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The road ahead for research on Strategic Foresight: Insights from the 1st European Conference on Strategic Foresight

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Abstract: Multinational companies are increasingly exploring new methods and tools to identify disruptions in the environment and are using this information for competitive advantage. The European Conference on Strategic Foresight is a forum of professionals for benchmarking and advancing Strategic Foresight practices.

This paper summarizes the results of the 1st European Conference on Strategic foresight held in December 2007 in Berlin, Germany. Three major outcomes can be highlighted: Firstly the participants proposed a mission, goals and a modus operati for future conferences. Secondly they identified 'barriers' and 'promotion mechanisms' for Corporate Foresight. And thirdly the practitioners identified 8 topics for further advancement of Corporate Foresight practices and they can be used by researchers to direct and focus their research activities.

Keywords: strategic foresight, consumer foresight, technology foresight, technology intelligence, market foresight, trend analysis, future studies, future analysis.

1 Introduction

As new technologies, new services and new consumer trends emerged, companies in many industries have to watch their profits erode and their entire business models become threatened [1]. In order to identify early disruptions in the environment [2] and to use this information for competitive advantage, companies are developing new methods and management tools [3]. These have become known as Strategic Foresight capabilities. They aim at creating an early-warning system for disruptions and a consistent forward view for their business environment [4].

The European Conference on Strategic Foresight was founded as a platform for Strategic Foresight professionals. The aim is to establish a community of practice that advances both the methods and tools and their implementation. The first conference was

held in December 2007 in Berlin, Germany with the participation of 12 multinational companies as well as selected academics. The conference was structured as 6 company presentations, 1 academic presentation and 2 workshop sessions. In addition a brown paper was used to capture important topics throughout the conference. Participants had the opportunity to propose such topics and rate their relevance.

This paper summarises the discussion in the workshops and presents the results that have been captured on flip charts and the brown paper. The paper addresses both Strategic Foresight practitioners and scholars. Of most use for practitioners is the section 2 where barriers and promotion mechanisms for Strategic Foresight are discussed. In section 3 and 4 scholars will find research topics and a roadmap for research in the field of 'innovation agility' of which Strategic Foresight represents one part. Also mostly of interest to Strategic Foresight professionals is section 5 where we discuss – based on the suggestions captured within the conference – the future of the European Conference on Strategic Foresight.

2 Barriers and promotion mechanisms

Corporate Strategic Foresight today is characterized by a large gap between its perceived importance and its role within the strategic and innovation management [5]. In order to identify reasons for the lack of usage of Strategic Foresight tools and to identify ideas on how to increase its implementation, we dedicated the first workshop to barriers and promotion mechanisms.

The workshop was organized as a collective brainstorming session which was captured on flip charts and a subsequent discussion of the identified barriers and promotion mechanisms. After the conference we classified both into the categories cultural, institutional and operational aspects, following the classification of Cyert and Goodman, which was introduced for university-industry collaboration barriers [6]. The classification seems useful to better match the barriers and the promotion mechanisms.

Barriers

In total 9 barriers have been identified from which 2 have been classified as cultural, 5 as institutional and 2 as operational (see table 1).

The cultural barriers *Top management not serious about using future insights* and '*No inclination/motivation to think about the future'* imply that managers today are neither externally nor intrinsically motivated to think about the future. In the workshop, this was contributed partly to existing budgeting and reward systems (see also institutional barriers), and partly to corporate culture.

The institutional barriers reflect limitations in controlling practices (*Current controlling systems*), reward systems (*No incentive to think about the future*) and career systems (*Reward and career system that is hostile to foresight*). In the discussion it was emphasized that the career and reward systems that are based on team and budget size are hostile to corporate flexibility and therefore also hostile to foresight. A team leader whose activity would become obsolete or might be subject to downsizing will gladly ignore or discourage foresight activities in order to keep his entire team and maintain his career level.

Similar reactions can be expected when new opportunities are identified through foresight as the new business creation typically means a redistribution of the available resources, i.e. the downsizing of current activities. In this case the current business leaders will be more inclined to prevent the opportunity than to embrace it and will be again rather hostile to foresight.

