Robust regional innovation policy learning: Key lessons from a large-scale intervention program

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Innovation in Small and Medium-Sized Enterprises (SMEs) is one of the main objectives set in the Lisbon agenda. In this paper, a large-scale intervention program is reflected upon that aimed for the enhancement of innovation in 650 SMEs in the Euregion Meuse-Rhine. In particular, four lessons are drawn concerning the design and implementation of robust regional innovation policy. Sustainability is a goal that can be reached when innovation stimuli lead to continuous social and economic changes when all the change agents invest in an automatic reflex to assess and match their activities with the specific demands in the dynamic environment.

Keywords: large-scale intervention program, innovation, SMEs, policy learning, conversational approach

INTRODUCTION AND PROBLEM STATEMENT

All across the world, stimulating innovation in small and medium-sized enterprises (SMEs) remains high on policy maker's agendas (e.g., Nauwelaers & Wintjes, 2002; Edwards et al., 2005; MacDonald et al., 2007; McAdam et al., 2007). Innovation is indisputably regarded as important for regions, nations, and even for the society as a whole (e.g. Van de Ven, 1986). At the same time, small, and medium-sized enterprises (SMEs) are considered the backbone of most economies and as such are a crucial actor in the context of innovation. As SMEs account for over 95% and up to 99% of businesses depending on the country (OECD, 2006) and produce approximately 50% of total value added worldwide (Knight, 2001), they create for instance between 60% and 90% of all new jobs (60-70% net job creation in OECD countries) (Knight, 2001; OECD, 2004, 2006). In such a setting, SMEs are often found to be the driving engine of economic growth, flexibility, competitiveness and social cohesion (e.g., Knight, 2001; Isaksen & Remoe, 2001; Ladzani & Van Vuuren, 2002; Audretsch, 2002, 2003; Eshima, 2003; OECD, 2004, 2006). Policy in both developed and less

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developed countries aims to keep the SME driving engine running with measures (i.e., broad policy initiatives) that strengthen the capability of SMEs to innovate (e.g., Nauwelaers & Wintjes, 2002; Déaz-Puente et al., 2009). These supporting policy initiatives are highly needed as many innovation efforts in SMEs fail to achieve their intended results, despite the vast knowledge base on innovation and the significant investments in research and development (Kenny & Reedy, 2006; O'Regan et al., 2006).

In policy circles agreement grows that innovation policy for SMEs needs to make use of a wide variety of measures and, as such, needs to go beyond mere financial support or transfer of knowledge. The broad array of innovation stimulating instruments that represents contemporary innovation policy is strongly rooted in and intertwined with regional policy. For instance, innovation as a result of clustering and networking between and within SMEs, benefits from a geographical (i.e., regional) closeness. Nevertheless, regional closeness alone is not enough to encourage innovation. Stimulating innovation demands policies that build on instruments with spill-over effects that strengthen each other leading to a self propelling innovation system (e.g., Nauwelaers & Wintjes, 2002).

Despite this growing awareness of 'good' policy, there is evidence that the numerous programs that are set up to support SMEs in their innovation journey, especially the EU programs, tend to fail (MacDonald et al., 2007; Massa & Testa, 2008). Explanations for these policy and program failures are sought in overly simplistic linear views of innovation (while innovation in SMEs is a complex and interactive process) (e.g., Nauwelaers & Wintjes, 2002; Asheim et al., 2003; MacDonald et al., 2007), patronizing attitudes towards SME assistance (MacDonald et al., 2007), and misalignments between the perspectives of three main innovation stakeholders (i.e., entrepreneurs, academics and policy makers) concerning innovation, the effective policies to promote it and the role of intermediary institutions (Massa & Testa, 2008).

