Barriers and levers to future exploration in practice experiences in policy-making

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ABSTRACT

In this paper the first findings of a retrospective scan of the use of future exploration methods in strategic policy-making processes in the public domain in the Netherlands and Belgium will be addressed. The barriers and leverage points as experienced by the policy-makers involved will be assessed from their perspective as end-users who have applied foresight methods in their policy-making activities. By means of four case studies, the success factors and barriers that policy-makers encounter as they apply future exploration methods will be elaborated on. Attention will be paid to the different motives and intentions employed when opting for future exploration methods. The case studies are based on policy document analyses and in-depth interviews with users in the policy domain, all conducted in view of building empirical evidence.

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1. Introduction

1.1. Context

"If long term scenario planning is to become an effective cornerstone of policy-making, more empirical evidence is needed to demonstrate that scenarios can deliver on their promises" [1].

To make a strong case for the added value of future exploration methods in strategic policy-making processes in the public domain, the field is currently still lacking sufficient empirical evidence. The general observation is that future exploration methods are still not used in an optimal way [1–6]. As van der Steen et al. [7] state: "Most future studies are not used by managers and strategists and do not influence the direction of organizational development. Although the contribution of future studies to management is in theory all but self-evident, the practice in organisations is that futures knowledge is hardly used, or at most, is used selectively and strategically (politically)."

In this paper the first findings will be addressed of a retrospective scan of the use of such methods in strategic policy-making processes in the public domain in the Netherlands and Belgium. Such methods are defined as allowing us to analyse what might happen in the future in a systematic way. The use of *foresight* methods will take centre stage. Foresight is seen as the attempt to explore alternative futures by taking into account uncertainties. Scenario analysis is a foresight method. Scenarios can be defined as stories on how the future might develop in a specific area of interest. As the future is fundamentally uncertain it is possible to conceive of several different futures which are equally plausible and all worth considering [8].

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1.2. Demand driven perspective leading

In this retrospective scan, a *demand-driven* approach will be followed. In other words, the perspective of the end-user – i.e. that of policy-makers who have applied foresight methods such as scenario analysis in policy-making – will take centre stage. As such, it will be the policy-makers' perceptions with regard to the use of foresight methods that will serve as a measure of added value as perceived by them. More attention ought to be paid to the user perspective in the public domain [1,9]. Generally speaking, more insights are required with regard to the way policy-makers use foresight methods, which success factors and bottlenecks they encounter in doing so and which added value they experience as a result.

The retrospective scan has been based on a literature scan and in-depth interviews. Policy-makers have been asked to reflect upon how they perceived the use of foresight methods. In our research, focus lies on the one hand on policy-makers working in governmental organisations who made use of future exploration methods for the first time, or on the other hand on those who had some years of experience in applying foresight methods.

The retrospective scan is part of a PhD research project focussed on the use of foresight methods by policy-makers. The results of the scan presented in this paper, are first results, which will be elaborated on in the coming two years. Although the empirical basis is still modest, the first findings can shed new light on the use of foresight methods and can prove a source of inspiration to new dialogues within the foresight research community.

2. Approach

2.1. Key research questions and demarcation of the retrospective scan

In this paper the following key research questions have been focussed upon:

1. What is the added value of using foresight methods in strategic policy processes according to policy-makers?
2. Which levers and barriers do policy-makers perceive in applying foresight methods in strategic policy processes?

Both research questions imply a clear demarcation of the analysis. The focus is on policy-making in the public domain, thereby excluding experiences in the domain of private business (see for example [3]). The perceptions and viewpoints of policy-makers (the official perspective) are at the centre of attention. The policy-maker, or cival servant, may be involved in the development phase of scenarios as well as the usage phase of a foresight study. Hence this actor plays a key role in the preparation of strategic policies. Focus lies on strategic policy processes which might result in either a policy agenda, a policy vision or strategies and which consist of different phases i.e. setting the agenda for policy-making, preparing policies, taking decisions, implementing and evaluating policies.

2.2. Case-based approach

Within this context, a case-based approach has been opted for to gain a deeper understanding of the key issues of the research questions. Four case studies focussing on different settings of strategic policy-making in the Netherlands and Belgium have been analysed. Each case revolves around experiences with applying foresight methods on regional and/or local policy levels (including municipalities and regional authorities). As such, strategic policy processes in the Dutch municipality of Overschie (a district of the municipality of Rotterdam), the Dutch province of Limburg and the province of Overijssel have been assessed. Furthermore, a strategic policy process in the context of rural policy development, coordinated by the Flemish Land Agency, has been assessed. Every case has been analysed by means of the analysis of strategic policy documents and in-depth interviews with the policy-makers involved.