Table 1 Barriers of Strategic Foresight

Cultural barriers
Top management not serious about using future insights
No inclination/motivation to think about the future
Institutional barriers
Hierarchy prevents horizontal/ vertical dialogue
No incentive to think about the future
Reward and career system that is hostile to foresight (e.g. Hay Consultants system)
Limited attention of internal stakeholders
Current controlling systems
Operational barriers
Frequent positions changes of supporting internal stakeholders (e.g. CEO, CFO)
Lack of resources

Source: Collected from participants in the workshop sessions.

The operational barriers *Frequent positions changes of supporting internal stakeholders* and *lack of resources* should in theory be the easiest to overcome. In practice the frequent position changes – especially in senior positions – have become reality in most industries and it is difficult to see a mechanism for overcoming these.

Promotion mechanisms

The first interesting aspect in the brainstorming session for promotion mechanisms is the absence of any mechanisms on the cultural level. In total 10 mechanisms have been identified of which 7 have been categorized on the institutional level and 3 on the operational level (see table 2).

On the institutional level the *design and use of a performance indicator* was discussed as a key element to further promote Strategic Foresight. It was regarded firstly as an essential element to argue for budget, secondly it is expected to make the value contribution of Strategic Foresight activities more transparent and, thirdly and maybe most importantly, it could make it possible to link "thinking about the future" to the reward system, both for the Strategic Foresight responsible and for the internal customers.

Along that line of argument the *performance indicator* would help to *change the reward system*, *make the CFO's strategist your ally*, (because its performance would be

measurable) and eventually enhance the success of a *changed budget system*. One participant even raised the idea of changing the management system from a budgeting system to a system based on roadmapping.

Promoting Strategic Foresight by making it a means to increase collaboration with external partners was also seen as an interesting possibility. The *involvement and integration of external partners* and *building of collaborative visions with engaged partners* was seen as especially successful if it was executed as a cross-industry exercise.

Table 2 Promotion mechanisms for Strategic Foresight

Institutional promotion mechanisms
Design and use a performance indicator
Make the CFO's strategists your ally
Involve and integrate with external partners
Build collaborative visions with engaged partners
Change reward systems
Change budget system
Propose SF methods to manage the company (e.g. Roadmapping)
Operational barriers
Use alternative formats for insight communication (podcasts, videos, …)
Bring top management to customer
Mirror organization against competitors

Source: Collected from participants in the workshop sessions.

On the operational level, three promotion mechanisms were identified: Firstly was the *use of alternative formats for insight communication*, such as podcasts and videos. Participants reported the successful use of podcasts to catch the CTOs attention for future topics. Secondly it was proposed to *confront top management with "real" customers* to give them the possibility to challenge their basic assumptions as well as their visions for the future. And thirdly, foresight initiatives were believed to be especially useful and well regarded if they are capable of *mirroring the organization against competitors*. It was suggested, that the best way to win over product management about foresight is to be able to present them insight about roadmaps or visions of their competitors.

3 Future topics for research

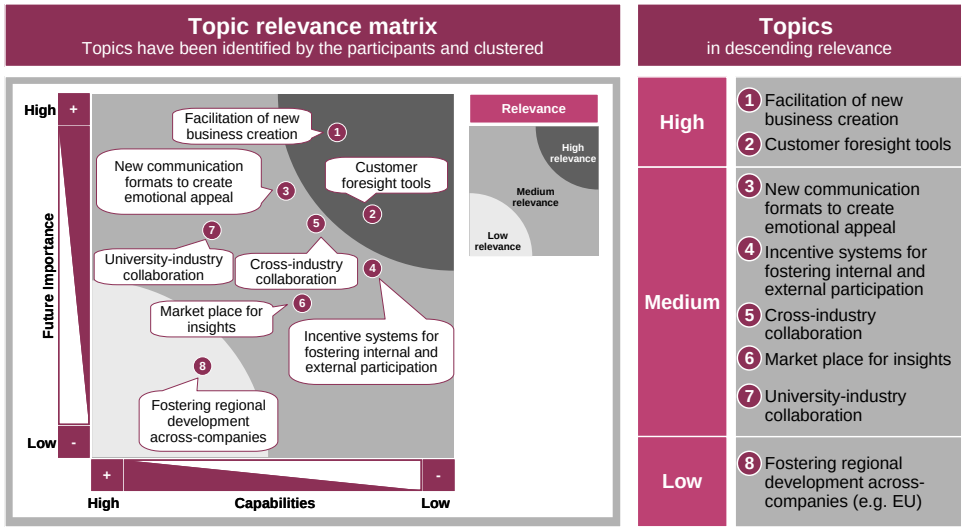
Topic relevance matrix

During the two-day conference the 12 participating companies also had the opportunity to propose topics that should be further researched and developed. These topics were written down and positioned on the *topic relevance matrix*. The matrix had two dimensions which were used to rate the topics: On the first axis the expected *future importance* of the topic and on the second axis today's *capability level*. The relevance for

future research and development is then derived through the positioning in the matrix, according to the rating on the axis.

