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Beyond use: Evaluating foresight that fits

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1. Introduction: the 'use' of foresight in policy making

1.1. An innovative way of evaluating impact of FS in policy

The introductory article of this Special Issue identifies three areas of evaluation of futures studies (FS): the professional and methodological *quality* of a study, the *success* of a study (most commonly recognizable in the accuracy of the prediction), and the *impact* of a study in terms of the application of its findings by relevant actors [1]. Each of these areas can be the base for an evaluation of a futures study, either ex ante ('what was the outcome of the study') or ex post ('what are the chances of a preferable outcome'). This paper focuses on the notion of 'impact' of futures studies in policy making and therefore our focus is on government. Our central question is *what are the determents of impact of futures studies and how can these be transferred into a model for evaluating (either ex ante or ex post) the impact of a particular FS?* The paper is primarily out to answer the latter question – how can we properly evaluate the impact of a FS – but in order to do that it is necessary to answer the first question – how can impact be understood. Therefore, this paper has a two-folded focus: one more general (impact of FS in public policy) and one very specific (evaluation).

1.1.1. Three steps toward a general framework

We aim to deliver a framework for evaluating the impact of a FS in the public sphere. However, in order to do that it is important to fully understand the problematic nature of foresight in policy-making processes. Therefore, we will take three steps.

First, we will identify the problematic nature of foresight studies in policy-making processes and conceptualize why it is not 'normal' for policy makers to use foresight studies and futures knowledge in policymaking. This part of the paper will outline the tensions between the characteristics of foresight and the institutional context in which policy-making takes place.

Second, we will use the same conceptualization to identify mechanisms that increase the chances of use of foresight in policy making. Although there are tensions, it is not impossibly to relieve them and to 'play' these conditions so that the likeliness of use of a particular foresight study increases.

Third, we will assess what these mechanisms mean in terms of quality and success of foresight and how they may be integrated into an evaluation-framework for futures studies. This question is extremely relevant, since we stress that impact is far from obvious and that impact is therefore a problematic category for evaluation. It is not appropriate to merely 'measure' whether or not a study is or was used. Instead, we suggest a set of questions that assess the degree in which a foresight studies is 'connective' to policy. The measure for evaluation then becomes the *connective capacity* of a study; connective capacity of a study represents the properties of a foresight study (content and process) that increase the chances of a study to be used by policy makers. Because 'use' itself depends on too many factors outside the direct influence and scope of the foresight study, it is not very informative to measure that. Connective foresight is foresight that matches criteria for quality and success, but that also includes a set of measures that enable the study to be used in the context of policy processes. Our framework allows both ex post and ex ante use: researchers can use it to evaluate their study after it is done,

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but may also use it to design their project or to direct dissemination activities. They can measure effectiveness with it, but can also use it to enhance their likely effectiveness.

1.1.2. Notes on methodology and boundaries of the study

Before we start, we must note that this is primarily a theoretical and conceptual paper. We have not yet tested the framework that we have developed in empirical research, for instance to determine the positive relation between *connective foresight* and impact of studies. The framework is, in that sense, a hypothesis about the relation of FS and impact in public policy. However, that does not mean that the framework is speculative. The framework connects and combines intensively researched and reviewed insights from the theoretical domains of *knowledge for policy*, *policy sciences*, *organization theory*, and applies these to the theory of *futures research*.

Furthermore, the study is empirically grounded in a set of examples from peer-reviewed and published research-papers on the practice of the use of foresight in policy-making processes. Therefore, although this paper does not build on empirical research that was specifically designed to validate the claim of *this* paper, it is embedded in established and published knowledge about the use of foresight in policy. In that sense, this paper brings together various streams of research and opens up a new direction for empirical research.

This paper is based on evidence in the Netherlands and many of the examples come from the Dutch context. It may seem as if we describe 'a Dutch case' and have narrowed our paper to the Dutch context. However, our claims are more general then that. The literature and conceptual knowledge that we use is international and has been peer-reviewed and published in international journals and books. Therefore, we belief that our claims apply to the general domain of foresight studies and policy-making and exceed the Netherlands. The nature of the framework leaves room for local detail, but the general argument is generally applicable. Another interesting are of research will be to understand how the framework is applicable in different countries and contexts.

In this paper we will use 'foresight' and 'futures studies' (FS) as synonymous terms for activities that lead to 'knowledge' about possible, preferable and plausible futures.

1.2. The dilemma: increased production, less use

Over the past decades, there has been an increase in futures studies and in attention for the future in The Netherlands, both in political debate and in the working practices of policy makers, and at all levels of government; state, province, municipality [2–4]. Furthermore, executive agencies are engaged in foresight activities as well [5,6]. Also, the economic recession and the fiscal crisis have lead to renewed attention for long-term developments that influence the budget and national debts. Austerity is debated almost as heatedly in terms of its present day effects as in its long-term consequences [7]. For example, budget cuts are weighed as painful on the short term but also as structural damage to the long-term growth of an economy. And although this debate is unresolved – there is controversy about the best way to deal with present-day deficits and long term growth – it leads to attention of policy makers, researchers, experts, media and 'the general public' to question about the future. The future is back on the agenda, at when judged in terms of prominence in public debates (we are uncertain about the primacy of long-term interests in decision-making, to put it mildly) [8,9].

