

Project Visions and Visioning



This article is developed within the scope of the Project Visions and Visioning, an effort to enhance Foresight learning through collaborative work.

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Definition

Strategic intelligence (SI) can be defined as "*the set of actions to search, process, diffuse and protect information in order to make it available to the right person at the right time in order to make a decision*".

Applications

Strategic intelligence **applications** have been developed to support decision-making. These applications are:

- **forecast** - consists of a continuous monitoring of the developments and their conditions, leading to an early identification of promising future applications and an assessment of their potential. Forecasting can be approached by using two routes: Top-Down forecasting is when international and national events affect the future behavior of local variables and bottom up forecasting when local events affect the future behavior of local variables. Also, forecasting can be approached from a quantitative or a qualitative perspective. Quantitative forecasting uses historical data to establish relationships and trends which can be projected into the future. Qualitative forecasting uses experience and judgment to establish future behaviors. The term is widely used in finance and economy
- **impact assessment** - consists of an analysis of social, economic and environmental potentials of new developments in order to obtain results that support the decision-making process and to develop options for better exploiting opportunities that arose. Impact assessment is the process of identifying the anticipated or actual impacts of a development intervention, on those social, economic and environmental factors which the intervention is designed to affect or may inadvertently affect. It may take place before approval of an intervention (ex ante), after completion (ex post), or at any stage in between. Ex ante assessment forecasts potential impacts as part of the planning, design and approval of an intervention. Ex post assessment identifies actual impacts during and after implementation, to enable corrective action to

be taken if necessary, and to provide information for improving the design of future interventions.

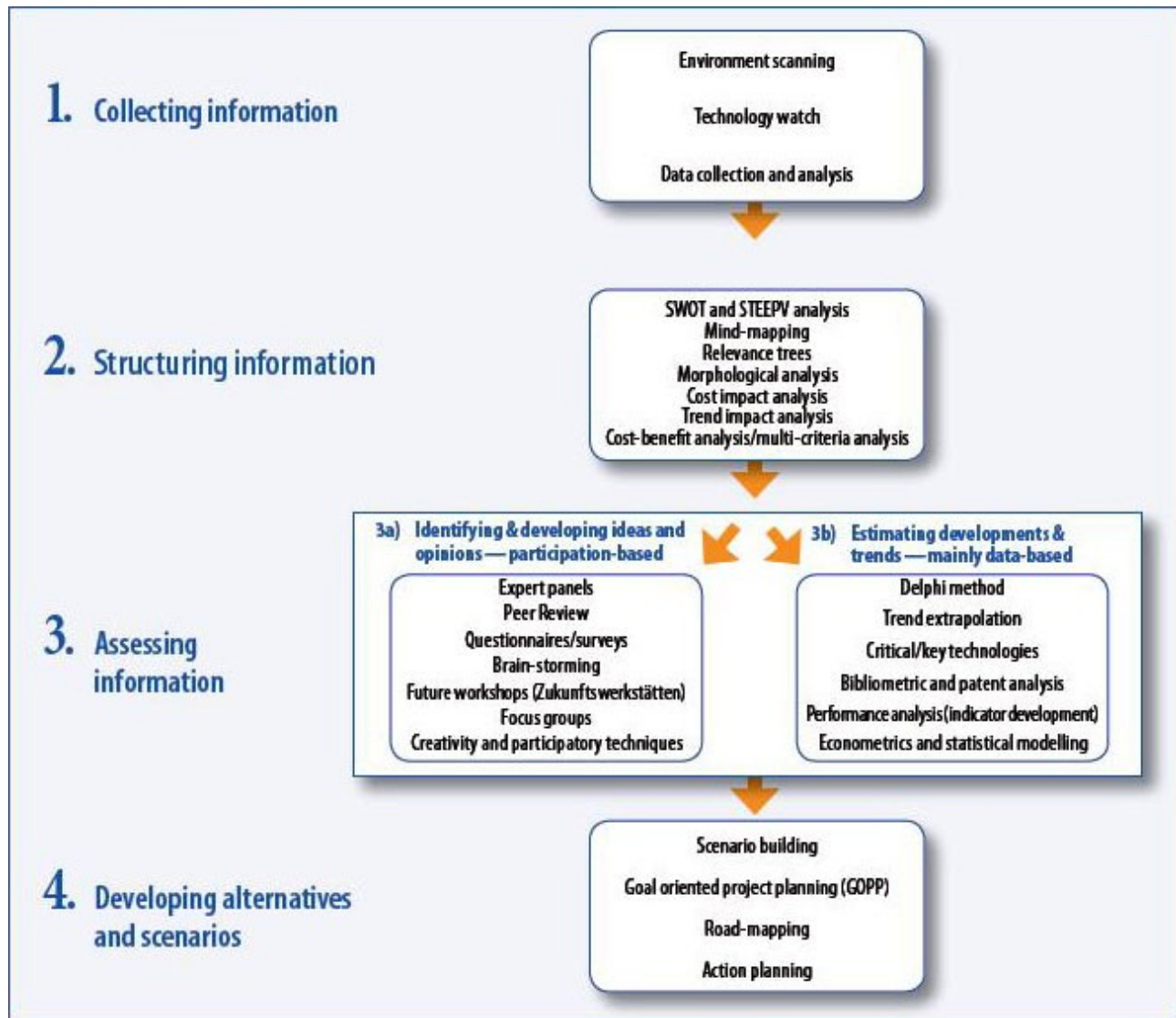
- ***foresight exercises*** - are based on a much broader concept that implies a wide range of themes and stakeholders in order to examine the social, economic and environmental aspects of new technologies. This form of strategic intelligence is frequently used to support policy-related decision-making at the national or supra-national level. In the act of foresighting, the basic stages which need to be touched are: understanding, synthesis and future modelling, analysis and selection, transformation, action. (Saritas, 2006). According to the results of an analysis of the European Foresight monitoring Network, the most widely used methods are: literature review, expert panels and scenarios, followed by workshops, brainstorming, trend extrapolation and interviews. These have been chosen according to their power to be future-oriented, participative, evidence-based, multidisciplinary and action-oriented (Keenan, 2007).

