The introduction of experts and research centres in clusters clearly shows the importance of connecting knowledge and clusters.

## How to innovate in traditional clusters

Rafael Fernandez, INFO Murcia (E)

As it was mentioned in the plenary session, territory is a condition for the implementation of clusters strategies. Here "territory" is considered as a range of socio-economic conditions that includes not only different sectors and their links to certain municipalities, but also relationships with scientific and technological centres and links among companies.

The regional experiences presented in the workshop showed many peculiarities as well as some similarities. Also, there were different stages of development of the exercises. Let us first make a few remarks on different presentations and finally draw some conclusions. The experience of the Technological Institutes network in Valencia has much to do with the type of companies present in the region (93% are microenterprises). The network provides services to SMEs especially in innovation. BICs and offices opened in different municipalities complete a variety of infrastructures serving the SMEs. A new approach to traditional clusters has been established by promoting the "housing" cluster, an hypersector that covers all sectors concerning home appliances and technologies. The experience of the Lucca paper district and its "Door to door" initiative was rather interesting. It first started at a local scale, was then tested and eventually proposed as an extended formulation. While the district is there since many years, only after this bottom-up approach the cluster was established. The importance of a competence centre and harmony among institutions was also pointed out.

The cluster policy in Varese (Lombardy Region) underlines that clusters are useful to supply services to groups of SMEs which they couldn't otherwise afford. In the task of identifying clusters, a break in conventional wisdom is needed and strategic analysis becomes the key issue. The voucher system established to create relationships with the centres of excellence was interesting for many attendants to the workshop. This is not a genuine cluster element but helps increasing the 'social capital'.

The motor district in Emilia-Romagna is a consortium that has created a structure divided into workgroups and operating in areas of interest for the companies. A long list of activities are planned every year, whose priority is set through a matrix that measures the value for members and implementation costs in terms of time, risk and money. As mentioned in the plenary session, the role of team work as a key topic in clusters was remarked.

Finally, the Piedmont Region presented its Innovative Actions Program based on how to transform industrial clusters into digital clusters. Here again, a region featuring a long-tradition in clusters policy looks for consensus to take another step forward in the competitiveness race.

In conclusion, it can be said that some of the concepts

used in the Regional Innovation Strategies projects or in the Innovative Actions projects, such as the regional consensus or the bottom-up approach, are present in these exercises. This is the only way not to fail in choosing or identifying clusters. However, it has to be stressed that after analysing all cases one should be very careful while drawing general conclusions about clusters as every reality proved to be different.

## How to promote the effective Use of ICT in Clusters

Conny Hamann, BIA (D)

Inter-firm business networks show a growing importance for the innovation strategy in the regions. Much attention has been given to the need to provide adequate information infrastructures so that such regional inter-firm clusters can flourish. The evidence regarding ICT usage and benefits in such clusters, both for internal coordination in the cluster and for contact with external markets (e.g. B2B and B2C e-commerce) is mixed. The goal of this session was to explore the role of ICTs in clusters and business networks.

The key questions were:

- How can we foster the awareness/demand for ICT solutions?
  - How can we support the effective usage of e-business solutions?
  - What are the experiences respecting the "standardization" problem of ICT in Europe?
- The review of case studies provided the basis for a discussion of the three aspects, which was moderated by Anna Flavia Bianchi from Telecom Italia:
- PRAI "FreNeSys" (Friuli-Venezia Giulia Region, Italy)
  - Promotion of the mobile solutions in the logistic cluster (Bremen, Germany)
  - The "Standardization" project for Prato textile district (Prato, Italy)
  - Triple Helix – a strategy for sustainable development (Västerbotten, Sweden)

At first participants discussed how to foster the awareness/demand for ICT solutions in SMEs. The starting point of the discussion was the fact that many SMEs do not see the benefits of ICT solutions because of their short term view of effects which need investments in infrastructure, time and human resources. Therefore, the conclusion was that the role of a technology transfer unit should be to understand the usage and benefits of ICTs and show possible implementation options to entrepreneurs.

In the context of raising the awareness of ICT solutions the following approach was discussed and illustrated by case studies:

- **Step 1: technological clinic - short consultation/help desk**
- **Step 2: organize the supply & demand side - process analysis over 2 days**
- **Step 3: showing opportunities for subsidizing -**

