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Future challenges for innovations in SMEs in the Baltic Sea Region

Max Hogeforster^{a*}

^a *Baltic Sea Academy, Blankeneser Landstraße 7, 22587 Hamburg, Germany*

Abstract

Small and medium-sized enterprises (SMEs) make up for the majority of all enterprises in the Baltic Sea Region and can thus be considered the economic backbone. To stay competitive versus low labour cost countries, these companies must maintain and increase a high level of innovation. To learn more about the current innovations in SMEs and how to promote them, a comprehensive survey has been conducted in 11 countries with 608 participants, among them 248 SMEs, 88 universities, 58 Business Chambers and 54 administrations. The collected data allows highly interesting conclusions, comparing innovative companies with non-innovative companies. The most distinctive hindrances for innovation in SMEs are identified and discussed. A clear difference between well-developed companies, that are interested more in soft innovations (personnel) and less developed countries that focus more on product innovations can be concluded. Also countries like Sweden or Denmark have other expectations than Russia or Poland. Education and Qualification are of utmost importance for innovative SMEs.

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1. Introduction

Companies with less than 250 employees, the small and medium-sized enterprises (SMEs), are often described as the backbone and the driving force of the economic development in Europe (Wymenga and Spanikova, 2011). These enterprises are responsible for more than 85% of all new jobs that were created between 2002 and 2012 (de Kok Vroonhof et al., 2011). This entrepreneurship developed in SMEs is the driver of economic growth (Thurik, 2004).

* Corresponding author. Tel.: +49 40 822 447 0; fax: +49-40-82244722.
E-mail address: mhogeforster@hanse-parlament.eu

Being innovative is essential to European companies if they want to stay competitive versus fast growing low labour cost countries. Due to the high social costs, European companies cannot compete with low prices, but must convince markets with innovative products and services of high quality. Thus it is of high relevance, to learn more about the best possible support for the development of innovations in small – and medium sized enterprises in the region. For this purpose, twelve innovation projects, that were implemented between 2010–2013, co-financed by the European Union within the INTERREG IVB Baltic Sea Region Programme, set up a cluster in 2012. This cluster, led by the Hanse-Parlament, brings together 209 project partners - universities, business chambers and administrations from 11 countries that concentrate on innovations in SMEs.

As part of the cluster activities, a survey with 608 organisations and companies participating has been conducted from April – July 2013 to find out more about the current status and future needs of innovations in companies. The survey was based on a piped-logic function, allowing different questions based on previous answers and resulting in a detailed analysis of the responses, i.e. differentiation between countries, companies, universities or innovative and non-innovative firms. This paper highlights selected results.

2. Importance of Innovation and Advantages of SMEs

Even though it is not undisputed, that being innovative is always essential for any company to stay competitive (Rosenbusch, 2011), the stakeholders in the region are clearly positive that innovations are highly beneficial for SMEs. Asked if being innovative is an important element to stay competitive, the companies affirmed this with a vast majority of 78.28%. From the remaining part still 21.21% believe that being innovative might not be essential for a company to stay in business and grow, but helpful. Only 0.51% stated that innovation is not a prerequisite for competitiveness. This endorses the significance of innovations.

Inquired if the participating companies consider their own firm innovation, the results are rather diverse in the Baltic Sea Region (Fig. 1). It is evident, that companies from some countries, in particular northern regions like Sweden (91.84%) or Denmark (90%) consider themselves much more innovative, than southern countries like Poland (43.33%) or Russia (34.78%). This might indicate also a different self-confidence of the entrepreneurs in the respective countries.

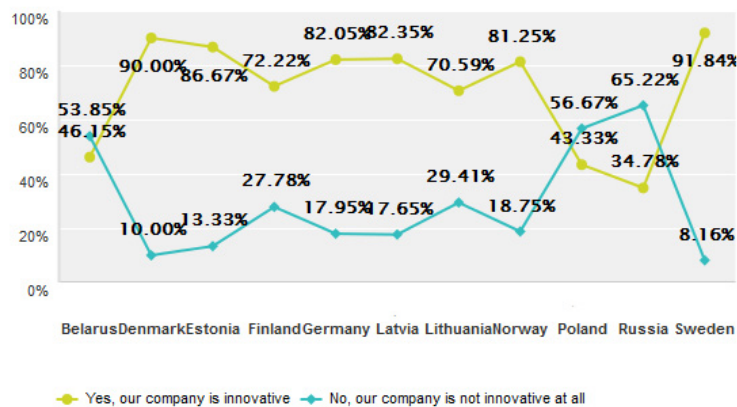


Fig. 1. Percentage of SMEs considering their own firm innovative in the Baltic Sea Region, Survey 2013

