Experiences and practices of Technology Foresight in the European Region

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1 Introduction

The evolution of foresight since its inception in the Nineties is a success story in terms of the prominence the approach has acquired as a process to support forward-looking opinion formation in society and support tool for policy-making. However, in spite of this apparent success, the perspectives for the future are unclear. The notion of “hype-disappointment cycles”, which has been developed to describe the patterns of attention paid to new emerging technologies, seems to be applicable to foresight, too: initial enthusiasm has given way to a significant deal of scepticism and more recently to a more realistic assessment of the strengths and the weaknesses of foresight-type of approaches.

When using the term foresight, we refer to forward-looking exercises that apply a time horizon that looks well beyond current day-to-day decision-making concerns and uses a consultative and/or participatory approach to generate insights on future challenges, visions and/or directions of change, with the aim to inform decision-making processes in society, either in general terms of open debates or more specifically in support of concrete issues that are up for decisions.

In this short paper, first some recent trends in conceiving of and implementing foresight will be sketched. Then, by looking at the specific case of innovation policy, it will be shown how dependent the role and the impact of foresight are on the policy context in which it is embedded. These two building blocks serve as the background against which some recent attempts to study the impact of foresight exercises will be discussed, with the aim to extract critical issues in relation to the actual or missing impact of foresight. On that basis some more speculative arguments will be formulated regarding future directions foresight could take.

2 From Technology Foresight to integrated policy strategies

In the last decades there has been a shift in approaches to innovation processes and RTI-policies, which was associated by a shift in the conceptual understanding of policy processes. Taking into account insights from strategic planning and complex social systems thinking, recent developments in policy-making processes go beyond earlier linear and cycle models and stress interactivity, learning, and the decentralised and networked character of political decision-making and implementation.

As part of this debate, it has been recognised that the effectiveness of policy depends also on the involvement of a broader range of actors than those formally in charge of policy decisions. Distributed policy-making/intelligence (Kuhlmann et al. 2001) aims at drawing extensively on the knowledge, experience and competence of the different stakeholders concerned.
The aforementioned shift in the conceiving of policy-making processes is reflected in shifts in the practices of foresight. First of all, it has moved away from a forecasting-type focus on science and technology to an incorporation of first market and then also increasingly social considerations. Historically this trend is linked to the adoption of the term ‘technology foresight’ as distinct from ‘technology forecasting’ and the like. As a second important trend, foresight has become an increasingly participatory activity. Initially, foresight activities were mainly based on S&T expert opinion, but in line with the broadening of the scope of foresight, the notion of expert has undergone a re-definition.

Thirdly, we can today see a strong emphasis on and belief in the contribution of foresight activities to shaping rather than predicting and controlling the future (in contrast to the Delphi exercises in the 70s and 80s and the critical technology studies conducted in the US, in France and the Netherlands). Subsequently, new forms of Delphi have been developed that do not strive to achieve consensus on future forecasts, but rather to map diversity of opinion.

Today, by bringing together in a foresight process not only experts, but in particular also decision-makers from research, industry, policy-making and society, a shared understanding of current problems, goals and development options is expected to emerge among those actors that have an important role to play in shaping the future. This converging understanding of the issues at play is expected to contribute to improving implicitly the coherence of the distributed decisions of these actors, in line with the shared mental framework developed. In other words, it is expected that the future be shaped by aligning expectations and thus “creating” a self-fulfilling prophecy. These so-called “process outputs” are often regarded as more important than the actual “substantive outputs” like reports and websites. Also those countries that until the Nineties were strongly advocating Delphi approaches to support their research and technology policies have in the meantime recurred to complementing them by other, more participatory exercises like for instance the German Futur process or the French Futuris example.

Finally, and most recently, we can observe an increasing interest in foresight activities that aim at supporting strategy formation both at collective level and at the level of individual organisations (e.g. “Adaptive Foresight” Eriksson/Weber 2007, “Sustainability Foresight” Truffer et al. 2007). This interest is fuelled by the recognition that there is a translation problem apparent in foresight approaches that predominantly rely on broad participatory processes, namely the translation of shared collective problem-perceptions, expectations and visions into concrete decisions of individual actors and organisations. From this perspective, Foresight can be interpreted as an integral element of networked and distributed political decision-making by providing three crucial functions, which – in line with the network-type distributed model of policy-making processes – are provided simultaneously rather than in distinct phases (Da Costa et al. 2007, Eriksson and Weber 2007):

- First, policy informing by generating consolidated findings concerning the dynamics of change, future challenges and options and transmitting it to policy-makers as an input into policy conceptualisation and design. This first function will always be an important incentive for policy-makers to initiate a foresight programme in the first place.
- Secondly, policy strategic counselling by transferring and translating the insights generated in the context of policy informing foresight activities for strategic decision-making by involving major stakeholders.
- Thirdly, policy facilitating by building a common awareness of current dynamics and future developments as well as new networks and visions among stakeholders.

