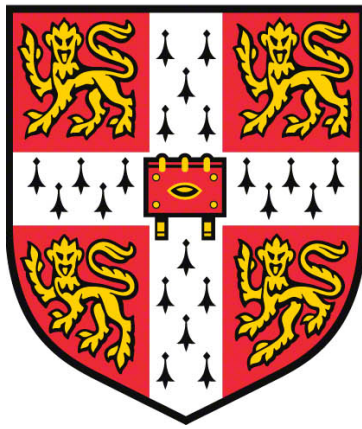# FORESIGHT IN PUBLIC POLICYMAKING:
AN EXPLORATION OF PROCESS PRACTICES

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Preface

This thesis is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the Preface and specified in the text.

It is not substantially the same as any that I have submitted, or, is being concurrently submitted for a degree or diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the Preface and specified in the text.

I further state that no substantial part of my dissertation has already been submitted, or, is being concurrently submitted for any such degree, diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the Preface and specified in the text.

It does not exceed the prescribed word limit for the Degree Committee of the Department of Engineering. This thesis contains 18 figures and 12 tables.

Abstract

Ilaria Isabella Frau
FORESIGHT IN PUBLIC POLICYMAKING: AN EXPLORATION OF PROCESS PRACTICES.

Despite governments' recognition of the importance of maintaining a forward-looking approach in policymaking, the actual inclusion of information and insight concerning the future into policy development does not appear widely implemented. However, existing literature on 'public' Foresight appears predominantly prescriptive, offering limited information concerning its actual practices and their possible consequences on both the output and its acceptance and uptake.

The investigation focussed on how Foresight activities ("FAs") are being carried out within the public sector, in order to identify which practices – in their preparation, execution, and management – could be ultimately affecting the way the insight thus generated is accepted and used (or not).

This enquiry is intended to help identify best practices for FAs that can support both the quality of any insight produced and its ability to contribute to policy design and – ultimately – delivery. The goal was to explore and understand current practices and their possible effects and implications, in order to 'abduce' from them the theory components that would underpin said recommendations.

Data collection for this Grounded Theory approach was carried out first during an in-depth case study, and subsequently during focused interviews carried out six years after the case. This made it possible for the events to play out fully, as well as allowing the subjects interviewed sufficient perspective and emotional distance from the facts.

The data analysis led the Researcher to identify fifteen elements of practice that appear to have a crucial impact on the quality and performance of the outcomes of Foresight activities and exercises, as well as thirteen areas of impact which clarify where and how such quality and performance may be affected, and a table which attempts to map the connections between each element and the areas it influences.

The thesis concludes with suggestions for fifteen recommendations for practitioners.

1. Introduction

To paraphrase some popular quips, " 'I don't want to make better decisions' – said no one, ever." The majority of us do seem keen to improve our decision-making skills, judging by a quick scan at the business section of airport bookstores, by the proliferation of courses, seminars, and talks on this topic, or by newspaper headlines lamenting some decision or other recently made by politicians.

Despite differences in the techniques, tips, and tools proposed, most experts agree that the quality of a decision will depend not only on the process followed, but also on the amount as well as accuracy and relevance of the information used (Saaty, 2008). Indeed, assessments of decisions are (or should be) made on the basis of what information was available *at the time*.

Most decisions, even the most mundane, require amongst other things some sort of information about the future (de Jouvenel, 1967). However the future can not be known with certainty, so assumptions are made – even when not clearly stated, they are not absent but simply implicit (thus potentially even more dangerous, as those deciding may be unaware of them), by default incorporating a belief that the future will continue as present or, when a dynamic element is considered, along the same trajectory.

While small decisions typically have small consequences, big decisions such as those forming the object of policymaking have large consequences affecting many. Furthermore, their timeframe, in terms of results as well as more or less intended consequences, is the medium-long term. Unsurprisingly then the 1999 Modernising Government White Paper required UK policymakers to explicitly include the future dimension in their assessments and decisions and "*become more forward- and outward-looking*".

This is not new – in the old times virtually all people in power were trying to figure out the future and reduce uncertainty before important decisions, as shown by the brisk trade enjoyed by famous oracles. There has been, however, an evolution in the way a nation's key decision-makers would obtain information concerning the future, going from the reading and interpretation of some random event – from dreams, to the flight of birds, to the casting of bones, all the way to the characteristics of an animal's entrails – to approaches that, after the Age of Reason and particularly after the turn of the 20th century, were progressively more scientific and rational/logical (Adam and Grove, 2007).

Over the past five decades, interesting techniques have emerged that aim at helping decision makers look ahead, driven by advances in sciences and technologies as well as by need, as leaders faced increasing uncertainty and complexity, while the potential costs of mistakes and unintended consequences have soared. Nevertheless, despite the White Paper and subsequent government

publications, and despite the ongoing efforts aimed at generating insight about the future, actual attempts to integrate said future insight into policymaking – particularly when considering policymaking in its entirety, that is up to and including implementation – do not seem to have met with great success in the UK[1]; and the statement made by the Cabinet Office's Strategic Policy Making Team Report in 1999 appear to be still valid: "*Our conclusion is that, although there is a lot of activity across departments looking ahead, it has not, as yet, been joined up effectively nor does it feed systematically into mainstream policy making in the way that it needs to if long-term thinking is to become ingrained in the policy process.*"

During her work at the World Economic Forum, the Researcher was part of the team that led the development of a number of scenario building exercises, whose results were typically published and presented to the Forum's members and other business and political leaders. Despite the interest expressed by such recipients, who often remarked on the importance and consequence of such insight, the Researcher was struck by the fact that at the same time most of those same recipients confessed to be unsure of "what to do with it" in practice. The Researcher noticed similar reactions from clients and audiences in her later professional experiences, while managing and facilitating scenario building and other foresight exercises.

Between 2008 and 2012, as a member of the Foresight Action Network[2], a forum aimed at facilitating networking and the exchange of information between public, private, academic, and voluntary sectors about making effective use of strategic futures thinking, the Researcher became increasingly aware of the frustration repeatedly expressed by futures professionals in the public sector with regards to both the acceptance and the subsequent use of the results of their activities in the context of policy development.

Since there is evidence that futures-oriented analysis continues to be carried out in the UK, the Researcher considers it important to ask: what is stopping policymakers from using it, and what may be compromising its translation into action?

Experts such as Ringland (Ringland, 2002) and Horton (Horton, 2009), who themselves had direct experience in carrying out future oriented work within the public sector, mention a number of challenges met by futures work in policymaking, both within the public sector itself (such as attitudes towards uncertainty and towards the 'evidence' generated by foresight activities, short-termism, resources availability) and outside of it (such as the complexity of systems and issues of public relevance, public expectations, accountability).

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[1] See the 2011 report from the Institute for Government "Policy Making in the Real World".
[2] Earlier 'Futures Analysts' Network' (FAN Club), originally funded by the UK government's Horizon Scanning Centre, and later sponsored – as Foresight Action Network (FAN Club 2.0) – by the Shaping Tomorrow consultancy.

The Researcher chose to study how the actual *practice* of conducting futures-oriented analysis aimed at supporting policymaking could be changed in order to improve both its uptake and its delivery.

