

KNOCK Abstract

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IKINET - *International Knowledge and Innovation Networks for European Integration, Cohesion and Enlargement*

Title

KNOCK - KNowledge Centre networkK.

Network for knowledge management in the regional production system

Keywords

Governance, knowledge management, networking cooperation, technology transfer

Summary of the project (history, structure, partner)

Alongside the growing necessity for increased competitiveness in Italian enterprises, research and innovation gain an ever increasing importance in sustaining growth in the productive system. But research and innovation must be developed in a context of collaboration. In fact successful territorial governance and competitiveness depend largely on good knowledge management and close collaboration. Thus, all relevant public and private actors, institutions, universities, associations, centres of local competence and, last but certainly not least, the enterprises themselves, must be involved in constructing common strategies and sharing knowledge and competencies.

Furthermore, the project fits into an overall context at regional, national and European level in which knowledge management, of networks, or service rationalisation and of increased ICT usage in SMEs are considered to be of vital importance.

Knock represents an ongoing and developing route, characterised by two different phase: in the first KNOCK aimed to plan and prototype a network of service centres for coordination and knowledge management in SMEs, thus promoting innovation, technology transfer and decision making support in south Tuscany, with the contextual definition of necessary steps (instruments, links, source of information, individuation of exigencies in the province of reference). The second phase (successive Knock 2) has the objective to make operative the model of network of coordination and management of knowledge, formalising the relationship among the actors of the system and activating some of projected services.

The service and coordination centre must:

- ~~///~~ collect, produce and manage knowledge and information inherent to the local production system;
- ~~///~~ bring together SMEs and associations with institutions and the world of research;
- ~~///~~ promote and support innovation and technology transfer;
- ~~///~~ activate services related to support of entrepreneurship and production;
- ~~///~~ possess and develop computerised and technological instruments to support the above activities.

In line with the prerequisites identified above the KNOCK coordination centre looks towards:

- ✍ Public Administration, with the aim of facilitating territorial governance through correct knowledge management (e.g. systems of Knowledge Management, SIT);
- ✍ Enterprise, with the aim of moving towards solutions for territorial needs through targeted policies of intervention, innovative services and joint actions with the world of research;
- ✍ Research and Innovation actors, with the aim of publicising the research activities being carried out and directing these activities towards the priorities / necessity of enterprise.

The model created by KNOCK is based on a 2 level structure. The 1st, at provincial level, (through the service centres already operative) guarantees widespread knowledge of local production characteristics. The 2nd, at inter-provincial level, creates a network system which offers technical-operational support in the context of regional development policies and socioeconomic development.

The project foresees the physical constitution of the network and the implementation of necessary instruments for the correct start of activities, through the integration of competences and active provincial structures, which possess instruments and services. Sharing and integrating knowledge, instruments, services we create a mechanism to favourite an optimisation of resource and guarantee an high added value for the entire productive system.

These 2 levels guarantee: a permanent reference point for SMEs; a space for collection and management of knowledge on local production in order to improve strategic planning and monitoring; improved communication between actors.

KNOCK identified 6 principle action lines on which to develop the project model.:

1. Knowledge management: valorise knowledge as engine for development and innovation, through shared channels of communications;
2. Information and financial instruments: information and technical support, including direct consultancy, in addition to incentives for the use of existing financial instruments, raising awareness on themes and innovative technologies;
3. Technology transfer: integrate the acquired knowledge through collaboration with researchers and professionals in the world of scientific economic and technical research, in order to create a constant process of innovation and technology transfer in response to the needs of enterprises;
4. Innovative services for SMEs: the coordination centre has the tasks of activating services in support of entrepreneurship in various production sectors, creating a network between SMEs, associations, institutions and the world of research;
5. Innovation projects and targeted interventions: elaboration of projects of high scientific and innovative content with potential impact on the whole territorial system or specific advantages for defined sectors;
6. Development of ICT instruments: Knock, as network of subject, relationship, technical and professional know-how, could become a valid support for the public local administrations which want to develop or implement specific ICT instruments

The project was designed, developed and coordinated by Etruria Innovazione, a publicly owned, non-profit company formed in 1997 which aims to promote innovation and technology transfer to SMEs in central-southern Tuscany. The provincial administrations of Arezzo, Grosseto and Siena were partners in the project.

Description of the project objectives and results

Pursuing the overall approach of creating a knowledge based economy, the knock model works on the basis that the diffusion of technology is not enough to achieve real competitiveness in the production system. Instead, innovation of products and process is seen as the crucial factor. To achieve this innovation and to promote collective and individual learning among all the relevant actors, technological development must focus on the creation of “structures” (networks or social capital) for knowledge exchange and knowledge integration for generating innovation.

Thus the KNOCK project looked to improve knowledge management through a system capable of developing and managing resources relative both to tangible knowledge, for example research and development activities, patents and databases and intangible knowledge, such as skills, experience, staff competencies in organisations.

Ultimately the project's objectives in creating the coordination centre can therefore be summarised as:

- /// Helping tangible and intangible knowledge emerge from the production system and the organisations which make up and animate the system;
- /// Organising, classifying and storing this knowledge;
- /// Managing this knowledge and subsequently making it accessible through a specific computerised system.

The main result achieved in this phase can be defined as “methodological” in that the project defined and presented a collaborative model capable of facilitating the above described process, of offering the territory a network or a physical/virtual organisation which unifies and amalgamates structures and the competencies available within them. This is a model which, due to its two level structure, both recognises and promotes the specific characteristics of each territorial area on the identified axis (for example, textiles in the province of Arezzo, tourism and agriculture in the province of Grosseto) and promotes inter-provincial cooperation and exchange on these same axis.