In total 18 notes were collected and clustered, resulting in 8 topics. The clustering was done by integration of aspects which were addressing the same topic or closely related topics. The rating in the matrix was done by taking the average scores of the integrated notes. The result is depicted in figure 1.

Figure 1 Topic relevance matrix



Source: Collected throughout the conference and clustered by authors.

From the 8 topics 2 have been rated as high, 5 as medium and 1 as low relevance. Although the relevance rating should be considered with care because of the limited sample size the 8 identified topics are interesting leads for further research.

Particular interesting is that *facilitation of new business creation […by Strategic Foresight…]* was awarded such a high relevance. This could also indicate that spotting new opportunities is perceived as more important than the identification of threats.

The high rating of *customer foresight tools*, such as lead user studies, or socio-cultural trend, could suggest that technology foresight has been well developed and implemented and that now customer foresight is the major evolutionary step for most corporate foresight systems.

In the medium relevance range *new communication formats to create emotional appeal* and the *incentive systems for fostering internal and external participation* address the challenge to make more use of the insights gathered by foresight activities. All participating companies agreed that it is not the lack of good insight but the lack of insight usage that prevents "thinking about the future".

Topics 5 to 7 all address the same general theme of collaborative foresight. The integration of different actors in the insight identification, assessment and interpretation is believed to improve both reliability and credibility. Credibility – as it is perceived by the internal stakeholder – is believed to be another crucial factor for the impact of Strategic Foresight.

While most companies perceive their capability of interacting with university or industry partners as high, they still feel the need to keep improving. This is largely attributed to increased competition for the attention of universities, as an increasing number of companies are starting to recognize universities as a valuable source for future-oriented information. In that respect the *market place for insights* could offer some scalability for interaction effort while reducing the effort on the side of the sources.

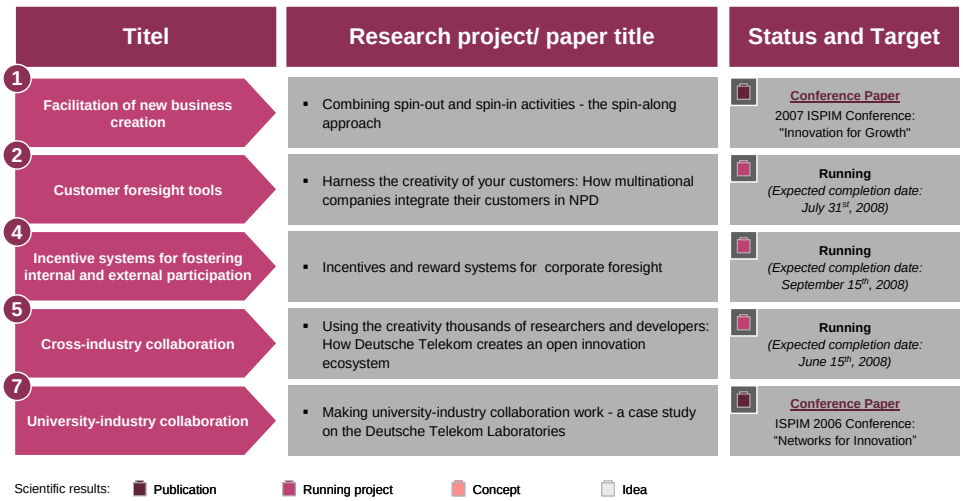
4 Ongoing and planned research activities

Research at the chair for Innovation and Technology Management

Concerning the above identified topics for further research we would like to point out some completed and ongoing research activities at our chair for Innovation and Technology Management of the Technische Universität Berlin (see figure 2).

Concerning the facilitation of new business creation a recent publication compared the spin-out activities of Cisco and Deutsche Telekom. The focus of this paper was to compare the so-called *spin-along activities* of the two companies. In the so-called spin-along a research project is commercialized as a spin-out but monitored closely by the parental company. It is then spun back in if the company is successful and if their product has a good fit with the product portfolio of the parental company [7].