Against this background, it is now possible to systematize the potential policy impacts of foresight, by drawing first of all on the three main functions of foresight in relation to policy-making processes, secondly on the range of

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1 We here have in mind the UK foresight tradition as begun by Martin and Irvine (1989). Today, of course, also earlier technology forecasting approaches like the large Delphi studies introduced in Japan in the early seventies and later on adopted by Germany and other countries are often subsumed under the ‘foresight’ heading. For our purposes, however, the distinction between foresight and forecasting is useful.
2 See, for instance, the pioneering work by Best and collaborators (1986).
3 Obviously, there are also certain types of foresight exercises that have a less pro-active intention by concentrating on the identification of future challenges and issues only rather than aiming at solutions.
impacts that have been assigned to foresight in the corresponding literature and thirdly on the time lag at which an impact occurs (Table 1):4

Table 1: A Framework to Classify Impacts of Foresight Activities

<table>
<thead>
<tr>
<th>Function</th>
<th>Time lag</th>
<th>Targeted and/or unintended impact</th>
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<tbody>
<tr>
<td>Informing</td>
<td>Immediate</td>
<td>• Increased recognition of topic area</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Awareness of science and technology among players, creating debate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Awareness of systemic character</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Training of participants in foresight matters</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• New combinations of experts and stakeholders, shared understanding (knowledge network)</td>
</tr>
<tr>
<td></td>
<td>Intermediate</td>
<td>• Articulation of joint visions of the future, establishing longer-term perspectives</td>
</tr>
<tr>
<td></td>
<td>Ultimate</td>
<td>• Integrate able new actors in the community</td>
</tr>
<tr>
<td>Counselling</td>
<td>Immediate</td>
<td>• Make hidden agendas and objectives explicit</td>
</tr>
<tr>
<td></td>
<td>Intermediate</td>
<td>• Formulation of recommendations and options for action</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Activate and support fast policy learning and policy unlearning processes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Identify hidden obstacles to the introduction of more informed, transparent, open participatory processes to governance</td>
</tr>
<tr>
<td></td>
<td>Ultimate</td>
<td>• Influence on research/policy agendas of actors, both public and private in public sector better documented in policy strategies, programmes, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Incorporate forward-looking elements in organisations’ internal procedures</td>
</tr>
<tr>
<td>Implementation</td>
<td>Immediate</td>
<td>• Effective actions taken</td>
</tr>
<tr>
<td></td>
<td>Intermediate</td>
<td>• Formation of action networks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Creation of follow-up activities</td>
</tr>
<tr>
<td></td>
<td>Ultimate</td>
<td>• Adoption of foresight contents in the research and teaching agenda of organisations (e.g. University of Malta) Foresight spin-off activities in various disciplines (see Malta)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Improvement of coherence of policies</td>
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<tr>
<td></td>
<td></td>
<td>• Cultural changes towards longer-term holistic and systemic thinking</td>
</tr>
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3 Innovation policy and foresight: the importance of horizontalisation and contextualisation

In the early years of foresight, i.e. early to late Nineties, foresight had a strong orientation towards scientific and technological developments. More recently, foresight has been applied in a much wider range of areas of potential interest to policy. Moreover, as revealed by EFNM, the results of foresight tend be of an increasingly cross-cutting nature and not restricted to the initial focal area (“horizontalisation”). For instance, issues like energy, transport and environment have become recurrent topics, even in foresight exercises that are not focusing on these matters. Innovation policy is a particularly interesting example area because it has equally