Strategic policy intelligence

Strategic Policy Intelligence offers a variety of methodologies to meet the demands of policy-making. This variety is a strength of the concept, creating flexibility and promoting independence. The concept of strategic policy intelligence is based specific tools, which are methodologies of providing comprehensive, objective, politically unbiased and forward-looking information to decision makers. These tools are innovation audits, benchmarking, technology or regional foresight, technology assessment and evaluation and they can be implemented through SWOT analysis, data analysis, scenario workshops etc.. The advantage of applying these tools in the policy development process resides in the fact that they assure participation of stakeholders, they are based on realistic evidence, they offer a common base of understanding by creating alignment and thus facilitate decision making.

The overall importance of strategic policy intelligence has been brought to light in the context of increasing economic competitiveness and innovation, together with the need to develop more sustainable policies. The integration of social and ecological aspects into policy making has long been a trend in the modern world, but now it has become almost necessity. In the case of the European Union, this has been a major importance area, and has been covered in the community programmes for funding opportunities.

For the practical application of strategic policy intelligence the above mentioned methods and tools can be used. They are structured according to the time-line of the process in the picture from the "Strategic policy intelligence tools. Enabling better RTDI policy-making in Europe's regions", 2008.



The strategic intelligence process has the following phases: exercise design phase, exercise execution phase and preparing the implementation of the recommendations.

Concepts of decision-making

Evidence-based policy

A **policy** is a deliberate plan of action, guiding decisions and achieving rational outcomes. From a strategic perspective, the role of a policy is to resolve contradictions between the organisation and its environment. Broadly, policies are typically instituted in order to seek positive benefit and to avoid negative effects. The purpose is not simply to provide a basis for making efficient decisions, but also to provide knowledge needed to improve the organisational, political and social systems. The notion of **evidence-based policy** fits well with a rational decision-making model (Davies et al. 2000). The solution of a complex social problem requires not only better evidence of what works in terms of policy intervention, but also requires more rational decision-making in which such evidence can play a stronger role (Sanderson 2004). Colebatch (2006) describes three types of **policy**

knowledge (based on Tenbenschel 2006):

- **Epistemic knowledge** - the universal knowledge produced by analytic rationality. It is the type that establishes causal links and chains and is the knowledge aspired to by mainstream rationalist policy analysts in their search for the likely consequences of the different policy alternatives they evaluate.
- **Tacit knowledge** - the practical-technical knowledge derived from experience and skill. This is not simply the practical applications of epistemic knowledge. The tacit knowledge rests very much in implicit personal or institutional practices often associated with craft like skills, awareness of reputations, hands on techniques, etc. It is the knowledge which cannot be explicitly codified.
- **Phronetic knowledge** - this is a sense of the ethical. It is based on practical value rationality. 'Where are we going?', 'Is this desirable?', and 'What should be done?' are phronetic questions. This type of knowledge is important because it is often needed to underpin the definition of a policy problem.