Figure 2 Research in identified topics



Source: Own figure based on topic relevance matrix and research projects at the chair of Innovation and Technology Management of the Technische Universität Berlin

Another completed research activity – in the field of *University-Industry Collaboration* – analysed University-Industry Research Center (UIRC). This research was aimed at identifying mechanisms used by UIRC to enhance the collaborations between industry and universities compared to traditional project-based or contractual collaborations. For

this a case study was conducted on Deutsche Telekom Laboratories, an institute consisting of 4 University Chairs 70-plus researchers, 30 Deutsche Telekom employees and another 200-plus researchers staffed on demand on the development projects [8].

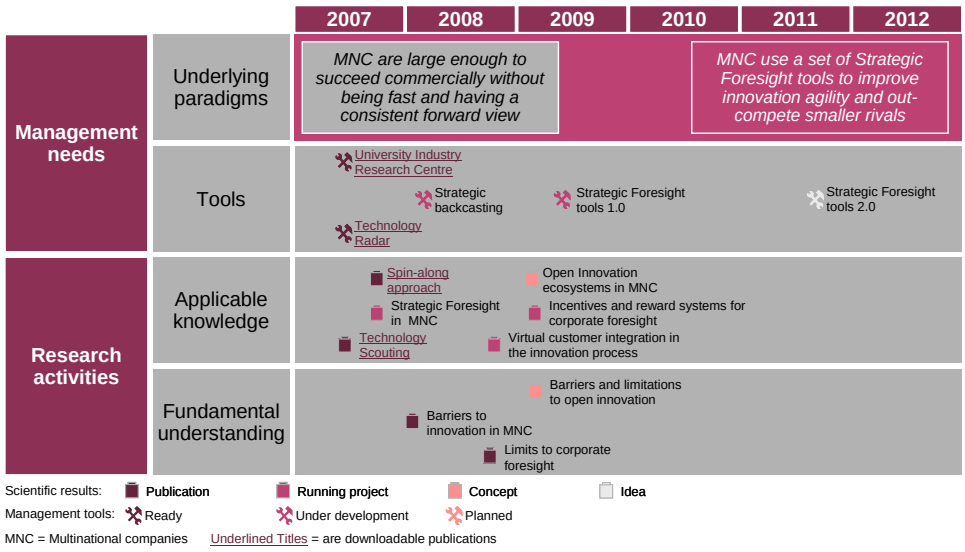
In the fields of *customer foresight tools*, *incentive systems for fostering internal and external participation* and *cross-industry collaboration* research activities are running that should be completed prior to the next European Conference on Strategic Foresight.

Research roadmap for innovation agility

Strategic Foresight also strongly relates to the concept of innovation agility, which aims at increasing the capability of large multinational companies (MNC) to successfully compete against smaller rivals, who are faster and more flexible. In this concept Strategic Foresight tools contribute to agility by gathering information, directly triggering new business creation and facilitating open innovation.

Figure 3 shows a draft for a research roadmap for Strategic Foresight within the concept of innovation agility. The roadmap is proposed as a means to coordinate *management needs* for new tools with *research activities* in Strategic Foresight research. These two perspectives are subdivided into two levels which are differentiated in terms of impact.

Figure 3 Research Roadmap for innovation agility



Source: Own figure

The perspective of management needs is dominated by the need for *tools*, which yield a competitive advantage. Eventually research and the implementation of new management tools might also lead to a *paradigm change*. In our case we believe that the advances in Strategic Foresight in combination with new business creation and open innovation could enable large companies to compete with the innovation agility of smaller rivals. Today large companies believe they can succeed without being fast or having a consistent forward view.

Within the research activities we differentiate applicable knowledge and fundamental understanding. We believe that management research can lead to *applicable knowledge* by studying companies and deriving best practices or by reflecting their management techniques in the context of other industries. This would be the direct path from research to management-tool development, where case-study research is a prominent research method. The indirect way starts with researching to create *fundamental understanding* of certain phenomenon. Such research is based on methods such as laboratory experiments, large-scale quantitative research and multivariate statistical analysis. Such research results have then typically to be transferred through research on applicable knowledge in order to be applied in management practice.