Therefore the Researcher decided to undertake an investigation focusing on how the futures work itself is being carried out within the public sector, in order to identify which practices could be ultimately affecting the way the insight generated is accepted (or not) and used (or not).

The identified Research Objective was therefore: How can Foresight practice be improved, in order to better support Public Policymaking – where 'Foresight practice' encompasses the preparation, execution, and management of Foresight exercises and activities, while the 'support of Public Policymaking' extends from the stimulation and information of the political debate up to the delivery and implementation of the resulting policy directives.

The Researcher believes that addressing this problem can help identify best practice recommendations that can help improve both the quality of any insight produced and its ability to contribute to policy design and – ultimately – delivery.

2. Literature Review

The future of the past is the future
The future of the present is in the past
The future of the future is in the present
(McHale, 1967 "The Future of the Future")

In making one's way in the world, the only really useful knowledge is knowledge of the future
(Bell, 2002 "What do we mean by Futures Studies?")

2.1 Introduction

After a note on the approach and methodology followed (section 2.2), this chapter offers a review of the current theory and research on the topics of Foresight (section 2.3), Policymaking (section 2.4), and the use of Foresight in the Policymaking context (section 2.5). Section 2.6 presents a brief overview of selected areas of research on aspects of Participatory processes that appear to offer some interesting contributions to the Research Topic; section 2.7 reviews literature that specifically focuses on the participatory aspects of Policymaking and Governance, while section 2.8 looks at research on ('properly') Participatory Foresight in the context of Policymaking.

Section 2.9 concludes with the Researcher's comments on the existence of a Research Gap concerning the actual observation of the use of Participatory Foresight techniques in support of the Policymaking process, and of any obstacles or problems that may be encountered.

2.2 Methodology

While many authors, in the context of Grounded Theory ("GT") approach (see 3.3.1 below), argue against conducting a literature review too early in the research progress, the Researcher aligned with Dunne's view that one should approach the research process "*open minded, not empty-minded*" (Dunne, 2014), and carried out a summary literature review, mostly to ensure that the issue had indeed not been explored before and thus offering a rationale for the study. The Researcher was also able to see how the phenomenon had been observed by others, both in terms of aims and perspectives, and to become aware of what theories and ideas were, to use an increasingly popular term, 'trending' amongst foresight experts, both academic and practitioners – keeping in mind that the objective of this review was to enhance the Researcher's own theoretical sensitivity (see 3.6.1 below) and to engage critically with existing knowledge (Thornberg, 2012), rather than to adopt and apply pre-existing theories and concepts (Glaser, 1998).

The Researcher started by searching using the primary keywords – such as "Foresight" and "Policymaking" – and their combination – e.g., "Foresight in Policymaking" would be found – on the

principal academic databases[3]. After culling those articles and books that were obviously irrelevant on the basis of their title, the Researcher used title and abstract to identify those pieces of academic literature with the greatest relevance potential. These were then scanned and/or read in details as appropriate, their references were read and searched and their own choice of keywords contributed to revisiting the Researcher's keywords list. The process was then repeated until a point of saturation was reached, when no new (significantly) relevant articles were identified.

As consistent with the GT approach, the activities of data gathering and analysis also contributed new keywords and concepts – such as "procedural fairness" and "social capital" – that were also included in the later search. This was an ongoing process.

A second, more focused literature review was conducted alongside and after both the preliminary data analysis described in 3.3.4 below and the second phase of data collection described in 3.3.5 below in order to compare, build on, and integrate existing literature and knowledge in the field, or offer alternative perspectives – again, this is recognised and encouraged in GT (Glaser and Strauss, 1967, Locke, 2001, Charmaz, 2014). As the first round of data analysis brought forth some interesting emergent categories, in an effort to further develop them the Researcher explored ideas from diverse fields which could offer useful lenses through which to examine the phenomenon.

For the sake of simplicity and clarity, both the preliminary and more focused literature review have been integrated in the Literature Review presented in this Chapter.

2.3 Foresight

Most decisions and actions taken daily, from the most mundane to more strategic and important ones, are to some extent contingent on assumptions about the future and what will happen in it. According to de Jouvenel (de Jouvenel, 1967), *futura* (events or situations which happen in the future, as opposed to *facta*, which happened in the past) are the only thing worth knowing, despite the fact that such knowledge is, strictly speaking, impossible. The artist and sociologist John McHale believed that humans become such when they start to think about the future, and for them the future is a powerful symbol that allows men to endure the present and to ascribe meaning to the past; thus looking towards the future and future generations is a distinct human trait (Barbieri Masini, 2010). The need and desire to look ahead at the future appears to be as old as humankind.

2.3.1   Definition – What Is in a Name?

Looking at the relevant literature, different authors seem to be using the same word – foresight – to mean different things. Essentially, there is **foresight** (which in the following pages will be written

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[3] These included Cambridge University Library, Web of Science, Google Scholar, JSTOR, and the British Library.

with a small 'f'), used by some almost interchangeably with 'Futures Studies' to indicate the act, or rather the activities and processes undertaken, of generally looking ahead[4]; and there is **Foresight** (which will be written with a capital 'F'), a more recent incarnation of foresight/Futures Studies which is much more "product oriented" in the sense that is meant to be much more closely linked to (public) action and strategy (Sardar, 2010).

Bell (Bell, 2004) presents **foresight** as the act of inventing, examining, evaluating, and proposing possible, probable, and preferable futures. Kuosa (Kuosa, 2012) defines it as "*a process of visioning alternative futures through a combination of hindsight, insight and forecasting*".

Miles (Miles et al., 2002) defines **Foresight** as "*approaches to informing decision-making, by improving inputs concerning the longer-term future and by drawing on wider social networks than has been the case in much 'futures studies' or long-range planning*". In the UK, Foresight became particularly important in the 1990s in the context of national Technology Foresight programmes, which remain a major area of activity (Miles et al., 2002, Miles, 2010). Kuosa (Kuosa, 2012) calls this type of Foresight 'technological assessment', considering it less concerned with the creation of alternatives, and more with systematic planning.

Such separation however is not always clear and well defined in the available literature – often experts talking about Foresight are actually talking about Technology Foresight (not *exactly* the same thing); while others who are talking generally about Futures Studies may stray into Foresight territory[5]. While the focus of this research is on Foresight in its policy-supporting role, the review of relevant literature has thus been extended to materials under different headings and labels, including Futures Studies, Futures Research, foresight (and Foresight), Scenario Planning, Prospective, Anticipatory Action Research, and so on.

2.3.2   Short Historical Overview

The concepts of time and future exist and have been present in human consciousness everywhere (Bell, 2002). It is believed that the art of prophesy originated some 5,000 years ago in Mesopotamia (Adam and Grove, 2007). The first way of thinking about the future based its argument on a deterministic future and the effects of the world of spirits – the future was something already determined, that could be known through mystic experiences and explanations (divination, oracles, religious and/or magical practices, etc.), and thus could be predicted (Kuosa, 2011).

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[4] The quoted articles by Sardar and Masini expand more in detail on the alternative taxonomy and definitions for the activity of "*thinking about the future*" and its different approaches, as well as the influences exerted by diverse socio-cultural contexts.