The province of Limburg case concerns two foresight studies, a qualitative and a quantitative scenario study (see [10,11]), respectively developed for the first and second Limburg surroundings plan (covering a long term vision and strategies for the whole province of Limburg) (see [12,13]). The Flemish Land Agency concerns the development of qualitative scenarios as a building block for the first rural Flemish policy plan [14].

The Overschie case involves the development and use of a qualitative scenario analysis as a strategic building block for a new coalition program for the new governing board [15].

The case of the Trendbureau of Overijssel includes different foresight exercises for strategic policy processes of city councils and the provincial organisation itself, focussing on different policy themes.

Furthermore, in all four cases the scope of the analysis was the future of a territorial entity, including each and every of its functions. The time horizons employed all extended at least 10 years into the future (Table 1).

The researcher has been involved in two out of the four case studies. In the case of the Flemish Land Agency the researcher has trained the officials in the use of the method of scenario analysis. In the case of Overschie the researcher has facilitated the process of scenario development and the application and was one of the authors of the scenarios.

The document analysis has been focussed on those documents presenting the scenarios and strategic policy documents for which the foresight efforts were meant. The insights of screening the scenario documents and the policy documents were confronted with the insights of the interviews. Being aware of the potential bias of in-depth interviews (for example, a

Table 1
Characteristics of the case studies.

	1. Province of Limburg case	2. Trendbureau of Overijssel case	3. Flemish Land Agency case	4. The Overschie case
Strategic policy process	Surroundings plan	Diverse, on communal and provincial level	Developing first rural Flemish policy plan	Coalition program for Overschie
Motive	Underpinning policy agenda, vision and strategies	Diverse	Underpinning policy agenda, vision and strategies	Underpinning policy agenda, vision and strategies
Type of foresight	2 foresights: first qualitative second quantitative	Diverse qualitative foresights	A qualitative foresight	2 qualitative foresights
Focus analysis	Whole region 2030	Thematic Mostly 2030	Flemish rural area 2030	Overschie area 2025 2030
Empirical material	3 interviews document analysis	1 interview evaluation study [34] document analysis	2 interviews evaluation study and document analysis	6 interviews document analysis

retrospective attitude might enhance linearisation of a process that might have been messier), special attention was paid to the consistencies of the results of the document analyses and the in-depth interviews.

The in-depth interviews were structured according to an interview guide with open questions, to get a broader understanding of the following issues:

- Contextual variables (type and culture of organisation, experience with foresight, culture etc.)
- Motives behind using a foresight method (including type of strategic policy process)
- The use of the foresight (process steps, whom involved etc.)
- Experienced added value of foresight, in the light of the motive and strategic policy process
- Barriers and levers encountered by using foresight methods
- Potentials for improvement with regard to the use of foresight methods in strategic policy making processes

3. A closer look at the use of foresight methods in strategic policy-making

3.1. Experienced added value

With regard to the case studies a distinction can be made between content-driven and process-driven motives (see also the distinction between process-oriented and product-oriented development of scenarios [16]). In the case of content-driven ones, we distinguish between motives (see also [17–21]):

- to raise awareness: to gain a better understanding of the future of the issue at stake, the degrees of uncertainty involved, the coherence of future developments, the speed of change of developments etc.
- to set the agenda: to put (new) policy issues on the policy agenda
- to design policies: to build argumentation for a long term policy vision and policy strategies
- to innovate: gain inspiration for innovative policy visions and policy strategies
- to test policies: to gain insight into how futureproof and future-oriented policies really are
- to evaluate: to identify signposts to be monitored in order to learn whether assumptions of policies develop in accordance with the supposed direction and velocity of change.

These content-driven motives may be interwoven in chronological order, taking different phases of strategic policy-making processes into account. Raising awareness and setting the agenda are motives related to the agendasetting phase of the policy cycle. Designing (innovative) policies and testing policies are motives related to the policy preparation phase and evaluating and monitoring with the aid of scenarios are motives related to the implementation and evaluation phase.

