

ADVANCING FORESIGHT METHODOLOGY THROUGH NETWORKED CONVERSATION

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Abstract

Foresight practice has taught us that designing a Foresight exercise is far from being straightforward. First of all, there is no single recipe, and yet the field of Foresight is currently saturated by different but comparable tool kits. Secondly, key issues like stakeholder commitment and the interrelation with the decision-making process remain difficult to manage although more in-depth reflections during the design phase could partially help on these. Thirdly, techniques are not always appropriately used at the right moment in the right place. As valid, we also have to admit there is a lack of thorough understanding concerning methodologies. The community of researchers and practitioners has expended during the last decade, but no real progress seems to have been made on knowledge building and in addressing methodological issues. The latter is probably due to the fact that sharing simple work practices is easier than sharing distinct strategic capabilities. Nevertheless these capabilities are essential to improve the legitimacy of Foresight as a policy tool.

COST Action A22 Advancing Foresight Methodology wishes to contribute to the international debate on whether innovation within the Foresight community is strong enough to safeguard its future. Key factors for advancing methodology are related with the questions: i. how to perceive what is needed to achieve a high quality process, ii. how to learn out of practice and, iii. how to improve what we are doing today? The Action is therefore looking for modes of interaction and production through a more radical and non-conformist way. What are the implications of theories for methodological practice? What provides better understanding of theory for Foresight Methodology? One way to tackle these questions is to create a networked conversation among researchers and practitioners. Often new insights have their origin in an effective sharing and debating of multi expert know-how. Conversation within the Action will provide opportunities for previously unconnected communities to learn from each other's experience and expertise to better link theory with practice through methods.

Keywords: Foresight practice, Methodology, Scientific Roadmap, Networked conversation

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1 Introduction: What is Foresight?

What is Foresight? Notably, Foresight is not forecasting or prediction. According to Richard Slaughter former President of the World Future Studies Federation, Foresight is:

A universal human capacity which allows people to think ahead and consider, model, create and respond to, future eventualities. Founded on the rich and inclusive environment of the human brain-mind system which, crudely put, has sufficiently complex neural 'wiring' to support an extended mode of perception whose main functions are protective and facilitating. Modelled most clearly in everyday acts such as: driving, crossing a busy road and planning a holiday. A springboard for a wide range of futures methodology, organisational developments and social innovations.

The term Foresight is often used interchangeably with terms such as futurology, future studies, 'la prospective', and prospective analysis and there is no established consensus on the boundary lines between the various fields that the terms are said to represent.

The notion of Foresight can be traced as far back to novels such as Edward Bellamy's *Looking Backward: 2000 – 1887* (1887) and H.G. Wells' *The Time Machine* (1895). Foresight emerged in decision-making contexts following the Second World War in fields such as US military strategic planning with the RAND Corporation, and in French spatial planning with DATAR (the national institute for spatial planning). In the 1960s, General Electric and Royal Dutch/ Shell introduced Foresight techniques in their corporate planning procedures. In the 1970s, Foresight included scenarios of socio-economic and environmental futures accompanied the introduction of the first global models that attempted to address these issues in an integrated fashion. In recent decades, Foresight has also been adopted in many areas of public policy, policy analysis, technology assessment, and scoping studies for various sectors and industries.

Foresight aims to identify opportunities and areas of vulnerability in complex strategic issues. Its application ranges from strategy development to the raising of the general public's awareness of developments that are likely to influence society's future. Common to all use of Foresight, however, is the structuring of knowledge about complex issues into manageable elements so that these issues can be understood better and more informed decisions can be made. Foresight can be practised in a number of ways. Examples include:

- Scenario analysis: the development of descriptions of possible future situations in order to anticipate and prepare for upcoming developments.
- Participatory methods: examples are Delphi studies and focus groups where respectively expert and non-expert opinion on a specific issue is collected and analysed.
- Computer simulations: the representation of possible future situations through computer modelling in order to investigate how present developments might turn out in the future.
- Future-Oriented Technology Analysis: the analysis of technological innovation, its application, and its impacts for use in policy-making contexts.