[5] 'When I use a word,' Humpty Dumpty said in rather a scornful tone, 'it means just what I choose it to mean — neither more nor less.' (Lewis Carroll, 1872 "Through the looking glass")

The dominance of this first paradigm for considering the future continued all the way through Illuminism; it was only at the beginning of the 20th century that, thanks to new discoveries and achievements in science and technology, a new paradigm started emerging, signalling the beginning of modern Futures Studies – although it only really took off in earnest after World War II. While previously the predominant view was of a pre-set fate defeating men's efforts to alter its direction, the contemporary view sees human influence and will playing a much greater role in shaping the future (Adam and Grove, 2007).

Kuosa describes three periods for this second paradigm:

- **1940s to 1950s**: a period of planning, quantitative methods, positivism, global trade, and financing, characterised by an increasing demand for organised long-range planning, trend-extrapolations, and technological foresight and assessment in general. Think tanks and research centres of the US military, such as RAND, played a key role in launching this type of structured, 'problem based' futures research methods. Foresight activities during this post-WWII period were highly focused on 'strategic' issues related to national survival (Dreyer and Stang, 2013).

- **1960s to 1970s**: during this period futures research went beyond US military analysts, and its scope expanded due to increasing awareness of the long-term consequences of population, economic growth, social movements, the threat of nuclear war, and the energy crisis. In 1966 Cornish established the World Future Society in the US; the Club of Rome was created in 1968, while 1973 saw the birth of the World Futures Studies Federation ("WFSF"), founded in Paris as a global network of leading futurists who already in the 1960s conceived the idea of Futures Studies at the global level. Similar institutions were established in many countries worldwide. Strong foresight method development characterises this period, seen by many as the birth of modern Futures Studies (Bell, 2002).

 - **1980s to the present time**: New disciplines and theories such as complexity and system dynamics, behavioural sciences, strategic management, etc. brought important contributions (Berkhout and Hertin, 2002). The term "Foresight", used for the first time by H.G. Wells in 1932[6], was re-appropriated and used more extensively from the 1980s thanks to the influential studies by Irving and Martin on how research priorities are set (Miles, 2010) to indicate "*the techniques, mechanisms and procedures for attempting to identify areas of basic research beginning to exhibit strategic potential*" (Martin, 2010).

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[6] In a BBC broadcast calling for the establishment of "*Departments and Professors of Foresight*" for the systematic study of future implications of new technologies.

This last period has also seen an increase in the demand and use of foresight by commercial organisations. Shell's response following the events in the Middle East in 1973 and ensuing oil crisis has been widely credited to have provided a major impetus for the growing popularity of foresight, and in particular of scenarios techniques, as a support to the business strategy process (Wack, 1985) (Schoemaker and van der Heijden, 1993).

Figure 2.3.2.a - Evolution of Futures Studies (Kuosa, 2011) Figure 2.3.2.a - Evolution of Futures Studies depicts the evolution of Futures Studies from the point of view of different paradigms and interests.
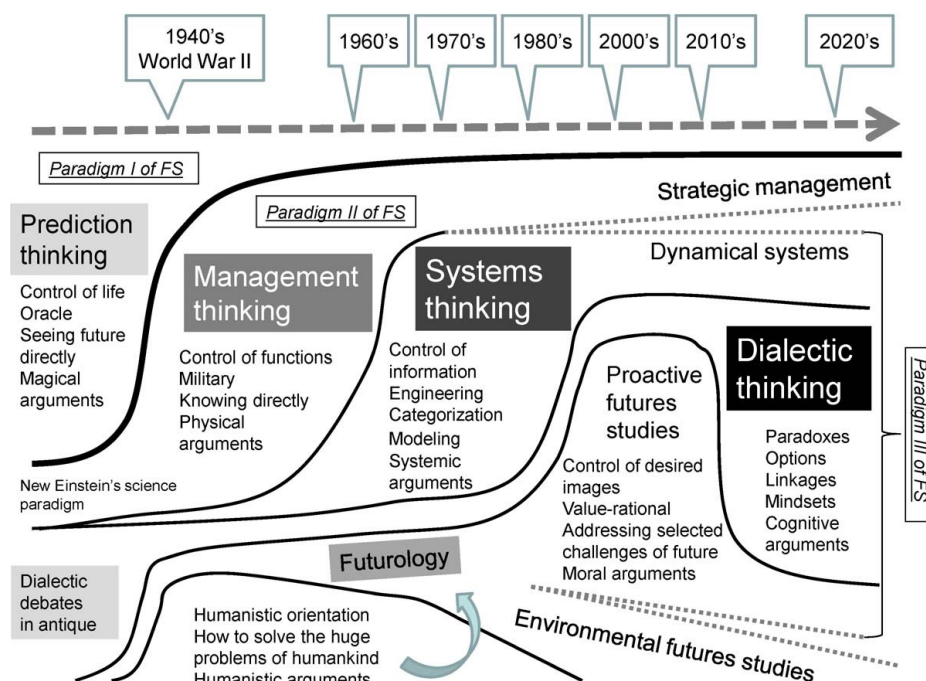
Figure 2.3.2.a - Evolution of Futures Studies (Kuosa, 2011)

The evolution of Futures Studies can also be considered from a geographical and social perspective, for the way individuals and organisations think about the future differs between countries and especially between cultures (Barbieri Masini, 2010), and is significantly influenced and shaped by local cultural, social, and political circumstances (Krawczyk and Slaughter, 2010).

After World War II, the development of Futures Studies in the US focused primarily on economic development and military advancement, with methods grounded in strategic planning and operational research and mainly based on expert judgements, trend analysis, and scientific modelling techniques.

European interests were centred more around social and cultural themes and human potential, aspiring to help people shape their own future; Futures Studies developed under significant influence from the French *La Prospective* school, which considered the study of the future to be

more an art than simply a science. Highly active and networked academics in France, Italy, the UK, and Germany produced a type of foresight that was much more 'bottom-up' compared to their Stateside counterparts (Dreyer and Stang, 2013).