The project can also point to practical results in terms of the development of a first set of tools for the coordination centre. The project experimented with advanced technologies and ultimately developed a geo-referenced database covering the whole of south Tuscany and containing information on the most innovative enterprises in the area, a study on a Knowledge Management system for the coordination centre, and the planning of a Work Collaboration System to support communication among the members of the network.

The success of the first project phase is also highlighted by the political results of the project. Having seen the benefits of the model proposed, the three provincial administrations of Arezzo, Grosseto and Siena have signed a protocol of agreement in support of the further development and implementation of KNOCK. This political backing is extremely important for the long term success of the project.

This fact is further highlighted by the presentation of the project KNOCK 2 which should physically put in place and further develop the KNOCK model and the necessary instruments.

Transferability, success factors, lesson learned

One clear factor promoting the successful completion of the project was the innovation present both in terms of methods and of instruments adopted. The concept itself is innovative in the Tuscan territory, used to individual initiatives for specific production sectors. In fact, the name “service centre” can refer to a number of different structures in Tuscany, all strictly linked to providing services to a specific production sector which justified its creation. This project, on the other hand, looks to rationalise these services, making them more effective, without replacing or replicating the provision which already exists. The project has successfully identified and developed a structure which can simplify and rationalise service provision to SMEs by providing a single node at provincial level through which SMEs can access services and information.

Another clear innovative aspect is that of a network or ring which connects the single nodes with the aim of creating a solid information flow between centres in the three provinces, sharing experiences and limits, exchanging specific competencies and developing operative units in common. This philosophy of cooperation rather than competition is in itself relatively under-developed and innovative.

Another success factor was the partnership itself. The project was a good example of collaboration between different actors and, in fact, the creation of a network of centres according to the KNOCK model brings benefits to the entire production system chain from the SMEs themselves, to public administrations and research actors.

The actions outlined in the work model and the necessity to maintain and continuous contact with the various institutional and private protagonists who operate in the production chain, highlight the need to maintain constant collaboration with the provincial administrations, in particular the departments and sectors for innovation and production. Etruria Innovazione then fits perfectly into this consortium, being an organisation created to promote technology transfer in central and south Tuscany, and thus being able to activate and maintain relations with trade unions, chambers of commerce, universities and enterprises, all of whom help to define the best route possible for creating new coordination centres and new methods for knowledge management in the territory.

One further success factor is the fact that the project fits into a regional normative context which already identified the issues of service rationalisation and of knowledge management as priorities, and thus addresses real territorial needs, vital if the project is to have support and long term success. As mentioned above, the project is coherent with both regional and national strategies for SME development which indicate the implementation of ICT and the creation of cooperation networks as vital strategies for increased competitiveness, strategies whose implementation can no longer be delayed. In Tuscany, programmes such as “e-toscana” and the Territorial Pacts for Innovation particularly emphasise these points.

In terms of transferability, KNOCK proposes a model for collaboration and knowledge management which can easily be repeated on a wider geographical scale or in a different geographical area. The successful implementation of this model is independent of the specific economic or productive vocation of the territory. To highlight this point, the first project phase was applied in a geographical area which represents three different provincial administrations, different geographical conformations, different production sectors: Arezzo concentrates on textile and manufacturing, Grosseto on ship building, tourism and agriculture and Siena on tourism and services.

Detailed studies and documents produced from the project increase the chances of transferability.

Concerning the lessons learnt from the project, KNOCK is a continuous process of which the first phase has emphasised how the model can:

- ✍ Promote a balance territorial development by paying enough attention to specific production characteristics and local geography;

- ✍ Provide support to territorial planning and represent an instrument of decision making support to the public authorities;
- ✍ Promote innovation and the growth of economic knowledge through research, the support of local projects and the correct diffusion of new IC technology.

However, this first project phase has also highlighted some risk factors of which we must be aware when moving into the second phase of implementation of the model and collaboration. One first problem is the difficulty to establish a common, shared dialogue. The vastness of the themes under consideration and the huge number of potential subjects to be involved often leads to misunderstanding on the real aims of the project. To this we must add an initial resistance from association and service centres to share their instruments and information, often due to a fear of losing their own role in the territory. Finally, the project found the great fragmentation of the knowledge base to be an obstacle.

Therefore, in the actual second phase we underline the importance to implement a widespread awareness raising campaign on the shared opportunities and added value that the implementation of a well structured collaboration model can bring to the work already carried out by individual actors in the area.

Other comments: (i.e. relevance of cross cutting themes such as gender equality, non discrimination, sustainability and demography)

Among the various factors which limit the growth of Tuscan enterprises, size is of definite importance. To this end, the Regione Toscana has outlined a new governance model for innovation and technology transfer in Tuscany which should help to overcome this obstacle and allow businesses the chance to explore new business opportunities: aggregation, even on a temporary or virtual basis, of enterprises and organisations. In this context, KNOCK represents an experimental measure of a new form of aggregation between organisations in charge of promoting innovation, research and technology transfer among SMEs, in close collaboration with public administration. This model therefore helps to address that problems that small enterprises face in surviving.

One transversal instrument of the KNOCK process are the modern IC technologies applied. The diffusion on Internet (which nowadays reaches even heterogeneous and fragments territories like Tuscany) and the correct use of related technology, helps to create collaborative work systems and to share information (web portals, databases, content management systems, workflow systems, etc..), in this way helping to overcome geographical barriers.