The aim of this paper is to contribute to the international debate on whether innovation within the Foresight community is strong enough to safeguard its future. Crucial is the recognition that Foresight *is* practice and performative – i.e. it produces actions and decisions. But not only that,

the continuity of low quality Foresight practice (e.g. with participants are disempowered and the decision makers see no real added value) is also performative but contains a serious threat. So instead of promoting the use of Foresight as a well developed policy instrument, low quality practice leads to discontent and disappointment.

This paper reflects on Foresight methodology and explores the core problems concerning the effectiveness of Foresight practice to support future challenges for Europe. The hypothesis is that the community of researchers and practitioners has expended in Europe during the last decade, but no real progress seems to have been made on knowledge building and in addressing critical methodological issues. As mentioned above, there is limited written documentation in Foresight literature concerning methodological innovation. Yet, literature on Innovation and Technology planning reveals a broad spectrum on the techniques and instruments to support methodological innovation in a multi-functional organisation or community.

The paper begins in Section 2 with a brief overview of Foresight in Europe highlighting that, although Foresight techniques have been actively applied since the late 1960's, European Foresight is arguably more diverse and fragmented both in terms of the actors involved and the methodology applied than in the US. In Section 3, fundamentals of improving methodology are explored based on observations of a Foresight network group process. The strategic conversation in this process was driven by the key questions - How to perceive what is needed to achieve a high quality process? - How to learn out of practice? - How to improve what we are doing today? Finally conclusions are summarized in Section 4 suggesting that among a lot of other characteristics, Foresight can be seen as a technology and that technology planning techniques, such as roadmapping, could contribute to enhance dialogue within the Foresight community to advance Foresight Methodology by a networked conversation. The paper is still a working document for discussion; we would appreciate that it would not be cited without authors' permission.

2 Foresight in Europe

Although Foresight techniques have been actively applied since the late 1960s European Foresight is arguably more diverse and fragmented. In the USA activities organised by the World Futures Society draw thousands of participants annually and organisations such as Global Business Network and SRI International are well known within the wider Foresight community. In Europe, many Foresight initiatives are undertaken and they range from scenario development exercises for small and middle enterprises (SME's), to regional and national Foresight studies, to environmental assessments for European public policy. The methodology that is applied is diverse and leans on theory from various disciplines such as psychology, history, policy science, economics, and business administration.

The diversity in European Foresight methodology makes for a rich pallet of techniques but it also leads to the reinventing of wheels and putting old wine in new bottles. On the other hand, the communication, co-ordination, and streamlining of European Foresight activities are improving. Presently there are numerous initiatives such as magazines, conferences, discussion forums, and collaborative projects that harness European experience and expertise in Foresight. The European Commission is an important facilitator in this process.

The developments in European Foresight are encouraging. The last decade has seen a proliferation of Foresight exercises across Europe (Keenan et al., 2003). A challenge is to

maintain the development of European Foresight in all its facets such as methodology, product development, communication, and dissemination.

2.1 Foresight and the Social Sciences and Humanities Domain

At two seminars in 2001, several European Foresight institutes expressed an interest in creating a network for the research and development of Foresight methodology. A COST Action² is deemed an ideal vehicle for creating such a network because it can provide the framework within which European organisations can work together in improving Foresight methodology. In so doing the COST Action will help support decision-making processes in Europe and the raising of awareness and understanding of factors that are likely to shape Europe's future.

The Social Sciences and Humanities Domain is an ideal fit for this Action. Foresight requires an understanding of social processes and discourse between the general public, decision-makers, Foresight researchers, and practitioners. Furthermore, a key element of Foresight is concerned with the presenting of possible outcomes of social processes. Consequently, Foresight draws strongly from social fields such as decision theory, discourse theory, game theory, cultural science, and cognitive psychology.