Innovation has become a horizontal, cross-cutting policy matter that affects many other policy areas, most notably energy, environment, transport, regional development, industrial change, health, education, and others. This implies that the requirements of these policy areas need to be taken into account in innovation policy and vice-versa. The growing inter-dependence of policy areas is one of the motivations for stressing the need for better policy coordination with respect to innovation-related issues. It also contributed to the emergence over the past two decades of a more “humble” perception of what policy-making can actually do and deliver: (i) policy-makers cannot be seen as perfectly informed social planners; (ii) the formation of policy strategies must be seen as a continuous, interactive learning process; iii) innovation policy foresight can clearly be interpreted as a coordination mechanisms that not only mediates between policy actors and different stakeholder communities, but also between different policy areas (and their respective stakeholders) affecting innovation and iv) foresight activities contribute to an infrastructure of distributed intelligence that is enabling the whole system to better address future challenges. It is reckoned that foresight actors develop a stronger inclination towards long-term strategic thinking and better access to relevant knowledge for developing

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4 See the study on methods and dimensions of impact assessment by Rhomberg et al. 2006 and in particular the still ongoing work on self-evaluation tools for foresight (ForSociety 2007).
their internal strategic planning. However, while these observations may serve to underpin the potential for synergies between innovation policy and foresight, the actual effectiveness of foresight depends to a significant extent on its neat embedding in the innovation system and innovation policy context ("contextualisation"). Subsequently, four important dimensions of this contextualisation shall be briefly discussed: governance culture, policy attention, socio-economic dynamics, and resource availability.

**Governance culture**
In countries that already have a set of elaborated innovation policies in place, these tend to be underpinned by a whole set of strategic intelligence instruments, ranging for innovation research and monitoring to impact assessments and evaluations. Within this portfolio, foresight often acquires a special role to inform debates, support strategy formation and guide the implementation of policies, but its influence on innovation policy depends on the role of the other instruments of innovation policy intelligence and learning. This kind of situation is characteristic of most Western European countries, where more or less differentiated governance mechanisms have been established to develop, monitor and re-orient government policies. In countries, where the innovation policy culture is less well developed, such as in most transition economies, in developing and/or industrialising countries, foresight as a participatory approach can be much more effective in contributing to the coordination of policies and actors, not the least due to the absence of other intelligence approaches. In these countries, it seems to have the potential to structure catching-up processes in assembling new actors, integrate them into a consensus-oriented dialogue and thereby effectively support policy-learning and unlearning processes. Moreover, it provides the ground for setting up and exploiting the potential of other intelligence approaches by contributing to the shaping of an innovation and strategy culture (Examples: CEEC, Malta, Latin America, some developing countries).

**Policy attention**
Still, the governance culture alone does not explain major differences in the effectiveness of foresight. In countries with a very developed innovation policy culture, the importance of foresight as compared to other instruments depends very much on the positioning and its support by high-ranking policy-makers. The British Mark I Foresight experience and its impact on agendas was not the least due to the high-level of policy attention it received, and to the close link to the responsible Minister’s office. In Sweden, the existence of a well developed range of other policy support mechanisms made foresight one instrument among others, and without priority given it left much less room for impact. The still ongoing innovation policy foresight by the City of Vienna is closely tied to a process of re-positioning its RTI-policy, even if this close link may not have been intended right from the outset.

**Socio-economic dynamics**
The timing of a foresight exercise is also very important for the contribution it can have to innovation policy. In countries that are facing major structural changes and expecting new developments to emerge in the coming years, the need for orientation and forward-looking information is much more pressing than in countries that are in a comparatively stable economic and social development phase. The transition economies in Central and Eastern Europe, but also many industrialising countries are examples in case.

**Resource availability**
Closely related to the dimension of socio-economic dynamics, the availability of resources and finance can reinforce the interest in and the impact of foresight. Economic standstill or even recession tends to lead to resistance to change and makes it very difficult to allocate resources to new future-oriented activities.

## 4 The impact of foresight on policy

The assessment of impacts of foresight must rely on a consolidated understanding of the policy processes it is embedded in, taking into consideration the three functions outlined above: policy informing, policy advising/counselling, and policy facilitating. However, the actual empirical basis on which to draw is rather scarce; there are only very few systematic evaluations of foresight exercises available.\(^5\)

\(^5\) In essence, the only evaluations available are those from the UK, from Sweden, from Malta and from Hungary, with the evaluation of the German Futur process not being publicly available (Cuhls & Georgiou 2004).
1. **Assessment of the Policy Informing Function**

Results of the foresight process constitute a “reservoir” of knowledge which is available for policy makers over the following years. They unevenly find their way as active inputs in the political discourse, either through personal networks or simply because there is a conclusive text available “off the shelf” when policies are being drafted (Georghiou et al., 2004. p5).