In case the main motive behind the use of future exploration methods is not necessarily a concrete policy end-product (such as an agenda, vision or strategy), the emphasis is on process-driven motives. Examples include the motive to stimulate interdepartmental dialogue, to tear down mental barriers, to gain support for ideas and policies, to develop a common cognitive frame of reference (a common ground of understanding) (see also [17,22]). Finally, all motives are about learning about the future, on an individual and a group level [23,24].

In this research an attempt was made to explore the experienced added value of the foresight method. In case the motives at the start of the foresight exercise and the experienced added value afterwards are compared, the following conclusions can be drawn (Table 2).

The added value of using the foresight method as experienced by the policy-makers involved in the case studies, manifests itself in mostly process-related forms of impact. Although motives to pursue a foresight trajectory were of a content-driven nature in all case studies, the main added value of using its methods was characterised as process-related. Policy-makers indicated for example that they perceived the intersectoral way of working as one of the main process-related

Table 2
Motives and added value experienced in case studies.

	Motive	Experienced added value
1. Province of Limburg	Underpinning policy agenda, vision and strategies	Awareness raising, agendasetting, intersectoral dialogue
2. Trendbureau of Overijssel	Diverse	Awareness raising, agendasetting Thinking outside – in, mind-stretching
3. Flemish Land Agency	Underpinning policy agenda, vision and strategies	Mind stretching, intersectoral dialogue
4. Overschie	Underpinning policy agenda, vision and strategies	Sharing perspectives on the future, creating common ground of understanding

benefits of using foresight methods gained. It appears that an intersectoral way of working is unlikely to be taken for granted within a governmental organisation. In the case studies at hand, intersectoral working groups discussed possible future developments and their potential impacts on the issues at stake. These working sessions have been experienced as mutual learning processes, allowing participants to gain a better understanding of each other's perspectives on the future, laying a common basis for policies to be developed. In other words, the spinoff of the foresight exercise was the creation of a common ground of understanding.

Nevertheless, content-related benefits have also been voiced. Policy-makers indicated that foresight methods stimulate the user to take future developments and changes into account in a *structured* way. In case these kinds of methods are not used and strategic policies need to be developed, future-related assumptions are made in an intuitive and rather opaque way. Consequently, all too often they are merely based on personal assumptions. Through the use of more systematic methods, policy-makers are forced to be transparent about assumptions underlying their policies, to consider all relevant factors or developments rather than to leave them out. Foresight methods are felt to stimulate the user to develop strategic policies in a more *rational* way. In two cases it came to the fore that the foresight exercise brought new insights to the fore, new perspectives on societal issues, mainly in terms of awareness raising. In two cases it was stressed that the participants in the foresight exercise were not only stimulated to reason in terms of future threats, but also in terms of new opportunities.

Especially learning to reason in terms of alternative futures, was experienced as an eyeopener when it comes to foresight methods. Some policy-makers experienced a tendency, for example of politicians, to choose between alternative futures when underpinning or developing policies, in terms of most likely scenario. The idea of taking all the alternatives into account whilst underpinning or developing policies has been experienced as a new way of thinking in most organisations involved in the case studies.

Finally in all case studies the policy-makers indicated that future exploration methods have been used in a suboptimal fashion. In retrospect, they felt that insights of future analyses could find a better embedding and stronger interweaving with ongoing processes of policy development. For example, the coupling of insights of a future analysis to the development of a policy vision and strategies has been perceived as a sluggish step in three cases. Scenarios are also meant to use as test tunneling tools for strategies, to test robustness and flexibility of strategies. This application has not been touched upon in the case studies, because of a lack of time or a lack of skills to do so. In the strategic policy documents we discovered that this coupling between the scenarios and the strategies is also (partly) lacking. It is not transparent how the insights of the foresight study have been taken into account in the policy analyses. It is also remarkable that impacts with regard to policy innovation have not been mentioned. In other words, in the case-studies the potential added value of foresight studies for policy innovation has not been perceived (see also the conclusion of Schoonenboom [25]).

3.2. Levers and barriers

We tried to explore why foresight methods are being used in a suboptimal fashion by exploring which levers and barriers were encountered by policy-makers who were involved in the in-depth interviews.

3.2.1. Knowledge and skills in the organisation

The experience of the policy-makers involved in the retrospective scan is that in case the decision has been made to perform a future exploration analysis, it is a big step to start the foresight method in case the organisation lacks experience in doing so. In case knowledge about foresight methods and/or information about future developments, and/or skills in performing foresight studies were lacking in the organisation, external assistance had been hired in.