In 2003 a memorandum of understanding was established and approved for the implementation of a European Concerted Research Action designated as COST Action A22 "Foresight Methodologies – Exploring New Ways to Explore the Future"

2.2 COST Action A22: a European Network for Foresight Methodology

The main objective of the ongoing Action is to develop certain aspects of Foresight methodology so as to ensure systematic use and optimum benefit. This will be done within the framework of a European Network for Foresight Methodology that will facilitate communication and co-operation among researchers and practitioners. The Action will provide a coherent supportive framework at the European level including more than 150 members from over 23 countries. This COST Action A22 addresses aspects of Foresight that the signatories feel demand special attention. These aspects are:

- Research and development of Foresight methodology: currently there is an imbalance between the high level of operational use of Foresight and the relatively low level of research and development of its methodology. Addressing a number of specified methodological issues in the Action would serve to enhance the quality of Foresight practice.
- Communication of and co-operation on Foresight methodology among researchers and practitioners: communication and co-operation of Foresight expertise and experience is improving but most takes place within disciplinary and thematic boundaries. More cross-disciplinary communication would enhance learning and the development of methodological aspects of Foresight.

² COST stands for "European Cooperation in the Field of Scientific and Technical Research" and is an EU funded networking initiative that is designed to offer an opportunity for research-based debate on new multidisciplinary fields.

The focus on methodology will necessitate a cross-disciplinary approach in drawing experience and expertise from a panorama of disciplines, fields, and communities. These include future technology assessment, governance, corporate strategic management (for both small and medium enterprises and international companies), environmental science and policy, social and cultural sciences, and military science and strategy.

Research within the Action will provide opportunities for previously unconnected communities to learn from each other's experience and expertise with Foresight methodologies. This cross-disciplinary philosophy is reflected in the persons and institutions that have participated in the preparation of this proposal. Links with European initiatives will provide a wider reach for the Actions' methodological research and ensure complementarities between research activities.

The Scientific Programme will be structured around a series of topics related to Foresight methodology. These have been clustered into a small set each providing the basis for a working group. These groups will explore the theoretical underpinnings of the topics and the tools and methods that have been used in previous and existing studies. The goal is to evaluate this experience and to provide recommendations for future efforts. As the concepts being explored within the working groups are of interest to the network as a whole and overlap at points, it will be important to maintain close communication across these groups. The working groups and the topics upon which they will focus are described below. All working groups aim to establish a vibrant interaction between researchers and practitioners. A major dissemination event will be the Final Conference organised in June 2007.

2.3 Working groups

2.3.1 Working Group 0

The focus of this working group is to uncover a number of theoretical themes that underpin the methodologies utilised in Foresight thinking and practice. It is important for the members of the network to understand how science provides insights on social change. Dissemination includes several presentations for all the members of the network. A special edition of Futures is being finalised.

2.3.2 Working Group 1: Identifying Seeds of Change

The focus of this working group is the identification of emerging issues in the form of weak signals, potential surprises, seeds of change, etc. The identification of these issues and planning for their eventuality is the central focus of many, if not most, Foresight activities. A particular concern here is to identify points of vulnerability, i.e. parts of the system that are subject to sudden, discontinuous change.

There will always be events and developments that are unexpected, due to three types of indeterminacy — ignorance, surprise, and volition. Dissemination will include a special edition of Technological Forecasting and Social Change. This special issue focus on contributions that expand our collective knowledge on how to sense and respond to new developments in (economic, technological, environmental, political-military, social, etc.) systems that are relevant to social actors and groups. It invites original works that suggest new ways to identify emerging Foresight issues and is particularly concerned with the identification and assessment of sudden

changes that pose strong challenges for the future of the relevant system and the position of social groups and organisations within them.

2.3.3 Working Group 2: Integrating Narratives and Numbers

The focus of this working group is the integration of qualitative and quantitative information in Foresight analysis. Both approaches have their strengths. Qualitative scenarios can have a richness that is not bound by quantitative methods. They can explore relationships and trends for which little or no numerical data is available, including shocks and discontinuities; they can more easily incorporate motivations, values, and behaviour; they can create images that capture the imagination of those for whom they are intended. Quantitative scenarios, when done properly, provide a rigour, precision, and consistency that comes from their numerical and mathematical underpinnings. Their assumptions are made explicit and are, therefore, open for critical examination; their conclusions can be traced back to the assumptions and the effects of changes in assumptions can be easily checked, pointing to important uncertainties. Areas of focus for this working group will include, among others, the representation of discontinuities and non-linear change in quantitative analysis, the methods of presenting qualitative and quantitative information in an integrated fashion, presentation of quantitative material to non-expert groups.