## tutoring/accompanying the implementation through external consultants.

Goal of the "Technological Clinic" or "Project Centre for e-/m-business" is to identify problems relevant to firms, which can be solved by means of ICT solutions. Here, potential users of ICT, such as entrepreneurs in the logistic sector are interviewed in the framework of a workshop. Innovation managers from the technology transfer unit can then recommend potential ICT providers. In the case of the "Project Centre for e-/m business" in Bremen SMEs active in the "mobile solution group" are recommended to workshop participants ([www.ebiz-bremen.de](http://www.ebiz-bremen.de)). This could be the initial impulse to start a new innovative project in the region. As regards the effective usage of e-business solutions, the approach of county Västerbotten underlined the importance of the collaboration among SMEs, university units and public authorities, the so called "Triple Helix". In order to achieve more efficiency in introducing ICT solutions, the county Västerbotten investigated common needs for e-business solutions of different sectors, such as e-Health, e-Government and test facilities. On the basis of the identified demands the municipalities, the hospitals and the private health care agreed to jointly develop a communication tool called "TILLIT". The goal of the tool is to increase the well-being of citizens with the help of mobile devices, a 3G positioning system for patients, and telemedicine applications at home. The objective is to commercialise the tool to foster regional economic growth. The following benefits for involved actors were outlined:

- The regional care system adds technical know-how to the tool
- The municipality of Umea and the county council of Västerbotten adds knowledge of the healthcare system
- Both municipalities and hospital care are provided with a efficient tool to enhance the quality and collaboration in the area of health care.

Finally, the question of European collaboration was raised. The case study "Standardisation. A Project for the Textile District of Prato" ([www.textilestandard.it](http://www.textilestandard.it)) showed that ICT can result in competitive advantages for SMEs. The question was raised: how can ICT become an opportunity for a large number of firms in Europe?

In this context, the problem is that perception of application service providers differs throughout Europe. Either a large company sets ICT standards for an industrial district and its supplier network follows the standards (the standard is very much focused on the region) or a general ICT standard is developed for all interested firms – but then the problem occurs that somebody has to pay for the development costs. The result of the discussion was that the first step to introduce joint ICT standards and systems in Europe is to confront the challenge of using confidentially shared systems.



## Study Visit Report

### ERIK Study Visit on "mobile solution cluster in Bremen"

The ERIK Thematic Working Group on "Clusters" performed in collaboration with the network "STRINNOP - Strengthening the Regional Innovation Profile" ([www.strinnop.net](http://www.strinnop.net)) and the Bremen Innovation Agency a study visit on clusters in Bremen on 15th October 2003. The study visit was attended by 33 delegates from development agencies, ministries, technology parks, academia and research institutions who work in the field of regional innovation policies. The main objective of the visit was to provide a better understanding of clusters and offered insights into current regional strategies, implementation activities and future trends.

Aim of the study visit was to exchange experiences about the following topics, which gave impulse to the future work of the Thematic Working Group on "Clusters":

- How do I identify a sector as a cluster? (example: T.I.M.E. program in Bremen)
- The role of higher education and start-up support in clusters (example: "Pre-Seed-Program for Academic Start-ups")
- Innovation and co-operation culture in clusters (example: Mobile Solution Group Ltd.)
- How do you deal with clusters which work across boundaries?
- Identification of financial barriers of firm growth in clusters.

### ERIK Study Visit in Wiener Neustadt (Lower Austria)

From the 3rd to the 5th December 2003 a study visit of the ERIK Network Thematic Working Group on "Services and support to start-up and spin-off" has taken place in Wiener Neustadt in Lower Austria. The Wirtschaftsförderung (Business Development Agency) of the regional government of Lower Austria hosted the event. Participants from several European Regions have taken the chance to gain practical information on the broad and successful supporting measures to foster start-ups and spin-offs. The study visit in Wiener Neustadt was completed by the meetings of the two TWGs "Services and support to start-up and spin-off" and "Industry and Science Relationship".

The ERIK participants also visited the "Fachdialog Innovation" event which was held in parallel at the same venue. There, regional and national experts from science and industry came together to present their competencies in new and innovative fields, to check collaboration possibilities and to discuss future trends. The "Fachdialog Innovation" is part of the Lower Austria's Regional Program of Innovative Actions (RPAI). "The personal exchange with experts from industry and science within the international network activities could very soon build the basis for more intensive collaboration within interregional research or technology transfer projects", as Irma Priedl from the Lower Austrian Wirtschaftsförderung and coordinator of the TWG "Services and support to start-up and spin-off" pointed out.

# A Pilot Experiment conducted by DGTRE in Wallonia. The Innovative Clusters

Ms. Isabelle Pierre, DGTRE and Ms. Sandra Robic, ECCE

The Technological Cluster Program in Wallonia was launched by DGTRE (Directorate General for Technologies, Research and Energy) for the period 1999-2002. It was part of Promethee (RIS program). The program consisted of a number of actions:

- realisation of the prospective study "40 key technologies" for Wallonia in 2010 (1999-2000);
- organisation of a workshop about the study results (2000);
- edition and dissemination of the book.

As a result DGTRE launched an experimental program to stimulate innovative clusters structured around the key technologies. The first call for projects "Technological cluster" was announced in 2000, the second in 2002.

## Cluster Programme: Objective and public intervention

The main objective of the program was to strengthen innovation dynamics by stimulating partnerships and synergies amongst enterprises and between industry and research operators. The program had a bottom-up approach as the process was initiated and carried out by enterprises. The region acted as a "facilitator". The DGTRE financed the work of an expert in the technological field who helped the cluster organise itself, analyse its own needs and objectives, and drawing an action plan. It also financed a common methodological support to experts, as well as co-ordination and animation by a consulting company, ECCE.