The purpose of this article is to scrutinize and learn from the *successful* large-scale EU funded interregional SME project 'Strategic Innovation' which is implemented in 650 SMEs located in the Euregion Meuse-Rhine. As detailed in the paper, the project is launched with the objective of creating 'honest conversation' between the entrepreneur/CEO and his/her managing crew. Evidence has shown that it is essential for innovative firms to develop a clear insight into their organization and a clear focus on the future. That does not only require a data-driven rational analysis, but rather what Beer and Eisenstat (2004) call 'crafting an honest conversation about business strategy and other things that really matter'. First, the project is introduced, and the conversational approach taken is grounded in the extant literature. Second, the concrete conversational activities/interventions that characterize the project are described. Third, four conclusions are discussed that contain major lessons for the design and implementation of regional innovation policy – lessons that can counteract the often encountered policy and program failures identified above. The experience with carrying-out a large-scale program like 'Strategic Innovation' offers sufficient input to unravel successful strategies to stimulate innovation in SMEs in order to enhance the economic strengths of a region. As is explained below, continuous innovation efforts can be expected as a consequence of the interaction between three parties. More specifically, the 'Strategic Innovation' project shows that the capacity to innovate is sustainably strengthened when (1) entrepreneurs learn to systematically reflect upon the future (coached by consultants that help in diffusing the conversational approach in which entrepreneurs can reflect effectively), and (2) policy makers go for robust policies that allow long-term projects that engage and assist numerous companies with a wide variety of instruments.

1. THE STRATEGIC INNOVATION PROJECT

The ‘Strategic Innovation’ project is set up in the Euregion Meuse-Rhine which represents four regions that are situated within the Netherlands (Province of Limburg), Belgium (Province of Limburg and Province of Liège) and Germany (Aachen Region). The Interreg Foundation, together with local co-funders, provided an overall budget of 5.8 million euro. The project is designed by UNU-MERIT, a joint research and training institute of the Maastricht University and the United Nations University. UNU-MERIT acted as the project coordinator and cooperated with the University of Hasselt (Belgium) and the regional development organizations SPI+ (Province of Liège) and AGIT (Region of Aachen) as partners. The project is finished since June 2008, and the aspired goals are met, meaning that 650 SMEs have participated in a successful way: 300 SMEs in the Province of Limburg (the Netherlands), 200 SMEs in the Province of Limburg (Belgium), 100 SMEs in the Province of Liège (Belgium), 35 in the Region Aachen (Germany) and 15 in neighboring regions. The participating companies represent a cross-section of the regional business landscape. Figure 1 and 2 introduce the participating companies in terms of size and sector.

PLEASE INSERT HERE FIGURE 1 & 2

A conversational approach

Designing and stimulating in a structured way “conversations that matter” (Beer & Eisenstat, 2004, p.84) is at the heart of the ‘Strategic Innovation’ project. When reviewing literature on innovation in SMEs, there is a constant that is agreed upon by all authors. Although SMEs are certainly capable of innovating, many SMEs fail to see the opportunities and advantages that are open to them (Kenny & Reedy, 2006; O’Regan et al., 2006). To put it differently, SMEs tend to score lower on creating or changing ‘windows of opportunities’ for innovation (Nauwelaers & Wintjes, 2002). The main reason identified is that many SMEs do

not take the time or lack the capabilities to (critically) reflect in a systematic and structured way amidst the day-to-day hectic of pressing immediate operational demands (e.g., O'Regan et al., 2006; MacDonald et al., 2007; McAdam et al., 2007).

Nevertheless, SMEs that innovate successfully build in moments of reflection and adopt a broad process based approach to innovation (rather than a narrow technical definition of innovation) (McAdam et al., 2007; MacDonald et al., 2007). Moreover, O'Regan et al. (2006) found in their study that innovative SMEs as compared to low innovative firms place a much higher emphasis on (aligning) strategy development, a culture of empowerment, and transformational leadership. These researchers stress that firms can strengthen their innovativeness and competitiveness by integrating a sharing culture into the overall strategic direction of the firm. However, incorporating a "[sharing] culture in a strategic and structured manner in SMEs is limited" (O'Regan et al., 2006, p. 251).

Moreover, the conversational approach of innovation taken by the 'Strategic Innovation' project is grounded in fundamental research on innovation and change in organizations. Authors such as Bouwen and Fry (1988, 1991) and Steyaert et al. (1996) look at (organizational) innovation as a joint conversational event where new configurations of meaning are constructed by the parties involved. Innovation is essentially seen as a conversation between the 'old' prevailing dominant and the 'new' organizational logic (see also Lawson & Samson, 2001). The dominant logic (Prahalad & Bettis, 1986) contains the existing practices and experiences. It is the 'core logic' that guides firms in their daily operations. The problem is that, when the environment changes, managers often get trapped in their current models and routines. The dominant logic becomes a filter by which entrepreneurs and managers make interpretations of new developments. Chesbrough (2003) adds that, especially under conditions of high technological and market uncertainty, managers threaten to loose the oversight and as a consequence cling even harder to their outdated logic.