2.3.4 Working Group 3: Interactions between Researchers, Decision makers, and the Public

The focus of this working group is the role Foresight plays and can play in the interaction between researchers, decision-makers and the broader public. This follows from one of the main lessons learned from previous Foresight work that the process is at least as important as the product. The interaction between researchers and decision-makers is necessary to ensure the relevance of the Foresight activities to the decision-makers and to help the researchers in understanding decision-making processes and how these affect future developments. From the point of view of content, the breadth of perspectives, expertise, and knowledge that the participants have is needed to guarantee the richness of the work, both in the range of issues that are covered and in the detail to which these are explored. From a process point of view, concerns about participation and communication have become a requirement in many planning activities. Areas of focus for this working group will include, among others, visions, participatory processes, theories of decision-making, discourse analysis, and theories of communication.

3 Improving Foresight practice

Foresight is a way to integrate complexity and uncertainty in planning and decision processes and its practice is more than just a standard procedure. Foresight is a way of thinking about the future, of identifying opportunities and threats that may arise over the coming years and decades (Berkhout et al., 2002). As it usual is with complex activities, there are several dimensions to define the nature of Foresight and objectives are generally related to its ability to improve decision-making today via its methods and practice. Critical for Foresight practice is the efficient and effective construction of shared context that enables issue-specific knowledge creation through a process of argumentation.

Foresight practice has taught us that designing a Foresight exercise is far from being straightforward. It is widely recognised that the successful conduct of Foresight requires considerable skill and expertise (Keenan et al., 2003). So it is not a surprise that techniques are

not always appropriately used at the right moment in the right place. As valid, we also have to admit there is a lack of thorough understanding concerning methodologies. The community of researchers and practitioners has expended during the last decade, but no real progress seems to have been made on addressing methodological issues, such as stakeholder commitment and the interrelation with the decision-making process. This is probably due to the fact that sharing simple work practices is easier than sharing distinct strategic capabilities. Nevertheless these capabilities are essential to improve the legitimacy of Foresight.

3.1 Foresight Methodology and how to perceive what is needed?

The methodology of Foresight may be seen as a process of inquiry designed to discover insights and solutions to complex problems. As used here, inquiry refers to a process of probing and investigation rather than to scientific experiments that can be repeated (Dunn, 2004). For the purposes of this paper, the term 'methodology' is related to the concept of methods of knowing and knowledge building. Methodology gives an explanation of 'how we know' something. The context and the way methodologies are implemented in a real case are equally important then the objectives. As Sayer (1992) describes, a methodology needs to be appropriate to the nature of the object under study and the purpose and expectation of the study. Methodologies are more than a well described toolkit. They are a kind of puzzle solving devices and they require us to make assumptions of how we see the world and what evidence we have or need to have to understand.

In the table below are examples of methodological features of Foresight. This is not an exhaustive list, and they are of course 'constructions'. However, they appear sufficient as devices to connect Foresight practice to methodological principles arising from a social constructionist perspective. The table also shows examples of methodological issues faced by professional practitioners in undertaking Foresight exercises. The examples were all drawn from a workshop in December 2005 of the COST Action A22 network, where members of the different working groups were challenged to surface some of the methodological issues they faced. Again this is not intended to be an exhaustive list. Space does not permit an explanation of the meaning of these keywords as generated by the groups. A slightly more detailed 'map' of the issues is shown in annex 1, though again the authors are not able to explain the precise meaning of these terms – if this were possible in a workshop situation where meanings are highly contested.

If we take the social constructionist approach to these methodological features, we begin to see how methodology developments have been influencing Foresight and decision-making. Sociology of knowledge (Berger & Luckmann, 1967) combines different scientific disciplines and professions, related by what we believe to be knowledge. Sociology of knowledge has shaped previous Foresight practice in terms of problem structuring and solving. Clearly, scientific paradigms have been influencing our views on social challenges and changes and on the knowledge we produce to deal with these challenges. Our perceptions and understandings of the world are context-dependent and theory-laden. If we want to improve Foresight, we need to have a clear image - or map, to introduce this metaphor - on the theoretical issues and methodological features of Foresight.