In case of lacking knowledge policy-makers brought to the fore that the challenge is to know *which types of foresight methods* are appropriate and sufficiently tailored to the needs of the strategic policy process. For example Hines and Bishop [20] describe different foresight methods, making a difference between quantitative or qualitatives foresight methods. Policy-makers who are unexperienced in using foresight methods, might find it difficult to decide whether to develop/use quantitative or qualitative scenarios. Clear guidelines, which take the dynamics of the policy landscape and different stages of strategic policy processes into account, are still lacking.

In case an organisation had already some experience, it seems that the decision which method/technique to use, is based on different arguments and experiences in the past. The province of Limburg decided to develop qualitative scenarios for

their first surroundings plan. For the second surroundings plan, it was decided to develop quantitative scenarios. This decision was made because of a lack of support for the qualitative scenarios, among others on the political level. Support was lacking because the added value of a foresight study was not clear for the policy-makers and the political level, also because the foresight method was new and unknown within the organisation. Furthermore, trust in the qualitative scenarios was lacking, because quantitative underpinning was lacking. The document analysis also illustrated that normative elements, strategies at the provincial level were implemented in the qualitative scenarios. Because of these normative elements, the concrete added value of the scenarios for the purpose of visioning and strategy development was not clear to the users. The development of a quantitative study in the context of the second surroundings plan, making use of a existing national framework for the scenarios (see the foresight of Centraal Planbureau, Milieu en Natuurplanbureau and Ruimtelijk Planbureau [26]) led to increased support and trust in the foresight activities, because of the feeling that developments had been underpinned in a more thorough way.

Another challenge according to the policy-makers is to know *which information sources* to use for developing the scenarios themselves. Some policy-makers found it difficult to assess the quality of the sources of information on future developments at their disposal. Especially when policy-makers are confronted with several sources of information that are contradictory when it comes to the future developments they describe, it might be difficult for them to decide which sources to use and in which way. Among them, some discovered that these contradictions were partly the result of different assumptions underlying prognostic simulations. At the same time, such simulations and models are generally perceived as black boxes by policy-makers.

In case existing foresight studies are available, for example futures studies focussed on a national scale, developed by other organisations, a question policy-makers might struggle with is whether these studies are useful for a futures analysis at a lower scale such as the regional or the local level. The province of Limburg decided to use the framework of national scenarios for their provincial ones, which resulted in discussions with regard to (model) assumptions that were not tailored to the provincial situation. The motives behind using existing national scenarios were related to status (including that of the institutes that developed the scenarios) and the reliability of the scenarios.

Furthermore, designing and facilitating a process of scenario development and usage requires skills of people, skills that were lacking at the moment that the respective organisations decided to perform a foresight study for the first time. These skills are related to communicating the idea and added value of the foresight method for strategic policy-making and the results of the foresight study. Skills are also related to the facilitation of the process of gaining support of policy-makers and politicians for the method and the results of the foresight.

Thus, external expertise has been brought in. Yet the perception was that next to the external assistance, policy-makers themselves should also be able to implement and communicate the foresight method and insights. In all case studies external organisations specialised in foresight assisted in *developing and/or applying* the future analysis, by introducing the theoretical background of the method and/or by delivering content for the foresight analysis. One of the lessons learnt with respect to external assistance was that ownership of the forecasts or the scenarios in some cases came to be under pressure. Policy-makers indicated that they consider it important to remain in control, in the director's seat during the development (and the use) of the forecasting or foresight analysis. In case this happens too late, internal support decreases and policy-makers and politicians will not experience the added value of the scenario analysis. Some policy-makers indicated in the interviews that it is important to be involved in the foresight method to experience the added value of the foresight. This implies that extra attention should be paid to the communication of a foresight study to policy-makers and politicians who have not been involved in the study.

With regard to skills, one policy-maker suggested that the young generation of policy-makers and politicians show more affinity to futures thinking compared to the older generation. In academic literature no concrete arguments have been found for this statement so far. However, the hypothesis is interesting and could be elaborated on in future research.

3.2.2. Timing of the foresight

The policy-makers involved consider timing of a future study to be a crucial success factor when it comes to making optimal use of its results. The optimal timing is related to the motive of *using* a future study. In case the motive of using a foresight method is to increase awareness about the future and to inspire agendasetting, the timing of using the forecast or the scenarios will be different in comparison with a situation in which the motive is to test policies by means of scenarios (the latter will take place during a later stage of the policy process). In one of the case studies a policy-maker said: "future studies should match with the biological rhythm of strategic policy processes in local and regional policy contexts".