Figure 2.3.2.b illustrates the evolution of (modern) Futures Studies from the point of view of the different social and cultural perspective in the US and in Europe/France.
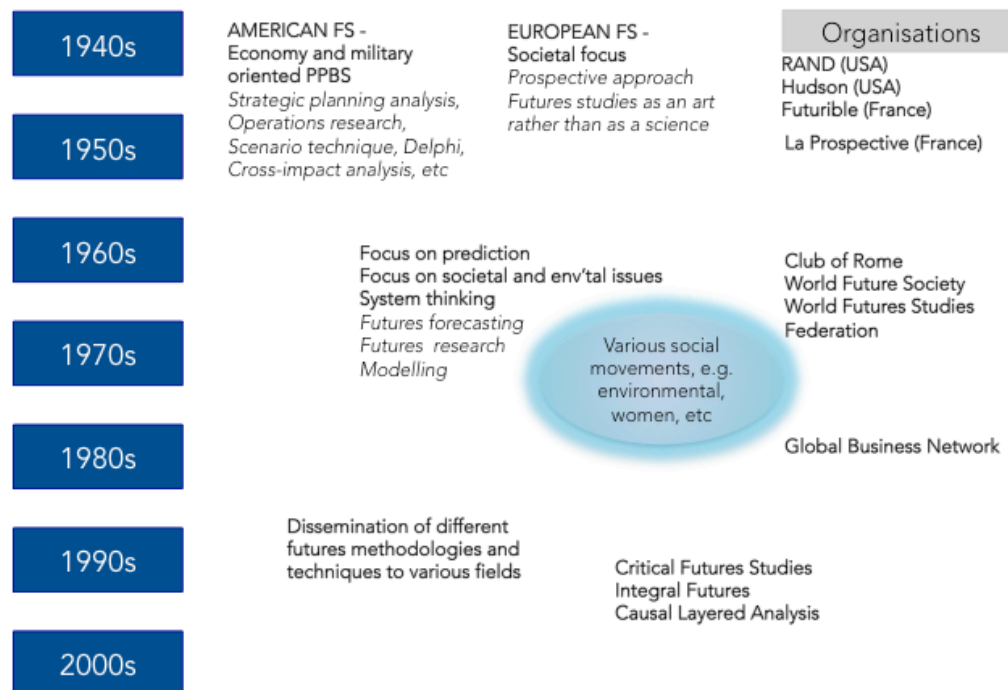
Figure 2.3.2.b - Evolution of Futures Studies (Krawczyk and Slaughter, 2010)

2.3.3   From Public, to Private, and Back

The main audience of Futures Studies from their very beginning was essentially the public sector – either as a client that would actively commission a study, or as the intended recipient of conclusions from studies and activities carried out by experts of their own initiative. Indeed, according to Barbieri Masini (Barbieri Masini, 2010), a normative component (see 2.3.4.4 below) is present, at different levels, in all Futures Studies.

Berger coined the term 'Prospective' in France in the 1950s, which has then been applied by Godet for many years. Central to *La Prospective* is the connection between understanding a situation through qualitative or quantitative data, and the choosing and acting in 'strategic planning' based on human values and aspirations. Still in France, de Jouvenel (de Jouvenel, 1967) distinguished '*futuribles*' – possible futures - from '*futurables*' – possible futures that are identified as desirable - and suggested that futurists have a duty of acting to promote the latter. The word he used was '*conjecture*', which is *not* knowing and understanding, but rather having an opinion, a thought, an imagination. He also distinguished a '*dominating future*' – a future dominating an agent – from a

'*masterable future*' – which an agent could control and influence; thus a *dominating* future for an agent can be *masterable* for another agent at a higher level, such as the Government. In the 1960s, in several countries there were efforts at translating the vision of the future as something that could be actively influenced and shaped by social sciences, aiming at 'constructing' societies through the application of scientific methods (Cuhls, 2003).

As mentioned above, several other business organisations were encouraged by Shell's success story to develop scenario capabilities and engage in scenario planning; however the following recession and consequent reductions in corporate staffing and budgets caused the majority of such efforts to be short lived. Some managers became also disappointed with the results of their scenario activities, although this may also have been due to oversimplification of the process and use, as well as misplaced expectations that confused story-telling with forecasting (Chermack et al., 2001).

More recent foresight techniques were originated and developed by consulting firms to fulfil the needs of commercial organisations to produce insight in order to support their strategic processes, and as a result they are highly pragmatic (Horton, 2011), with less emphasis on values and normative elements and greater focus on recipes and step-by-step instructions to help such organisations carry out their very own futures activity. Another implication of commercial and private organisations being the recipients and users of much foresight activities and efforts is that any conclusions, applications, and results are seldom publicly accessible, and in the majority of cases difficult to generalise.

Since the late '80s there has been renewed interest and investment in developing futures intelligence to support government policymaking, particularly as Technological Foresight to support industrial strategy decisions (see above); dedicated centres have been established to provide horizon scanning support for government departments (e.g., Horizon Scanning Centres in the UK and Singapore; the National Intelligence Council in the USA; and the OECD Futures Programme).

2.3.4   Looking Ahead: in Theory – Epistemology and Theory Focus

As indicated, de Jouvenel stated that events or situations that happen in the future are the only thing worth knowing, and even the simplest and most basic decisions and choices individuals make every day involve some implicit or explicit views and assumptions about what lies ahead along the timeline.

Therefore the question is not so much "*should we* try to look ahead?" but rather: "*can we* look ahead?" And if the answer is affirmative, "*how* can we look ahead, and *what* are we actually looking

at?" The last questions are particularly relevant considering that most[7] agree that the future, strictly speaking, does not exist but is a mental construct. So how can we know something that is not there?

Futurists consider foresight to be a process of systematic inquiry; however, at the same time, they themselves recognise the impossibility of such an endeavour (van Asselt et al., 2010) in the sense of producing a single, objective image of *the* future.

Dator's First Law of Futures states, "*The future cannot be 'predicted' but alternative futures can be 'forecasted' and preferred futures 'envisioned' and 'invented'– continuously*" (Sardar, 2010).

Kuosa (Kuosa, 2012) sees the future as something that can be "*partly known*" as it can be created through the actions of today. Similarly, Adam and Grove (Adam and Grove, 2007) see the future as something that can be not only imagined – '*futures anticipated*' – but also made - '*futures tamed*' and '*futures transformed*'.

Section 2.3.4.1 below provides a concise overview of the evolution of the epistemology of Futures Studies – which gives an initial answer to the question of "*what* are we looking at" when looking ahead. Sections 2.3.4.2 and 2.3.4.3 below look at the evolution of the theory of Futures Studies from forecasting to Foresight and at the Foresight process – further addressing the question of "*what* are we looking at, and *what for*", as well as "*how*".

2.3.4.1 *Epistemological Evolution of Futures Studies*

In the 1930s the positivist view of science was dominant also in what are modern social sciences, posing that not only nature, but also social reality was governed by causal laws, and thus it could be logically deduced using empirical observations and rational explanation. The theory of explanation at the centre of Logical Positivism proposes a logical symmetry of scientific explanation and prediction, stating that explaining and predicting events are logically and methodologically identical (Aligica, 2003).

The positivist paradigm is at the basis of the Empirical/Predictive theoretical framework for Future Studies, while the development of post-positivist paradigms in social sciences from the 1970s allowed for the emergence of a plurality of approaches to Futures Studies, such as the Cultural/interpretive/Constructivist approach and Critical/Postmodern framework (Inayatullah, 1990, Inayatullah, 2006, van Asselt et al., 2010, Gidley, 2013).

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[7] Apart from extreme religious/fatalistic views of the world, current exceptions in the scientific/academic realm can be found for example in proponents of 'block universe' or 'block time', a theory which states that the past, present and future exist simultaneously and describes space-time as an unchanging four-dimensional 'block'.

Most futurists agree that foresight is a social construction process (van Asselt et al., 2010), as the future is not something 'out there' waiting to be discovered, but rather the result of dialogue and negotiations between those involved; as such, it is *constructed*. More recently, greater attention has been placed on man's role in the choice and construction of his own future, and on the importance of considering human action not in its singularity, but rather as the interaction of a number of actors, interests, perspectives, disciplines, needs, and levels of power. This highlights the need for a strategic and parallel vision of the risks and problems to face, as well as the opportunities potentially available, calling for a holistic/integrative approach in the endeavour of looking ahead (Cariola and Rolfo, 2004, Gidley, 2013).