## Projects selected

The program of Technological Clusters Organisation lasts two years. Over the first year a market/institutional map is drawn. Aims and means are planned. During the second year a guide for required means is prepared. The selection of projects takes place and individual business plans are chosen. The evaluation takes place both after the first year and at the end of the program.

The main selection criteria for the cluster were: partnership composition, suitability of the proposed expert and quality of the project. The first 5 technological clusters selected by DGTRE (2001-2002) were:

1. Refractory materials recycling
2. Rapid prototyping
3. Signal-Image Treatment
4. GISDE (Integrated and Secured Electronic Document Management)
5. New Multimedia Services (vocal recognition, programming tools, new multimedia products)

The next 5 technological clusters (2003-2004) focused on:

1. Nutrition
2. Friction Stir Welding (FSW)
3. Mecatronics
4. Software Engineering for Industrial Applications
5. Information & Communication Technologies for the Graphic Industry sector.

## Innovative clusters: first results and prospects

At the end of the first 2 years clusters activities resulted in concrete operations and plans for permanent activities such as forums, enterprises creation, start up business, development of common R&D projects. The general observation is that clusters are moving towards autonomy.

In the future the extension to other clusters covering technological fields beyond those covered by the 10 existing clusters is planned (e.g. materials, health). It is hoped that there appear interactions between existing clusters.

## Example of cluster projects within the Technological Cluster Program

GISDE (Integrated and Secured Electronic Document Management)

The general aim of the cluster is to develop and to offer innovative solutions to help SMEs facing the problems posed by information management. The cluster is composed of 8 firms and one university laboratory. In 2001 the GISDE Forum was created with the aim of holding regular meetings (once every 2 months), exchanging experiences and launching new projects. The new projects were to propose a common consulting offer for SMEs concerning e.g. document management, application management, safety etc.

# Networks, Clusters and Regional Innovation Policy

Christine Oughton, Birkbeck University of London

Clusters and networks are well known forms of organisation with a big potential to increase innovativeness and competitiveness of companies and localities. Clusters are a geographic phenomenon consisting of firms (often passively) co-operating in close proximity, profiting from agglomeration economies. On the other hand, networks are a relational phenomenon, as firms agree to commit joint resources in order to create collective external economies. Networks require a pro-active involvement and a high level of trust among involved actors.

There is evidence that networking activities increase the innovative potential of involved firms. This is strongly supported by the results of the Community Research Survey III (CIS III) for UK regions, which showed that firms involved in inter-firm networks are 13 times more likely to innovate. Furthermore, firms networked to the science base are 12 times more likely to innovate. Hence, both inter-firm and inter-organizational e.g. firm-university networks may enhance innovativeness.

As networks are a powerful driver of innovation, the question to ask for both managers and policy-makers is how to catalyse networks? A three-steps procedure to networking for innovation is proposed here:

1. identify clusters and existing networks
2. network innovation service providers (finance, technology, universities, research and training organizations)
3. integrate the above two sets of networks to ensure business needs are met and regional capability is fully exploited

Networks may be seen as facilitators of joint investment activity as they allow to pool fixed costs, thereby allowing more investments and projects to go ahead. This is especially relevant for investing in innovation, as innovation-related expenditures are oftentimes prohibitive for individual SMEs. Two examples can be shown as to how networking may improve innovation processes:

**Investments in R&D.** As it was mentioned, cost of R&D expenditures, e.g. R&D labs, is prohibitive for many SMEs. Networks involving firms and science base players allow firms to pool fixed costs and invest in shared facilities and projects. Such joint investments can be extended to other areas, such as e.g. training or design.

**Finance.** Firms tend to rely heavily on short-term finance. This makes it difficult to e.g. validate new technology, assess risk/returns, provide adequate services. The solution can be to organise sector-based networks comprising: managers and business representatives, researchers and design experts, and marketing experts. Better networking can help organise a system of informed vetting of applications for regional investment funds.

## on the next NEWSLETTER

### RPIAs from:

Nieder Oesterreich

Wallonie

## Innovative Action Programme Bremen

Conny Hamann, BIA (D)

The "Mobile Bremen Initiative" is a programme under the Innovative Actions Programme of ERDF. It aims at shaping a socio-economic development perspective for the region Bremen focusing on advanced mobile information and communication technologies. This will be achieved by an integrated framework with the goal to exploit the potential of these emerging technologies and stimulating the development of the regional "information society".

The emerging information society will give Bremen the opportunity to master the structural change. Among Information Communication Technologies (ICTs), mobile communication has been one of the fastest growing segments of the telecommunication market and is regarded as an important driving force for structural change. The emerging next generation of mobile communication on the basis of GPRS (2.5G) and UMTS (3G) will take the possibilities of the digital age to a higher level, both for business and consumers. To ensure the acceptance and penetration of these new technologies, appropriate applications and services for 2.5-3G platforms must be developed, adapted, tested and evaluated.