However, innovation can only occur when the dominant logic is questioned or confronted with a new one (Bouwen & Fry, 1991) through creating or changing 'windows of opportunity' (Nauwelaers & Wintjes, 2002). Therefore, each innovation situation is characterized by tensions experienced between the dominant and new logic (Bouwen & Fry, 1991). Bouwen and Fry (1988, 1991) and Steyaert et al. (1996) argue that only through setting up high quality conversations concerning these tensions – conversations characterized by two-sided opening communication (engaged or involved communication; using concrete, illustrated, testable statements that are open to any possible reaction) – it is possible to enact successful innovation efforts with lasting learning effects (see also Lambrechts et al., 2009a).

The findings discussed above point to the importance and legitimacy of using conversations for provoking strategic change – i.e. conversations that focus on opening and acting upon windows of opportunities. In the 'Strategic Innovation' project conversation is used as the main vehicle to (help) improve the innovation capability of SMEs. The insights presented below imply that policy initiatives that are meant to strengthen the innovation capacity of SMEs demand much more than boosting the knowledge stock of the firm. Policy initiatives call for organization development (e.g., Cummings & Worley, 2009) at the implementation stage. The conversations enacted and stimulated in the project to improve upon the innovativeness of the participating SMEs are strongly influenced by organization development knowledge. Organization development refers here to "a system wide application and transfer of behavioral science knowledge to the planned development, improvement, and reinforcement of the strategies, structures, and processes that lead to organization effectiveness" (Cummings & Worley, 2009, p. 1-2). This behavioral science knowledge implies well known principles like: creating involvement and co-ownership of the project, setting up participative approaches aimed at reaching consensus, focusing on the 'whole system', stimulating open and two-sided (group) interaction so that double loop learning

becomes possible (Argyris & Schön, 1978), and searching the environment for new possibilities (e.g., Cummings & Worley, 2009).

Going into the concrete activities of the project

Due to the large scale of the project (650 participating SMEs in three regions), the interventions are carried out by professional consultants. A public procurement procedure led to the engagement of 189 consultants that represent 18 consultancy firms. These consultants were trained by the program managers to apply a standardized process methodology to organize, stimulate and facilitate 'conversations that matter' in the participating SMEs. A toolbox – containing protocols (e.g., standard helping questions to be used in group discussions, directions to analyze the survey results, etc.) to carry out the intervention and to report about the different steps – was developed and used. Furthermore, the program managers offered the consultants continuous support in using the standard protocols and reporting procedures to safeguard the quality of the interventions in each of the participating SMEs. The reporting procedures also created important feedback loops so that continuous learning from the project experiences could take place. In terms of the particular content, the interventions aimed at enabling the participating SMEs to: (1) analyze their competitive strategic position, (2) set priorities in organizational areas/functions that need improvement, and (3) plan actions to enhance their innovation capacity. More specifically, the conversational interventions are set up in the following steps:

Step 1: Antecedent interview. After the first meeting in which the entrepreneur or general manager has decided to participate, the consultant has a second meeting (duration: approximately 1.5 hours) to identify points of attention that are zoomed in on during the actual intervention. The consultants gather general knowledge about the SME (e.g., age, size, history, organizational culture, etc.) to get an overall 'feel' of the company and what the

motives for participation are. Furthermore, during this meeting the intervention process is further explained and planned: (1) the coordinator within the company is chosen by the entrepreneur; (2) the team that will take part in the group sessions is selected, by the coordinator in consultation with the consultant, and contacted. Besides employees from the company, the team can be enriched with representatives from federations, intermediaries, or whichever external party the entrepreneur/manager finds useful; (3) timing and deadlines are set for the rest of the sessions in the intervention process.

Step 2: Innovation scan. All team members involved in the group sessions are requested to fill out an innovation scan individually before the first group session starts. The scan is a survey that covers seven themes in order to get an impression of the starting situation that typifies the participating SME. The seven themes are: strategy, innovation policy, capacity to change, functional processes, communication and competencies, personnel, and performance. Filling out the innovation scan has three objectives: (1) signaling differences in opinion among the team members; (2) helping the team members to assess particular issues in and about the company, and (3) stimulating the team to commit to critical reflection and discussion during the strategic sessions. The findings based on the analysis of the innovation scan are used to begin the first group session. They are ‘fuel’ to get the conversation for innovation started.