As in the analysis of STSO [6] was highlighted, foresight studies could be better used in practice in case they are coupled with policyprojects and are not performed on their own. In the analysis of factors that stimulate or restrain the process in the context of Dutch national policy-making as introduced by Dammers [4] the importance of the timing of the exploration process was also stressed.

In all case studies, policy-makers indicated that the *development* of the future study took more time than initially expected. The development phase would already lead to discussion and more time would be needed to gain support for the study and commitment with policy-makers (and politicians). Because of this slowdown (drag effect), less time was available in the end *to actually use* the foresight study for the goal for which it was intended. Policy-makers perceived this slowdown effect as a disappointment, considering the widely held belief that future exploration methods are instruments to increase the quality of strategic policies.

In two case studies policy-makers brought to the fore that the future exploration study presented some unexpected and confrontating conclusions especially for politicians. In some cases, future developments were at daggers drawn with the assumptions of policies that were partly implemented already. In case of the timing of a future analysis barely foregoing elections, these kinds of messages can lead to conflicting signals and consequently cause delays in the roll-out of the future exploration process.

3.2.3. Organisational embedding

In the case studies, policy-makers concluded that one of the key challenges is to find ways – in terms of working models and procedures – to embed and secure a strategic way of thinking and the insights generated by future analyses throughout the various strategic levels of their organisation. Throughout the case studies, it can be clearly noted that policy-makers struggle with implementing future-oriented thinking and acting in the current organisational structures surrounding them. The foresight studies in the case studies were focussed on rather broad issues (focussing on a territorial entity such as a whole city or region, including an analysis of all the functions of these entities). People were aware of the importance of working in an integrated way in the context of the development and the use of the future analysis focussed on such a broad scope. However, they also experienced that this ambition could be in conflict with existing organisational structures that are often sectorally organised. The organigrams of all of the governmental organisations involved, showed an organisation of sectoral policy departments. Where the future analysis had a broader scope, policy-makers indicated that an integrated way of working is welcome, yet also that it is often difficult to operationalise this within a sectoralised structure.

The study by Habegger [27] was focussed on the experiences on the national public policy making level in the UK, Singapore and the Netherlands. One of the conclusions was also that foresight that intends to cut across policy areas is challenged by the difficulties of hard-wiring different government agencies. Individual departments are usually protective of their own areas of responsibility and even if an enthusiastic minister sponsors a futures project, it may not get support from colleagues elsewhere. Cross-cutting foresight must therefore strive to find the right balance between centralisation in terms of methodical and procedural support and decentralisation with respect to the topical expertise that is to be found in a variety of competent bodies across government.

Another notion relates to the tension between outsourcing future studies and the organisational embedding, as mentioned on forehand. According to Höjer et al. [28] and others scenario work is often subcontracted, leading to a constant lack of futures studies competence and thinking at the authorities. In the analysis of STSO [6] the situation has been described that in most organisations decision-makers and politicians are not involved in the foresight study, so future related knowledge will not inbed in the organisation. After finishing a foresight study, a lot of future explorers disappear and are not represented in the next strategic policy process.

Some policy-makers brought to the fore that it is a search – when using foresight methods for the first time – how the method of foresight relates to other methods that are being used in strategic policy making, such as SWOT-analyses, benchmarks, trendanalyses and sectoral prognoses. A leverage point in using foresight methods is about a complementary use of these kind of strategic methods and tools: when policy-makers and politicians understand how these methods and tools are related to each other, the outcomes will also be used in a complementary way.

Standardising of future thinking in strategic policy trajectories is a challenge for local governments. Standardising is about adjusting working models and procedures. According to two policy-makers, the introduction of future oriented paragraphs in policy documents could be a promising procedure on the operational level. In these paragraphs the degree of future orientation and future robustness should be argued. In addition to this, the importance was highlighted to incorporate future-related insights directly within concrete policy products, such as policy visions, policy plans, including strategies and budgets. When and how these insights are to be incorporated depends on the motive to carry out future exploration analyses.

Furthermore, according to the interviewees, the capability of exploring the future is often restricted to a select group of strategic policy-makers within a governmental organisation. These small and select groups are rather vulnerable for leaving of members. It is felt that a broader range of strategic policy-makers should be using these kinds of future exploration methods. They consider it a significant challenge to find better ways to deal with the spread of future-oriented thinking and acting through the organisation, so a broader group of policy-makers will think and act in a more future-oriented way.