Milojević and Inayatullah (Milojević and Inayatullah, 2015) describe the increasing interest in narrative that has emerged over the past decade in many social sciences, and the growing importance in Futures Studies of a more explicit engagement with a narrative, particularly in the context of transformative (i.e., change-oriented) action research.

Table 2.3.4.1 below summarises the different paradigms in Futures Studies approaches:

Approaches	Key terms - "what are you looking at?"	Underlying Theories/ Paradigms	Goals	Strengths/ Pros	Weaknesses/ Cons
Logical Positivism approach to knowing 'the' future					
Empirical/ Predictive	Probable future	Empirical social sciences Positivistic paradigm Assumes the existence of 'the' future as an ontological time or place that can be discernable with the correct theory, methods, and data	Trend Analysis Prediction/Control	Precise Development of indicators Ease of use/application	Assumptions remain unchallenged Existing power relations and structures are reinforced Not suitable for macro change Creativity often not actualized
Post-positivist approaches to exploring/considering multiple futures					
Cultural/ Interpretive	Possible or alternative futures	Constructivism Hermeneutics Focuses on understanding alternative, competing images of the future influenced amongst others by alternative values systems and lifestyles	Alternatives "Other" Futures (such as non-Western and feminist futures)	Creativity, engagement of different perspectives Rich, macro-theories of change	May lack feasibility, or be overpowered by dominant perspectives May be subject to cultural relativism
Critical/ Postmodern	Preferred futures	Critical Theory Deconstruction	Normativity Emancipation	Makes explicit the value and contextual dimensions	Perceived subjectivity and relativism
Anticipatory Action Learning		Merges Action Learning with Futures Research Places emphasis on participatory learning processes, while the future emerges through the questioning process			
Prospective/ Participatory	Prospective or Participatory Futures	Action Research Hope Theories	Empowerment Transformation	Engagement and empowerment of participants	May lack legitimacy in the dominant positivist scientific circles
Integrative/ Holistic	(Normative) Planetary or Integral Futures	Integral Theories Planetisation Theories Potentially the broadest as it has the potential to integrate all other approaches	Global Justice Equality Planetary Era	Breadth of scope may enable the integration of different methods as appropriate to different contexts	May lack legitimacy as above Potential lack of depth

Table 2.3.4.1 - Future Studies Paradigms (Inayatullah, 1990 2006, van Asselt et al., 2010, Gidley, 2013)

2.3.4.2 *Theory Evolution: from Forecast to Futures to Foresight*

The 'behavioural revolution' of the 1950s and 1960s in political science placed emphasis on quantitative methods and formal modelling, supporting the belief it was possible to predict *the* future. The scientific approach based on positivistic position led to **forecasting**, in an attempt to

offer a precise prediction of the future in what Mannermaa (Mannermaa, 1991) calls the '*descriptive futures research*' paradigm. The descriptive/positivistic approach is usually associated with trend extrapolation, establishment of time series and point estimates concerning future events, and aims at giving estimations of the most probable future through mostly quantitative analysis and modelling. Forecasting was the prevalent style during the 1950-1970 period (van Asselt et al., 2010).

The logical symmetry of scientific explanation and prediction at the centre of Logical Positivism set standards that many disciplines, including Futures Studies, could never achieve by their very nature (Aligica, 2003). As a result these disciplines were often not considered 'proper' sciences, and their credibility was undermined. Given that in the 1970s and 1980s the ability to provide a 'correct' prediction was still considered the only criterion for forecasting and Futures Studies in general, long-term Futures Studies were consequently regarded with suspicion and neglected by planners and policymakers (Cuhls, 2003).

The oil crisis and other events questioned the validity of thinking in terms of forecasts of a single future that could be extrapolated and precisely forecasted; the increasing awareness of the uncertainty surrounding what lays ahead moved the conversation to the need to consider – explore – the whole 'possibility space' (Berkhout and Hertin, 2002), thus moving towards a 'scenario' paradigm in futures research (Mannermaa, 1991). The increasing awareness of complexity, uncertainty, and discontinuity led to a broader societal recognition of the limitations of predictions (van Asselt et al., 2010) – already in the late 60s de Jouvenel talked about '*futuribles*' - many possible futures imaginable and plausible (de Jouvenel, 1967), while the WFSF greatly helped to spread the adoption and use of the term '**Futures Studies**' – with emphasis on the plural 's' for both words (Barbieri Masini, 2010).

Bell and other experts in Futures Studies see their purposes in "*maintaining or improving the welfare of humankind and the life-sustaining capacities of the earth itself* […] *their distinctive obligation to the future invites them to speak for the freedom and wellbeing of future generations, the coming as-yet-unborn people of the future who in the present have no voice of their own*" (Bell, 2002); and while the objective is the exploration of plausible, possible and preferable futures, the (implicit or explicit) emphasis is placed on identifying and promoting the preferable. Therefore there appears to be a strong normative and value-rational flavour to Futures Studies

The objective of **Foresight** is seen as extending beyond that of Future Studies, encompassing a wider set of approaches and activities such as planning, networking, and organisational learning, and it is "*about shaping the future, not predicting it*" (Miles et al., 2002). Over the past decade Foresight has evolved from essentially Technology Foresight, focused on identifying winners and emphasising the

technology push, to progressively placing greater emphasis on societal pull and influence and eventually to beginning to focus on complex social issues and problems – see 2.5.3 below.

2.3.4.3 *The Foresight Process*

Slaughter (Slaughter, 1990) identifies three ways in which Foresight broadens the boundaries of perception, by:

- Assessing possible consequences;

- Anticipating problems before their occurrence; and

- Considering the present implications of possible future events – thus supporting proactive strategy formulation (Kuosa, 2012).

Horton (Horton, 1999) distinguishes three phases for the entire Foresight process – Input, Foresight, and Output, illustrated in Figure 2.3.4.3.a:
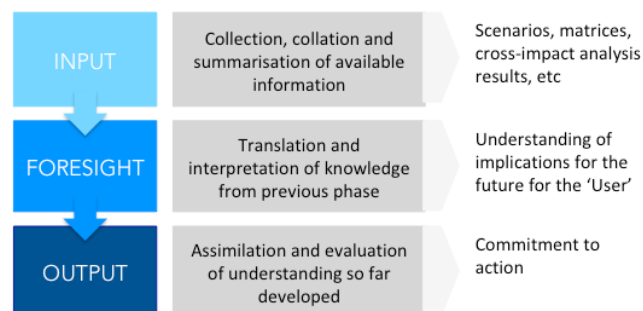
Figure 2.3.4.3.a - Phases of Foresight Process (Horton, 1999)

She considers Foresight as the most critical and value added phase, although poorly understood and supported by limited theoretical underpinning.