Methodological features of Foresight	Examples of methodological issues cited by professional Foresight practitioners
Reflexivity , i.e. reconstructing meaning from a process of interpreted feedback ³	Values, overt goals, questions and problems, types of knowledge, biases, ambiguity, emotion, learning, learning society, ways of thinking, vision.
Simulation , i.e. the generation of alternative worlds, from micro to macro.	Open mindedness, replication, tools, instruments, use of technology, vision.
Time (past/present future), i.e. a pre-requisite for Foresight is a concept of future time.	Interestingly this issue was not noticed as problematical by the participants, except as 'analysis and time'.
Participation , i.e. an engagement with human actors that have a stake now or in the future of the specified issue.	Participatory methods, consensus, diversity, negotiation, community involvement, individual ability to Foresight.
Action , i.e. Foresight is performative	Social impact, policy impact, emotion during transient periods.
Descriptive difference : description of change, i.e. abstraction from whole worlds and re-categorising of concepts or events are fundamental to producing descriptions of different futures.	Creativity, boundaries, meta-analysis, symbols, ordering, classification, situated-ness, redundancy, coherence, selection, risk.
Production of difference , i.e. theories and practice of causality, power and influence.	Knowledge interest heuristics, social impact, intensions of sponsor, language, networks, conflict/co-operation, emergence, resilience, commensurability of models, hegemonic Foresight, anti-Foresight.
Communication and meaning . Foresight do not carry social meaning unless they are communicated to or with others.	Rhetoric, metaphor, deconstruction, action-learning.
Representation . It is typical of Foresight to produce symbolic texts as representations of generated knowledge.	Symbols, framing, commensurability.
Legitimacy , i.e. as with any form of intellectual contribution to society, Foresight has to establish and maintain its political seriousness.	Objectivity (overt goals), rigour, ethics, replication, transparency, epistemological explanations, validity, feedback, costs, transparency.

Table 1. Methodological features of Foresight based on a Cost Action A22 network workshop.

³ Wendell Bell suggest that Futures Studies is self consciously reflexive (Bell, 1996 p.237)

3.2 How to learn out of practice?

Organisational learning and innovation theory can provide some insights how to move beyond the mapping exercise to advance Foresight competence and practice in a more rigorous way. This theory describes the tension between exploiting knowledge derived from past experience and exploring new possibilities that may enhance a repertoire of competitive responses. Innovation research describes a related paradox between pursuing incremental innovations be based on modest revisions of past successes, and radical innovations that can only be justified by reference to the possibilities of the future (Ford, 2002). Combining mapping techniques with a future oriented planning device can provide us a strong strategic approach to advance Foresight methodology. Comparable knowledge building processes are also described by authors on strategic management. Porter (1991), for example, states that researchers need to focus more on developing a 'dynamic theory of strategy' that provides longitudinal descriptions of the strategic processes involved.

An approach we want to introduce in this paper to advance European Foresight is strongly related to science and technology mapping. As stated in the previous paragraph, mapping the theoretical paradigms and methodological features can provide essential insight to improve practice. Roadmaps, adding a time dimension, can be useful for supporting and communicating co-ordinated strategy and planning by combining mapping and forward looking devices.

The concept of road-mapping has its roots in science and technology planning. A science or technology roadmap is like a highway roadmap in that it describes how one might proceed from a starting point to a final destination. As a highway roadmap shows the intersections between roads, a science or technology roadmap shows the intersections between scientific steps or technologies. It is forward looking and forecasts the paths that might be followed to a final or desired achievement. Thus it is both a normative forecasting tool as well as a planning technique (Gordon, 2003).

