ERMIS regional Action Plan – P3 and P4 - Italy

Part 1 – short description of the SWOT

Forlì-Cesena (NUTS3) is a provincial territory within the Region Emilia Romagna, Italy.

Its key sectoral specialisations are in the food, manufacturing, fashion and tourism sectors.

According to the indicators used in the ERMIS SWOT analysis Region Emilia Romagna (NUTS2) and the Province of Forlì-Cesena (NUTS3) share the following challenges:

- relative de-industrialisation over the last decade (need to tailor policies to mature sectors and emerging service sectors);
- polarised manufacturing systems (Medium firms VS majority of small firms).

As for the city of Cesena, there has been a relative increase of high-tech firms over the last decade, but problems with knowledge bases in small firms still persist and this requires specific action to improve the knowledge bases and the capacity of absorption of local small firms.

Economic competitiveness : SWOT analysis for Emilia Romagna

Strengths	**Weaknesses**
• A rather balanced region with mature industries built on solid bases (Mechanics, Food, Fashion) as world-class exporters with international leading firms • A high intensity of innovation output (patents) especially in mechanics and production of machinery • High productivity • High capacity of leading mechanical firms to serve as global suppliers of world OEMs	• A major part of employment dependent on non-manufacturing industries (where innovation intensity is lower) • A low R&D intensity due to low R&D private investment (owing to prevalence of small businesses) • Lagging behind in high tech employment vis a vis leading regions in EU • No strong world-class high-tech industrial basis (limited source of technological innovation) • Divergence in knowledge bases between world class leaders and local suppliers
Opportunities	**Threats**
• Exploit leaders' knowledge bases to strengthen small firms' competitiveness through production networks • Role of growing industries (Tourism, Support services) • Percentage of workers with a a post graduate degree in science and technology • Incentives for "green conversion" for manufacturing and construction sectors	• Stagnating global demand for core products (machinery, automotive, fashion) • Risk of being locked in a medium specialization and medium tech position

Innovation Challenges for Forlì-Cesena (NUTS3)

Strengths	**Weaknesses**
• Mature firms highly specialized and world class exporters	• High share of micro enterprises • Low levels of tech transfer • Low levels of graduate workers
Opportunities	**Threats**
• Technopoles launched by regional policy • Presence of University as a knowledge hub in engineering, avionics, ICT, social sciences • Creativity and talent of local entrepreneurs	• Territory locked in a mature and low tech position

In terms of innovation policy the region has recently launched a framework programme to set up specialised Technopoles as regional hubs of innovation and triple helix' dynamics. Forlì-Cesena includes two of these regional hubs in the food and aeronautical sectors.

Innovation policy has to take into consideration the evolution of the European crisis. Since the beginning of the crisis in 2008, Emilia Romagna has been one of the worst hit regions in the northern part of Italy in terms of reduced added value per worker. The severity of the crisis in the region can be attributed to the high incidence of export in the manufacturing sector, especially mechanics and automotive sectors, which has seen a drastic halt in terms of international demand over the years 2008-2010.

Forlì-Cesena lags behind the regional average both for export propensity of its local firms and for innovation intensity.
These two factors are considerably compounding the local crisis (mid 2012), increasing the unemployment rate, especially among young people.

The success of innovation policies seems therefore to depend largely on the capacity to accompany a smooth transition of mature local sectors towards higher export and innovation intensity rates.

Given the average size of local firms (about 3 workers), the challenge implies the capacity to forge "connecting" services among firms and "tutorial" services in terms of innovation with an eye to collaborative projects with research labs and the university.

Part 2 – selected best practices

In the light of the challenges presented in section 1, P3 and P4 have selected the following best practices within the ERMIS project.

CONNECT DENMARK

CONNECT Denmark (www.connectdenmark.com) is a private membership-based non-profit organisation that has 300 companies and close to 900 business executives as members. It is a non-profit, independent network organization, financed through sponsorships and membership fees and covers the whole of Denmark. Among these members are the best performing companies and highly valued executives. Connect Denmark provides free coaching to entrepreneurs from the idea stage and through the later growth stages. Furthermore, Connect Denmark provides matching between entrepreneurs and professional board members. The activities are primarily conducted through "springboards" where entrepreneurs – selected by the organisation – receive sparring from a panel of typically 6-12 business executives selected among the members on basis of their respective qualifications in relation to the challenges faced by the entrepreneur. In addition other informative meetings and events are organized through CONNECT Denmark (currently some 190 events per year). CONNECT Denmark is a spin-off of the global CONNECT network (www.globalconnect.org).