However, although there is much 'talk' about the future and there is even an increase in production of long term analyses, there is reason to believe that organizations are not making much particular *use* of the increasing amount of studies, forecasts and future-oriented advice that has become available to them. Much FS is done, but what are policy makers doing with all that? [4–6,8–15].¹ The literature suggests that the future remains a secondary argument in decision making, in the shadow of short-term arguments. Furthermore, many 'exemptions' to that rule are really cases of present-day problems that are merely *reframed* in terms of future conditions. Still, the future then primarily serves a short-term political gain, and/or resolves of a present-day policy issue. For instance, local air-quality is a big issue for municipal governments in Dutch cities and that is often framed as a long term issue of 'sustainable development' and 'a green economy'. However, the reason for this attention is primarily the very short-term problem that EU-regulation prohibits further development and construction of inner-cities if criteria for air-quality are not met. Sustainable development is a reframing of the more mundane and present-day issue of the inability to develop new projects in the inner-city and improve air-quality *now*.

All in all, notwithstanding all the activity in foresight and futures studies by public organizations (either done by themselves, commissioned by them, or funded indirectly in lump sum budgets for agencies), policy-making is not more future oriented now then it was over the past decades [8,10,11]. Still, although there is more and probably 'better' knowledge about the future then ever before [2,3,4,8] knowledge about the future is hardly used in policy making. Or it is used primarily to support choices made for other reasons and/or based on other knowledge. While the future has a more prominent presence in public debate in all western liberal democracies² – where one would expect that public concern would translate

¹ This paper focuses exclusively on *public* policy making processes, that take place within the public sector. It is unclear if the argument goes for the private sector as well, although there is no reason to believe that most of the mechanisms outlined here do not apply to the private sector, and the author is not aware of empirical evidence suggesting otherwise.

² It is important to make this distinction, because evidence of structured use of foresight and futures, for instance in long range policy planning, comes from countries with autocratic or bureaucratic regimes. E.g. Singapore, China, Taiwan and other emerging economies.

into political choices and policies – the available FS probably has less impact on policy making then ever before. Although both the push and pull for foresight seem to be in place, we do not see evidence of an increase in the connection between the world of policy and foresight. What is wrong? And if this is not 'wrong' but rather a matter of normalcy, what can be done to alter that in many ways problematic status quo?

1.2.1. Thinking beyond use

In this paper, we claim that the tension between policy and foresight is more than merely a practical problem of strategic intend. Normalcy is not that foresight is used, but rather that it is not. Policy makers who use foresight deviate from established norms and practices in their organizations [5,6,16]. It is also not a matter of intentionally and strategically focusing on the present 'at the expense of the future'. Policy maker do not strategically and intentionally neglect the future. It is more subtle then that, as we for instance see when we have policy-makers in executive courses. Contrary to popular belief, their intentions are often future-oriented and in isolated settings – such as the 'class room settings' or reflexive meetings of executive education – they stress the utter importance of robust future-oriented policy and politics. However, they claim that in practice policy-making and futures-studies simply vary too much from each other. As much as they want to, they cannot use foresight in their practical context [6,7]. Policy makers do not 'choose' to neglect or decline future oriented notions, but find it problematic/impossible to apply them to their reality. Futures knowledge, so they claim [REFS], is difficult to apply in day-to-day practice of making public policy and advicing political executives about the preferred course of action. That puts the idea of *use*, and the lack of it, in an entirely different perspective: it less strategic, less intentional and less explicit then often is implied. It is more implicit and subtle then that [5,6,16–20].

Therefore, to think of impact in terms of 'use' or 'applicability' puts emphasis on the wrong characteristics. It implies a pre-given connection between the world of FS and public policy. We will argue that the relation between FS and public policy should be understood as a *disconnected* relation, wherein policy makers and producers of foresight can take active steps to enable a certain level of connection. The connection is not there, it needs to be made, put in place, constructed and/or established.³ Both worlds will never be entirely connected of perhaps even fused, but the gap can indeed be bridged. Therefore, the debate should be about how futurists can develop a connective approach to their studies so that it becomes *fit for use* by policy makers. That places the initiative in the hands of futurist, instead of in the hands of policy makers. In this article we will describe a model to conceptualize the disconnect between public policy making and futures studies and outline strategies to bridge the gap.

1.3. Outline of the paper

In this paper we will first conceptualize the gap between futures studies and policy making. We will do that by focusing primarily on policy making. We identify what 'drives' policy-making processes and argue how those driving forces relate to the nature of foresight.

After that, we will discuss a set of *strategies to bridge that gap*. To do so, we will first explain the logics of policy processes and link these to the logics of foresight and futures studies practices. We will construct a conceptual model to understand policy making processes that will allow futures researches and/or advocates of future oriented knowledge to analyze the processes they want to be involved in. That may direct their research more *appropriately* toward policy-making processes. Although the goal of our paper is primarily conceptual – we want to reframe the concept of 'fitness for use' – we will illustrate our model with typical cases from empirical research into the dissemination of output from futures studies in The Netherlands. We will identify four dimensions that will increase the chances that futures research will be used in policy processes.

2. Thinking of policy making 'as it is' instead of 'as it should have been'

2.1. Looking at lenses

Policymaking can be explained in many different ways. There are countless models that identify various phases, steps and dimensions in the process of decision-making and policy making [21,22]. They vary from entirely 'rational choice' models in which decisions about policy are merely a calculus of variables, to political choice models that center the idea of maximization of electoral gain, to chaos-models that point most prominently at the unstructured, uncoordinated and serendipitous character of the process of policy making. And this short listing still leaves out many other models and theories that all have some value in their own right. It is impossible to decide which model is right or wrong, since they are merely lenses to study the chaotic and structured practice of decision making and policy making. However, we can look at what the various lenses focus on, what they leave out, and attempt to come up with a meaningful combination of them. Therefore, we will start with taking a good look at the various lenses.