Step 3: Search session. During the first strategic session that takes approximately four hours, the aim is to spell out all possible information about the characteristics of the internal and external environment of the participating SME. Based on protocols developed by UNU-MERIT, the team has to answer various standard questions related to the strengths, weaknesses, opportunities and threats (i.e., SWOT) related to their company. The questions stay away from the use of the terminology related to SWOT to avoid stereotypical answers. Nevertheless, during a closing plenary session, the information gathered is grouped in order

to see whether sufficient insight into the strengths, weaknesses, opportunities and threats was obtained. The first session ends with the prioritizing of the various issues in order to select the top five for strengths, weaknesses, opportunities and threats.

Step 4: Navigation session. The first strategic session comes to an end with listing the top five for strengths, weaknesses, opportunities and threats in a confrontation matrix. During the second strategic session which takes about two hours, the same team looks for relationships among the different elements (i.e., does a particular strength enlarge a particular opportunity?) and again priorities are set (i.e., which strengths and weaknesses are the most important?). This prioritization first occurs individually per team member and later on it is discussed and finalized on the level of the group. The session ends with a request to the individual team members to draw particular conclusions from the prioritized confrontation matrix (an example is depicted in Figure 3). In case representatives of external parties have been added to the team, they are also requested to draw their conclusions.

PLEASE INSERT FIGURE 3 HERE

Step 5. Conclusions, formulation of the innovation agenda, and recommendations for implementation. Based on the conclusions of the team, and complemented by the experience of the consultants, final conclusions are drawn. This step is often combined with the previous one and also takes two hours. An innovation agenda is set that leads to an implementation plan in which specific actions are put forward. Actions in the plan are required to be Specific, Measurable, Accessible, Result-oriented and Time-specific (i.e., SMART). This implies that for each action a timeframe is made explicit, a problem owner is chosen by the group, and the resources required are identified.

Step 6. Satisfaction survey. All participants in the group sessions are asked to fill out a satisfaction survey. This questionnaire is based on work of De Vreede et al. (2002) and contains 19 questions to measure the appreciation of various aspects of the intervention process – that is, issues related to both the process (design and quality of the interaction) and the results (outcome of the discussions).

2. FOUR LESSONS BASED ON THE EXPERIENCES FROM THE 'STRATEGIC INNOVATION' PROJECT

The assumptions underlying the project design are made explicit in the program logic that is depicted in Figure 4 below. As clearly formulated by the Kellogg Foundation (2004, p.1): "A program logic model is a systematic, visual way to present a planned program with its underlying assumptions and theoretical framework. It is a picture of why and how you believe a program will work. Logic model methodology causes you to describe, share, discuss, and improve program theory – in words and pictures – as you develop (plan, implement, and evaluate) a program". The extent to which the assumptions are met throughout the project contributes to its eventual success or failure. An evaluation of the program logic – i.e., the assessment to what extent the project contributes to the development of a sustainable innovation system – has led to the four conclusions that are discussed below.

PLEASE INSERT FIGURE 4 HERE

'Strategic Innovation' meets a persistent need for support in strategy development

The first conclusion relates to the starting assumptions that SMEs have a need for external guidance to support their strategy development process. The project showed that when possibilities for innovation were discussed in SMEs, most entrepreneurs and managers were very much aware of the options they had. More specifically, the project showed that

entrepreneurs and managers especially have difficulties in making choices, setting priorities, and mobilizing managers and workers for change. When the consultants entered into dialogue with the entrepreneurs and general managers, they were confronted with their struggle to manage and organize the innovation process. Using the terminology of Teece and Pisano (1994) and Lawson and Samson (2001), the main concern of the SME often relates to 'integrating managerial capabilities' (i.e., how to guard knowledge sharing between departments), rather than 'functional' or 'technical capabilities' (i.e., how to execute quality testing).