The development of services based on 2.5-3G is well set in Bremen. Bremen can be called a centre of competence for mobile communication with 60 companies and research institutions in this field, its infrastructure for innovative companies, its test bed environment and its "mobile solution group" community. Therefore, one of the objectives of the "Mobile Bremen Initiative" is to contribute to employment in this sector by developing new mobile services and products. In order to accomplish a high degree of usability of results and sustainability of measures, the programme concentrates on three fields of activity, which have been identified as being important for fostering the mobile information society:

- Mobile solutions for SMEs
- Mobile health care
- Mobile services for citizens.

Within these fields of activity, different actions for the promotion of the mobile ICT cluster will be undertaken in Bremen. In addition to the integration and linking of regional activities in the field of mobile ICTs, particular emphasis will be put on the implementation of pilot projects and the introduction of innovative products and services into new markets. Studies investigating specific topics of interest and developing concepts for the usability of

mobile ICTs will be also carried out. These activities will be accompanied by awareness raising activities, such as workshops for users of mobile applications in the context of the "e-/m-business project centre". Interregional exchange of information and good practices is also regarded as important for promoting innovation and developing sustainable regional development perspectives in the area of mobile ICTs. Therefore, interregional co-operation and networking with partner organisations and Innovative Actions Programmes from all over Europe is an important aspect of the programme.

Summing up, the programme consists of three vertical actions lines which are: mobile solutions for SMEs, mobile health care and mobile services for citizens. These are directly related to the horizontal actions: co-operation, awareness raising and strategic planning for the mobile information society. These activities are being accompanied by interregional networking.

# The West Midland's Innovative Actions Programme Making Innovation Real

John Cornbill, Director, EPI Centre & The Innovation School

The West Midland's Innovative Action's Programme (IAWM) is a initiative led by the regional development agency – Advantage West Midlands (AWM). The 5.9 million euro programme started on 1 January 2003 and was formally launched at five events involving almost three hundred people in late June 2003. The programme addresses all three Innovative Actions' themes: knowledge, information society as well as sustainable development and regional identity.

The approach is to use the programme resources to trigger a wide range of small experimental projects to help embed innovation in the public, private and third (no profit) sectors. The programme is testing new approaches to project development and seeking new ways to measure the impact of public support. It aims to stimulate new learning and partnerships, to identify good ideas for transfer and, above all, to make innovation real through practical action.

## THE PIG!

The IAWM was put together by a Steering Group comprising a widely representative range of partners, but the delivery of the programme was then passed to a new group of regional partners – the Programme Implementation Group (The PIG!). The PIG is chaired by an AWM private sector Board member and includes representatives of the Government Office for West Midlands, the West Midlands Higher Education Association, the West Midlands Local Government Association, Higher and Further Education and the third Sector.

## A SECRETARIAT AND THE INNOVATION SCHOOL

The PIG is supported by a Secretariat and an Innovation School. The Innovation School is an entirely new concept - it has been established to help regional players challenge the status quo in project development and find new ways of embedding innovation and knowledge management in target sectors. The Innovation School team has been established at the EPI Centre in Coventry University. The School aims to e.g.:

- move from the policing of projects to the facilitation of projects
- work up a programme designed to improve regional understanding of innovation and knowledge management in the public, private and third sectors
- proactively identify and develop project ideas on behalf of the PIG
- find ways of transferring learning and best practices

- discover better ways of measuring the impact of public support
- contribute to the improvement of the future delivery of structural and other funding

## THE ACTIONS

The programme has four action strands:

**Harnessing and exploiting our knowledge** – maximising the region's knowledge creation potential, seeking untapped knowledge and latent capabilities, linking unrelated sectors and organisations, groups and programmes.

**Developing an Innovative E-Region** – supporting new and adventurous projects and applications which cannot be supported under the region's ICT Strategy. It aims to influence regional thinking on the benefits of ICT, create new content, applications and connections, more inclusive ICT use and better links to existing projects and initiatives.

**Using the Region's identity to improve sustainability** - identifying new future focussed scenarios for the region using heritage, culture, diversity in the industrial fabric, building on the region's marketing strategy, addressing the needs of the urban rural balance. The project hopes to contribute to a stronger identity for the region, the uncovering of hidden assets, and connect citizens and decision makers in planning for the future.

**Measuring Testing and Learning** – an horizontal focus on projects to bring about practical improvements in the monitoring process. The project hopes to generate case studies, new "hands on" training tools and dissemination techniques, as well as finding new ways of unlocking ideas.

## WHO IS INVOLVED?

By the close of the programme all of the following groups will have been invited to join or be a part of the project: regional decision makers, the public, private and third sector, higher education and further education, schools and training organisations, innovation centres, science parks, regional development technology institutions, trade associations, community groups, enterprises - particularly SMES - youth groups, the older population, the health sector, special interest groups, tourism practitioners, business support organisations, business representation organisations, Learning and Skills Councils, the Small Business Service and elected members.