The survey confirmed furthermore that SMEs have remarkable advantages that allow them to be innovative:

- 67.4% agreed that due to their small size of averagely less than 9 employees, they are very flexible and can adapt to changes much faster.
- 88.58% granted that since the vast majority of all SMEs is managed by their owner, they can make shorter and faster decisions

- 81.33% decided that SMEs usually have a low hierarchy and acknowledge input from employees, resulting in high level of identification with their company and a corresponding commitment
- 69.48% approved that SMEs have a higher customer focus: The contact between SMEs and their customers runs on a very direct and often persona level, resulting in higher customer can realise. In particular in the service industry, customers value a constant contact person and fast support.

3. Types of innovations

When it comes to innovation, the term is often used, but hard to define. Three different types of innovation can be identified (Olczyk, 2011): Product Innovations, Service Innovations and Organisations Innovations. The participants were asked, what kind of innovations they consider of importance in the future, based on a rating from 1 - 5, with 1 indicating not important and 5 indicating the highest level of importance.

a) Product innovations are understood as launching a commodity or service, which is new or refined in its features or applications (Fig. 2). These kind of very tangible innovations are considered highly relevant in Belarus (4.65) and Estonia (4.35) and Russia (4.18) and less substantial in Denmark (3.31) or Sweden (3.66).

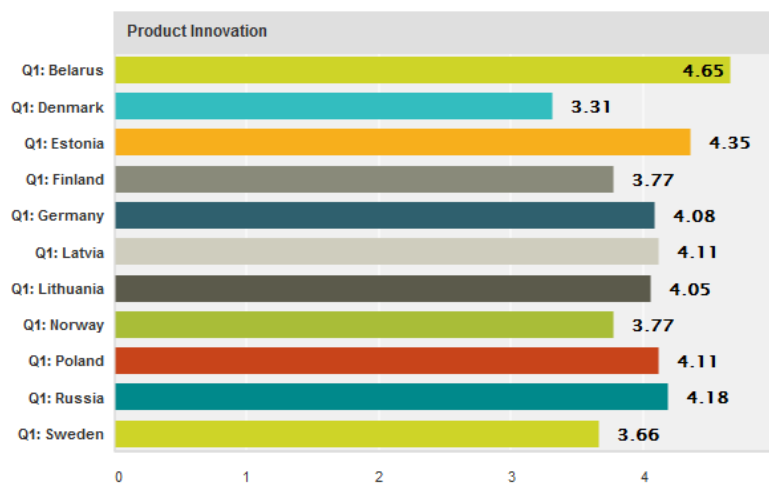


Fig. 2. Need for Product Innovations per country (scale 1–5, with 5 highest level of importance), Survey 2013

b) Process innovation are defined as implementing new or substantially refined production methods, distribution or marketing methods and supporting operation in goods manufacturing and services. According to Fig. 3 Process Innovations are rated important in Sweden (4.34) and Denmark (4.19) and less important in Belarus (3.44) and Russia (2.87).

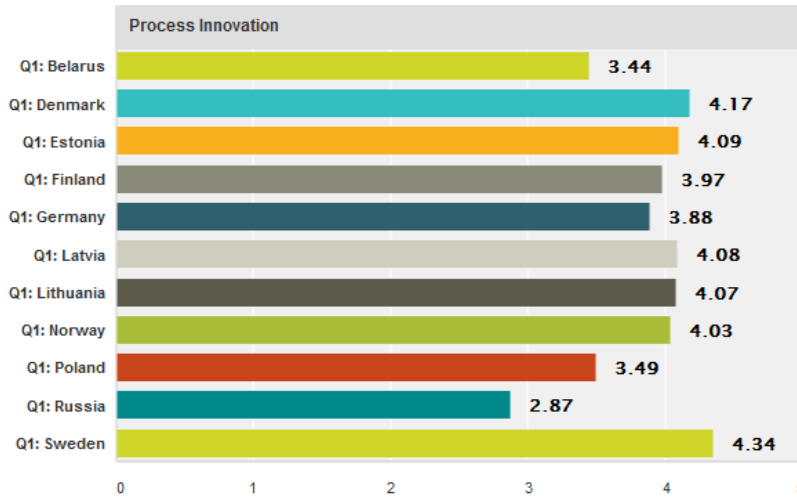


Fig. 3. Need for Process Innovations per country (scale 1–5, with 5 highest level of importance), Survey 2013