SMEs experience high barriers for innovation predominantly because their internal organization is not optimized. In plain language: they did not know how to get their act together to benefit from the ample opportunities in their environment. In the majority of SMEs, one could witness a struggle to find a balance between the development of new options, and clearing up the organizational mess of everyday's business. It appears to be extremely difficult for most managers to seize opportunities, while rooting out weaknesses in the same working environment.

The circumstances in the participating firms differed considerably. In some of the firms, for example, organizational problems had hampered the implementation of innovation efforts, while in other firms innovation had created considerable organizational and managerial problems. Analyses of the action plans show for instance that the majority of actions are related to the improvement of internal processes (37%), marketing and sales (24%), and being externally oriented (13%). In general, these actions do not aim at an improvement of specific technical capabilities but rather in a request for support in organizing internal processes (i.e., communication between departments, gathering and analyzing market information, or keeping track of competitors). There are participating SMEs that for instance

started searching for a supplier of particular technological or financial expertise but these actions represent only a minority of the cases.

To summarize, in the ‘Strategic Innovation’ project, the key assumption of the need for support in strategy development was confirmed in multiple ways. The first confirmation can be deduced from the motivation of the entrepreneurs to join a strategy development program. They were clearly aware of the content of the project and decided consciously to invest time and money in the program. This resulted in an actual participation of 650 SMEs as aimed for. The second confirmation stems from the high level of customer satisfaction in the project. The project got an overall score of 81% in the satisfaction measurement. A factor analysis on the satisfaction survey data shows that the participants are especially pleased with the design of the intervention process (the different steps and their organization), the results of the strategic sessions (the quality of the actions formulated) and the quality of interaction during the group sessions (the input and commitment of the particular team members). The third kind of confirmation can be regarded as the most important indication. Most of the action plans described concrete measures to eliminate the barriers for innovation and to leverage the effects of innovative efforts. These observations indicate that ‘Strategic Innovation’ helps SMEs to act upon a certain situation and break through the status quo of their organization.

Looking to the future, the lesson for policy makers might be that by supporting SMEs early in the innovation chain, persistent barriers to innovation can be removed. Although innovation and strategy are issues that remain on the top of the priority list for managers, the intervention was seen as ‘releasing a brake’. This allowed SMEs to implement those things, which they already knew it was to their advantage to do, but for one reason or another – lack of time, neglect of the persistent need, lack of commitment – they had never done.

Innovation policy needs to be interactive

The second conclusion also relates to the assumptions concerning the target group and its needs. There is a growing awareness (Morgan, 1997; Asheim et al., 2003) that linear SME policies do not work. Linear policies are built upon static assumptions about the support needs of SMEs. The supply-side of knowledge and capital drives the process. The most vulnerable characteristic of linear policies is that they lack feedback loops that offer the possibility for policy learning. The interactive and demand-driven approach is regarded as an effective alternative to the linear approach. 'Strategic Innovation' has been consciously designed as an interactive program. Interactivity is aimed for by following three different paths.

In the first place, the interventions are interactive in themselves. As stated above, 'Strategic Innovation' offers the stage for what Beer and Eisenstat (2004) call "an honest conversation about the things that really matter" (p. 84). With a standard design in six steps, the setting is created to have these conversations. As such, the project creates the conditions for an effective self-analysis and for an in-depth debate about those measures that urgently need to be implemented. However, the intervention methods do not primarily deal with the *content* of those measures. The entrepreneur and his or her staff remain in the driving seat. The consultant facilitates the dialogue process and does not act as 'the expert' but rather as a process consultant (Schein, 1999; Lambrechts et al., 2009a). The main emphasis is put on organizing the discussion and steering it towards a specific and challenging plan of action.

The second way to get interactivity is to build feedback mechanisms into the program by scrutinizing reporting data during the course of the program. In this way, it becomes possible to monitor the program while it is running. For instance, evaluation of the sessions by the participants in 'Strategic Innovation' (both by means of a standardized questionnaire as follow up calls by program management with participating SMEs) showed that most consultants were doing an excellent job, and only a very few needed a talk about their obligations in supporting the SMEs. Information gathered in the course of the interventions

was also used to inform policy makers about the world in which SMEs have to earn their money.