³ We hesitate to use these verbs, since they make it seem as if 'connecting foresight' is merely another step in the project of foresight-study, or some sort of isolated action that practitioners should not forget to take.

2.2. Remodeling the models

The literature on policy processes and decision making particularly points at three perspectives that seem to be able to explain why certain decisions take place and policies are developed [23–31]. All three dimensions reflect specific elements that somehow seem to be 'of importance' in decision making. Applying them to specific cases seems to offer answers on how and why decisions were made and policy was developed: policy making as a process of *politics*, policy making as an *organizational* process, and policy making as the gathering and processing of *data*, *theory and knowledge*. By combining these three perspectives into one model and focusing on the interactions of the three perspectives we can construct a model that helps to understand the reasons for the problematic (and often marginal) position of futures studies in public policy making.

We will first describe all three approaches separately, and then integrate them into a generic perspective on policy making and decision making (Fig. 1).

2.2.1. Model 1: policy as an outcome of power play

The political perspective explains decisions about policy by studying the political goals and the preferences of the political actors involved and by looking at the political trade-offs that were made along the way. Politicians do not just 'do something', but act according to a certain program of more or less dynamic political goals and preferences. These are imbedded in ideological schemas, political programs of the party, and personal preferences of politicians involved [27,31,32]. Some politicians care passionately for certain issues and specific streams of solutions, depending on their personal background and experiences. A political approach studies the political preferences of decision makers, electoral behavior, the division of power, vested interests and interest groups, lobbying, but also the political 'game', and the permanent attempts of political decision makers to influence public opinion. Political analysis answers the question 'who got what, why and at what cost'? Political will is the primary explanation for the outcomes of decision processes. Things happen, because there are politicians who can mobilize enough power and support to pick a policy for a certain problem. Policy is a direct result of coalitions of political power behind certain political goals and approaches to achieve those goals. The ideal-type here is that policy is a product of power. To understand policy making it to understand the power relations behind decisions. Politics and the game of power drive policy making.

2.2.2. Model 2: policy as an outcome of organizational processes

The organizational perspective explains decision making through the organizational processes that structure decision making [27–29]. Policy is constructed in complex networks of interactions between various stakeholders and organizational entities and the organizational structure that enables those interactions is vital in the explanation of the outcomes of such processes [28]. Organizational structures may block certain outcomes of the policy process, or may enable other options to become dominant. The concept of 'path dependency' points at the positive feedback of existing structures and previous decision in future decisions [33–38]. Organizations reproduce en reenact what they are already doing. This perspective provides the organization in which policy-making takes place with 'a will of its own'. The organization itself is not neutral and 'equally open to anything', but favors certain directions while resisting others. In his classic work Selznick [31] speaks of organizations that are 'infused with values', in the sense that they are not neutral followers of political direction, but have strategies, visions and 'direction' of their own. And when decisions require more than one organization, the organizational dynamics becomes even more complex, as the stakes and values of different organizations vary greatly. Organizations

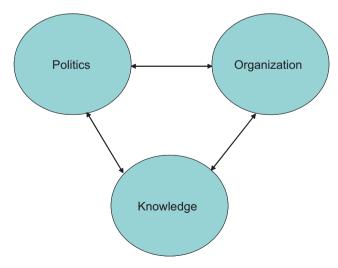


Fig. 1. Three lenses to look at policy-making.

struggle over scarce resources and power and policy making is one of the mist important arenas for such turf wars. That is more than just organizations fighting over means; it has a deep impact on the content and substance of the debate that politicians are 'allowed' to have. Organizations fight turf wars by means of 'framing' the problem in their own terms and propagate solutions that fit their existing repertoire, expertise and competence [23,39-41]. They do not necessarily solve the problem 'as is', but create the problem that suits their particular solutions the best. The Department of Environmental Affairs will think differently about road construction then the Department of Infrastructure, or the Department of Spatial Planning. The hypothesis in this perspective is that organizations tend to 'frame' problems in such a way that their current routines apply to them: 'if you have a hammer the world looks like a nail'. It is needless to say that this type of framing has a considerable impact on the solutions organizations come up with. If the Department of Education plans a program to 'tackle' juvenile delinquency, they will probably present education as a way of preventing juveniles from criminal behavior, because through education juveniles are given the opportunity to explore their talents. The Department of Justice will probable come up with a more repressive approach, for instance by suggesting a more harsh punishment or more means for the police, so that they can invest in more effective ways to arrest juvenile offenders and to enforce the law. This behavior is sometimes framed by organizations as an intentional attempt to defend bureaucratic interests and the interests of the sector the organization represents. The ideal type here is that organizations make decisions happen. Organizational processes pre-structure decision making about policy to such an extend that the actual choices are actually made at lower levels – by public servants instead op political representatives - and are ratified by elected officials. To understand policy making then is to understand the organizational processes, procedures and the specific games played in the networks prior to the actual political decision. Policy is a product of organizational processes, in which political choice is merely a symbolic step that formalizes politically what is 'decided' elsewhere.