### ACHIEVEMENTS TO DATE

We are currently working on capturing the learning from our first year of the programme – but here are some highlights:

- Spirited discussions in the PIG - the programme is allowing us to talk about the stimulation of innovation from a privileged position

- We have challenged the status quo – there have been some successes and some failures

- We have speeded up some decisions, but performed worse than existing programmes in others

- The quality of debate has been high and the tone has been different - Practitioners don't normally get the chance to pause for thought about these issues due to day-to-day pressures

- We have openly encouraged the debate and publically admitted our failures (that's innovative!)

- We have offered support to twenty three excellent projects which would not have been helped elsewhere – some of them are highly risky but have enormous potential impact if they succeed

- We have used the equivalent of only three person years to manage the whole project and handle almost two hundred project proposals.

- We have produced different kinds of project documentation – with mixed success

- The Innovation School's depth of support and follow-up - with personal visits to applicants - has been markedly more intensive and positively supportive than most programmes

- The Innovation School has been less formal, more flexible and available for project proposers.

- We have secured private sector involvement in the PIG and the Innovation School

- We have reduced the involvement of vested interests in project selection

- We have undertaken a great deal of thinking and analysis and highly inclusive brainstorming, which will soon lead to good "innovation literacy" products and web site content

- We have undertaken intensive innovation support pilots in the three sectors

- We have delivered a highly innovative private sector competition - The Innovation Awards – and identified 13 projects to support as a result

- The programme has begun to create new partnerships, including making some better connections to community and voluntary organisations

- We have already involved some unrepresented groups and created new, potentially effective links between partnerships

- We have experimented with new approaches to project development appraisal and measurement

- We have begun exploring new ways of measuring and testing the impact of public investment

- We have tested 2 kinds of "light touch" project review processes and 16 project proposers have been asked to present their projects to the PIG

# Local systems and knowledge economy

Enzo Rullani (University of Venice)

## 1. Local systems and knowledge economy

Over years the forms of knowledge that have fuelled economic growth have changed considerably. As Fordism declined, alternative solutions to the concentration of intelligence, power and risk within the large public and private techno-structures were sought. The territories offered a useful platform for supporting these functions that the large organizations were no longer able to support on their own. Thanks to outsourcing by large enterprises and the birth of the territorial systems of small enterprises, knowledge began to cross the organizations' boundaries and became partly market knowledge and partly locally shared knowledge.

In the past knowledge could be encapsulated in the "container" (first in the machine, then in the organization) and treated as a "piece" of useful property. When knowledge becomes a locally shared resource it can no longer be replaced by its container. The access to this type of knowledge is not governed by private ownership (market), nor by public ownership (science), it is a given: experiences shared in the local context. One "learns" by working in a certain context, in contact with others who act in the same context and focus their attention on the same problems. Hence, the solutions to those problems are easily identified, interpreted, copied and imitated by those who work and live in the common context of experience.

## 2. Uniqueness: the dark side of the local economy

Local knowledge is a resource sui generis as it is not governed by classic proprietary institutions (markets, hierarchies). Accessibility comes from sharing experiences and sharing is a localized quality, specific to a place, to an area. It is the local context that gives the knowledge shared this way a tacit and informal nature escaping codification and attempts to transfer it outside. Tacit knowledge makes a local institutional setting unique.

This uniqueness of the area is the dark side of the new economy of localized development. It has both practical and a theoretical consequences. On the practical level, uniqueness means the scarcity and irreproducibility of the solutions adopted in each place. The economy of totally different and irreproducible territories is an economy of positions where there is no free space for growing and experimenting from the bottom up. All the room for

possibilities is taken and each area monopolizes one of the possible variants. Leading localities collect the rents of their differential advantage while those lagging behind are locked in their positions and cannot easily mount the competitive or political-social pyramid.

On the theoretical level, the uniqueness of the area contradicts the general principle of scientific knowledge that in order to verify or disprove a theory requires that the phenomena it describes be reproducible. Unique phenomena that cannot be reproduced in the laboratory or in practice can only be observed and rationalized ex post. Therefore, the territory's uniqueness makes it impossible to pronounce theories or make verifiable (or disprovable) predictions on each localized economic system. Despite we are convinced the areas matter we still do not know:

- how to reproduce territorial development, for example by "exporting" it to regions or countries where it is not spontaneously manifested;
- how to modify the trajectory of development in a predictable manner when we believe it is about to stumble or we fear that the outcome will be undesirable.

## 3. Serendipity: seeking the territory, we discover complexity

With the re-emergence of the territory the first modern age has come to an end. In the second modern age we have been experiencing for a few years, the basic logic is moving in the opposite direction: it is not a question of reducing the complexity of the possible, but of harnessing it and directing it towards useful purposes (learning) and transforming it into an explorative power that makes contact with the new, with the surprising and with the unexpected.

