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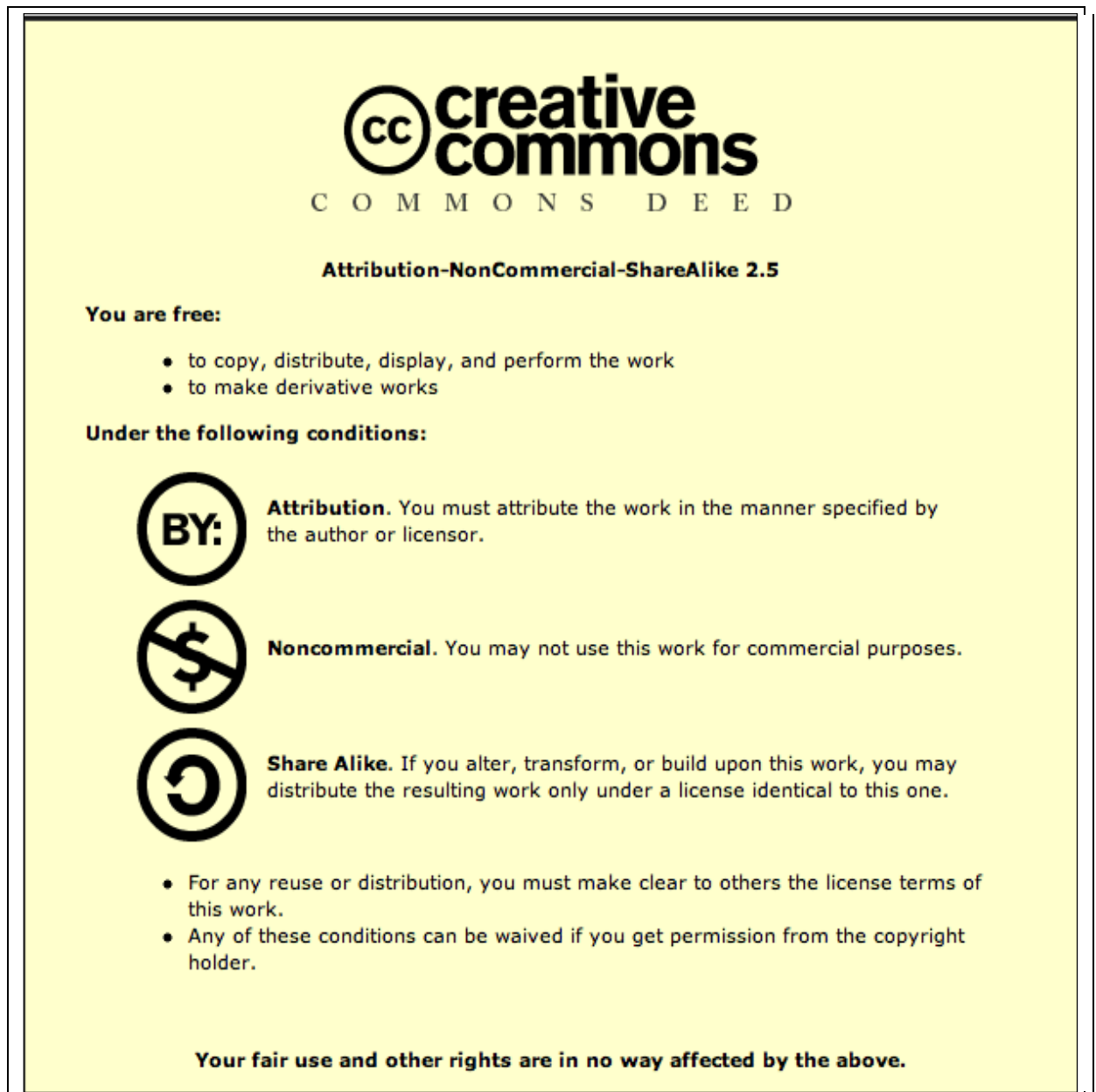


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Introduction

The aim of this deliverable is to review the experience of DBE implementation in the three partner regions (Aragon, West Midlands and Tampere), recap the process from the beginning until the project end and recognise the variables that influenced in a stronger way the process. The focus here is not on the technological aspects of DBE development (even if this dimension strongly influences the following), but on the social dimension of ecosystem formation.

Reviewing the experience of DBE implementation at local level is useful in order to keep track of a process largely based on tacit knowledge and, in some cases, experimental. The exercise of variable recognition, in addition, can be useful in terms of transferability: new regions interested in DBE can, in fact, take advantage of a synthetic analysis of main variables influencing the process and self-define their situation in comparison with the three partner regions. At the end of the deliverable we'll put forward few recommendations for new regions, i.e. a schematic plan for DBE implementation at local level. Those suggestions - based on the project's experience - are understood as starting point for future Regional Catalyst and interested policy makers, those recommendations need, of course, to be put into context case by case.

This deliverable takes advantage of other researches carried on by project partners (mainly by LSE, Censis and RCs), those researchers are going to be quoted and briefly described, but for visioning their outputs in details, please see also Del.27.1, Del. 27.2, Del.27.4, Del.27.5, Del. 27.3, Del.31.3 and Del.31.1.

1. Theoretical framework: from Regional Maturity Grade to case studies

We'll here describe the passage from a quantitative oriented analysis planned at the beginning of the project, to a more qualitative one, and we'll define all the concepts and variables upon which this report – a case study of DBE local implementation - is based.

A case study is research strategy that, rather than using large samples and following a rigid protocol, it examine a limited number of variables, involve an in-depth, longitudinal examination of a single instance or event: a case. Case studies provide systematic way of looking at events, collecting data, analysing information, and reporting the outcomes. As a result the researcher may gain a sharpened understanding of why the instance happened as it did, and what might become important to look at more extensively in future research.