Voros (Voros, 2003) takes Horton's model and modifies it slightly, integrating Mintzberg's separation between strategic thinking and strategic planning (Mintzberg, 1994), and indicating possible foresight tools and other activities that can support each stage (see 2.3.5 below for a more detailed description of some of the main tools).
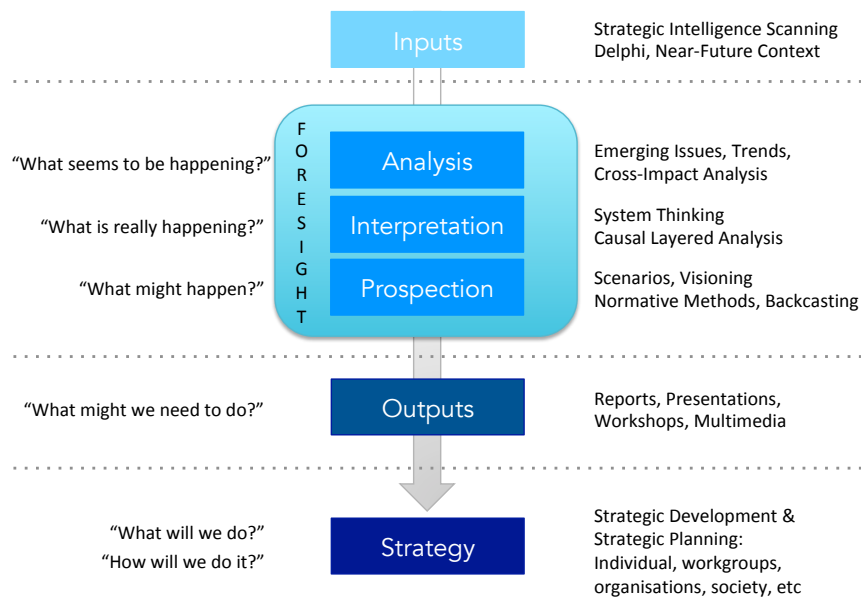
Figure 2.3.4.3.b - Foresight Process (Voros, 2003)

Miles and Popper (Popper, 2008, Miles et al., 2002, Miles et al., 2008b) present Foresight as a systematic process with five interconnected and complementary phases :
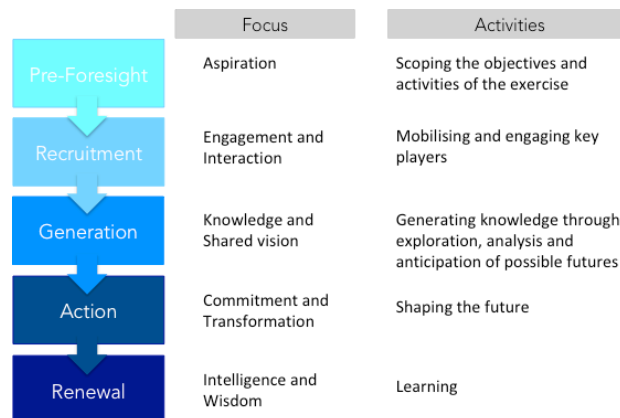
Figure 2.3.4.3.c - Foresight Process (Miles et al., 2008)

Hines and Bishop (Hines and Bishop, 2006) again describe strategic Foresight as a six-step process that culminates in action:
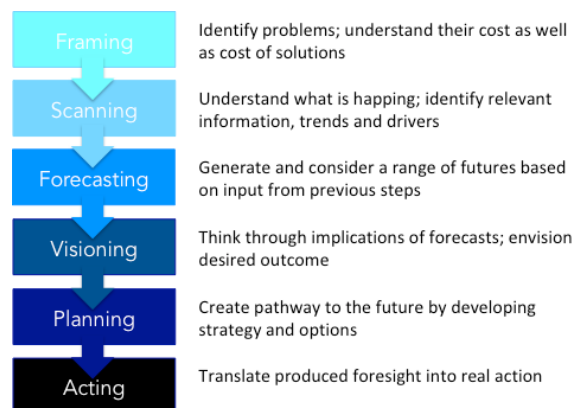
Figure 2.3.4.3.d - Foresight Process (Hines and Bishop, 2006)

Inayatullah (Inayatullah, 2008) introduces six 'pillars' that can support futures theory development and practice:

- **Mapping** (of past, present, and futures)
- **Anticipation** (using tools such as Emerging Issues Analysis, Futures Wheel)
- **Timing** (searching for grand patterns in history)
- **Deepening of the futures** (using tools such as Causal Layered Analysis and Four-Quadrant model)
- **Creating alternatives** (generally using Scenarios)
- **Transforming the future** (for example with Backcasting)

Saritas (Saritas, 2013) places great emphasis on the role that system thinking can play in Foresight practice, and on the potential of Systemic Foresight to deal with complex social and human systems and issues. His Systemic Foresight Model is presented as a conceptual base for the design, organization and deployment of Foresight and consists of six phases:
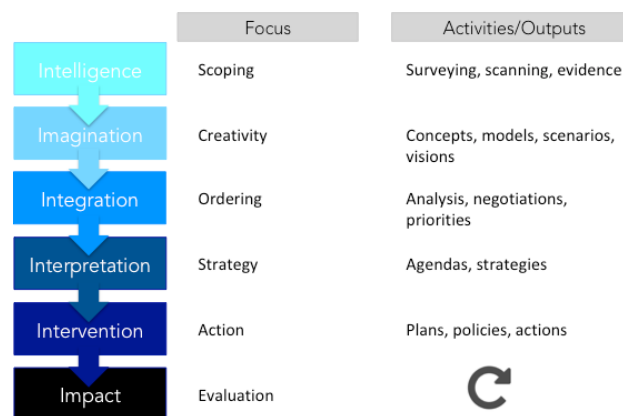
Figure 2.3.4.3.e - Systemic Foresight Model (Saritas, 2013)

The methods and tools for each phase are selected and integrated depending on circumstances and objectives. Saritas also sees a seventh phase, **Interaction**, characterised by participation and inclusivity, central to all other phases. Upon completion of the process, the phases link back to create a full circle of Foresight in a continuous learning loop, allowing the systems to continuously develop and adapt.

Many foresight experts emphasize the participatory dimension of Foresight as one of the most important and essential elements (FOREN, 2001, Kuosa, 2012, Miles et al., 2002, van Dijk, 1991) in the process. The creation of networks of knowledgeable agents, who can better respond to policy and other challenges thanks to both the anticipatory intelligence gained and the ties established, is often an explicit objective of the Foresight exercises aimed at strengthening national innovation and technology capabilities (Miles et al., 2008a).

Miles and colleagues (Miles et al., 2008a) offer five rationales for the design and use of Foresight[8]:

- Directing or prioritising investments in Science, Technology and Innovation
- Building new networks and linkages around a common vision or problem
- Extending the breadth of knowledge and visions in relation to the future
- Bringing new actors into the strategic debate
- Improving policymaking and strategy formation in areas where science and innovation play a significant role.

Of these, only the first falls within the classic policy analysis role of information provision (see 2.4.2.4), while the others appear more linked to supporting implementation and promoting concerted action.

2.3.4.4 Types of Foresight

Explorative Foresight aims at exploring what is possible and probable regardless of what is desirable, while **Normative** Foresight is based on norms, values, aims and strategic goals. According to Kuosa (Kuosa, 2012), in Explorative Foresight there is an implicit assumption that the variables of interest are outside the customer/user's control, while Normative Foresight addresses the questions "What future do we want? Where do we want to be?" and – generally – "How do we get there?"