2.2.3. Model 3: policy as an outcome of an assessment of evidence

The *informational perspective* analyzes policy making as a process that is primarily guided by the information and 'knowledge' that decision makers have at their disposal [42,43]. Decision makers are conceptualized as (bounded) rational actors, who first collect a sample of as much evidence as possible, evaluate that sample, and then choose the option that is supported by the most and 'the best' scientific arguments. The boundaries here are primarily 'time' and the limited capacity to collect everything and in time to make proper decisions. The sample is therefore incomplete and the assessment cannot be perfect, but the fundamental principle here is that evidence drives decision making. Policy is 'evidence based', which is to say that there is substantive evidence to support the policy-option that was chosen. This to some extent marginalizes the political and organizational influence, since the evidence is ignorant of organizational or political preferences; the evidence is not affected by it, it 'speaks for itself'.

How tempting and desirable this perspective may be – who can be against evidence-based policy –, it is important to point at its limitations for the issues in which policy and political choice matter most. Most of the 'heated' issues of our time are complex and hard to model. The complexity of these issues means that it is impossible to identify a clear network of causal relations, which is necessary to model or otherwise systematically construct claims about what interventions lead to results. Evidence-based policy is in most causes of such complex and 'wicked' problems not possible, because the definitive evidence is absent. This lack of insight in causality does not lead to a lack of knowledge, but to a wide array of knowledge that supports many different positions. The absence of final evidence for one solution results in a range of options that are all supported by a degree of evidence. Researchers pick certain causalities that according to them - explain some crucial elements of the phenomena (that are sometimes then generalized to the issue as a whole) and tie them to policy-options. As a consequence, knowledge does not point in one direction, but rather points in many directions, with equally convincing arguments and 'hard evidence'. That makes assessments of problems more than pure science; there is politics in every scientific choice, as every choice in the research design The concept of 'wicked problems' also refers to this complexity of policy issues; wickedness implies that a problem is not only complex but that it is also contested in terms of values. In 'wicked problems', knowledge, science and evidence cannot produce final statements that define the problem and/or solve it. That leaves policy-makers with a spectrum of options that are all equally justifiable with substantial evidence. Furthermore, this also implies that there is always evidence that suggests other options.

The point of the informational approach is to study the theories and the knowledge decision makers *use*, so that we can construct the patterns of knowledge that are used and those that are being neglected. Policy can be understood by means of analyzing and construction the *informational patterns* behind it: we can track what knowledge and which evidence lead decision makers to opt for certain policy options and to frame problems in specific terms. Theory suggests that 'use' of knowledge in policy making processes involves more than the content of a report or the substance of an analysis. Knowledge and policy 'find' each other in networks. In most policy-fields there is a specific body of knowledge that is being used and that there are close linkages between decision-makers and actors in the scientific community who represent certain theories. In that way, political choices are made not so much after careful review of a variety of scientific reports, but takes place prior to that; the selection of knowledge involves political and organizational influences. Scientific theory and political power cluster together in *policy-communities*, where 'members' speak the same conceptual language, use the same arguments, and apply the same counter-arguments against opposing theories or politicians [39,40,42]. This explains why policy on complex and uncertain issues tends to be so *consistent*, whereas you would expect frequent changes in policy and more experimenting in order to get a grip on the complexity.

3. Understanding policy; how decisions happen

3.1. Policy as practice: an integrative perspective

Instead of using one of the three models to understand policy-making and the position of knowledge in that process, we suggest a combination of the three models. We can call this integrated framework the *institutional perspective* [23,24,27,28,30,34]. The concept of the 'institution' takes us into the processes themselves and puts the actual actors who have to deal with the complexity of policy making on center stage: the *policy makers* themselves. The institutional approach focuses on 'how decisions happen' [27,28].

Policy is perceived as an outcome of a *dynamic interplay* between all three perspectives: it is the combination of power-relations, organizational procedures and the knowledge that is allowed into the process that explains the specific policy that results from the process. The assumption in this approach is that the behavior of actors is *embedded* in the social structure that surrounds them. Or, as March and Olsen [27] put it, actors follow a *'logic of appropriateness'*. Amidst these structures there is room for agency, but agency is always an interplay between structure and agents. Furthermore, as Giddens [44] states, there is duality of structures; they simultaneously construct and constitute agency *and* are constructed and constituted in and by the behavior of agents.

Agents do what they think is appropriate given the situation they are in. The question then is how that assessment takes place. March and Olsen [27], and a large body of literature that has grown out of the original notion of appropriateness [28], identify several key elements in the behavior of policy makers in the complex and ambiguous processes of policy making. Actors deduct the *norms* for appropriateness from contextual factors, such as the organizational context, specific codes of conduct in the organization, organizational procedures, professional training, academic background, earlier practical experience, or from perceived analogies with other earlier cases that seem to resemble the case at hand. This implies that actors do not act according to what is formally expected from them, but act upon their own perceptions of what is expected from them. They do not act amidst objectified circumstances, but act upon individual and to a large extent subjective perceptions of their circumstances. They do not weigh all of the exact options available to them, but weigh the options they know of, to the extent that they consider them relevant and necessary for the decision. They are not bounded by clearly defined borders, but look around them for cues on how far they are allowed to go in their analysis and advice. The make their own judgments of what the organization wants them to do, of what the goals of the organization are, why certain processes where initiated, what 'the problem' is, what political preferences are, what means are available to them, which financial boundaries there may be, which others are involved, who the 'best experts' on the issue are and, last but not least, what plausible options may be. Actors live the world as they perceive it to be; they come up with the options they think are within the 'boundaries of appropriateness'.

That puts the *assessment of appropriateness* at the heart of our argument and makes it the core of any theory, idea or practical repertoire aimed at bringing futures oriented knowledge more deep and more dominant into processes of policy making. Future oriented decisions can only 'happen', when the futures has become an important element in the various assessments of appropriateness by policy makers, policy advisors and political decision makers.