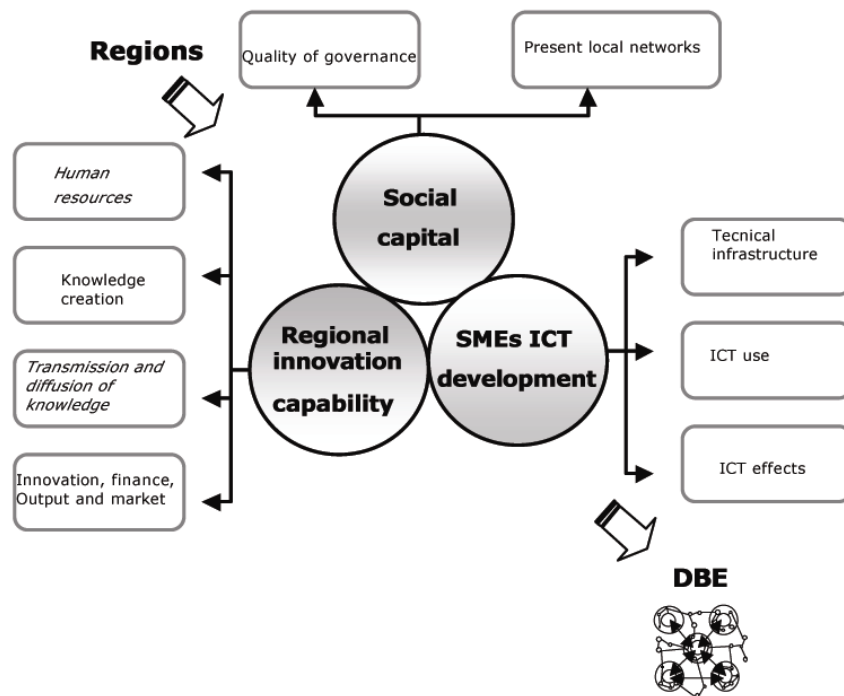
Case study research means single and multiple case studies, can include quantitative evidence and relies on multiple sources of evidence but it mainly based on qualitative methods. In this case, evidences and data come from original field research and prior projects researcher analysis (mainly related to Wp31 and Wp27) and RC contribution.

Already during the first project year, the necessity to privilege qualitative methodologies clearly emerged (see also Del.18.6), the original plan to carry on extensive research in the partner regions basically focusing on economic variables leave the place to the need to observe directly, using an approach almost ethnographical, what was happening in the territories. DBE, as a technological solution for SMEs, was in its first steps of development, for this reason what was crucial for its diffusion in the regions was the trust that SMEs could have for the project itself. RCs were not in a position of promoting a ready-to-use solution (in this case a more marketing oriented approach would be beneficial) but more like sponsor of a process of learning and of cultural change. For this reason qualitative approach as participant observation, social network analysis, in depth interview and case studies showed to be more appropriate. Never the less a more classical approach to the three territories has been used in the first phase, in order to map the starting point of the three regions in terms of innovation capabilities, social capital and SMEs' ICT usage.

In Censis first deliverable about the regional dimension of DBE (Del.31.3) a methodological tool, the Regional Maturity Grade was proposed. The RMG tool was proposed as an useful instrument of what we defined Regional Capital, i.e. the complex interconnection of economic, social and cultural dimension that determine the regional identity and constitute its intangible assets for innovation.

The concept of Regional Capital was correlated to a set of variables that constitute the base for the Regional Maturity Grade tool. Here below a graphic representation of the theoretical approach outlined.

Fig.1 Regional Maturity Grade theoretical foundation



Source: Censis, 2003

In that occasion, we assumed that a territory, taken in a broad sense and not from a purely physical point of view, is a key productive factor and a source of knowledge and innovation; we assumed also that it is the results of the above-mentioned dimension (social capital, regional innovations capability and SMEs ICT development).

One of the key concepts of the DBE project is that of locality; the idea that geography still matter in term of economical, political and technological innovation (Morgan, 2001). DBE infrastructure, in fact, fund one of its point of straight in being adaptable to different economic environment and open to contamination coming from local cultures.

The variables that generate from this theoretical model give us a first insight on the three associated regions. Now, at the end of the project the necessity arose to take in consideration other variables that strongly influenced the meaning that DBE assumed in different contexts and the process itself.

The Regional Maturity Grade demonstrate to be an useful and easy to use tool for map the starting situation of the regions at the beginning of the process, and so in the following paragraph we'll recap the results of the first survey. After that, we will include the Regional Maturity grade in a 'historical' description of DBE implementation at local level. In other terms, the Maturity Grade of the regions will become one of the variables that influenced the concrete execution of the DBE.

In the DBE story-line, i.e. in the process of local ecosystem creation, other important variables are the following:

- Expectation/vision about DBE
- Typology of RC
- Policy maker level of interest
- Identified business domain/s
- Technological development of DBE components

In the following paragraphs we'll describe, using an ethnographic approach (more descriptive than normative) the role those variables played in the three territories and the way in which they determine the specificities of the three experiences.

Before proceeding, it's important to briefly define each of the above mentioned variables.

With the term 'expectation/vision about DBE' we indicate the answers to the question "why you decide to experiment DBE in your region?". That means:

- which benefits did you expect from its implementation?
- in which sector did you think it could be more useful?
- in order to solve which problems?
- which was the level of trust you had in it?

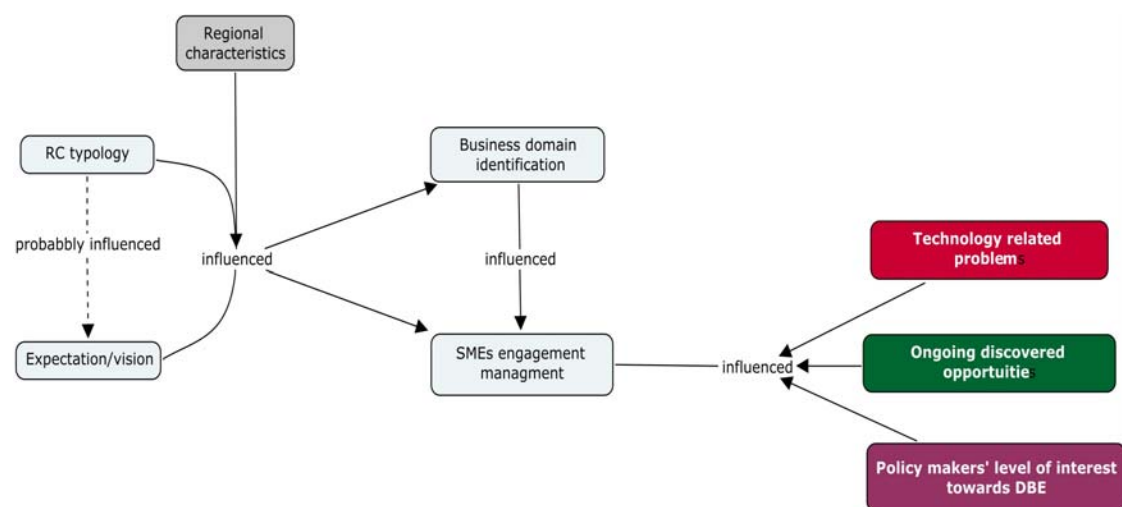
The second variable, 'RC typology', refers to the nature, the mission and the organisational structure of each RCs. Point of reference for the typology construction is Del.31.1

'Identified Business Domain' is another variable that influenced the process of DBE local implementation, and each region chooses a different approach. The business domain selection occupied not only the first phase of the project, but also the following, both Tampere and West Midlands regions, in fact, change their activity area in response of specific needs that arose during the project life cycle (we'll see those modifications in details in the following paragraphs).