The third way to make programs more interactive concerns the active consultation of stakeholders in both the design and evaluation of programs. In follow-up interviews, entrepreneurs and consultants provided the program management with rich information about the strengths and improvement opportunities of the methodologies used. For instance, the characteristics that were appreciated the most concern the *methods* of organizing and facilitating the group discussions, the required commitment of a *team* instead of only the CEO, and the *consultant* that acted as the devil's advocate to critically assess the participant's strategy. Aspects that could be improved were formulated in terms of more in between consultation reports and more support for the implementation of the action plans.

This information has turned out to be extremely useful for the design of a new program. Quality management and continuous improvement are as relevant for the implementation of public policies as for 'real business'.

Initiatives in support of innovation need to be robust

The third conclusion relates to the two final assumptions in the program logic, the impact of the project on each individual company and on the region as a whole. The ambitions of the Lisbon agenda were set high. Policy measures should be implemented on a large-scale, should have long-term impact, and should be rich in content. Closer to home, the partnering regions in the Euregion Meuse-Rhine do want to achieve economic growth in line with the Lisbon agenda. The question that needs to be answered, however, is: "how does one realize a sustainable impact on the economic and social structure of a region to the extent that a substantial contribution is delivered in line with the overall ambitions that have been set in the Lisbon agenda?". The experience within the 'Strategic Innovation' project demonstrated that the answer was rather straightforward: initiatives in support of innovation need to be

robust. When translating this concept of robustness into the operations of any initiative in support of innovation, it needs to be divided into three dimensions: breadth, depth and length.

Breadth: Initiatives need to be large-scale. Small initiatives can be valuable for experimenting with new approaches and new concepts. They can also be useful in the case of very specific regions, technologies and/or industries. However, when policy-makers and other stakeholders expect large-scale impact, they should decide for large-scale measures. Large-scale programs command the commitment and accountability of important stakeholders, and lead to higher visibility. Development programs require a *critical mass* (Rogers, 1995). The critical mass occurs at the point at which enough individuals have adopted an innovation, so that the innovation's further rate of adoption becomes self-sustaining. At that point, the program creates its own momentum.

Once program management began to hear stories about managers and entrepreneurs trying to convince each other to join the program, it became clear that 'Strategic Innovation' had neared that point. Participants were acting as ambassadors for the program, and were an important part of its 'sales force'. The creation of critical mass and large-scale change has to be well designed, tested and well managed. Large-scale programs can be implemented in a small-scale context in an interactive style, as long as there is effective feedback on what is happening in those contexts. 'Strategic Innovation' shows that it is possible to create an effective large-scale context for creative group discussions and direct interactions/conversations with entrepreneurs, managers and their staff. The success of the 'Strategic Innovation' project lies in using a standardized intervention process that is carried out by trained consultants that follow protocols and procedures but that permits to acknowledge the idiosyncratic context of each participant. As such, it is a recipe that is found to work in numerous settings, allowing the large-scale that it aimed for.

Depth: Integration and combination of tools. The program should be either part of an integrated, more all-embracing plan, or contain within itself a variety of services. This requirement is in line with the plea for integrating or combining the use of the policy tools. This development matches the trend in the innovation management literature (Hansen & Birkinshaw, 2007). Innovation is regarded in this literature as a value chain, requiring an 'end-to-end' approach. Each link in the chain is critical in determining the final outcome of the process. The innovation policy tools have different potentials to strengthen these links. The application of customer-fit combinations of these tools might be a powerful approach to raising the effectiveness of innovation policies. In the last decade governments, at the regional, national, and cross-national level, have made considerable progress in the development of individual measures. There is considerable know-how about the effective design and development of instruments like the incubator, technology counseling, and R&D vouchers (e.g., Asheim et al., 2003). The challenge before us lies in the design and development of integrated policy plans that make simultaneously use of several of these instruments.

Length: Long-term impacts require long-term programs. One important 'side-effect' of long-term programs is that the program becomes a fertile ground for network building, both at the level of the participants and at the level of the stakeholders. Programs like 'Strategic Innovation' can be used to build *communities of practice*, which refers to "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (Wenger, 1998, p. 72). It is essential for participants and stakeholders to remain in contact. This potential needs to be used more intensively in the future. However, one has to realize that network building takes time. Networks are not implemented, but grow in a natural way (see also Lambrechts et al., 2009b). Lastly, a long-term perspective is also needed because some of the firms start much later than the front-

runners. In sum, future initiatives that aim for robustness need to take these three dimensions explicitly into account.