3.2. Cues and frames: policy making in action

The combined perspective is more than just a mix of the three separate perspectives. It is an *integrative* perspective, wherein each domain exerts influence on the other. Politics is not 'merely politics' but is partly defined by organizational processes and by the knowledge and expertise provided. *Politicians* decide what to do, but *organizational bureaucrats*, who use the language and the concepts that *knowledge* delivers to them, provide the agenda and the options. Just as bureaucrats do whatever they think is best, but 'scan' the political environment for preferences of the political preferences and seek knowledge and evidence that may help them progress their policy issue.

Fig. 2 shows how the dimensions *politics*, *organization* and *knowledge* interrelate and influence one another. We will now briefly describe each of the relations and then answer the question as to how all this influences the impact of futures studies in policy making.

3.2.1. Political preferences structure organizational processes

Political choice and/or political preferences structure the organizational processes within public organizations. The Minister is 'in charge'; civil servants follow the instructions, directions and directives issued by political leaders. In this way, politics structures both the organizational processes and the use of knowledge within public policy making. Civil servants anticipate the preferences of the political leadership and select knowledge by using the assumed preferences of the political leader as guidelines. Sometimes these guidelines are explicitly issued by the politician – e.g. in meetings or memos – but more often they are implicit and dependent of civil servants 'guess' about what the political leader prefers.

3.2.2. Political preferences structure knowledge selection

Furthermore, political leadership structures the selection and use of knowledge by civil servants. The 'political color' and profile of the Minister is an important cue for public servants on what knowledge they should use and what sources they are expected to tap into. As stated before, there is always a wide variety of knowledge and expertise on issues available that

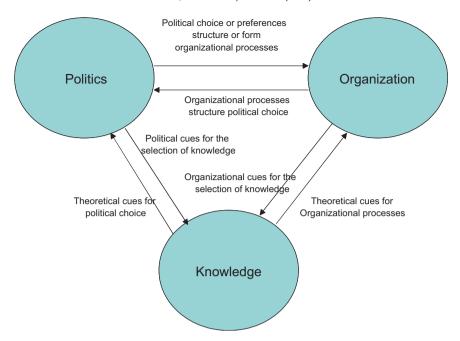


Fig. 2. The interrelation of politics, organization and knowledge.

supports and advocates various possible positions concerning an issue. Very often, a new Minister is accompanied by different advisors, and brings in new scientist and 'new facts' that support his direction. This is not to say that science uncritical 'follows' the political preferences; what is meant here is that the selection of the science used in policy processes has elements of pre-selection that are embedded in the political dynamics of the Ministry. Political choice is influenced and 'fed' by scientific knowledge, but that does not mean that all knowledge has equal access to the process of political choice.

3.2.3. *Knowledge selection influences political preferences*

The political process itself is affected by knowledge and organization as well. Since politics is a game of both evidence and argument [46], politicians need *ideas*, theory and empirical evidence to take a position on a certain issue and make a decision. Politicians do not just make claims about what they want, they tend to support those claims by viable arguments, and preferably supported by 'hard science'. Or at least as hard as possible. And in their rhetorical arguments, they do not support their claims with bits of science and facts, but let arguments 'come from' scientific evidence. Theories and knowledge therefore *direct* politics. Politicians need valid arguments for their decision and science provides that to them. Politics is often labeled as a process of *puzzling* and *powering* [34,45]. Science can provide the pieces of the puzzles politicians need. If politics is indeed a *struggle of ideas*, then politicians need to be supplied with innovative and persuasive ideas and arguments in order to win. Strong arguments do not automatically win political battles, but political battles cannot be won *without* evidence and arguments.

3.2.4. Organizational processes affect political processes

The organizational process affects the political process as well. Political leaders do not have an 'open agenda'. On the contrary, political work is almost entirely structured and pre-structured by public servant. Bureaucrats prepare the memos, documents, draft-texts and speeches for the political leaders and effectively decide the bandwidth in which the political leader can act. And they also to a large extent decide what happens when, with whom and under which conditions. Politicians influence such processes, for instance by setting priorities or calling for certain meetings or memos, but the public service has its own agenda and preferences. They can stall processes or eliminate elements of the intended policy. They prepare meetings and can push the debate in a certain direction. They also tend to frame issues in the rules and meanings that already exist and that fit the existing repertoires of the organization. Politicians need civil servants to put their ideas into words and produce coherent laws, programs and documents, so that the politician can get things done.

3.2.5. Knowledge influences organizational processes

Organizational processes also relate to knowledge, mainly through the concept of 'policy-theory'. Policy makers look for a theory about why situation x may be a problem and how that problem can be solved through policy y. Civil servants need theories about solutions and problems to be able to come up with new policies and therefore they are constantly looking for them. They attend conferences, speak to colleagues about it, read literature, visit master classes, invite experts, pay consultants, and do many other things to get ideas. If the right idea comes at the right time, for instance almost simultaneously with the production of a memo on a certain 'wicked problem', then it is likely to be used in policy making.

3.2.6. Organizational processes influence knowledge selection (and production)

Knowledge itself is in turn also affected by organizational processes. Within organizations there are strong 'discourses' about what theories are 'right' and what repertoires will 'work'. Organizations and organizational routines are powerful criteria for actors within the organization to select what knowledge they will use and which theory they will 'believe'. This implies that organizations are constantly looking for theories and ideas that are somewhat like they already do or presume to know, but that are also inspiring and innovative enough to maintain the argument that the organization is adaptive, innovative and 'modern'. As stated earlier it is not a deliberate or an explicit process, but there is overwhelming evidence that suggests that this process is taking place in almost all of our organizations, both in public administration and private enterprise.