With the term 'technology development of DBE component' we refer to the constant need for RCs to stay in line with the Computer Domain and plan the SMEs engagement activities coherently with the available technology. The synchronization between those two levels has been a demanding one; in the schema below this variable goes under the voices of problems and opportunities, even if it does not coincide with it.

The schema below represents a possible interpretation of how the just defined variables interact each other in shaping the DBE local implementation process. At the end of this deliverable we will suggest a similar schema improved thanks to the lessons learned from the project.

Fig.2 Main variables influencing the process of DBE local implementation



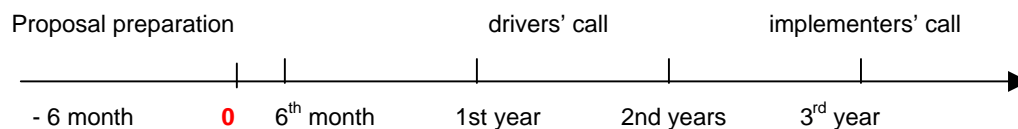
Source: Censis, 2006

1.1. *Turning point of DBE adoption process: a story line*

In describing the three regional experiences of DBE implementation, we will delineate a synthetic story of the project. Basically the project life circle can be divided as follows:

- the beginning: even before the project' start, in the period of proposal drafting and negotiation, first expectations and activity plans took place. The basic concepts of Digital Ecosystem approach starts to circulate among different territories and all the partners begin to face this demanding, almost not structured, theory. This phase ends six month after the project start.
- RC role structuring: from the sixth month until the first year's end. In this phase the role of RCs was more that of watcher then that of proactive actors. The first year was, in fact, more dedicate to structuring the DBE approach and develop its core architecture than to working at local level. In this phase RCs have to understand and theorize their role, and plan the activity in the region by choosing a specific business domain.
- SMEs engagement phase one: this phase corresponds to the first call preparation and execution, in this phase 11 SMEs enter the project as Drivers. It also include the period of Driver SMEs training and first services development.
- SMEs engagement phase two: it correspond with the preparation and execution of the second (and third) call for implementers which took different form in the three territories and runs until the project end.

Fig.3 DBE local implementation's story line



Source: Censis, 2006

The SME engagement process was the following:

1. Publishing the call
2. Evaluation of the proposals
3. Negotiating with the SMEs
4. Creating a contract
5. Evaluation of the SME performance
6. Paying the funds to SMEs

Now that we introduced all the basis dimensions which this research took in consideration and the timeframe of reference, we can proceed to the case studying drafting. We'll describe the experience of the three territories in parallel and not separately for two main reasons. First of all because the level of likeness in some activities/levels is high, and secondly because the comparison can helps the reader in understanding the added value of different decisions.

2. DBE local implementation: the starting point

2.1. Structural assets

In order to describe the regional situation at the beginning of DBE regional implementation we will use the Regional Maturity Grade, by shortly reporting the results of our first exercises with this tool (February 2005).

Beside the Regional Maturity Grade tool we'll focus our attention of three 'variables' that effect the project's first period:

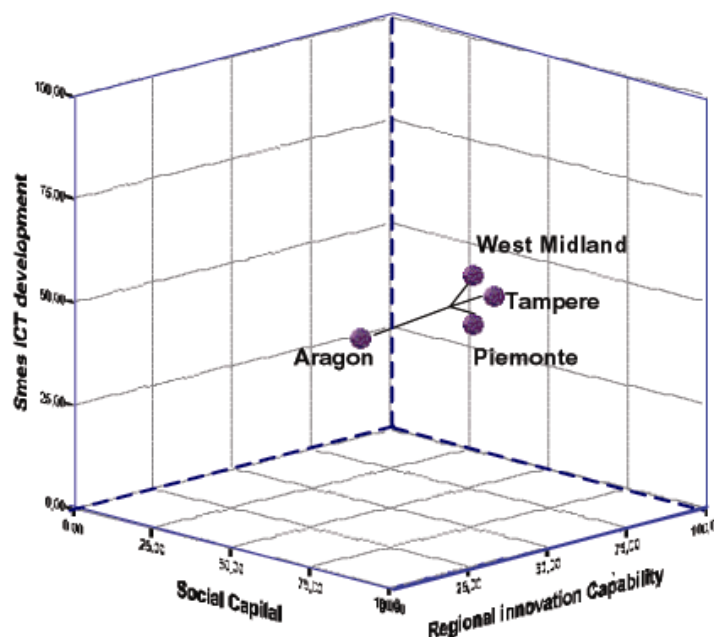
- the RCs' characteristics
- their expectations towards DBE
- the business domain identified.

As we have mentioned in the methodological paragraph, the Regional Maturity Grade tool is useful for having a synthetic view on the regional structural characteristics, but cannot be considered a predictive instrument for evaluate the concrete possibility a territory has to implement DBE. Never the less, it can guide new regions in positioning themselves at the starting point of the process, i.e. evaluate how much the experience of DBE partner regions can be imported and reproduced in their environments. 'RCs characteristics' is another important variable to take into account when planning the DBE local implementation (we'll see below which characteristics are more relevant) and should be strictly linked to the vision/expectation a region has towards DBE.

Here below a visual representation of the results gathered from our first survey. In the cube we can see the position of the three partner regions (plus Piemonte as associated region) on the three asses:

- Social Capital
- SMEs ICT development
- Regional Innovation Capability.