'Intelligence on the ground' is a prerequisite

The fourth conclusion relates to the program logic in general. (Regional) innovation policies are mostly built on a chain of assumptions regarding SMEs, their strengths and weaknesses, and their support needs, and on the capabilities of knowledge centers, intermediary organizations, technological and market developments (Nauwelaers & Wintjes, 2002). Regarding the amounts of money invested in policy measures to support SMEs in their innovation efforts, the question becomes relevant as to whether these assumptions fit reality. Making the program (or policy) logic explicit helps to see where the program can go wrong. This is especially true because programs like 'Strategic Innovation' depend on a chain of activities, and this chain is as strong as its weakest link. Policy makers and program managers need, using a metaphor from the military, 'intelligence on the ground' in order to rightly target policy measures. Policy makers and intermediaries have to know what is really happening on the work floor – in this case the context in which the project is implemented. As such they can find out what keeps managers awake at night, in order to know what innovation stimulating initiatives have to offer.

In 'Strategic Innovation', two roads were followed to get in touch with the target group. The first one concerns the building-in of research instruments into the design of the program. This was primarily done by analyzing the information that the firms had to gather in the course of the program. For example, the SWOT-analyses and the action plans were used in this way. For instance, scrutinizing the documents in which elements are reported that the participant companies experience as a threat reveals that scarcity on the labor market – finding and keeping skilled and motivated personnel – is seen as an important barrier that limits the innovation capacity of SMEs. The second road may be even far more important:

direct interaction with entrepreneurs, managers and their staff. On numerous occasions, program management requested feedback from the participants to discuss how they see innovation and what they expect from the government to support them in strengthening their innovative capacity.

CONCLUSION

The ‘Strategic Innovation’ project has delivered a wealth of information. This information has not remained cold statistics about an anonymous group of firms. The data represent facts, opinions, and experiences that emerged from a highly interactive process. The participating firms were given a face and lost their impersonality. From this multitude of images and voices, conclusions emerged. These conclusions can have important implications for the design and implementation of regional innovation policy.

The first conclusion concerns the positive answer to the key question: “Does the program meet clearly identifiable needs of the entrepreneurs in the SME target group?”. The second conclusion goes into the experiences gathered in the ‘Strategic Innovation’ project that emphasize the argument brought forward by an increasing number of researchers: in order to anticipate the needs of SMEs, innovation policies should be of an interactive nature. A dialogue with entrepreneurs, managers and the staff of the firms is essential for turning policy-making into policy-learning. In the third conclusion we argue that regional innovation policy should be robust or large-scale and to a high degree ‘demand-driven’. Lastly, the fourth conclusion underlines that policy-makers and program management should be able to put themselves in the shoes of the entrepreneurs. Or to use a metaphor from the military: they urgently need ‘intelligence on the ground’ in order to adjust their measures to the contingencies in the business landscape.

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Figure 1: Size of participant SMEs