c) Organization innovations refer to the creation of new organizational methods in the company's rules of operation (knowledge management), in the organization of the workplace or the rapport with the environment, which have not been used so far in the enterprise (Fig. 4). Sweden (4.29), Denmark (4.23) and Norway (4.23) expressed the highest interest in organisational innovations. For Russia these innovations are less of future interest (2.66).

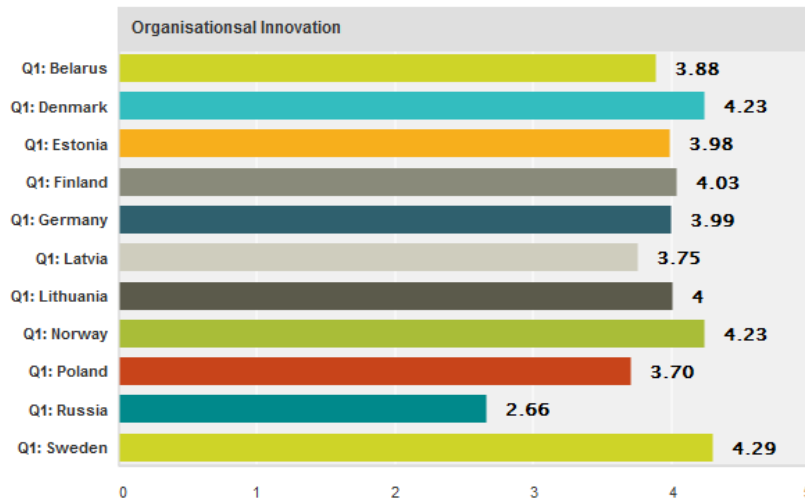


Fig. 4. Need for Organisational Innovations per country (scale 1–5, with 5 highest level of importance), Survey 2013

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In total, a surprisingly high level indicated that process and organizational innovations are almost as important as product innovations. Examining the answers per country, show that product innovations are much more asked for in countries like Belarus, Poland and Russia. Nordic countries like Denmark, Norway and Sweden expressed a much higher interest in process/service and organizational innovations in SMEs. In particular the implementation of new organisational methods in company's practices, work-place organisation and external relations can have a substantial impact on the competitiveness, productivity growth and value creation (OECD, 2010). Especially an

innovative managerial work can be an important source of competitive advantage, in particular in smaller firms (Vaccaro, 2012). The organisation culture can be an decisive element for a company (Naranjo-Valencia, 2011)

Of particular significance are breakthrough innovations that represent revolutions, while incremental innovations are mere improvements of already existing products and services (Baumol, 2002). Both kind of innovations are important, but the breakthrough innovations are those that create new markets and in particular these origin from small companies. A focus on organisational and breakthrough innovations seems to be most promising. To develop breakthrough innovations, companies need the most support, since these kind of innovations are the most risky (Treacy, 2004).

4. Innovation by cooperation and internationalization

It has been confirmed many times that in particular networks unleash new potentials that can be vital for a company's success (Rosenfeld, 1997). Indeed research shows, that the networking behaviour of firms is strongly related to their innovative capacity (Pittaway et al., 2004). Such cooperation is considered very critical to develop innovative solutions in SMEs. Most important is a close cooperation with educational institutes, followed by business organisations and chambers that can function as multipliers and facilitators. Cooperation with banks and private consultants is not considered important.

Asked about the current level of cooperation with other organisation, the comparison of the answers between innovative companies (Fig. 5) and non-innovative (Fig. 6) companies show that innovative companies have an overall distinctively higher level of cooperation. The survey makes it evident, that already innovative companies have a much higher cooperation level, than non-innovative companies. Specifically the cooperation with universities is much higher, 2.65 for innovative companies and only an average of 1.21 for other firms.