Fig. 4 Regional Maturity Grade results



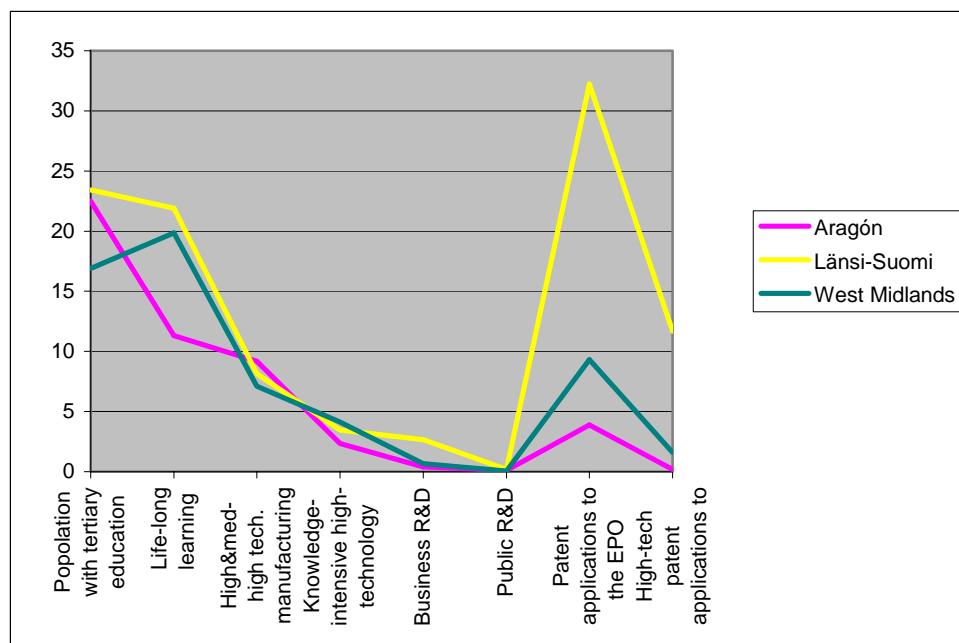
Source: Censis, 2003

It's important to remember that data come from both statistical data (mainly EUROSTAT) and in depth interviews to key respondents.

Social capital has been successively at the centre of two dedicated researches (del.27.1 e del. 27.5) so the data of this first survey are somehow obsolete and we'll not take it in consideration in this context (for a full analysis of Social Capital dimension, please see Del.27.5). We would recommend to new region to execute an extensive network analysis at regional level before using the Regional Maturity Grade tool and include the Network Analysis outputs (network density, N. of nodes, grade of centrality, etc..) directly in it.

In the schema below it's clear that Tampere reach higher scores on all the three asses. More in details the three regions performances differ on the asses of Regional Innovation Capabilities most, particularly in dealing with the capacity to transform knowledge into market solutions (EPO patent applications).

Fig. 5 Regional Innovation Capability



Source: Censis elaboration of Eurostat data (2003)

Tampere shows a higher degree of Business investment in R&D that overpasses that of public investments. The values on this variable, however, appear very low in all the three regions. The higher value reached by West Midlands with respect to manufacturing enterprises indicate the historical leadership of this regions in the sector. Manufacturing is still the largest sector, with 28.9% of the region's GDP and represent the higher share of any region in the UK.

It is particularly interesting to notice the high value reached by Aragon in the percentage of persons with tertiary education. This represents a regional particularity and is on of its main strength. At the same time this characteristic represents an opportunity not fully seized. In fact, Aragon has an important university and more graduated students than the region can employ. This region traditionally exports highly skilled people mainly to Madrid, but in the last years a process of come back it's clearly visible, and this may possible explain the good value reached in term of active knowledge-intensive enterprises.

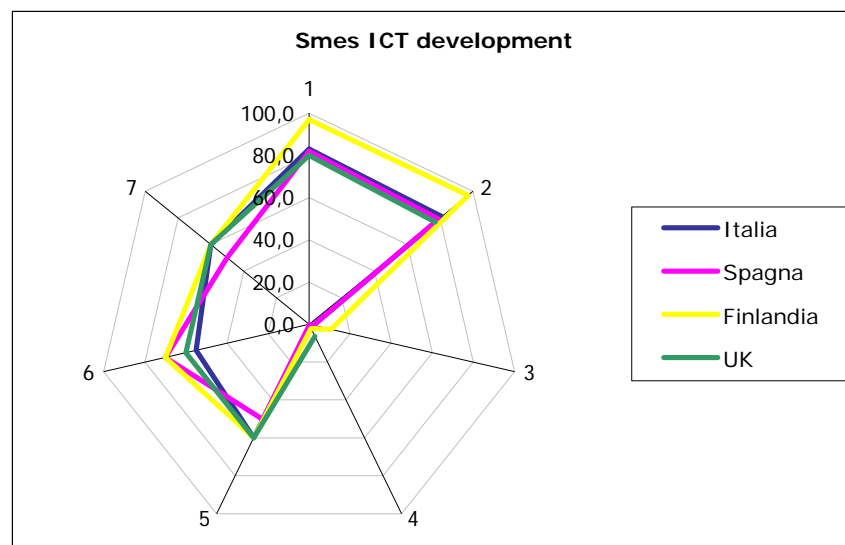
With reference to the SMEs ICT development asses (that would be more appropriate call SMEs ICT level of usage), here qualitative and quantitative data were present. The values merge together in this asses (index) were the following:

1. Percentage of enterprises having access to the Internet (All enterprises)
2. Percentage of enterprises having access to the Internet (Small enterprises)
3. Percentage of the enterprises total turnover from e-commerce (All enterprises)
4. Percentage of the enterprises total turnover from e-commerce (Small enterprises)
5. Organisational modifications introduced by use of ICT tools
6. Attitudes towards ITC use
7. Effective use; comprehension of the potential of tools

The first four variables refer to statistical data, where the last three emerge from the interviews. In the diagram below we can see the graphical representation of this values.

Tampere take advantage of a high level of connectivity, but value related to this dimension are pretty high in all the three regions even if distributed territorially in different ways.

Fig. 6 SMEs ICT development



Source: Censis elaboration of EUROSTAT data, 2003

In Aragon, disparity of access (i.e. territorial digital divide) is present. Infrastructure disparity in these regions is a consequence of particular territorial situations, namely the size of the land covered and the conformity of it.

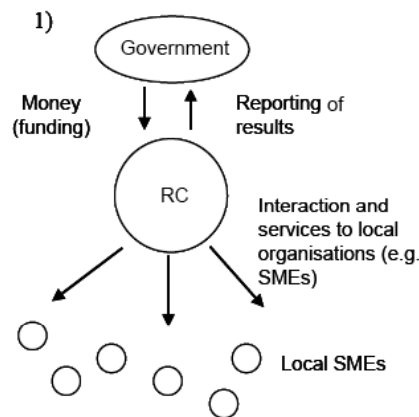
Nevertheless local actors are engaged in important projects in order to improve the regional connectivity, particularly trough WIMAX and one of the enterprises actively in this sector is already engaged in the DBE project as implementer The percentage of turnover from e-business seems to be really low in all the three regions. Data about e-business need to be handle with care. In fact, for many reasons, not all the business sectors can use e-business tools. Turning our attention to the SMEs sector involved in the DBE and using our interview results, we were able to say that there was generally a high level of interest towards new technologies, which does not correspond to an effective use of it. Most SMEs make partial use of the potential of Ict basically using only mail services and a static website. This was particular true with reference to the Aragon region (asses n.7).