3.2.4. Cultural embedding

On several occasions, the interviewees noted that in order to embed the paradigm of future oriented policy-making successfully within their organisations, one would need to address and transform the organisational culture currently present. Policy-makers in two out of the four cases illustrated that they considered their current surrounding organisational culture to be characteristic of a culture focussed on today's problems and those of the short term. To consider the longer term can hence be in conflict with current organisational cultures. The policy-makers are under the impression that future-oriented policy-making can flourish and thrive in a culture in which openness and innovation are celebrated and change is embraced rather than opposed. Their impression was also that future-oriented policy-making by nature, is a kind of rational policy-making. In contrast, the policy-related processes in which the policy-makers are involved on a daily basis are characterised as processes of a more intuitive kind. In the rational mode of policy-making, more openness is offered with respect to systematic ways of thinking, analysis, integration of knowledge, transparent discussions driven by content.

3.2.5. Leadership and confidence

Policy-makers stressed that future analyses ought to be regarded as people business. In this light, the impact of a future study depends to a significant degree on who has been involved. Throughout the cases it can be concluded that the following roles are of key importance: the role of the initiator and/or the politician responsible for the future analysis (possibly one and the same person) and the coordinating official. In the case of the initiator and coordinator, the success of the future analysis depends partly on the degree of leadership they have. Policy-makers also indicate that leadership equally depends on the degree of confidence of other colleagues they enjoy with regard to the future analyses (for example because of the proven quality of their work); this success factor not only holds for the roles of the initiator and the coordinator but also for the developers of the future study. It is also noted however that unfortunately leadership is also a fragile factor. In case any of these people, considered to be great leaders, leave the organisation the impact of the foresight or forecasting study might diminish or fade out completely.

According to Habegger [27] it is essential to base foresight on the best available evidence in order to safeguard its credibility and the longer-term reputation of the program. If foresight lacks analytical rigor, the trustworthiness of the results will be challenged and it will become difficult to translate them into generally acknowledged policy recommendations.

3.2.6. Governmental commitment

Future studies are meant to strengthen the strategic capacity of an organisation. The management of a local and regional governmental organisation will also be related to the future analysis and its results. For example, its management should decide on strategies inspired or supported by a future analysis. The experience of the policy-makers coordinating the foresight studies, is that managerial commitment from the start of a future exploration trajectory is a crucial success factor when it comes to real-world usage of the analysis. Expectations need to be managed at the beginning and during usage of the forecast or foresight, so that ownership and support can grow for the methods used and the results obtained by means of the method.

According to some policy-makers, a challenge for policy-makers is to inform politicians clearly about the 'correct' use of scenarios in strategic policy-making. Politicians tend to choose for one scenario, for underpinning their strategies. The consequence is that other scenarios are not taken into consideration anymore (see also van den Berg [29]). Instead of using a foresight study to deal with uncertainties, the study is 'abused' to generate certainties with regard to the future. In the analysis of STSO [6] it was mentioned that politicians did not want an exploration of uncertainties, but only arguments for existing policies. According to policy-makers the challenge is to present and communicate a foresight study in such a way that it is recognisable for politicians and that it can also be translated to a meaningful analysis in the context of strategising for a legislature.

In the analysis of STSO [30] it was also highlighted that to be regarded as successful, government led foresight programs need to focus on a clearly identified client, there needs to be a clear link between the foresight (topic and process) and the government's policy agenda. Based on experience of formal evaluation of foresight programs, it was claimed that "lack of success had very little to do with the quality of the work that has been done and much more to do with initial and subsequent political positioning".

In one case study it came to the fore, that in case a foresight has to deal with a personal commitment on the governmental level and these people leave the organisation, the support for a foresight on the governmental level will be abolished. This fragile factor implies that it is important to build up commitment on different levels and with regard to different people.

3.2.7. Role of local and regional governments

National and international governmental bodies decide together on the mandate, the responsibilities and the tasks of local and regional authorities. In case the local and regional policy levels get a more operational role and become a more operational instead of a more strategic actor – which has an envisioning role – less attention might be paid to future oriented tools in strategic policy making processes. In case of the provincial policy level in the Netherlands, the instrument of a 'territorial policy agenda' was invented on the national level. The introduction of this instrument stimulated policy-makers on the provincial level to work in a more integrated and future oriented way, by designing a long term vision and exploring futures. In other words, institutional incentives from higher institutional levels might increase the support for foresight methods and might accelerate the use of these kinds of methods.