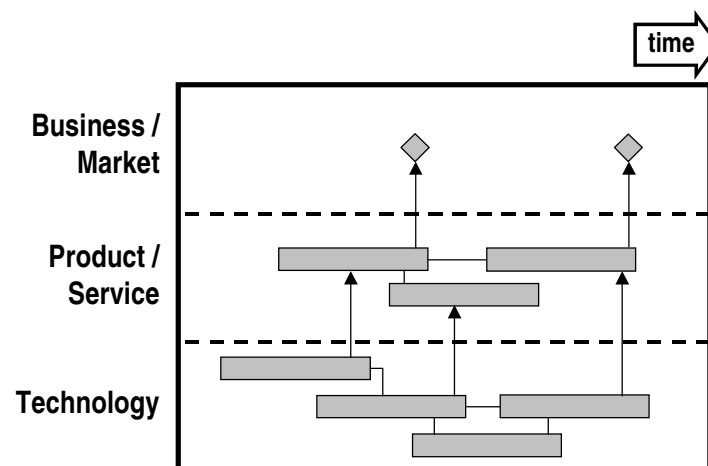


Figure 1. Example of a technology roadmap chart (after Phaal et al., 2001)

A roadmap can take various forms, but generally comprise a time-based chart together with a number of layers, which provide a means to link technology and other resources to future products, as well as to business objectives and milestones (see figure 1 and Phaal et al., 2001). Translated to Foresight methodology a European Foresight Innovation roadmap (EFI roadmap) should link scientific progress, methodology developments to state-of-the-art practice as well as to policy challenges. Figure 2 gives a look on another outcome of the December 2005 workshop, providing very preliminary insights on how the process of an EFI roadmap can be initiated. Again this is not intended to be an exhaustive and detailed example. Also here, space does not permit an explanation of the meaning of these keywords as generated by the groups. A next step based on this example in figure 2, would consist of mapping out policy challenges and connect them with the other layers. The following step would be introducing a timeline. This would expend the format from being a mapping device to a planning device. Several iterations would be necessary to provide a comprehensive multi layered roadmap.

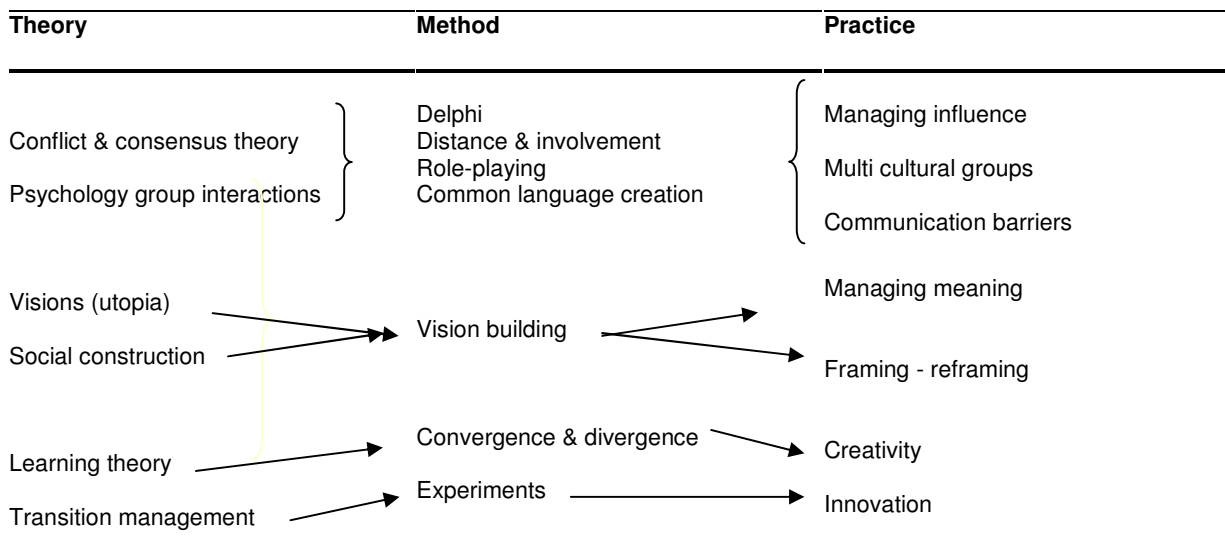


Figure 2. Linking theory to practice via methods. Preliminary results based on a Cost Action A22 network workshop.