In our quest for the territory we have found more, according to the golden rule of serendipity. We have discovered the complex nature of the production of value, the impossibility of reducing it to a rationalistic design and deterministic calculations. The territory is the foundation for a basic change anchored in complexity. The economy of complexity – and the territory falls into this category – is the economy of shared experimentation, of a quest for identity and social bonds for dealing with the exploration of the possible.

#### 4. Territory lost and regained

When development became “localized”, it lost contact with the determinism of the traditional views of the economy. Although, we have “theoretical eyeglasses” that try to grasp it as a complex, emerging reality, the localised development processes have become difficult, if not impossible, to predict, test, reproduce, and modify in a deterministic (calculable) manner. This is a problem but it is also an opportunity of first magnitude.

It is a problem of clarity and meaning for a discipline that is leaving the harbour of determinism to be carried by the currents of complexity. But it is also an extraordinary opportunity for innovation and experimentation, only if we look at the territorial economy in a new way and accepts its variety, variability and indetermination as a ground for learning and exploration.

The shift of the analysis towards complexity places the territories at the centre of a new concept of development. It is a concept in which the starting point is the idea that generating value through knowledge is a complex, non-deterministic process that cannot be reduced to individual behaviour. In an economy of complexity, the territories contribute an added value to the economy. They contribute to the exploration of the possible, to the sharing of projects and the collective assumption of risks. From this standpoint, most valuable knowledge develops in the territory in the form of shared visions and common projects, whose completion and fulfilment implies being part of shared trajectory. In this sense, local policies have to be rethought as well: they cannot be aimed at constructing standardized solutions (identical for all places) or solutions that are predefined from the start.

#### 5. The territorial added value - Why localization matters?

From the standpoint of real economic growth, the territory does not have the monopoly over the cognitive resources that make it possible to deal with complexity. In fact, it has many fearsome competitors that have quickly adapted to growing complexity and to the management of high indeterminate situations:

- a) the market which, though working primarily with codified forms of knowledge, has the strength from the division of labour that extends over distances and thanks to globalization and the ICTs can achieve huge volumes and at large economies of scale.
- b) the hierarchy that no longer uses the closed schemes of the Ford era, but works through outsourcing with supply networks (the extended

enterprise) the advantage is that it can easily expand to the global economy and can be coordinated by a centre that plans, orders and finalizes.

The territorial systems, which during the crisis of Fordism, developed as local systems can meet this evolution of competition only if by innovating their organization and identity, they position themselves on the foundations of local/global relations, i.e. using those features of the local identity that have value and provide competitive advantages on the field of global competition. In other words, the territories are consistently and increasingly prompted to become open systems, nodes or junctions of multi-localized networks that are supported not by one, but by a differentiated plurality of places.

#### 6. The cognitive functions of the territory

The territory contributes to knowledge sharing and to the division of cognitive labour. This is not however the sole way of achieving this goal. There are three specific contributions that give the territory value added with respect to the other competitors:

- c) local society, embedded in the territory, contains and develops excess knowledge that goes beyond the instrumental relationship of means-end and utilitarian calculations. Social life, with its large variety, variability and indetermination of intelligences and routes, has the virtue (and vice) of going beyond the horizon bounded by the instrumental means-end rationality. These comprise a basic reservoir of knowledge that can be tapped when unpredicted and surprising situations arise that must be quickly interpreted and processed by the actors;
- d) in the territory, sharing the context and experiences gives rise to an invisible yet strong epistemic community that allows knowledge used for productive purposes to be multiplied and propagated in an ever larger user basin, thus creating advantages in terms of product value and competition;
- e) in the territory, the task of governance carried out by the institutions and the continuous regeneration of the shared identity gives the economic actors a self-referencing ability that is necessary for thoughtful innovation on its history while at the same time conserving the differences that distinguish it from other territories..

Excess knowledge, epistemic communities, and self-referencing circuits are the essential elements for each knowledge system that wants to deal successfully with high levels of complexity.

## 7. Work in progress

The territory, on the other hand, has supplied these three elements thanks to its relative “immunity” to the urgencies and rigidity of economic and utilitarian rationality in the strict sense. In the territory, the social actors are people rooted in their history and culture, so that, through them it is the “local society” as a whole that is put to work. The people mobilize their networks of social capital and their intelligence. The enterprises support the people’s projects and ambitions. However, today, even the territory is called upon to perform these functions in a different way from the past, for three major reasons:

- f) local society must become a hybrid with global society that is no longer outside the territory, it works inside it in the myriad local-global relationships that are part of daily life and work;
- g) local knowledge must shift from the grounds of objects and material transformations to that of products and intangible assets, because it is on this scale that competition with developing nations is measured and the future of the local communities is being written;
- h) the territory must open itself to the long networks that allow it to acquire knowledge from the outside, in the global system and to sell it in a circuit that is just as big.