With respect to the policy informing function, the quality of the reports produced during the foresight exercise is crucial. To simply make a report of the unstructured musings of a panel is seen as very negative and significantly undermines the effects such reports can have in decision making processes. This is especially true, if the choice of the panel-participants, which consequently strongly determines outcomes, is neither transparent nor systematic. The information provided in the reports must not be perceived as party-political or partial either, as this clearly impairs the confidence in their quality. Instead, the trust in the quality of the reports (and thus their legitimacy as foundation for policy decision) increases if i) high-level independent experts are involved and carry the exercise (e.g. UK) and ii) the exercise is highly inclusive in terms of participation, which means that the knowledge of a large number of interested and informed people is tapped (e.g. Malta). In order to achieve this, foresight may need to be done in parallel at different levels, with different customers. (Arnold, Faugert et al., 2005. p33).

**eFORESEE in Malta**

In the assessment of the foresight exercise carried out in Malta in 2002-04 (Cassingena Harper and Georghiou, 2005), which was introduced into a political system undergoing fast pressures of change in the critical pre-accession phase, impacts that are particularly elaborated on are the ones related to the project *Malta’s Knowledge Futures in ICT and Education Pilot*. The main targeted output here was a vision of Malta in 2010. Furthermore, the pilot used five edged and well identifiable success criteria as objectives and measures of achievement.

In the domain of policy informing, objectives were develop high quality scenarios worthy of publication and the involvement of new actors beyond the established players in the field. Concerning policy counselling, objectives were to identify textual modifications or inputs in the National Development Plan, a specific reference and follow-up activities in the NDP, resulting from the foresight exercise. With respect to policy implementation, objectives were the development of action plans worthy of publication, bringing to the table in the form of a ‘core group’, the main high level visionaries and strategic planners in Malta, and the formation of new public-private partnerships that form to take action on business opportunities identified via this exercise. Analysis concludes that the objectives were met, the main policy development being the launch of an updated RTDI Strategy (2003-06) and its implementing tool, the RTDI programme. The foresight exercise was instrumental in identifying the key weaknesses in the national system of innovation which the RTDI programme was targeting in the following. (Cassingena Harper and Georghiou, 2005: 94ff)

2. **Assessment of the Policy Advisory/Strategic Counselling Function**

There are clear difficulties in assessing the policy advisory function, the most obvious of which is the time lag between the foresight exercise and the emergence of results in political decisions. The impacts of foresight activities on policy making are likely to occur and become visible only some time after the foresight process for several reasons: First, it takes time for the “reservoirs of knowledge” to be absorbed, so they shape decisions only after some time. Secondly, the negotiation and bargaining processes associated with policy formulation and interpretation also take their time and lead to a decelerated perception of actual foresight impacts (PREST 2006, p. 17). This holds for both the products and the process benefits of foresight.
The Second Foresight Round in the UK
The evaluation report of the UK Foresight round launched in 2002 (PREST, 2006, p17ff) found as immediate
effects the increased recognition / profile for the topic area, and new combinations of experts and stakeholders
brought together. Both may be attributed to the policy informing function.

Intermediate effects include i) the articulation of visions of the future, and ii) the formulation of recommendations
and options for action. These first two intermediate effects may be summarized under the policy advisory function
and were clearly achieved through the reports generated by the various projects launched in the course of the UK
foresight round 2002. A third intermediate effect is the formation of action networks, which already directs versus
policy implementation. However, evidence is less conclusive concerning the formation of action networks, which
seems to be highly dependable upon the sponsor agency and hence much more needs to be done to render
them self-sustaining. Ultimate effects include influence on research agendas of both public (the UK Research
Councils, UK government policy) and private actors (industry), and may be seen in the range policy counselling
and policy implementation. Effects in the public domain are evident in the stimulation of new areas of work within
existing programmes and fora, rather than the formulation of whole new programmes. Ultimate effects are a lot
more difficult to trace in the private sector, for once because the private sector features less prominently in the
current UK foresight round, and for second because foresight impacts in industry do not manifest themselves in
publicly accessible documentation. What remains is anecdotal evidence of participants from industry that
foresight activities are perceived as successful and interesting events.