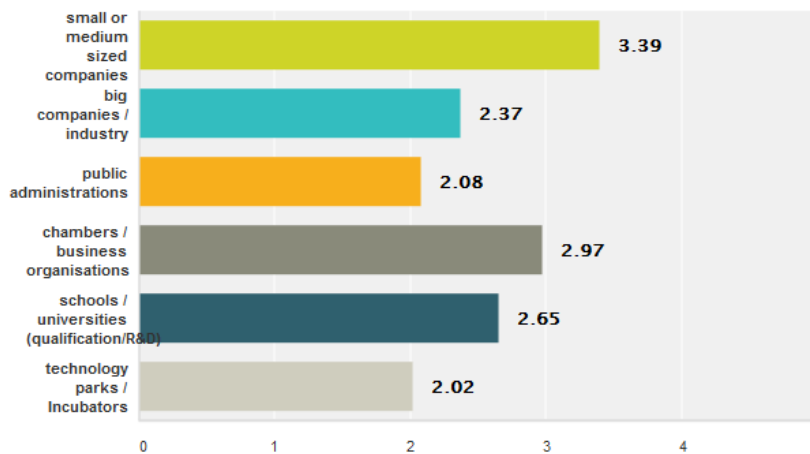


Fig. 5. Cooperation level of innovative SMEs with other organisations (scale 1–5, with 5 highest level of cooperation), Survey 2013

The cooperation level of non-innovative companies is rather low:

Since cooperation is essential for companies to develop innovations, in particular in international networks and for new founded businesses (Andersson, 2003), a clear potential is evident. A sound support of innovations in small companies needs long-term structures and cannot be achieved in a few months. More than other companies, SMEs demand partnerships based on trust (Odenrick, 2012). Companies need one-stop-solutions, one local contact point that is well trained, informed and connected.

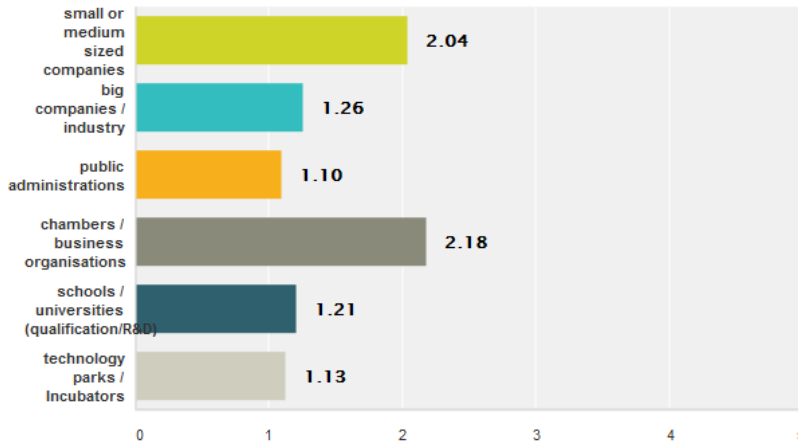


Fig. 6. Cooperation level of non-innovative SMEs with other organisations (scale 1–5, with 5 highest level of cooperation), Survey 2013

Non-innovative companies marked a significant lower level of cooperation, to other SMEs as well as to major companies, public administrations, chambers, schools or technology parks. Since the chambers of craft, commerce or industry and similar business organisation do not make a difference between innovative companies and non-innovative ones, both groups are often members of these umbrella organisations. In some countries, like Germany, a membership is obligatory for all companies.

The survey demonstrates furthermore that innovative companies are active on bigger markets, either national or even international. The majority of the non-innovative companies participating, 63.89% are active only on the regional market, and only 2.78% reach out to international markets. Innovative companies stay hardly on regional markets, only 9.71%, but 42.72% conduct their business nationwide and 47.57% even on an international level.