Many foresight textbooks and practitioners endorse the idea of assessing the future(s) in the form of **policy-free** scenarios – scenarios describing possible futures where the policy context is set and excluded from the influence of the scenario user (van Asselt et al., 2010). These are also called '**contextual**' scenarios, developed from the way Shell assessed the future and evaluated alternatives, and are used as a way to test strategies and/or policies to assess their robustness (Ringland, 1998, van der Heijden, 2011) (see also Windtunnelling in 2.3.5). The policy-free principle has been recently questioned in organisational foresight as encouraging a purely reactive mindset and attitude towards the future; in **policy-oriented** Foresight both the theoretical grounding and the attainability of the policy-free principle, as well as its desirability, have been put in doubt, although it often remains the preferred stance for experts since it is associated with being apolitical, as well as being perceived as more academically valid (van Asselt et al., 2010, van Asselt et al., 2014)

Kuosa (Kuosa, 2011) states that, unlike normal sciences which aim to be value-neutral, futures research is value-rational as it takes a stance vis-à-vis different alternatives and describes its own desired futures images; "*yet technological assessment* [Kuosa's definition of Technology Foresight] *[…] tend not to be so value-rational.*"

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[8] Although this appears to refer to the original narrower focus of Technology Foresight – see above

Ogilvy, Bell, Dator, and many other futurists argue for a normative/value-rational role for Futures Studies as well as Foresight, which they see as being much more embedded in society (Slaughter, 2002)

Regulatory Foresight is a strategic activity undertaken by governments and policy-makers, focused specifically on the identification of future challenges in regulatory regimes; it supports regulatory bodies in reshaping such regimes or in developing new frameworks in order to exploit the options identified by Technology Foresight to foster the competitiveness of national or regional innovation systems (Blind, 2008).

More recent waves of Foresight (see 2.5.3 below) have seen an increasing recognition of the need to involve final recipients in the process, rather than presenting them with a vision or set of visions of the future that are perceived to descend (and be imposed) *"from on high"* (Miles et al., 2002).

Kuosa (Kuosa, 2012) distinguishes **Participatory** from **Strategic Foresight**, and describes **Participatory Foresight** as a bottom-up approach for producing political decisions, affecting and involving citizens, activist, NGOs et sim., in opposition to **Strategic Foresight**, which is seen more as a top-down approach seeking to produce strategically viable alternatives for public or private decision makers in power. In Figure 2.3.4.4 Kuosa maps both the types of foresight as well as the methods and tools that can be used along the top-down (Team) vs bottom-up (Participatory) axis.
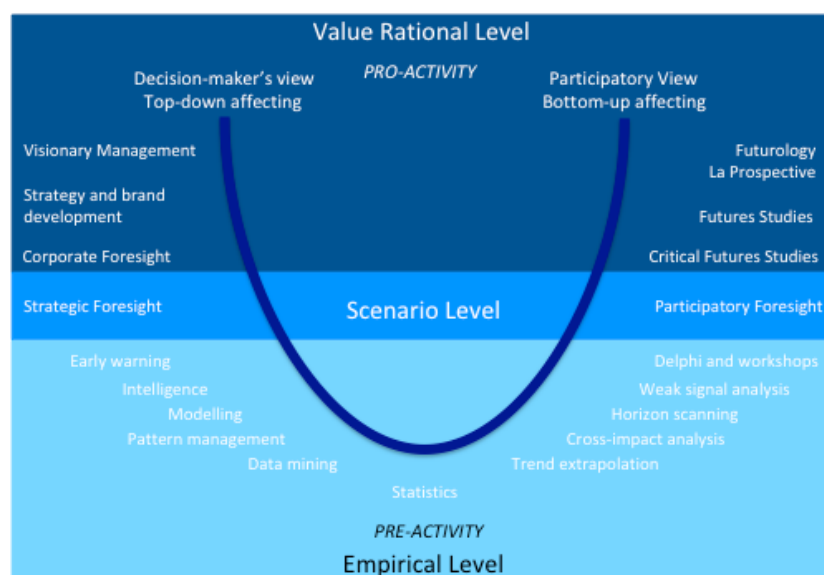
Figure 2.3.4.4 - Foresight Mapping – Participatory vs Strategic (Kuosa, 2012)

 Participatory or **Fully Fledged Foresight** is described in more detail in 2.3.4.5 below.

2.3.4.5 *Participatory Foresight 1.0*

The participatory dimension becomes central in more recent definitions of Foresight as provided by a number of widely recognised experts and bodies. The definition proposed by FOREN – the

Foresight for Regional Development Network established by the European Commission – is "*a systematic, **participatory**, future intelligence gathering and medium- to long-term vision building process aimed at present-day decisions and mobilising joint actions*" (FOREN, 2001). According to Havas (Havas, 2005), for foresight activities to be considered Foresight programmes they need to be "*action-oriented, **participatory**, and consider alternative futures*", where the conditions for being *participatory* are that a programme:

- Involves participants from at least two different stakeholder groups;
- Disseminates its preliminary results (e.g., analyses, tentative conclusions and policy proposals) among interested 'non-participants'; and
- Seeks feedback from this wider circle.

Miles and the other authors of the Handbook of Knowledge Society Foresight introduce the concept of **Fully Fledged Foresight** (Miles et al., 2002) to define approaches that place emphasis on policy networking as well as on longer-term analysis to inform present day decisions.

Indeed, the involvement of major stakeholders – who have the power to significantly influence underlying trends through their organisations' strategies and policies – is seen as crucial in order to enable Foresight processes to reduce (although not to completely eliminate) uncertainty by encouraging participants to align their endeavours through a shared vision (Havas, 2005).

Another advantage is that, by involving other stakeholders who themselves have carried out foresight activities of their own, such as business firms, the knowledge they generated can be fed into public policy Foresight (Miles et al., 2008a).

Figure 2.3.4.5 illustrates how the model of Fully Fledged Foresight is clearly linked to policy action, but also draws on wider sources of knowledge beyond the expert groups, while the networking serves the dual purpose of both accessing a broader base of knowledge and ensuring that shared knowledge effectively enters into the strategies of relevant actors across economy and society.
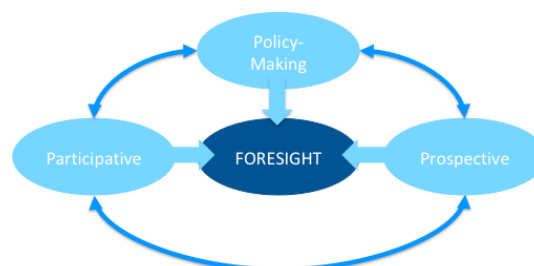
Figure 2.3.4.5 - Fully Fledged Foresight (Miles et al., 2008a)

Miles and colleagues (Miles et al., 2008b) indicate a key characteristic of Foresight as 'diversed': "*must keep an ear open to unpopular views and not rush to a consensus; relevant (and seemingly less*

relevant) stakeholders should be engaged wherever possible, either in the exercise itself or in pre- and post- foresight activities".