The Second Technology Foresight Programme in Sweden (TF2)
In Sweden, the foresight process took place in 2002-04, it was evaluated by an international team in 2005. The
evaluation report (Arnold, Faugert et al., 2005) states that organisations (research organisations, consulting
agencies, foundations) appear to be the main winners and users of the results. There is little sign of direct
influence at the decision-making or political level (=policy counselling function). However, there has been a
considerable overlap between various undertakings in the domain of research and innovation policy: TF2, the
Research Bill and the national innovation strategy Innovativa Sverige (Arnold, Faugert et al., 2005, p23). In their
interviews, civil servants argued that the results of TF2 were not well marketed in the policy-making system, and
that the synthesis report was produced well after the "window of opportunity" to influence the Research Bill.
Concerning the policy informing function it was argued, that the synthesis report was perceived to be party-
political which undermined its credibility. (Arnold, Faugert et al., 2005, p28). The most obvious impact of TF2 was
a series of fora for young people to debate the future.

As an overall assessment of its impact, Foresight is a useful decision-preparatory tool, as suggested by its wide-
spread use across continents, as well as by theoretical considerations. Foresight can assist decision-makers in
tackling a number of complex challenges: it can reduce technological, economic or social uncertainties by identifying various futures and policy options, make better informed decisions by bringing together different communities of practice with their complementary knowledge and experience, obtain public support by improving transparency, and thus improve overall efficiency of public spending. However, network-building effects are at least as important as the actual results of the process. The added-value of foresight increases when it is possible to overcome traditional sectoral/disciplinary barriers and to succeed in engaging able new actors beyond the established and well-known players in the field. This forges novel linkages within the innovation system and increases the recognition of the foresight topic area among the various players.

The evaluation also indicate that there are a number of caveats that hamper foresight from being effective in exerting an influence on policy-making:

**Interested customers with absorptive capacity** are a crucial precondition if foresight is to affect policy. In Sweden, the foresight results seem to have difficulty to compete with the abundance of other reports, as civil servants do not have the resources to work themselves through quantities of reports. In the UK the responsible minister was personally involved, which provides a focus and a clear indication of priority and importance of the exercise, and is likely to increase time resources for civil servants devoted to the absorption of the results.

**Ownership of Results** The more path-breaking and revolutionary the results of the foresight process, the more likely their implementation interferes with the competences of several departments or even ministries. This seems often to be the reason why recommendations derived from the foresight process lack commitment to acting upon them. In Hungary, TEP produced a long list of recommendations, which are sparsely implemented. In Sweden, implications of the synthesis report were so wide-ranging that they were beyond the scope of individuals, units or even ministries.

### The Technology Foresight Programme in Hungary

The Hungarian Technology Foresight Programme (TEP) proceeded from 1997 to 2001, and was evaluated by an international panel in 2004 (Georghiou et al., 2004). It was the first experience of a full-scale national foresight activity in a transition economy. Central part of the evaluation was a survey which produced 62 responses. According to the survey respondents, the most important effects were mainly in the area of cultural changes – establishing longer-term perspectives and introducing greater interdisciplinarity were the effects which stood out most in their rating. Both effects may be interpreted as part of the policy informing function, the first effect also as part of the policy facilitating function. However, the effects achieved in terms of the original objectives were seen as quite weak, particularly influencing the research directions of industry or the public sector. It also had an effect on the climate of thought as it introduced longer-term holistic thinking in a period when the country was dominated by a short-term agenda (partly because of economic challenges but also as an opposition to the long-term planning in the political past). (Georghiou et al., 2004. p4ff)

With respect to policy counselling, effects of the Hungarian foresight on public policy are apparent now, but they took much longer than expected to materialise. The process behind this materialisation was a “slow and non-linear process” (Georghiou et al., 2004. p5). In various policy areas (e.g. Prime Minister’s office, transport policy, the national health programme, environmental policy, IT policy) do statements, recommendations, sometimes exact passages, reflect results from TEP. It seems that the reservoir of knowledge created by TEP unevenly entered the policy making processes, either through personal networks or simply because there was a conclusive text available when policies were being drafted. (Georghiou et al., 2004. p5)

### The Congruence of Actors in Foresight and Political Advice

The actors, individuals and groups, who inform and advice ministries in their decisions and priorities are often the same that take a lead part in the foresight processes. This makes it especially hard to judge the impact of the foresight activities, even if political programmes and resolutions obviously reflect foresight results. In the extreme, this leads to the conclusion of OST about the UK foresight activities that “in the absence of Foresight, some or all of the successful outcomes might very well have transpired in part or at a later date.” (Keenan 2001, cited in Arnold, Faugert et al., 2005, p40.)
5 Future directions for foresight

Different “generations” of foresight have evolved over the past decades, partly in parallel, and new developments in foresight are likely to emerge. Georghiou (2000) initially distinguished three generations of – a broadly conceived notion of - foresight (technology forecasts; technology and markets; technology, markets and the social dimensions), more recently pointing to the likely emergence of a fourth (“distributed foresight”) or even a fifth generation (“innovation foresight”).