AEGEAN TECHNOPOLIS – SEED CAPITAL

In the island of Chios, the Aegean Techno-polis, runs – among other services – a seed-capital funding local start-ups, local university spin-offs and clustering activities aimed at designing, launching and commercially exploiting innovative high-tech products, services, processes. The revolving fund consist of little less than 1.8 ml Euros and is managed by local entities. Projects to be funded are selected six-monthly by a technical board consisting in one member from academia (but with company management background), two entrepreneurs and two international cluster experts. Project are assessed on the basis of the related business plans, which have to match specific content and layout requirements. On average, 2 project out of 20 submitted (on average) are approved. Funding per project may be up to 200.000,00 Euros (so far funding ranged from 30.000,00 to 120.000,00 Euros). Money is transferred to the recipient on the at defined milestones on the basis of actual achievements. The fund co-owns and co-runs the start-up for three years, before selling its shares to the entrepreneurs (or to others if the entrepreneurs are not willing to buy). In exceptional cases the fund may be part of the ownership for additional three years.

UNITED BRAINS

United Brains (www.unitedbrains.nl) is a cooperation scheme among university and enterprises to support innovative ideas that have bee laying in a drawer for lack of time and/or competences and/or find innovative solutions to issues submitted by small and medium firms. Usually United Brains does not deal with state-of-the art challenges but more with "irritations" that is problem that may not threaten the survival of a company but that may indeed prevent its further growth of hinder its productivity. A team of professors and qualified people from large enterprise (all of them acting part to these meeting as a part of their job, thus not charging United Brains for their) meet weekly to assess request from SMEs and deliver them to contact persons at the university's departments for them to set up working groups of students led by one or more professors. By addressing issues and ideas by SMEs students and researchers achieve first-hand experience to include in their CVs, deliver research papers and get in touch with potential employers; SMEs see

their problem solved in a cost effective fashion; the university offers more attractive curricula and large companies, besides exercising their CSR, may be able to spot new businesses or suppliers.

DEVLAB

DevLab (www.devlab.nl) was initiated by 12 technological SMEs (in the field of electronics, mechatronics, embedded software and industrial design) with the objective to stimulate the flow of knowledge between universities, technical colleges and the SME members in order to create mid and long term business opportunities. The flow of knowledge enables national and international business opportunities on the long term. The demand and research definitions stem from the industry partners (knowledge/technology push), whereas the universities and other institutes facilitate the research.

By teaming up with other SMEs, organizing themselves in the co-operation DevLab, the companies join strengths and create critical mass, to secure their (international) market position on the mid and long term (a position which is mostly based on specific technological knowledge and expertise) and to enable the definition of ambitious research assignments to universities, technical colleges and other research institutes. The DevLab concept also bridges the gap between theoretical research to practical applications in the SMEs markets.

The participating SMEs all contribute with 1% of their company wages plus a fair amount of time and energy spend at DevLab research. So, a larger SME contributes more compared to a smaller one, but in return the larger company has more potential to benefit from the spin-off from the research programs, because it will be able to involve more people into the projects. The return on the "investment" comprises the use of gained knowledge, licenses 'free of charge' and all not patentable knowledge and skills which emerge from workshops and training sessions which take place in the research programs. The results of the projects (may they be become available for all DevLab member companies who are free to use it in their own product developments.

Part 3 – Action Plan

The best practices have been selected and discussed so far to feed the construction of three specific "innovation service value chains".

The first, inspired by the Aegean Technopolis, is meant to create a seed capital system for innovative start ups or entrepreneurial ideas. The feasibility of such a scheme will be tested during 2012.

The second, inspired by Connect and DevLab, consists in generating and developing innovative product/service concepts throughout a cooperative process where enterprise of different sizes, as well as would-be entrepreneurs get together assisted by experts. The process will be launched in the second half of 2012.

The third, inspired by United Brains, is meant to scan the needs for collaborative projects on the part of SME's that may involve research groups or single researchers within the university. A feasibility test will be run in early 2013.