To summarize, an EFI roadmap can be described as a multi layer overview on the scientific knowledge (push) and the social needs (pull) of Foresight as a policy instrument. This approach can lead to strong comments, positive and negative, with the idea of looking at Foresight as a technology. Especially the concept of standardisation, what is usually related to mature technologies, can hold some confusion. Foresight competencies tend to be recognised through the exercises that the practitioner has been involved with, rather than through any form of certification (Keenan et al., 2003). But standardisation can also be interpreted as the development of concepts and principles, rather than standards, certificates and fixed rules, which are guiding Foresight practice.

Hence, we believe that the concept of a roadmap is well know and established within the Foresight community. Using that expertise, EFI roadmap can promote a joint identification of the

critical challenges and exploration of the limits of today practice. This will allow an iterative assessment of the future strengths of Foresight and possible actions and co-operation needed in the present. An EFI roadmap can provide a common framework and language for persons from different disciplines, stakeholder groups, and regions to interact. It can reduce long established barriers between different scientific fields and practitioner groups and it helps to promote knowledge building within the community.

3.3 How to improve what we are doing today?

The diversity of Foresight is part of its strength, but also its weakness. Diversity and knowledge from multiple disciplines and professions is usually more effective in responding to real-world problems than knowledge from single disciplines (Dunn, 2004). Arguably Foresight is also fragmented creating unproductive barriers for knowledge building and improving practice. Clearly, organisational learning is less effective in a more fragmented community. What will keep the door open for less effective practice by inexperienced practitioners, leading to discontent and disappointment.

What needs to happen to move Foresight forward as a policy instrument? Based on the observations in the Cost A22 Action, examples of good practice and a literature review, we have identified a range of actions that can be taken to enhance innovation in Foresight methodology. Actions can be grouped under four themes:

- Addressing structural innovation by effectively linking policy challenges (demand) and science (supply) via methodology and practice. In these processes practitioners form an important interface between science and society.
- Establishing a common agreed vision on Foresight features. What kind of scientific developments and methodological insights can enhance Foresight practice?
- Enhancing competencies and capabilities within the Foresight community to guarantee an ensuring and effective supply.
- Supporting state-of-the-art Foresight exercises by using networks within the community effectively to create and sustain legitimacy for practice.

These actions can be organised within the process of an EFI roadmap. In general such an interactive mapping and planning process should involve four basic phases:

- Identification of EU internal and external challenges.
- Generation of Foresight feature concepts as an effective policy instrument.
- Identification of methodology solution and options.
- Charting milestones, product and methodology evolution and resources (leading institutes, research programs, etc.).

The four phases are highly interlinked and several iterations would be necessary to provide a comprehensive multi-layered roadmap.

4 Conclusions

Coherent and co-ordinated thinking about the future is essential in this increasingly complex and global environment. These complexities challenge the capacity of humankind to learn from experience and to create a shared vision of a better world. Foresight is a way of thinking about the future. Its purpose is not to know the future but to improve decision-making today via its methods and practice. The last decade has seen a proliferation of Foresight exercises across Europe (Keenan et al., 2003). Yet, European Foresight is more diverse and fragmented both in terms of the actors involved and the methodology applied.

Sociology of knowledge, from a social constructionist point of view, has shaped Foresight practice by influencing the views on social challenges and changes and the knowledge produced via Foresight to deal with these challenges. The diversity of Foresight in Europe is part of its strength, but also its weakness. A European Foresight Innovation roadmap (EFI roadmap) can provide a common framework in order to assess and develop the future strengths of Foresight. It is a way forward to better link theory with practice through methods and to improve knowledge building within the Foresight community. Knowledge building or transmission of information is in this context a key element for success and represents a collaborative process in which conceptual change and innovation are apparent (Campos, 2004 and Devezas, 2005).

While the technology road-mapping approach has been successfully used in industry and R&D on a sector or company level, the implementation of the approach in a European Foresight community is challenging. To support the development of such a roadmap a networked conversation among researchers and practitioners is needed. This will provide opportunities for previously unconnected communities to learn from each other's experience and expertise. The concept of a roadmap will also underpin this interactive process by providing a mean to be performative. Net the process of developing a European Foresight Innovation roadmap, can and probably will shape the future of European Foresight.

The idea of a European Foresight Innovation roadmap needs more research and experimenting, such as the Cost Action A22 workshop, within the Foresight community. Especially the concept of standardisation can hold some confusion. Overall, the key challenge is not only related to initiate the approach, but it also lies in the ability as a community to maintain the process in an innovative way.