Both types of research should aim ultimately to help managers run their companies better and more successfully. Therefore the roadmap is used to synchronize the research efforts and management needs. The roadmap implies coordination across the different levels.

5 The road ahead for the European Conference on Strategic Foresight

Towards the end of the conference the participants discussed the future of the European Conference on Strategic Foresight. The results are summarized in figure 4.

Figure 4 Suggestions for further development of the European Conference on Strategic Foresight

Source: Collected and clustered from participants in the closing session of the conference

The major outcome was the request to keep the conference as a *platform* for exchange among Strategic Foresight professionals and not broaden the scope towards including an equal number of academics. It was also encouraged to use the conference to start a *community of practice* on strategic foresight.

In addition the participants proposed 7 concrete *goals* that should guide the efforts of the community of practice and the annual European Conferences on Strategic Foresight:

- *Identify and develop collaborative foresight tools* in order to facilitate the cross-industry collaboration and the university-industry collaboration. Such tools could also include IT platforms that can be used as market places for insights into the future.
- *Foster a foresight-friendly culture and engage people to think about the future.*
- *Identify and develop centralized foresight tools* which facilitate strategic discussions with multiple internal stakeholders, which allow the collaborative assessment and interpretation of insights and blends in the knowledge management of the company.
- *Influence education of young people to include foresight, innovation and entrepreneurship topics.* The participants felt the need to push for an integration of foresight, innovation management and entrepreneurship topics in university curricula. Such an initiative that should be supported is the development of a European Master Program on the topics Foresight, Creativity, Entrepreneurship and Innovation Management[1].
- *Increase usage of sophisticated tools in companies* by increasing the knowledge base and sharing experience on successful implementation of such methods.
- *Increase the scanning reach of foresight in companies* by sharing experience on efficient sourcing of information and effective communication methods for internal dissemination of insights.
- *Identify mechanisms to persuade management to identify and challenge the basic assumptions in their work* by using provocative communication tools as well as databases with predictions on the development of different trends that might challenge these assumptions.

6 Conclusion

This paper aims at summarizing the results of the 1st European Conference on Strategic Foresight. In conclusion the conference can be judged as successful in three ways: Firstly it established a mission, goals and a modus operati for the future exchange and collaborative learning among Strategic Foresight professionals. Secondly it identified 'barriers' and 'promotion mechanisms' for Corporate Foresight. And thirdly, it gave directions to scholars in the field of Strategic Foresight by providing a list of 8 relevant research topics.

We hope that these three results will contribute to advancing the field of Strategic Foresight in practice and in research.

[1] This Masters program is developed jointly by the University of Potsdam, Chair of Prof. Dr. Guido Reger, University of Malta, University of Teesside, UK, and the University of Turku, Finland

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8 References and Notes

1. Christensen, C.M. and M. Overdorf (2000) *Meeting the challenge of disruptive change*, Harvard Business Review, Vol. 78, No. 2, pp. 66-76.
2. Day, G.S. and P.J.H. Schoemaker (2005) *Scanning the periphery*, Harvard Business Review, Vol. 83, No. 11, pp. 135-148.
3. Schwarz, J.O. *Assessing the future of futures studies in management*, Futures, Vol. In Press, Corrected Proof, No., pp. 10.
4. Slaughter, R. (2004) *Futures beyond dystopia: creating social foresight*, London ; New York: RoutledgeFalmer.
5. Krystek, U. (2007) *Strategische Frühaufklärung*, Zeitschrift für Controlling & Management, Vol. 2007, No. Sonderheft 2, pp. 50-58.
6. Cyert, R.M. and P.S. Goodman (1997) *Creating effective university-industry alliances: An organizational learning perspective*, Organizational Dynamics, Vol. 25, No. 4, pp. 45-57.
7. Rohrbeck, R., M. Döhler, and H.M. Arnold (2007) *Combining spin-out and spin-in activities – the spin-along approach, ISPIM 2007 Conference: "Innovation for Growth: The Challenges for East & West"*, Warsaw, Poland: International Society for Professional Innovation Management (ISPIM).
8. Rohrbeck, R. and H.M. Arnold (2006) *Making university-industry collaboration work – a case study on the Deutsche Telekom Laboratories contrasted with findings in literature, ISPIM 2006 Conference: "Networks for Innovation"*, Athens, Greece: International Society for Professional Innovation Management (ISPIM).