2.2. RCs typology

Following the RC typology definition introduced by TCH in Del.31.1 we can here describe the three RCs in terms of:

- relation with government level
- relation with SMEs
- revenue streams

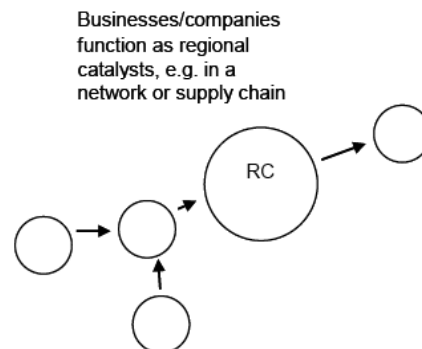
Fig. 7 RC model 1



Source: TCH, 2003

This first typology corresponds to the Aragon model, in this case the RC works closely with governmental bodies, as a public technology centre, it's 'part of it'. We're here referring to regional governmental level but in a nation, Spain, in which Regions have an important level of autonomy from central government. The regional catalyst gets part of its funds from the government and reports on the results to the government. The services are provided (mainly related to research, testing and technological development in its broader sense) to local companies. It's important to highlight that ITA is a specialised agency of local government as it functions as a technological unit for Aragonese companies. In this way ITA can play two roles at the same time, that of Sponsor and that of Implementation unit. With the term Sponsor we indicate the capacity to spread the DBE concept in the region and mainstream it at government level, with the term Implementation Unit we refer to the possibility to assist SMEs technically in using the DBE (see Del.27.1).

Fig. 8 RC model 2



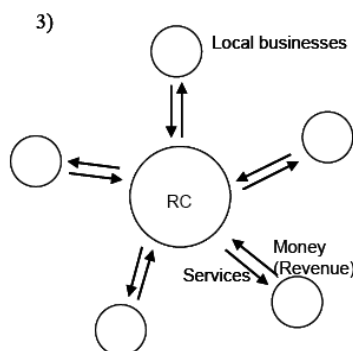
Source: TCH, 2003

The case of UCE is partially similar to that of Aragon, UCE as university is a public actor receiving fund from the government but, of course, has a very different relationship with the governance level. More over the regional dimension in UK is not so strong as it's in Spain. The contact UCE has with SMEs is also different from that of ITA; university offers services and moreover consultancies to local SMEs so can act as Sponsor with them, it's a trusted local actor and clearly recognised as innovation point of reference. Never the less it has less power in mainstreaming activity at political level and needed to adjust its staff in order to offer the technological knowledge needed to sustain DBE implementation.

West Midlands
<i>It was at this early stage that the first contact person in our team began to realise his lack of relevant experience and expertise in the core subjects of the DBE i.e. software development. Surfacing this problem in meetings with partners was difficult, but having done so it led to changes. Through colleagues a suitable recommendation was found for a person who met the project requirements at that stage more closely. We recruited this person and we now had a stronger pairing who could begin to cope with the many demands of the project.</i>

After facing some difficulties in engaging users SMES, UCE start an intense activity of sponsoring and communication at local level and its model of RC partially changes when they meet and start to collaborate with Emnet. An SMEs based in a close region (East Midlands) as Internet Services Provider and also deploying several activities in support of SMEs ICT development. By engaging Emnet, UCE was able to fast expand the SMEs users number and its network. In this way we can consider an SMEs as a sort of catalyst. It's important to highlight that the network Emnet open up to DBE is not a vertical-close on, but an open, horizontal one (see Del.27.5). In this model, business “catalyses itself” and also this model appear very successful.

Fig. 9 RC model 3



Source: TCH, 2003

In the case of Tampere, the RC is a Technology Center, it's a private company but emerge form a private/public initiatives closely related to regional development strategies. Hermia is in a similar position of ITA in term of Sponsoring possibilities both with SMEs and at government level, and - offering services and consultancies to SMEs closely related to ICT – can act also as Implementer Unit. The basic way in which Hermia work with SMEs is project based. During the DBE project, a new project COSS (Centre for Open Source) was launched, and Hermia was its promoter. COSS itself, being a clustering project direct to Open Source enterprises and communities, become an additional catalyst. It represent a gate away to an under-structuring cluster of enterprises, research centre and universities.

2.3. Policy maker level of interest

The third intervenient variable, 'policy maker level of interest', shown to be a very relevant one, mainly but not only in term of sustainability. Beside the goal to engage and train local SMEs, RCs got – from the very beginning – the objective to arouse attention of policy makers and other relevant local actors about DBE. For this reason we define RC also as DBE Sponsor Thanks to their pre-existing relation to government and SMEs, they exploit the tacit value of the trust that connect them to their local system. During the project Aragon show to be very successful in making the DBE part of the local strategy for regional development. This guaranteed the DBE sustainability after the project end and helps the process of SMEs engagement. SMEs, recognising that DBE have been acknowledge as an instrument for local development strategies for medium-long term, were more motivated to engage and assured that the work dedicated to it would not be lost after the project end.

2.4. First impression and expectations

Due the regional characteristics and Rcs typologies, the expectation towards DBE differs. The expectations were generally vague at the beginning of the project, but some difference were already visible. As emphasized by Tampere's RC the idea of DBE change over time and its different components become less or more relevant coherently with the local situation. If DBE technological nature was really important for Tampere RC from the very beginning, the focus for Aragon was more on local development, i.e. DBE was seen as an instrument for supporting local SMEs in their ICT adoption.