## 8. The reasons and aims of local policies

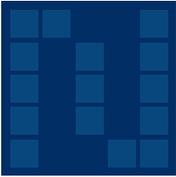
We often demand that the territory be the tool of the individual rationality of the enterprises, providing resources, services and knowledge at lower costs with respect to the market or the large corporation. Nonetheless, it should be noted much ex-post monitoring of policies for incentives or promoting innovation have shown that businesses rarely opt for the more demanding choices over the existence of contingent advantages offered by public policies. This is partly because these advantages are uncertain and dependent upon bureaucratic or political circumstances, that are difficult to predict and control, and partly – especially with the restrictions introduced by the European Union – because they are often simply not worth the effort. The result is that public transfers rarely change the strategic choices they would like to influence and they resolve themselves into supporting the profits of business and a reason of merit of the association, the professional or the local agency that provided them.

Instead, through experimental programs intervention policies in the territory should aim at strengthening infrastructures and services, the peculiar roles of the territory – those in which it has a distinct advantage over the competitive forms (market and hierarchy). The territory, does indeed have significant chances

for the intelligent management of complexity. Public policies must defend and develop these prerogatives that give it a role and a distinct advantage over other forms of organization.

Regional policy programs focused on knowledge should, therefore, be assessed on the basis of the contribution they make not so much in terms of instrumental use – for the production of goods – of the knowledge in the territory, as in terms of the development and growth of excess knowledge, knowledge-sharing epistemic communities, and self-referencing identity and institutional circuits that put thought behind the innovations and solutions created within the more successful territorial communities.

In parallel, we must ask ourselves how to trigger a dynamic of learning in this direction, in the territories where the above cognitive functions seem to be weak or poorly protected. The key element in the process of selecting the policies is an evaluation or assessment process during the task and that fulfils the requirement of ex post assessments of solutions of interpreting and exploring the complexities that cannot be established beforehand.



## News

### New Associate Members of the Erik Network

A warm welcome to all our new members.

In less than a year the ERIK Network has grown significantly - certainly above expectations - thereby proving the great interest in the project's themes and objectives.

The Network - initially formed by 13 regional partners belonging to 9 European countries - has been officially joined by 18 new associate regions, thereby bringing the overall partnership to 31 members altogether, from 12 distinct European countries. The following is a list of all the new Associate Members of the ERIK Network:

Stiftung Innovation und Arbeit Sachsen, **Saxony** - (Germany); IMPIVA, Institute for small and medium sized industry of Valencia **Valencia** - (Spain); **North-Brabant** Development Agency - (Netherlands); Regional Authority - **Ionian Islands** (Greece); **Storstrom County** - (Denmark); Regional Authority - **Vastra Gotaland** (Sweden); Regional Authority - **Balearic Islands** (Spain); Regional Council in **Kalmar County** - (Sweden); IWT - **Vlaanderen** - Governmental Agency in Flanders (Belgium); **Crete Region** (Greece); Agencia de Desarrollo Economico de **la Rioja** (Spain); Regional Authority - **Liguria** (Italy); Province of **South Holland** (Netherlands); Regional Development Institute - **Sterea Ellada** (Greece); Regional Authority - **Catalunya** (Spain); Fundaci3n para el desarrollo de la ciencia y la tecnologia - **Extremadura** (Spain); Province of **Gelderland** (Netherlands); Regional Authority - **Piemonte** (Italy).

The condition for becoming an Associate Partner is to be a region with an approved ERDF financed Regional Programme of Innovative Actions under the strategic theme "Regional Economies based on Knowledge and Technological Innovation". Detailed instructions for application can be found on the project's web site: <http://www.eriknetwork.net/regions.html>

### Event News

#### JANUARY 2004:

>> 29-30 **Meeting of the OECD Committee for Scientific and Technological Policy (CSTP) at Ministerial Level** (Paris, F)  
More information: <http://www.oecd.org/topic>

#### FEBRUARY 2004:

>> 12-13 **Erik workshop on Regional Foresight** (Thessaly, EL)  
More information: <http://www.eriknetwork.net>

>> 16 **Regional Innovation strategies in Newly Associated Countries: Information Day for Romania** (Bucharest, RO)  
More information: e-mail: [ltachiciu@imm.ro](mailto:ltachiciu@imm.ro)

>> 26-27 **IRC-IRE workshop "Clustering as a driver of innovation at regional level"** (Pescara - Abruzzo, I)  
Web site: <http://www.innovating-regions.org/network/events/futureEvents.cfm>  
More information: [l.martensson@irc-ire.lu](mailto:l.martensson@irc-ire.lu)

#### MARCH 2004:

>> 1-2 **CRESCENDO workshop: Role of the public and private sector in promoting financial tools** (Weser Ems, D)  
More information: <http://www.crescendo-thematic-network.org/events.asp>

>> 8-9 **INTERREG IIIC "Partner Search Forum"** (Berlin, D)  
More information: <http://www.interreg3c.net>