The point here is that policy arguments are likely to involve all of these sorts of knowledge, but that participants are unlikely to be equally skilled in all of them. The reason for this is because each type of knowledge asks a different question. Epistemic asks 'what is true?'; tacit knowledge asks 'what works?'; and phronetic asks 'what should be done?'. Good policy argument rests on a foundation of all three types of knowledge (Colebatch 2006). In many policy areas participation of actors from society has become common practice. Participation can take place in different forms and at different levels. A general definition of **public participation** is the practice of involving members of the public in the agenda setting, decision-making, and policy forming activities of organizations responsible for policy development (Rowe and Freyer 2005). The stakeholders are members of the public who own the problem under discussion and having a stake in the future. Stakeholders can be individuals, informal groups or well established organisations. The number of stakeholders involved in a certain issue is not necessarily fixed but might change over time. As the policy process evolves, new stakeholders will enter the scene and others will leave. Stakeholder participation is considered to be a key driver behind improving evidence for policy (Enserink 2003). Decisions will be better in two respects: first, they will command greater respect from the stakeholders involved and hence carry more legitimacy; and second, they will benefit from the insights and knowledge brought by the different stakeholders (Burton et al. 2006). Stakeholders are very important in decision making not only because they can offer a new view about the problem (as knowledge providers) but they can also be involved in the organization's development. But, although for making a good decision it is best to respect the stakeholder's opinion it is not recommended to involve many participants in the policy process because it makes it complicated and complex and hard to manage. (P. De Smedt, Strategic Intelligence in Decision Making, page 92)

The Decision Makers

There are inherent tensions between traditional, more pluralist forms of public participation and new deliberative democratic processes. These innovative processes are challenging existing roles of the decision-makers in society. But the appreciation of these processes depends largely on the ongoing position taken towards the role of politicians in general. Hendriks (2002) makes an abstraction of a politician's role by describing two opposite positions: on one side a centralised and top-down steering approach, and on the other side a facilitating and networking approach. For each of these two opposite approaches he also describes a hard and soft approach.

- **Centralised:** proponents of powerful politics are in favour of the classic notion of representative democracy. Politicians are elected representing the public interest and take precedence. The *hard variant* stands for a strong centralised leadership with a strong concentration of the decision power, while the *soft variant* tolerates more interactive consultation.
- **Decentralised:** proponents of the modest role of politics are in favour of a facilitating role for politicians in decision-making. The *hard variant* stands for politicians who only steer and intervene when and if necessary, but who otherwise remain on the sidelines. The *soft variant* is more managerial oriented and in

favour of politicians who are limiting their selves to network management: politicians as a creator of preconditions and rules of game, as a process facilitator.

The conceptual difference between stakeholders and decision-makers is clear. The former has a stake and can have an influence to the decision-makers. The latter has the responsibility and power to make the decisions. In practice policy decisions are often shrouded in uncertainty. It is not always clear that a decision has been taken. It is sometimes unclear what the decision is and who has taken it (Burton et al. 2006). In reality the role of a politician is dynamic and deviates depending on internal and external developments such as the actual political agenda setting, temporally coalitions, discontinuities and so on. The boundaries between stakeholders and decisionmakers are less fixed and literature often includes also others non-politicians who are demonstrating political support to the process. Also agencies or government departments who are playing a role in the development of programs or in the allocation of funding can be seen as part of the decision-making, although this is sometimes contested

The Risk of Decision Failure

Decision failure is more common than people often tend or wish to believe. Some decision-makers always expect good results ignoring the possibility that outcomes of a good decision may change. If a decision-maker gets caught up in decision failure, most often they reveal as little as possible. Additionally it is also difficult to separate good decisions with bad outcomes from bad decisions with good outcomes. Anyhow, research on decision errors in organisations reveals high levels of failure, even up to fifty percent, in day to day decision-making (Nutt 2004). *Decision failures* occur in two overarching categories:

- *simple explainable errors or mistakes* - the possibility that the decision-maker was unable to make the decision. This category of inevitable errors denotes the statistical necessity that some random error will occur.
- *unexplainable or unexpected decision errors* - decision failures that occur in this category are more important because there is seemingly no logical explanation for the decision failure. The unexpected happened and the mental model turned out not to be robust enough (Chermack 2004).

There are four *potential contributors*, each independently or combined contributing to decision failures, as follows:

- *Bounded rationality* - people cannot effectively cope with all of the available information and alternatives
- *Neglecting internal change* - people have a tendency to believe that all internal processes are well being recognised
- *Stickiness and friction of information and knowledge* - there are cost and limitations in the transfer of information and knowledge between people
- *Mental models* - people are often selective and include and exclude information based on their mental model. Mental models describe the way in which people perceive the reality, their ideas, concepts, beliefs, ideologies that exist in an organization and among people. These mental models are not to be ignored when a decision must be taken, but they must not influence it. (P.De.Smedt, Strategic Intelligence in Decision Making, page 94)