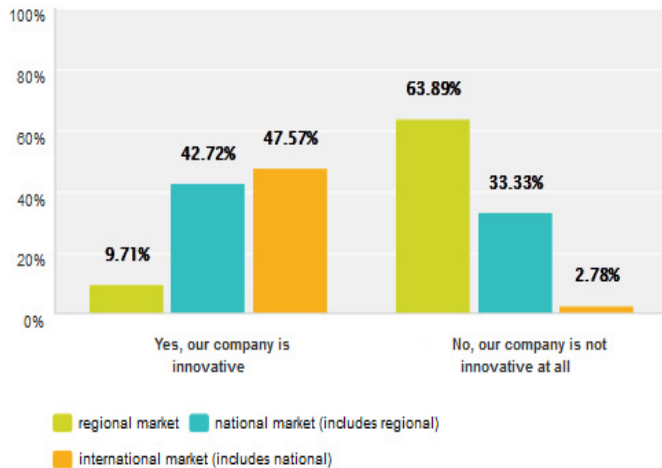


Fig. 7. Market range of innovative companies vs. non-innovative companies, Survey 2013

In this context, it can be assumed, that either international contacts help companies to become or stay innovative or that already innovative companies find it easier to expand their businesses. Other research confirms that

internationalisation and networking can play an important role for SMEs becoming innovative (Chetty, 2010). While going international was something the major companies would do in the last century, this is an option more and more SMEs consider in the last decades. Before going international was expensive, asking for big investments in foreign countries. Thanks to a well-developed telecommunication and IT system, a good transport system and rather identical rules and regulations as well as the internet (Chrysostome, 2009) this is appealing for SMEs, especially in the Baltic Sea Region.

5. Hindrances to innovation and support

The interviewed were asked to indicate the biggest barriers for innovation from their point of view, on a scale from 1–5, with 1 indication minor problems and 5 being a major challenge, The responses draws a clear picture. Some of the findings:

- With a high average rating of 4.17 out of 5 points the participants declared the lack of qualified workforce as the biggest hindrance that stops SMEs from being innovative. It seems that in most countries of the Baltic Sea Region the demographic pressure increased (Biermann et al., 2013) and in some regions the lasting emigration is a substantial issue.
- The second highest rating with 4.06 indicated that the management of SMEs lacks the skills needed to be innovative.
- Third, with a rating of 3.53 the surveyed expressed their opinion that the companies are often not aware, why they need to be innovative and that awareness-rising would be beneficial.
- The lack of entrepreneurship was marked with the fourth priority, reaching an average of 3.15.
- Missing financial resources were marked with only 3.06 points.
- With 2.25 Administrative rules or complex public procurement regulations were marked as the lowest challenge.

The results strongly indicate that the biggest barrier for innovation in smaller companies is seen in the missing qualified personnel. It clearly underlines, that qualification of the management and personnel corresponds to the level of innovation in enterprises (Schneider, 2010). Innovative companies need innovative minds – innovative entrepreneurs are they key for competitive companies. Thus highly qualified owners and employees of companies are essential to promote innovations in our companies. Investments into the educational systems are often long term investments, but realise the best interest: Smart people for a smart region. In particular educational modules aiming at a connection between the academic knowledge gained and a practical application like dual study courses can be highly interesting for small- and medium sized enterprises to increase their innovation level (Hogeferster, 2012).

At the very end of the survey the participants were asked what kind of support they deem is most important to allow innovations in SMEs which was verified with responses earlier and allowed for a cross-checking. Again, based on rating between 1 (not important) to 5 (very important), clearly the qualification was addressed. Secondly the surveyed judged the work climate in a company as crucial to allow innovations. The work climate refers to the way colleagues, cooperate and communicate, the way a company is managed, the social and physical environment of a workplace. A sound work climate improves the business performance (Gelade, 2003). It is noteworthy, that in northern countries like Denmark or Sweden this was considered substantially more important than in countries like Poland or Russia. This reflects to successful support measures, for example in Sweden, where the human growth was seen as substantial for innovative economic development already in the last decades (Daun, 2012).

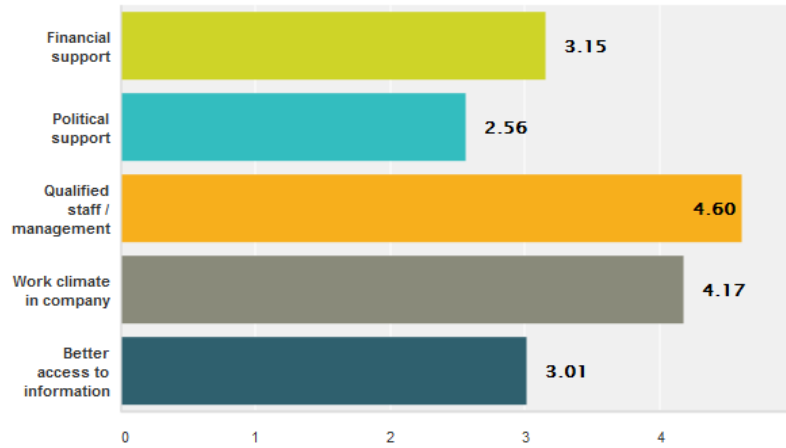


Fig. 8. Support measures for innovations in SMEs with 5 marking highest level of importance, Survey 2013