Tampere
<p><i>DBE project came to Tampere and Hermia more or less by a lucky chance. Our first contact was Dr. Marko Seppä, who worked as the Director of eBusiness Research Centre in the Tampere University of Technology. As the project got funding, the most appropriate organisation to carry out the tasks was Technology Centre Hermia.</i></p> <p><i>The expectations related to the new technology and mindset of DBE and the possibility to be among the first to test and implement new internet services in Tampere region and lower the hurdle for SMEs to utilise ebusiness services. Open standards and open source were present in the first expectations, but not as strongly as they turned out to become.</i></p>

West Midlands
<p><i>We (UCE Birmingham Business School) joined the DBE at the invitation of IBM Brussels with whom we had been working on an FP5 project called eLive. This had involved us in recruiting and developing an inter-regional network of companies focusing on knowledge related creation and exchange activities. We seen to have certain assets such as contacts with local SMEs, and the capacity to work with them using processes likely to be of relevance in the DBE. Our first involvement was to outline define our intended role based on the early drafts of the technical annex. Subsequently, having completed a number of registration procedures as a partner, one of us attended a workshop at Sun Microsystems Barcelona which constituted what was to become the business domain, along with some science and computing partners.</i></p> <p><i>Our expectations at this time were primarily couched in terms derived from earlier projects, i.e. we would recruit and develop a number of SMEs, about 30, and work with them on a defined and structured task in which we would have relevant expertise and information to give the SMEs, or alternatively we would be facilitating the SMEs to do things for themselves. In either case we would have a secure knowledge base. We realised in these early stages that the DBE in fact constituted a bigger problem. A large number of highly specialised researchers were collaborating in an uncertain enterprise, and we had not experienced either of these factors before. Our feelings could be described as at time, uncertain, unsure,</i></p>

confused, and insecure.

To balance this we were impressed with the vision and intellectual power of the DBE. We regarded the possibility of working with the partners as interesting and appreciated the chance to be associated with some leading people and institutions on a research exercise. It gave us a step change continuation from our earlier work-more difficult, a longer time scale, more money involved, and the chance to try something new and innovative. It felt like a challenging assignment.

3. Developing a vision about DBE

In the first project phase, RCs start working of their self-definition, approach the DBE concept in a more structured way, start planning the activity in their regions. Also the issue of business domain identification emerges clearly. In Aragon the selected domain was tourism, the other two region face more difficulties in recognizing a specific business sector.

Tampere

The business domain to be engaged was not intrinsically clear as it was in Spain. In Tampere region there are some strong industry areas such as metal industry. DBE didn't seem to fit their needs, however, and the actual business domain was sought for a long time. Finally business to business ICT companies appeared to be most interested in DBE and provided the most potential group of SMEs to create the business domain and thus that was the chosen course. Also, Open source aspect of DBE raised its hand in our minds and it was successfully utilised in approaching the SMEs.

The first SMEs contacted came from existing networks. DBE was pitched to a large number of companies that were of different sizes. We made the initial evaluation of the uses DBE could have in the SMEs' business and would provide as much information as possible to them. The problem was that we did not have deep technological competence in our team and also did not receive enough technical information about the DBE and its planned development to present it confidently to SMEs.

West Midlands

This early phase may be characterised as a forming stage in which we worked out what our role was to be. For example it was envisaged that we would only become active in the project after 18 months. Yet it was essential for us to have a voice in defining early stages since they would determine later events. Subsequently partners agreed to give us earlier involvement.

Similar formative processes were taking place inside our organisation. Firstly, we had to represent the DBE to senior decision makers in the UCE would approve our investment of resource and determine the terms of our engagement. Secondly we had to integrate the DBE with our other responsibilities, essentially organising ourselves to participate. This meant giving up alternative research (opportunity cost) or seeing ways of undertaking it within the DBE. An example of this transference behaviour was post-doctoral work on discourse analysis which one of our team subsequently applies to the DBE.

4. Engagement phase: the first call

The SMEs engagement was planned to take place in three sequential open calls, the first for Drivers, the second and the third for implementers. One of the requirement for being a DBE implementers was to bring in the DBE a consistent number of users with whom test the service implemented for DBE. In this way by engaging directly a relatively small number of SMEs, DBE would have a larger number of enterprises users.

The first-phase goal – the involvement of drivers – was deemed a success in all three regions. In all three regions, drivers understood their role in the project, acquired specific knowledge and skills and developed initial DBE services. With regard to the acquisition of skills and know-how regarding the ‘technological platform’, the main tools used – code camps, blogs and forums – were viewed positively by RCs. (see training deliverables) The blogs constructed and kept up by RCs, some drivers and the forums with Sun and Intel implementers proved to be useful and effective. Training has been time consuming and, consequently, costing but this was due to the development phase in which the DBE platform was, that required several updating and more face to face meeting than planned. Considering the experimental nature of the DBE project this success is a very significant one and the process seems ready to be implement in other regions.

Tampere

We had good luck with the first drivers. One in particular, Nemein, was known to us being one of the first members of COSS (Centre for Open Source Software) that was founded in Hermia in 2004. Nemein had current business needs that DBE could provide answers to and they made a great deal of pioneering work both to service integration and communication in OS projects, which was not at all in the level that they were used to in other OS communities. Our approach to drivers was quite humble and supportive, as we were conscious that the DBE platform was far from something that could be used in business and yet we asked the SMEs to provide 50% financing to try out the platform. We worked quite closely with the SMEs and arranged code camps in which the actual experts of DBE technology from other project partners came to Tampere and trained our Drivers personally.

The main problems were related to the immaturity of DBE platform. The technology development was late and yet we were required to present it to the SMEs. They were not at all pleased when they realised the actual state and limitations that the current version of DBE had at the time. These were overcome by the visits of DBE experts, which really helped a lot.