>> 11-12 **European Business summit "Research and Innovation: a European strategy for more growth and jobs"** (Brussels, B)  
More information: <http://www.ebsummit.org/>

>> 19 **Meeting "FOR-RIS" group** (Vienna, A)  
More information: [irma.priedl@noel.gv.at](mailto:irma.priedl@noel.gv.at)

#### APRIL 2004:

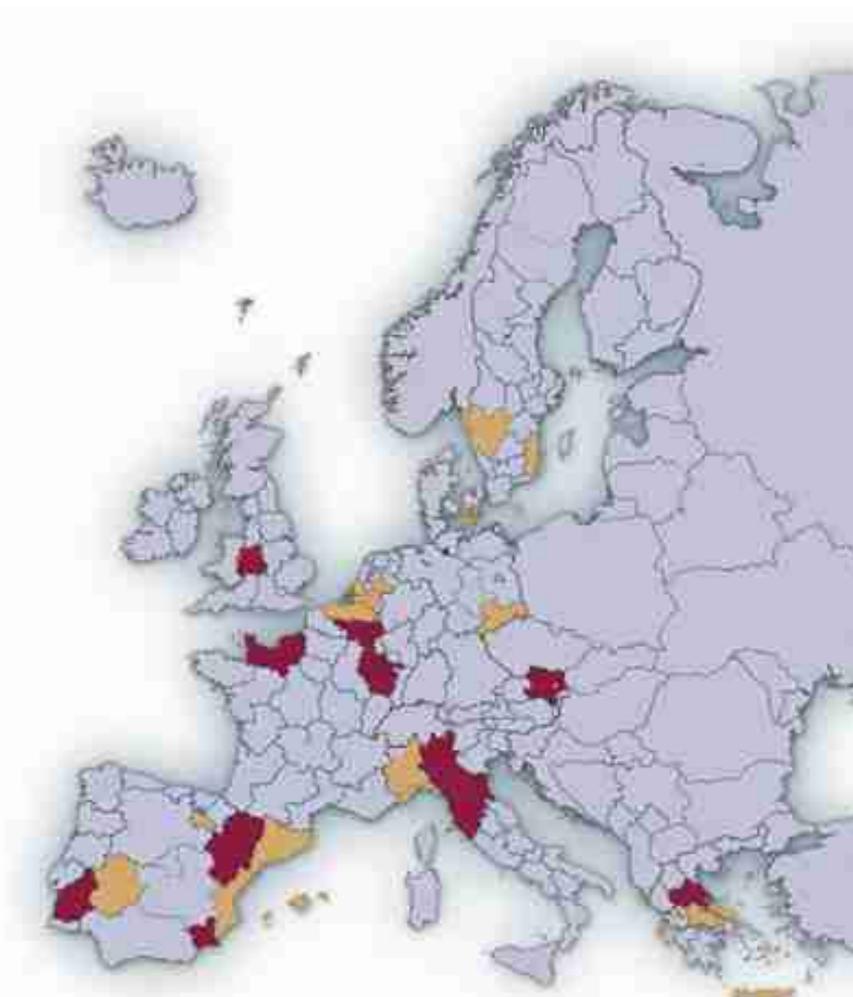
>> 22 **Innovative Actions Award Ceremony** (Bruxelles, Committee of the Regions)  
More information: [http://europa.eu.int/comm/regional\\_policy/innovation/concours\\_en.htm](http://europa.eu.int/comm/regional_policy/innovation/concours_en.htm)

#### JUNE 2004:

>> 3-5 **The 2nd OCDE Ministerial Conference on SMEs: Promoting Entrepreneurship and Innovative SMEs** (Istanbul, TR)  
More information: <http://www.oecd-istanbul.sme2004.org/>

#### SEPTEMBER 2004:

>> 9-12 **Baltic Dynamics - Innovation and Development of Knowledge-Based Entrepreneurship** (Riga, LV)  
More information: <http://www.innovation.lv/baltdyn04/>



## Erik Partners

Emilia Romagna (Italy)  
Lombardia (Italy)  
Toscana (Italy)  
Nieder Österreich (Austria)  
Wallonie (Belgium)  
Basse Normandie (France)  
Lorraine (France)  
Bremen (Germany)  
Thessaly (Greece)  
Alentejo (Portugal)  
Aragon (Spain)  
Murcia (Spain)  
West Midlands (United Kingdom)

## Erik Associate Partners

Flanders (Belgium)  
Storstrøm (Denmark)  
Sachsen (Germany)  
Crete Region (Greece)  
Ionian Islands (Greece)  
Sterea Ellada (Greece)  
Liguria (Italy)  
Piemonte (Italy)  
Gelderland (Netherlands)  
North-Brabant (Netherlands)  
South Holland (Netherlands)  
Balears (Spain)  
Catalunya (Spain)  
Extremadura (Spain)  
La Rioja (Spain)  
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