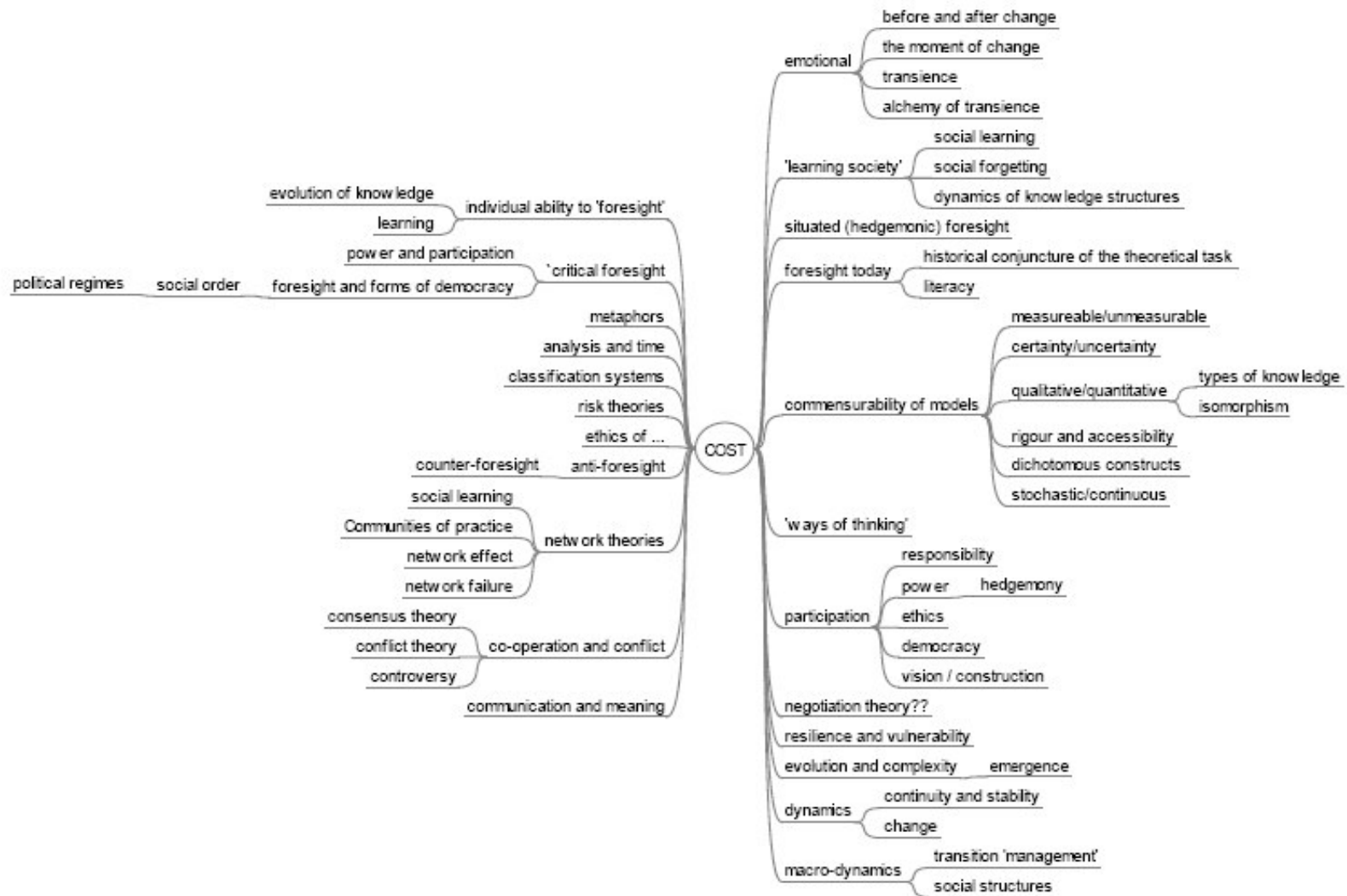
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Annex 1 – 'Mindmap' of methodological issues discussed in the COST Action A22 working groups.