Aragon

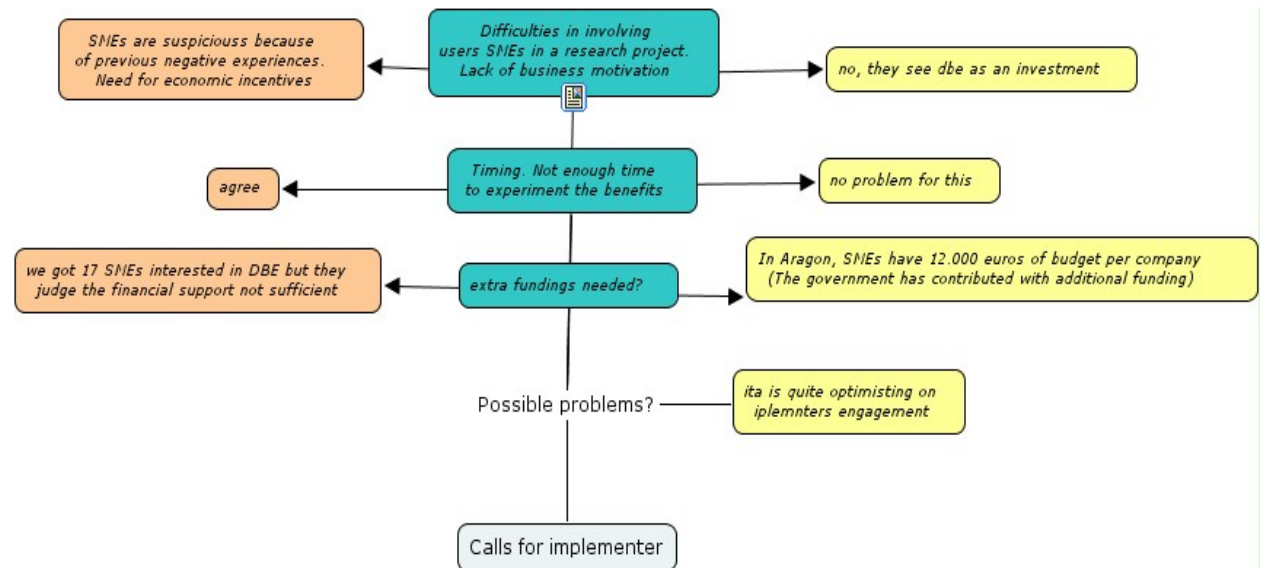
We engaged 4 drivers, as planned. All driver projects were successful and they provided a solid ground for the successive projects' phases

5. Engagement phase: the second call

After the first phase Censis carried out an online focus group activity in order to evaluate the recruitment first phase and envisage possible problems (and related solution) for the second recruitment phase. The mental map below reports the output of that activity (see Del.27.3).

The initial mind map stimulus for this part of the map was: 'Call for implementers: possible problems?' Contributions from the Aragon Regional Catalyst are in yellow, from the facilitator they are in turquoise, and from the West Midlands Regional Catalysts are in pale orange.

Fig. 10 RCs' vision on implementer engagement



Source: Censis, 2006

ITA vision was more optimistic than that of the UCE. With the exception of a converging opinion regarding the topic of technical support, which for both RCs was critical, for all other aspects their visions were in opposition. The opposing views registered in that activity (substantially for West Midlands time, funds and the research orientation of the project were problematic, where for Aragon none of these were) may be explained by the different situation in Aragon compared to that of UCE or, as the map clearly shows, the different economic support that Aragon RCs can offer to SMEs. The difference, in this sphere, is made by the funding that the Aragon government has allocated to the DBE project which, with the relative political support, makes the project more reliable from the point of view of SMEs, giving them greater resources with which to work on the development of ad hoc solutions. (It should be stressed here that this observation does not imply that in the future regions should necessarily seek the direct and economic involvement of local governments, merely that in a region such as Aragon, political support has been a positive intervening factor. Studies conducted until now and the Censis research on local social capital highlight the differences between the three regions involved in DBE. If one looks at the different networks, the importance of policy in the Aragon network is clearly visible, while it is neither in the West Midlands nor in the Tampere networks).

In effect, now, at the end of the project, we can observe that the vision proposed by the two RCs become real, somehow. For sure SMEs engagement have been more difficult in West Midland (and Tampere) than in Aragon. But, with different time and thanks to different strategies, a good amount of SMEs have been engaged by the project in its totality.

Tampere

We did not have too much trouble in finding the Drivers. However, Implementer proved to be difficult to find. It appeared that there were not too many SMEs that would fit into the implementer category or we were unable to find them. We used advertising and straight contacting to attract potential implementers to workshops in which the Drivers presented their cases. The Driver cases were quite realistic, and there was a problem as the potential implementers got a true understanding of the possibilities but also the shortcomings of the DBE as it were at the moment. Finally we were able to attract just 4 implementers in the first call. The second call was as unsuccessful and as we recruited a technology-oriented person to our team to persuade appropriate SMEs in one-to-one negotiations to participate in DBE, we made the call open. Finally we were able to get a total of 7 implementers, 2 of which had been drivers before.

West Midlands

Formal calls, early in the project were seen to produce insufficient recruitment despite high costs per unit response. UCE identified that the cause of low response rates were in the poor expected returns to SMEs for their outlay of time and money in support of an uncertain, complex, and as yet undeveloped architecture and set of services.

UCE sought to offer better value for money by making the SME investment as practical and tangible in business terms as we could and to try to provide short term gains for each business, e.g. business model examples. They thought this would be better achieved through an intermediary than by relying on impersonal 'broadcast' offers through journals.

UCEs process for search on such an intermediary included organizations such as accounting and consulting firms; funded projects; large firms; regional associations, incubators, etc. Then we recognized a regional ISP - EMNET – as the right intermediary.

EMNET provide Internet and IT services for a large group of SMEs.

Due to the delays in the release of a stable architecture, the focus became more specific on the Search and Discovery (S&D) feature which was being developed with EMNET as part of our BML expertise. The target groups for this route of engagement were contacted using intermediaries and business contacts where different delivery approaches were used. As our earlier experience of a public tender call was not very yielding an approach of PR direct mailer was developed. This approach has supported the engagement of 72 User companies from the Web Design industry.

Aragon

The second call, first call for implementers, yielded 9 approved proposals and the second call 12 thus totaling 21 implementer projects. Aragon could reach their SME engagement goal (80 SMEs engaged) for DBE project through these official calls for tender and no additional calls were needed. One decisive difference compared to other regions was that ITA was able to engage regional funding to add on EC funding very early. This had a two-fold effect in the success of the calls. First the SMEs could create larger projects to integrate services in DBE and thus DBE got much more appealing for them. Secondly the regional funding convinced the SMEs about the regional commitment and thus the sustainability of DBE in the Aragon region.

Some of them has started to do business even in addition to DBE, which is also a positive results. The DBE has created the "excuse" for the networking.

Thanks to the success of the deployment in our region, we are disseminating this results at an international level which is promoting our region.

A real challenge of approaching SMEs and informing them about DBE was the complexity of the DBE. It was very difficult to give an elevator-pitch about DBE to an SME because of the versatility and complexity of the platform and also because the utility of the platform depends heavily on the business of the SME that uses DBE. Consequently a case by case strategy of engagement was needed in some cases. Other problems were related to the research stage in which the DBE platform were, so that problems as security and identification need to be solved again case by case in order to attract users, that cannot rely on a platform without these features. Time, also, was a problem for the second and third call of implementers. A delay in the infrastructure components release, conduct to a delay in the calls so the time for implementers activities was reduced especially in Tampere and West Midlands.