Policy change

A policy is as a process and therefore its nature is somehow characterized by constant paradoxes and by the dynamic change. For example a policy can have relevant information for one stakeholder and in the same time

irrelevant for another one, or even more it ?can result in confliction framing of a problem by different stakeholders? and this is ?rather because of competing assumptions than because of inconsistent facts?. Policies suffer of continuous changes that appear in the external and the internal environments causing twists in problem perceptions and priorities stated initially, at the beginning of the process. Therefore changes in policies and in policies implementation mustn't be anymore an unexpected fact. Outcomes of a policy process are not always easy to discern at the time. Milestones when decisions are made and announced can be recorded, but their significance ? they may be seen as more or less important over time ? is not always clear. It can be useful to visualize this process as a series of sequential steps. In this linear model the policy process is divided into different steps: i.e. the problem definition, the analysis of alternative solutions, the adoption of a solution, and its testing and evaluation. Each step is treated as temporally and functionally distinctive. The model is most useful as a heuristic for identifying times and places where different outcomes are produced. But, the downside is that this model is oversimplifying and as such not optimal to understand policy change. The dynamic of change and changes that appear in the decision making process and in the policy process can't be avoided when interactions between groups of people or interaction between many flows of activities take place.

Interactions between Strategic Intelligence applications and Decision-Making

Inherent to the methods and theoretical assumptions used, SI applications have their advantages and limitations to support decision-making. These may be evaluated both in their own terms and in terms of whether they fit the purpose (Burton et al. 2006). But assessing the effects of SI applications requires an understanding that it is just one of the influences on public policy. To be effective it needs to be tuned into the strategic behaviour and cycles of policy and social actors (Georghiou and Keenan 2006). The given that a conventional process evaluation measures mainly activity and not its significance supports the fact that a broader perspective is needed to understand the effectiveness in the decision-making process. Three complementary perspectives on policy change are proposed to analyse the interactions between SI applications and decision-making, as follows.

Window of opportunity

Policy problems and solutions are social constructions. They are the result of a social process (Schneider and Ingram 1997). System dynamics are used in many disciplines ? such as economic, social and environmental science ? to describe complexity and change processes. Policy change can be seen as a dynamic, nonlinear process involving a diverse range of stakeholders and giving rise to both positive and negative feedback. Complexity refers to the intrinsic relationships that arise from the interaction of agents capable in adapting to and evolving with a changing environment. As mentioned earlier, policy change can be defined as an overall system behaviour that is the result from interactions between people including different flows of activity. In this model, streams of problems, solutions and politics move independently through the policy system. Each individual flow of activity can only indirectly and incrementally impact the changes in policy and policy implementation. Changes emerge when these three streams converge; presenting a window of opportunity to effectively drive the decision (Wood 2006). This approach emphasises the importance of barriers and incentives. Institutional structures, for example, can act as barriers in the way they promote conventional and risk-averse thinking and exclude new ideas and experiments on the political agenda. On the contrary, increased knowledge flows are important as incentives for policy change because they can act as a catalyst of change by raising awareness amongst the stakeholders and by confronting the decision-makers with new ways of thinking

Clarity of purpose

The complexity of policy choices prompts higher level of stakeholder participation. But the growing dependence of politicians to the other stakeholders can erode the trustworthiness of the politicians. SI applications affect decision-making not only by providing legitimacy to some forms of political action, but also by shaping the actors' perception of their interest as well their strategies (Dimitrakopoulos 2005). It is important for SI applications, such as foresight, to involve politicians prior to the start. The lack of commitment of politicians to SI applications, may lead to the emergence of parallel processes that can create divergence between the different flows of activity. This can eventually lead to inertia and limited opportunities for innovation. To be effective, SI applications need a clear purpose and position in the policy process and the participants, including the decision-makers, should be aware of their role. Complete clarity concerning what decision-makers want to achieve is essential in order to design the process aiming to meet those objectives (Burt and van der Heijden 2003). It is therefore important that politicians must play an active role in the confirmation of the process design and the communication of the purpose. Moreover, SI can give policy-makers an opportunity to achieve visibility and leadership by taking the role as foresight ambassador. This approach emphasises the importance of transparency and political commitment in the SI application process.

Legitimacy of evidence

Stakeholder participation and interdisciplinary research are considered to be key drivers behind improving evidence for policy (Enserink 2003). Regarding legitimacy, the point is not to judge whether an objectively correct decision has been made, but to explore if all key stakeholders had trust in the foresight process to provide strategic intelligence to support decision-making. Legitimacy is a question of perception. It is generally higher in cases in which policy recommendations have been produced in such a way that divergent values and beliefs of involved stakeholders and decision-makers have been respected, and opposing views and interest have been duly acknowledged (Niederberger 2005).

Reference - Strategic Policy Intelligence: Current trends, the State of Play and Perspectives, S&T Intelligence for Policy-making Processes, Executive Summary, by Alexander Tubke (JRC-IPTS)