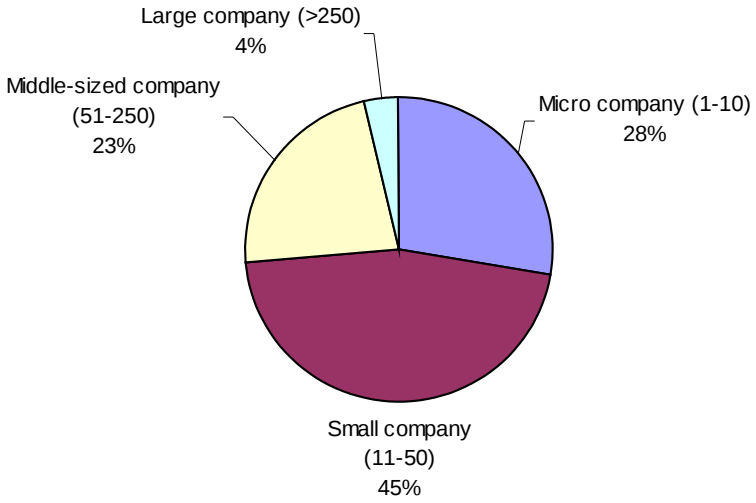

Figure 2: Sectors in which participant SMEs operate

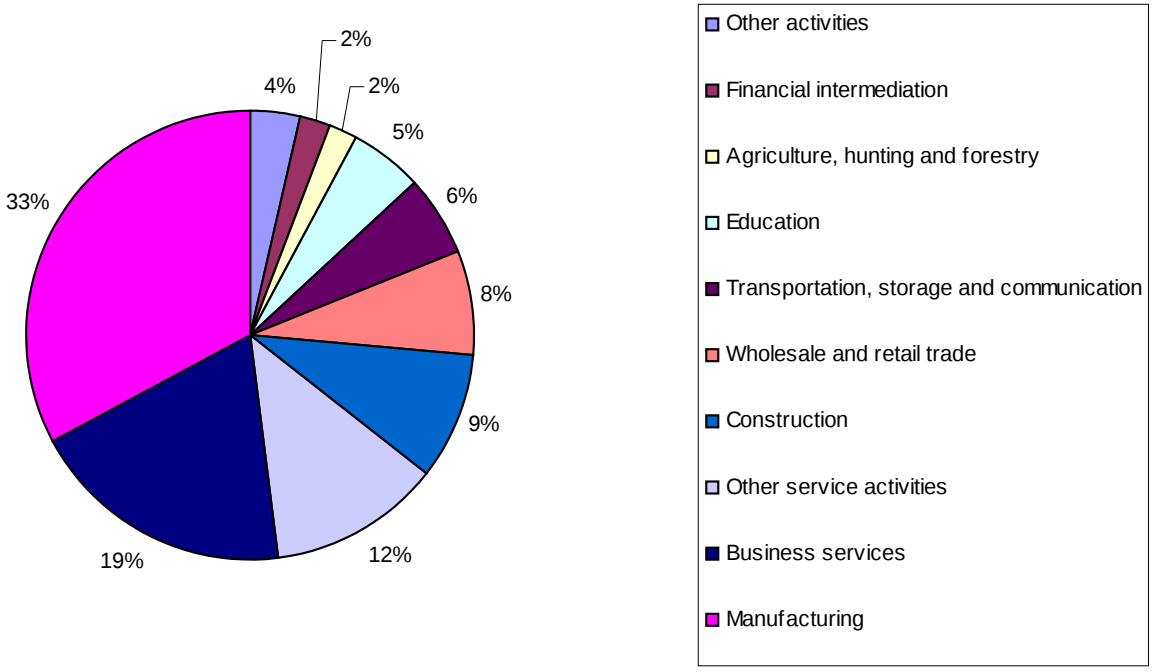

Figure 3: Illustration of a confrontation matrix

		Opportunities							Threats						
		1 development trajectory with larger risk for cor	2 new technology (early follower)	3 outsourcing production	4 wireless communication	5 getting returns from service	6 larger turnover from existing customers		1competition of countries with low wages	2 development moves to low cost countries	3 lack of technical educated personnel	4 complexity in demand is enlarging	5 productiecompanies which develop for low co		
Strengths	1 partner for the customer	4	2	3		2	6	17		6		3	4	13	30
	2 internal flexibility widely usable perso	2	4		1	2	4	13	2	2	5	6	2	17	30
	3 nice working atmoshpere		1			1	1	3			5	1		6	9
	4 finding new challenges	5	6	1	5	1	3	21	1	3	3	4	1	12	33
	5 collaborations	5		5		2	6	18	4	4	2	5	6	21	39
	6 high technical knowledge level	4	6		3	2	4	19	1	5	3	5	4	18	37
	Subtotal A	20	19	9	9	10	24		8	20	18	24	17		
Weaknesses	1 modesty	3	1			3	5	12		4	2	5	3	14	26
	2 mastering trajectory for offers	4		3		3	4	14	2	5		4	3	14	28
	3 listening to and understanding of cust	5	2	1		3	4	15		2	2	5	5	14	29
	4 sales is connected to personal contac	1	1			2	3	7	1	2		2	2	7	14
	5 complexity is too large	5	3	1		1	4	14		3	4	6	2	15	29
	6 too customer friendly	1	1	1		4	1	8						0	8
	7 mastering large projects	5	2	1		3	4	15		3		6	1	10	25
	Subtotal B	24	10	7	0	19	25		3	19	8	28	16		
	Result	-4	9	2	9	-9	-1		5	1	10	-4	1		

Figure 4: Program Logic of Project Strategic Innovation