The reason behind the choice to try and implement a **seed capital** to provide financial support to innovative ideas for new products and services is that locally funding for innovative projects is not available. Traditional banks do not provide high-risk funding and are more inclined to lend money in the form of mortgages, thus requiring relevant assets as a guarantee. On the other hand large high-risk investors do not usually "shop" in this area and may be not interested in small size projects that are not making a paradigm shift or setting a new state of the art. Yet, locally, there is a need and a will to stimulate innovation by local entrepreneurs and the settling of new and innovative firms.
The next steps that will be taken in this direction are related to

- exploring the applicable legislation and regulation to set up seed capitals;
- exploring similar initiatives by chambers of commerce;
- gathering consent and identifying the sources that will feed money to the seed capital to start it up;
- defining the functioning of the seed capital (scope, management structure, project selection procedures, project management procedures, etc.).

These preliminary steps will be taken in the second half of 2012 and are expected to end at the beginning of 2013, when a comprehensive operational plan will be released.
Currently, the Chamber of Commerce of Forlì-Cesena and one of the local bank foundations have been involved by CISE in early-stage discussions on the setting up of the seed capital.

It is widely recognised that innovation requires different viewpoints, experiences, competences and skills to get together and interact, that it requires diversity and mind-openness. It is also known well that it requires a critical mass of resources (human and financial) and some kind of steering so that the process delivers a project (sound enough to be presented to possible investors) of a new product or service and not just some fancy ideas. Besides, locally there is an increasing commitment by relevant stakeholders (the Chamber of Commerce, the city councils, the local foundations) to support innovation geared to improving quality of life and ensuring positive externalities.
Having this in mind, some features of DevLab and some of Connect Denmark where meshed up in a new process (**Connect@Innovation**) to stimulate innovation by supporting a group of large firms

(the sponsors), SMEs and would-be entrepreneurs (the participants) in generating new ideas (by means of brainstorming and design-thinking methodologies) and progressively shaping them into new product/service concepts (by means of living-lab and QFD methodologies). The process ends up with a preliminary business plan to be presented to selected possible investors (the sponsors). The process has two binding rules: innovation has have a positive impact on the quality of life and innovation has to be open along the process and with reference to its results. Participants to the working group will have the right to exploit the innovation on an exclusivity basis for 12 months from the kick-off of the process (which lasts 4 months), then the results will be made public for everybody to exploit them.

The adoption of a "**united brains**" scheme stems from the need to bridge the gap between small and medium sized firms and university knowledge. The original scheme, witnessed in Eindhoven, will be firstly tested through the design of a "map" of SME's needs that will collect research and innovation questions on the part of 200 firms (through a survey supported by the chamber of commerce and developed by a local public company entrusted with the mission to support dialogue between the territory and the university, conducted during 2012). These questions will provide the basis for a pilot scheme, to be developed in 2013, whereby needs elicited by firms will be channeled, through a University committee, to individual researchers or professors. This project will complement and not substitute already existing mechanisms of vocational training and apprenticeship. Participants in the project will be sme's representatives and individual researchers or professors from local university. In a further stage of the project the participation of research centers or research labs as stakeholders of the project, can be envisaged for specific but recurrent technical questions arising from firms.

There are important lessons learnt within the ERMIS project and which point to the following messages that the Italian partners would direct to regional and local policy makers:

- Diversity of the economic base can represent an asset for innovation, provided it is embedded in a "smart" system where regional and local actors promote cross-fertilisation of ideas and technologies.

- Traditional cluster specialisation is not necessarily to be superseded by horizontal cross-sectoral policies, provided it does not lead to the support of lock-in situations whereby no attempt is made to stimulate the growth of new firms.

- The idea of "innovative ecosystems", witnessed in some regions within the ERMIS project, is to be pursued. In this perspective the adoption of the three mentioned best practices, under a "value chain mechanism" that could reinterpret locally these practices in a single policy, is a central recommendation to local and regional policy makers.

Local innovation policies can be cost-efficient and meaningful, only in the framework of a regional and national innovation strategies. For example, the current strategy of regional technopoles should be seen as a complimentary strategy to the cluster policy at national level and should also encourage trans-regional and cross-border collaborations.

Technopoles need a governing scheme that puts firms' innovation needs top on the agenda and creates the prerequisites for collaborative projects with University labs.

Such schemes can be build only on the basis of a sound governance mechanism whereby the mission of technopoles is clearly set and business ventures are not only encouraged but actively pursued.

Interreg IVC projects such as ERMIS represent a unique opportunity to create awareness for a place-based approach to innovation. Exchanges and visits within these projects should be seen as an institutional investment and should entail a greater participation of local policy makers along the technical staff.