The third call for implementers was implemented separately in all regions based on the situation after the first calls. ITA carried out the third call very similarly as the previous ones because they had already a very good amount of SMEs committed to DBE. TCH and UCE were having trouble in finding good SME proposals and thus the third call in both regions were made open and the efforts were put to direct marketing of DBE and its possibilities.

6. Main outputs

The main outputs of the DBE local development are, of course, the services that the SMEs (drivers and implementers) developed for the project, all the details of this aspects are presented in Del.30.9. In the context of this research, however, other outputs are also really important. For example is extremely important to remember ones more that the concept of Digital Business Ecosystem become integral part of Aragon Government's plan for local development. This is for sure an element of success for the project itself and an element of international recognition for it. Similarly in England the concept of DBE reach other two regions thanks to the effort of the RC and their modification of engagement strategy that deeply involved an SMEs and interregional link. Also in Tampere region, when the project faces more difficulties in involve the policy maker level, it reach an unexpected result. The growth of COSS (Centre for Open Source) with the DBE at its side have had a tremendous regional and national impact for SMEs dealing with open source software. DBE was not the only driver in the founding of COSS, but it certainly did help in it.

Tampere
<p><i>Our expectations were that the regional DBE community would have grown far bigger than it did, but in a way we ran out of time. There were a lot of interest towards DBE in the last stage of the project. We would have been able to integrate tens of more services if we had one more year to go. Also, it would have been more interesting and rewarding to SMEs as the DBE platform is now in the level that it should be when the SMEs start using it in their business. In this sense we have done our best to engage SMEs but regret that the timeline of the project was as it was.</i></p>

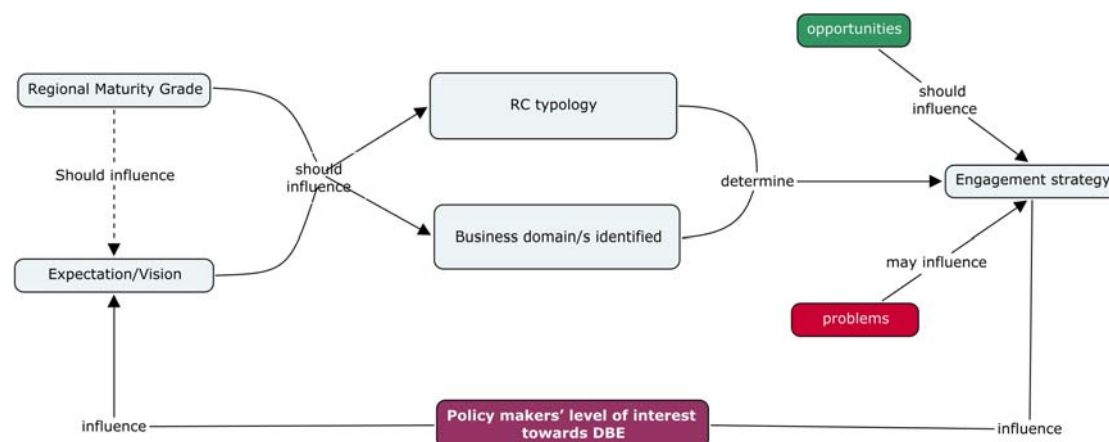
Conclusions: suggestions on DBE local implementation

That of DBE implementation at local level can be defined a process of regional learning. With this expression, that keeps trace of that of *learning regions* (Morgan, 1997), we want to emphasize the flow of knowledge and ideas that generate from the DBE project and meet the territorial environment. Knowledge creation implies and intense process of interaction in which knowledge transfer runs both explicitly and implicitly through personal contacts and through at-a-distance communication. Thanks to the actions endeavoured by RCs, the knowledge generated by the project has been translated at local level and adjusted to SMEs needs and possibilities. So that DBE can means quite a different thing in each territory, but in all the three regions it took a place at the crossing point of different actors' trajectories and become generally recognised as significant for the local economy and future. The role of RCs has been essential not only because they translated the DBE knowledge in something really soundly at local level, but also because - thank to their institutional nature – they reduced the uncertainties always correlated to an innovative process such as DBE, they assure a certain stability, which is essential for innovation and change (Johnson, 1992).

The lessons learned from the SME engagement are that technological competence is very important and it is emphasized in a situation where SMEs are expected to use a technological platform that is under development. But the function of Implementer Unit cannot stand without that of Sponsor, it's really important to engage the policy makers to the process in as earlier phase as possible. It provides in most cases the trust that SMEs need when making the decision on whether or not to commit to a new technology. It can also be said that there are multiple paths to the same goal and some work better in a certain region than the others. Thus the regional catalysts implementing the SME engagement need to be very well aware of the regional business situation and have good existing relationships with both the policy makers and the SME community.

The schema below show the ideal process that a new region can implement in order to sustain the DBE territorial up taking.

Fig. 11 A proposal for DBE local Implementation – process phases and influencing variables



Source: Censis, 2006

The first step would be that of benchmark the regional situation using the Regional Maturity Grade or another methodology able to make a complete picture of the socio-economic situation. The necessity to stress the social dimension of the process emerged clearly from the project research; innovation is never only the act of exposing a territorial to new technology but it imply always other dimension. Among other: cultural setting, social capital, SMEs specificities and approach toward ICT, collaboration and innovation (see Del.27.5).

We would recommend having an extensive network analysis at regional level in order to intercept those actor that, more then others, can help the process of DBE adoption. Gate keepers - actors that can open the network to a wider group of users – can be SMEs as in the case of West Midlands, project as in the case of Tampere or intermediate actor such as Chamber of Commerce, SMEs association, Development agencies and so on.

After this research phase, a clear plan of what the DBE implementation goal should be is needed (in this context, participative methods – such as GOPP or AESW - can help integrating DBE with already existing regional strategies and facilitating the collaboration among different local stakeholders).

Identifying a specific business domain is really important; it helps in reduce the complexity and the set of competences that the RCs need to handle and possible facilitate of sharable services. In this phase (the second in the schema) a fine-tuning about RC typology can be performed in order to recognise the better Sponsor and the better Implementing Unit. The two roles can be performed by the same institution or not, the most important thing is, as already mentioned, have already existing links with both SMEs and policy makers.

The engagement strategy, defined as concrete acts for recruiting, selecting and training the SMEs, have to be defined coherently. The strategy adopted in the DBE project (driver, implementer and users) demonstrate to be successful and feasible and it's ready to be tested in other regions.

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