It is remarkable to learn from the survey 2013, that already innovative companies are less interested in financial support than companies that do not consider themselves innovative (Fig. 9). With 3.69 compared to 2.85 of a rating from 1–5, the non-innovative companies expressed their need on external resources. For non-innovative SMEs an initial financing of their innovative ideas and solutions can be helpful, since their growth is often constrained by a lack of internal finance (Carpenter, 2002). It can be concluded that firms that are more advanced try to identify their own internal potentials, rather than waiting from outside support. It seems that these already innovative SMEs might struggle less with the daily business and financing, but have more leeway concentrate more on innovations.

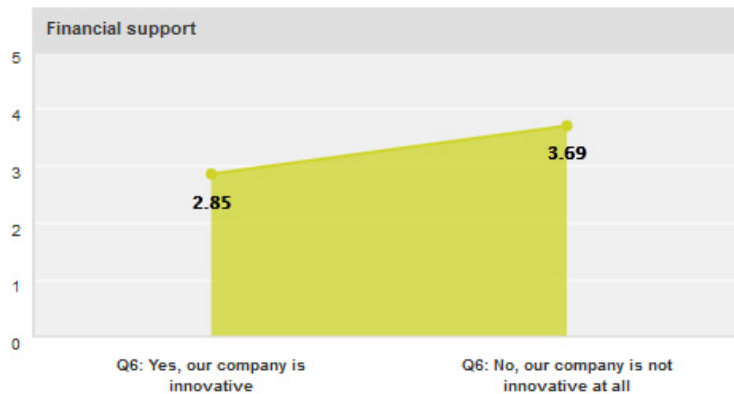


Fig. 9. Relevance of financial support for innovations, innovative companies vs. non-innovative firms Survey 2013

Likewise, when it comes to innovation, already advanced companies rate a soft factor like the work climate in company, an organisational matter, much more important than traditional companies (Fig. 10). A collaborative climate is substantially influencing the effectiveness of a company (Sveiby, 2002). A positive work climate can be relatively easy achieved and maintained at low costs compared to technical innovations. An investment in the work climate might take longer to be successful, but is less expensive. Connected with the increasing lack of qualified workforce, it is obvious that companies must pay more attention to keep their employees happy.

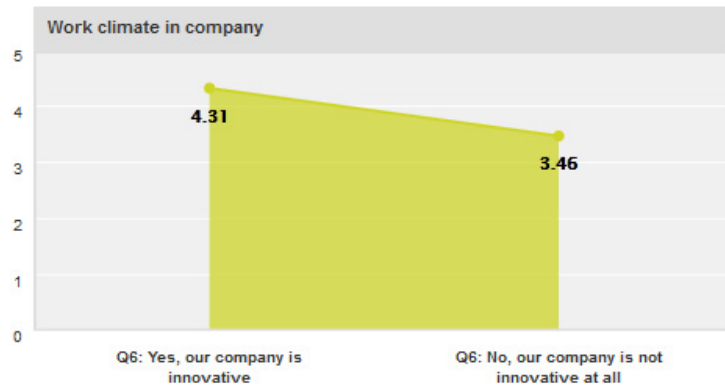


Fig. 10. Relevance of work climate for innovations, innovative companies vs. non-innovative firms Survey 2013

6. Conclusion

Innovations are substantial for the economic performance of SMEs in the Baltic Sea Region. Innovative companies expressed a lack of qualified workforce and better educated managers as the major bottlenecks to exploit the full potential of innovations, while non-innovative companies consider financial support slightly more important. The higher the level of innovation, the more the companies are interested in soft innovations like process or organisational innovations. These organisational innovations have the biggest potential since they can help any business, independent from its sector. Already well advanced companies from countries like Sweden or Denmark have biggest interest in the so called soft-innovations.

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