However, the experience of the case of Overschie is that, unless this policy level is rather operational by nature, the policy-makers involved in the scenario analysis stressed the importance and added value of the analysis, in terms of gaining an understanding of the potential impact of future developments on Overschie and the consequences of these developments. By doing so, the policy-makers gained more arguments in their discussions with the city of Rotterdam.

3.2.8. Characteristics of the foresight

Interesting to conclude is that most policy-makers did not mention characteristics of the foresight efforts as such in terms of levers or barriers of influence on the successful use of the foresight method. Most emphasis was placed on the process-related and organisational factors, as mentioned in this paper on beforehand. On the local and regional level, the cases illustrated that the method of foresight, is rather new for organisations. Taking into account that the organisations involved in the case-studies were rather unexperienced in the use of foresight methods, the following

issues with regard to the characteristics of the foresight seemed to be of influence on the successful use of the method of foresight:

- in case of qualitative scenarios, some policy-makers and politicians missed the quantitative underpinning of the scenarios, leading to less confidence in the outcome of the scenario analysis in general. This does not mean that the use of quantitative scenarios is more successful, but that more clarification might be needed with regard to the value of qualitative scenarios compared to quantitative scenarios and quality criteria for qualitative foresight.
- in case relevant developments are missing in the scenarios, confidence in the scenarios decreased
- in case normative elements became interwoven with scenarios, it became hard to draw strategic lessons and/or use the scenarios as testing tunnels (see also Schoonenboom [25], highlighting the risk of mixing desirable, probable and thinkable futures).

4. Synthesis

The experiences highlighted in this paper also illustrate that it is not self-evident for governmental organisations to use future exploration methods in an optimal way. This is especially the case when governmental organisations have less or no experience in applying future exploration methods.

In all four cases foresight methods have been employed in order to underpin policy visions (in terms of desirable images of the future) (see definition of Senge [31]) and strategic policy-related choices. Hence content-related motives have been leading. The case studies illustrate that the added value that policy-makers experience is especially related to the process-oriented impacts of the methods. They appreciate the future-oriented and integrated dialogues, resulting in a better understanding of each other's perspectives. This effect is often characterised in theory as laying the foundations of a common ground of understanding. Nevertheless, also content-related impacts of using future exploration methods came to the fore. It was felt, for example, that future exploration methods stimulate policy-making in a more rational, more content-driven way. By using these kinds of methods, discussions are enriched by new content and perspectives on matters, in a structured and transparent way. Also, by using foresight techniques, policy-makers learn how to deal with uncertainties in a structured way. These more content-related impacts are about stimulating learning processes for the individual, the group and the organisation. So far, the research results do not allow to underpin whether these learning processes have resulted in altered mental models, changes in decision-making or the performance of the organisation (as described by Chermack [32]).

It can be learned from the case studies that the experienced success of a future study mainly depends on process-related and organisational factors. Most influencing factors are related to the internal organisation. The case studies investigated, illustrate that when a governmental organisation decides to develop future exploration methods, they experience it as a big step, often even a step of transformation of the organisational culture, a new way of thinking and acting throughout the organisation. Working with future exploration methods implies among other things, to find one's way through various methods, techniques and sources of information. Furthermore, skills and routines in strategic policy processes do not always match with the characteristics of future exploration methods. Factors such as the timing of a future analysis in a strategic policy process, leadership, trust and governmental commitment of the study came to the fore. Also the embedding and securing of the body of thought related to future thinking and acting was encountered as a relevant successfactor. Embedding is apparently related to different levels within the organisations, i.e. the personal, the departmental, the interdepartmental and the political level. In case it is important to stimulate support and enrichment of ideas throughout the organisation, attention should be paid to all these levels.

With regard to the insights gained through the retrospective scan, it may be concluded that there remains still ample challenges and pioneering opportunities for the research community in view of catering to the needs of especially local and regional governmental bodies. According to Bakker [33], it is the policy process itself that makes the use of future studies tiring, not the future analysis as such. This implies that more attention should be paid to the characteristics (timing, people involved, etc.) of the policy process, in order to use foresight method in a more tailor-made way. With respect to policy-making as such, different motives of applying future exploration methods to this aim should also be considered.

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