In the light of the arguments raised in this paper, four different directions for the future of foresight can be outlined.

1. **Foresight as a sophisticated policy informing tool**
   A first variant reflects a comparatively conservative future of foresight, where foresight will be mainly restricted to underpinning the policy informing phase. Being of an exploratory nature, it serves the purpose of thinking ahead in order to be prepared for the unexpected. Participation could be more restricted to experts from a wide range of domains. The process would be less “political” than what could be observed in recent years.

   In terms of contextualisation, this model is based on the conviction that the political process should be clearly separated from the advisory foresight process, in response to the criticism that foresight undermines other constitutional channels of decision-making. Among other indications, the latest generation of British foresight seems to lend itself to such a stronger emphasis on the policy informing function, where much emphasis is put on the role of specialised expertise.

2. **Foresight as an integral part of policy processes**
   In this second model, foresight becomes an integral part of the policy-making process, fulfilling key roles with respect to informing, counselling and facilitating functions.

   In terms of contextualisation, the second model is driven by the need for forward-looking, strategic support in the policy-making process and the need for better coordination of distributed policy making, with foresight playing a major role in both respects. This is a model likely to emerge in those countries that already have a highly differentiated system of “policy intelligence” in place. Foresight could play a very prominent and visible role in such a context, e.g. by integrating explicitly different inputs into policy strategy formation, but longer-term, foresight-type approaches could equally turn into a standard element of reflexivity in decision-making processes, in permanent competition with other tools of policy intelligence.

   The “prominent” variant would imply that foresight not only is applied in individual policy areas and at individual policy levels (“operational foresight”), but fulfils at a second level also a cross-cutting, policy-coordinating or at least policy-orientating function (“meta-level foresight”), very much in line with the cross-cutting role of innovation policy (see Section 3). It is also compatible with a widespread involvement in and use of foresight by other actors in economy and society (“distributed foresight”). And finally, this interpretation of foresight would imply its widespread use in internal or closed settings of strategy formation of individual organisations in parallel with open participatory processes (“adaptive foresight”).

3. **Foresight as a pacemaker for building up reflexivity**
   In this third model, foresight acquires the role of a pacemaker for building up reflexivity in the policy-making system. As a first initiative of policy intelligence, it can serve several purposes simultaneously, ranging from the raising awareness and providing orientation to capacity-building for policy intelligence. It can thus serve as a precursor for the establishment of other institutions and instruments in support of reflexive policy-making. The participatory element of foresight seems to be particularly important in this respect.

   This model seems to be particularly suited for industrialising countries or - more generally speaking - for countries that are facing a phase of major change and where a differentiated system and culture of innovation policy intelligence has not yet been established.
Obviously, foresight has the potential to be highly relevant and influential in countries that are facing major changes and that do not have many alternative sources of policy intelligence available. This may also indicate that foresight could be particularly interesting as a tool to “pave the way” for building up a sophisticated system of policy intelligence around those issues that are perceived as crucial for a country’s future development path, i.e. industrial development policy in view of catching up and enhancing growth, innovation on the way towards a knowledge economy, etc.

4. Foresight as a tool for impact assessment

In line with more technocratic approaches for dealing with decision options, very much driven by the current hype of (ex-ante) impact assessment, especially in the European context, foresight would turn into an instrument for making impact assessments more “realistic” in the sense of accepting the inherent openness of the future and by stressing the qualitative nature of future changes and impacts.

This may not be the preferred model for foresight experts, but it is build on the assumption that the technocratic assessment culture that currently permeates public administration turns into the dominant mode of decision-making and decision support. Certain elements of foresight could still play a significant role in such a context, but the participatory and qualitative notions associated to foresight would probably have to be complemented by other methods (e.g. real options in the context of scenario development) that are more compatible with the prevailing policy assessment mode.

These four future directions of foresight are not mutually exclusive, but will depend on the respective context in which foresight shall be put to use. As such, they are not only meant as “food for thought” regarding foresight as such, but also as “food for thought” about the context in which it can be applied.
References


ForSociety (2007): Guidelines for Benchmarking Foresight Activities