4. Foresight that fits: connecting futures studies to institutional cues

4.1. Connective foresight

The strength of the institutional approach and the integrative perspective that it provides is that it enables us to see the interrelations between politics, bureaucratic processes and knowledge that construct policy-making processes. That provides insight into how and why some knowledge will be used and other will not have any impact, regardless of the quality of that research and the success of the prediction (if it is a futures study). Impact is not merely about quality and success, but about alignment with cues in policy-making processes. For instance, if the social cues on the organizational and at the political level point toward a certain body of knowledge and toward certain areas of expertise, it is logical for a civil servant or a politician to use that knowledge. And if a futures study comes out too late to be included in a procedure for decision making, it will never be used, regardless of its content. Nor will a futures study be used if it does not provide certain clear points and arguments that may resolve, reframe or otherwise 'help' politicians and/or bureaucrats in taking their policy issues forward. That does not mean that the study needs to be entirely 'policy oriented', researchers may also invest in 'translating' their more complex message into implications and requirements for policy. The chances of impact will increase when they manage to come up with implications that connect with running political concerns and/or bureaucratic processes – in terms of content but also in procedural terms (timing, format, delivery). 'Foresight that fits', or connective foresight as we call it, is foresight that is true to the principles of futures studies but also responds to the various organizational and political cues in the organization, so that the study itself will act as a knowledge cue for politicians and bureaucrats. It does not necessarily provides answers, but offers new concepts and directions for long-running and pressing political issues and does so in time, in a manner that is acceptable and understandable for bureaucratic processes and respects matters of timing and other procedural factors that constitute a large element of organizations.

4.2. Connective but not naïve

'Foresight that fits' sounds easy: it only requires futures studies to understand what politicians and bureaucrats want and to deliver it timely and in an appropriate format so that they can understand it and include it in running policy-processes. However, the nature of futures studies is not like that. Futures studies tend to complicate things, instead of resolving them. Policy makers *know* futures thinking is important, but futures thinking *gets lost in the process* of creating clear policy texts amidst the complexity of the problem and the institutional pressures of politics, organization and knowledge. Policy-makers need clarity, while foresight provides them with new complexity. They seek solutions, while foresight reframes or even adds problems. They are troubled by present-day crises, while foresight downplays those in the light of future developments. And although policy-makers know that futures studies are often right, they can hardly make use of them because of their contextual requirements.

In other words, seen from the 'logic of appropriateness' foresight is an inappropriate argument in the context of everydaylife in policy making. Politicians and top-level officials have to answer the institutional bias for certainty in policy texts or policy advice. The acknowledgment of uncertainty is not perceived as a sign of rigor and strength, at least not when deadlines near and plans need to be made public. Swift action tends to outweigh more long-term oriented strategies, as clever and robust they may be. Organizational rules are focused on producing this 'certainty' and filter out all sorts of ambiguity or uncertainty in formulations. There only limited tolerance for uncertainty if the uncertainty of the outcomes are framed in 'certain terms', such as figures about probabilities and specified margins of error, cost and benefits analysis and phrases that suggest 'control' over either the likeliness of the event to occur, or control over the outcomes that it will produce. Both the political system and the public service are organizational systems that are intolerant toward uncertainty and ambiguity, while their domain is by definition uncertain, fuzzy and ambiguous. Not because something is wrong with the system, but because that is how the system is. We can even state that the more complex and uncertain the situation seems to be, the more policy makers are inclined to act in accordance with the institutional cues that are in place. Ambiguity promotes rulefollowing and routine-behavior, instead of experimental and innovative behavior (see [25-27,24]). The behavior is 'institutionally rational', as irrational it may seem from an outsiders perspective. Foresight is a disturbing factor in the institutional order of things. How can that disturbance be on the one hand be kept in place so that a futures studies content remains intact, while on the other hand connective capacity emerges? How can foresight be connective, without being naïve? How can foresight play the institutional rules, instead of opposing and confronting them?

4.3. Possible contributions of foresight that fits

In this paper we do elaborate on the process of producing foresight. We will not include that dimension into our model, although we do draw to attention to that issue in our evaluation-framework. Hence, we choose to assume that foresight has a certain quality and a reasonable chance of success (although we see that as a secondary requirement). If that is indeed the case, how can foresight then *connect* to the logic of politics and organizational-bureaucracy? In this section we will identify certain functions of foresight that *fit* either political or organizational logics of public policy making. Foresight can be connected to those logics, either prior to (or during) conducting the study, or afterwards when framing and presenting the results of a FS. Researchers may look for possible connections in the political and bureaucratic domain and design a study that may answer to that particular demand. Or they can design strategies for the presentation and 'landing' of their study that connects it to relevant connectable processes in politics or organizational bureaucracy. This requires for futures researchers to be sensitive to the particular processes of politics and the organizational bureaucracy. In the following two tables, we outline the various connective functions of foresight to the domains of politics and organizational processes.

Our first table shows the possible contributions of foresight to the political level of policy-making. At this level of analysis foresight is directly related to political debate and political decision-making. We distinguish between five different connections of foresight to the logics of political debate (see Table 1).

Table 1 Foresight that fits political cues.

Foresight that fits political cues	Possible contributions of foresight to political problems
1. Foresight that wins political battles	Foresight might present evidence that supports political claims, for instance with insight in the future size of a problem, or future conditions. This requires evidence that can be presented as 'hard' knowledge, and often involves some degree of quantitative analysis and statistics E.g. Futures studies about aging that 'help' politicians to push through reforms and austerity: 'reform is inevitable because of future developments'
Foresight that (re)solves present-day political issues	Foresight may draw attention to 'new' future dimension of current issues, can provide a new clustering of problems that allow for innovative solutions or new political trade-offs, and may create a sense of urgency for a current issue based on future developments E.g. Foresight may argue that unemployment will 'disappear' in the future because of demography: the labor market of the future is 'tight' and every talent will be needed. Or foresight may create
3. Foresight that puts issues on the agenda	a case for urgent and decisive action, based on long-term developments Foresight may draw attention to a new future issue that is not on the agenda yet, but that the political executive cares for, or that can be used to extent control over a certain sector E.g. Obesity is somewhat of a problem now, but has disruptive potential for the future of health care. Foresight studies may put that on the agenda
4. Foresight that points at emergent political issues	Foresight can describe new issues that may define the political agenda of the future; that may allow politicians to distinguish themselves from others and to 'claim' issues early E.g. Ethical issues that originate from new developments in medical technology – such as stem-cell research – are not yet 'active', but may be so in the near future. Politicians can choose to manifest themselves early in this debate and can use foresight studies to do that
5. Foresight that identifies potential political risks	Foresight may point at certain political risks that more regular analyses will neglect or underestimate. The longitudinal approach of futures studies can for instance provide insight into second-order or cumulative effects of currently 'harmless' or 'small' policies E.g. Many benefits-regimes grow with small increments. However, when projected into long term results these can lead to enormous growth in beneficiaries and budget excesses. Foresight studies may perform more rigorous and dynamic long term analyses than regular studies

Our second table identifies the possible contributions of foresight to organizational problems and organizational processes. These are the organizational processes that mostly concern delivering appropriate policy-advice, but that also involve reflection on the 'path' the organization is on. The organizational bureaucracy manages policy-systems and provides policy-advice to political decision-makers. That is to a certain extend an autonomous bureaucratic domain. Foresight may help bureaucrats to rethink their own repertoire and provide new or different options for existing or emerging policy issues. We discern five possible contributions (see Table 2).

4.4. Connecting futures studies to futures oriented policy making

All in all, there is a powerful case to be made for a wider application of foresight in processes of public policy making. Our argument is that such a wide application is not a matter of policy-makers who need to be more sensitive to the foresight studies that are or come available to them. We argue that it is the other way around, that foresight researchers should be sensitive to what is 'appropriate' for politicians and policy-makers and connect their products and processes to that. We have already outlined two sets of contributions to the political domain and the organizational bureaucracy. We will conclude this section by pointing at four more general functions of foresight in public policy making. If foresight researchers indeed

Table 2 Foresight that fits organizational cues.

Foresight that fits organizational cues	Possible contributions of foresight to organizational problems
1. Foresight that falsifies or amends existing policy theory	Foresight may be used to reflect on current policy theory, especially to 'test' the policy theory on its futures consequences. It may be possible that policy that seems to work on the short term provides contrary results on the longer term E.g. Budget cuts on the short term may result in a loss of value on the long term. Just as short term gains can lead to long-term results that are contrary to the policy-theory
2. Foresight that provides new policy theory for existing or emerging issues	Foresight can produce new policy-theory for existing or emerging problems that contradict and/or complement current theories E.g. Futures studies may identify emerging technologies that solve an existing policy issue, without a need for new policies.
3. Foresight that provides arguments for policy-advice to political decision makers	Foresight may provide civil servants with new arguments that they can use in advising the Minister. Politicians need powerful arguments to 'sell' their policies, and foresight may provide new and/or different arguments E.g. Civil servants can include possible scenarios in a policy-advice to strengthen their argument, although in practice that often means that they select an extreme scenario instead of presenting all scenarios
4. Foresight that allows reflection on current organizational paths	Foresight can provide a 'cognitive and social space' for reflection on the institutional path of the organization. It may be difficult for civil servants to discuss the current course of the organization and routinized organizational repertoires, while a futures study can provide a perspective to reflect on them E.g. A strategic discussion in the executive board of the organization to discuss findings of a foresight study
5. Foresight that reframes existing policy theory and organizational paths	Foresight can provide arguments for change, but may also call for stability and continuity: it can provide new labels and frames for existing repertoires of the organization that make 'the same' seem different E.g. Critical incidents often call for an urgent response by policy-makers. If policy is slow or hesitant, this is often framed as 'passive'. However, foresight may show the limited importance of the issue on the longer term – as 'enormous' as the consequences of an incident may seem

manage to develop the sensitivity needed to create connective foresight, these may become established and possibly even structural functions of foresight in policy-making processes.⁴

4.4.1. Provide new narratives for existing and emerging issues

Future studies can be used by policy making in order to construct crisis narratives. Earlier we stated that the Club of Rome was very successful in creating a sense of urgency for attention for the environment and the limits to growth and more recently studies about climate change, aging and obesity have created an urgency to design some innovative and institutionally disruptive policies. Future studies can be framed by futurists as a method to help policy makers create the momentum to break through organizational, political or scientific barriers and to *reframe* the institutional discourse. As a consequence, the policy agenda as a whole may become more future-oriented. We have shown that politicians and policy-makers do not principally neglect the future, but find the future 'difficult' to apply in their day-to-day processes. If that gap is bridged, they may develop a more regular relation with futures studies.

4.4.2. Identifying emerging issues that make up tomorrows' political agenda

Probably the most cost-efficient application of future studies is for policy makers to integrate future studies in institutional learning processes. This means that policy makers use futures thinking to assess future conditions of the relevant external environment and try to anticipate the changes beforehand. The structural analysis of trends and early warnings may help public policy makers anticipate possible changes that may influence their policy domain. This serves the interest of the political executive and the bureaucracy alike. It will enable the bureaucracy to start experimenting with possible solutions, to investigate causes and to be pro-active in building a resilient institutional structure. Governments can save time and money if they are able to plan ahead of crises and build resilient institutions. For futurists this requires that they move more toward the everyday practice of public policy making and develop expertise and sensitivity about bureaucratic mechanisms. For example, the institutional setting of policy makers makes them less interested in 'deep futures research', at least as these are not properly translated into probable effects, patterns and possible interventions for the coming political cycle(s). As we have shown, policy makers can and need to be addressed in their own language, with respect for the limiting institutional conditions and cues that frame their perceptions of reality. Futurist need not to *break* existing institutional patterns, but reflect on them, by showing policy makers what is *already* happening 'out there', what drivers for change are *already* in place and how this could develop into major changes over time.

⁴ As they already are in some countries, for instance in Singapore and Finland.

4.4.3. Create a learning environment for a dynamic assessment of proposed policy

The final contribution for futurists, and in our argument the one closest to the institutional conditions of public policy makers, is that of the *ex ante evaluation of intended policy* or *windtunneling* as it is often called (see also the article of Rijkens-Klomp in this Special Issue). In an ex ante evaluation policy makers think through the question how their intended policy will lead to the effects the policy maker wants to achieve: what will happen if we use intervention *a* in system *b* and how will this lead to the intended effects? What other – unintended – effects can be expected? Are there unexpected effects to be expected, and what can we learn about their probable nature? How long will it take for intervention *a* to lead to the intended effects *x* and *y*, and how long will these last? The specific skills of futurists – *methodological*, *conceptual* and *analytical* – can provide added value over 'regular' policy analysts here. By using their specific set of skills, futurists can become important and valuable advisors for policy makers. If futurists are able to 'play' along in the institutional games actors play, they may acquire a more structural space within the process of public policy making.

5. Discussion: evaluating the impact of foresight

In the first paragraphs of this paper we described how foresight does *not* properly match the conditions of policy making and politics. We argued that it is quite unlikely for foresight to have *impact* in policy making. We have then turned that argument around and defined possibilities to connect foresight to policy: understanding the dynamics of public policy processes indicates possible *fits* of foresight to policy. This enables us to conclude this paper with some suggestions for evaluating the impact of foresight studies.

First of all, we have shown that the impact of foresight in public policy is closely related to the degree in which it answers to political and organizational cues. Therefore, we suggest concentrating evaluations of impact not on 'measuring' the actual application but on the studies' connection to cues. For example, an evaluation of a study on aging should not bluntly measure the amount of references to that study, but look at the degree in which that study took into account – and responded to – the various political and organizational cues that were in place. Such an evaluation includes an analysis of the various cues and possible connectives for foresight in the policy arena, for instance in an analysis of the political debate and the policy process.

Secondly, an evaluation can assess the actions taken by the project team to connect their study to the various cues and connectives that they identified. What actions did they take to connect their study to the running political debate and how did they attempt to connect to organizational processes? What was their strategy and how did that play out? How accurate was their assessment of possible connections and how appropriate were their actions in that regard?

Thirdly, an evaluation of the impact of a foresight-study should deal with what we call unintended but wanted outcomes. Impact is often unexpected and it is a very relevant question how a project team deals with such emergent practices of connection. The first two elements of our evaluation-framework focus on the pro-active strategies of the project-team to identify connectives, whereas this part of the framework focuses on the process as it emerges. Are they aware of such emerging connectives and the unexpected impact that stems from it? Do they respond to it? How and with which results?

Fourthly, how does the project team deal with 'after-care'? Project-teams and individual researchers typically 'move on' to new projects. But results remain and impact often takes time. Therefore, it is interesting to evaluate if and how project-teams take care of everything that happens after they have 'closed off' their project. Who takes care of the study? Who deals with inquiries? Is there a renewal of the project possible if there is a further demand from policy-makers? Does the study have any longitudinal ambitions, for instance through repetitive studies later on? Is it intended and designed as a one off-project, or is it meant to be a continuous process? And if so, are the actions taken in accordance with those ambitions?

The fifth and final element of our evaluation framework does not directly involve a specific study, but takes into account the broader process. Are futures-researchers able to 'tune-in' to the longer-term policy making agendas of government organizations and build more lasting and robust relations with them. These can be at a personal level as well as on a structural and formal level. Are futures researchers able to connect – maybe even 'infiltrate' – the more general policy networks? Can they become trusted partners of policy-makers? What actions have they taken to familiarize themselves with the networks of policy-makers and what have they done to integrate in these circles? How did that play out? As said, it is in a sense 'unfair' to ask this question when evaluating a specific project, as it is a much more broad matter. However, since the networking element is such an important aspect of the impact of a study, we think that it should be included in every evaluation of a foresight project.

This leads to an *impact evaluation framework* that consists of five elements. Futures researchers may use it to ex post evaluate their impact, but can also apply the framework when they are designing their project. Therefore, the structural evaluation of impact may exceed simple 'measurement' and help to improve the actual impact of foresight. The framework can help to bridge the gap between foresight and policy. We believe that both worlds can benefit from that.

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