It is useful at this point to provide a definition of **stakeholder**: Freeman's definition (Freeman and Reed, 1983) is of "*any group or individual who can affect the achievement of an organisation's objectives or is affected by the achievement of an organisation's objectives*". It is also defined as persons, groups or organisations that must somehow be taken into account by leaders, managers and front-line staff (Bryson, 2004) as well as "*All parties who will be affected by or will affect [the organisation's] strategy*" or "*Any person group or organisation that can place a claim on the organisation's attention, resources, or output, or is affected by that output*" – it depends on what perspective is used: managerial, political sciences, or public and non-profit management.

Voß (Voß, 2006) links Participatory Foresight exercises to reflexive governance approaches that reflect the complex interactions underlying the management or solution of a (complex) problem. By being exposed to each other's problem perceptions, assessment criteria and action strategies, actors can begin to adapt their perceptions, criteria and strategies *before* becoming entrenched in ineffective/inappropriate positions (see 2.4.3.1 below).

2.3.5   Looking Ahead: in Practice - Brief Overview of Main Methods and Techniques

Methods or techniques are the systematic means used by Futures professionals to generate a product. Many of the techniques currently used in policy development in the UK Government have been developed primarily in the private sector (Bhimji and Horton, 2008), where over the past few decades there has been a somewhat chaotic proliferation of approaches and methods developed by practitioners to suit the (specific) needs of their clients (Bishop et al., 2007). As a result, the literature on the topic is significantly practice- and practitioner-driven, much of it focussing on method- and tool-specific manuals and how-to. Furthermore, as described in 2.3.4.3 above, most of the methods and tools are suitable at different and specific stages of the process, and do not individually encompass the whole process.

In Figure 2.3.5.a Popper (Popper, 2008) maps different methods for (Technology) Foresight based on their nature – qualitative, quantitative, and semi-quantitative – and on the capabilities required in the process – expertise, interaction, evidence, and creativity. The choice of the most appropriate method(s) depends on needs and context.

Creativity

Wild Cards

Science Fictioning

Simulation Gaming

Essays/Scenarios

Genius Forecast   Acting/Role Play

Backasting   **SWOT**   **Brainstorming**

Relevance trees/Logic diagrams   **Futures workshops**

Roadmapping   Delphi   **Surveys**   **Citizen Panels**

Expert Panels   **Morphological Analysis**   **Conferences/Workshops**

Key/Critical Technologies   Multi-criteria   Voting/Polling

Quantitative Scenarios/SMIC   Stakeholder Analysis

Interviews   Cross-Impact/Structural Analysis

Indicators/TSA   Patent Analysis

Bibliometrics   Benchmarking

Extrapolation   **Scanning**

Literature review

Modelling

Expertise

Interaction

Evidence

| **Qualitative (15)** |
| Semi-Quantitative (7) |
| *Quantitative (3)* |

| Other methods |

In Figure 2.3.5.b Bhimji and Horton (Bhimji and Horton, 2008) map the methods based on the different stages of the Foresight process:

| Policy Direction | | Policy Design | Policy Delivery |

| Exploring | Understanding | Applying |

Gather evidence   Explore evidence   Scenario Planning

Review Abstracts

Issue Trees

Interviews/ 7 Questions

Trend Analysis

Driver Analysis

STEEP

Scenarios

Narrative

5th Scenario

Stakeholder (Plausibility) Matrix

Windtunnelling

Backcasting

Roadmapping

Reverse Engineering

Identify Policy Options

Test Policy Options

System Thinking
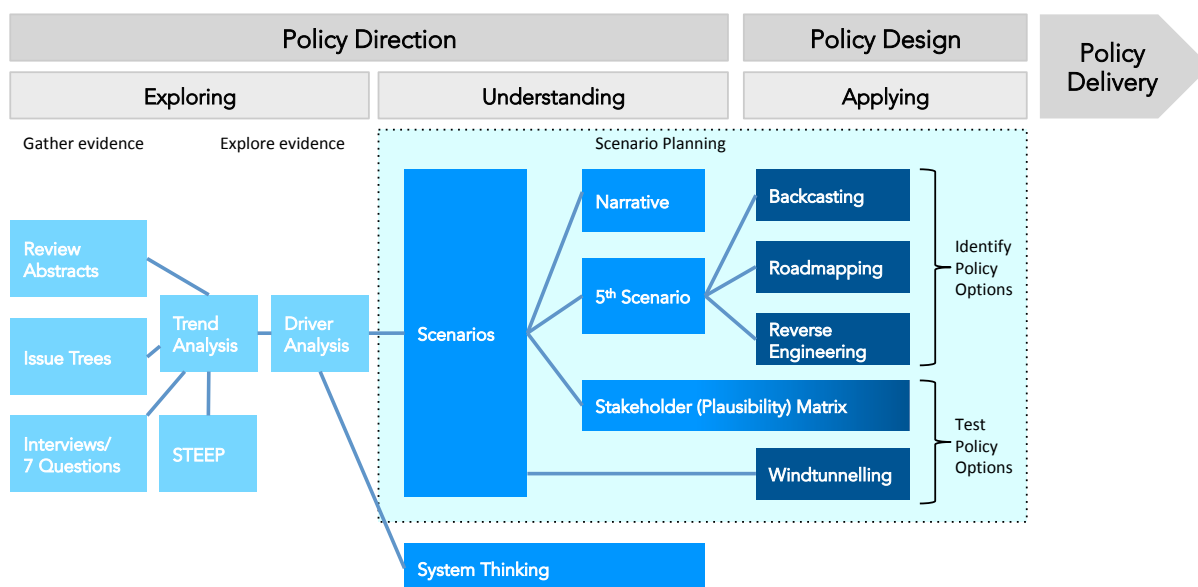
Below is a brief overview of some of the most established and formalised tools (HSPT, 2017, Bhimji and Horton, 2008, Waverley, 2012, UNDP, 2014):

Delphi – Developed in the 1950s by RAND, it is a consultation process aimed at collecting and harmonising the opinions of a selection of experts on the issue considered, and the method most frequently used in technology foresight (Faucheux and Hue, 2001). In the original Delphi method, questions are sent to a panel of experts in various rounds, where each panellist responds anonymously to the questions. The result is a consensus forecast or judgement (Börjeson et al., 2006). According to Bell (Bell, 2004), it was created and survives because it is "*cheap and quick*", convenient when there is a shortage of data, inadequate models, and lack of time or resources for a thorough scientific study.

Horizon Scanning – The systematic examination of emerging issues that begin to appear and may present threats or opportunities for society and policy, using a creative process of 'collective sense making' (Könnölä et al., 2012), and their assessment and prioritisation for decision making (Loveridge, 2009). Typically a back-office/desk-based activity, not requiring participatory activities, however Könnölä argues that the engagement of diverse stakeholders could offer better results (Könnölä et al., 2012). Scanning techniques often include expert panels, database literature review, internet searches, hard copy literature review, essays on issues by experts and key person tracking and conferencing monitoring.

Three Horizons – connects and contrasts the present (Horizon 1, the present and short term) with desired (or espoused) futures (Horizon 3, the long term), and helps identifying the divergent futures which may emerge as a result of conflict between the embedded present and these imagined futures during a transitional period (Horizon 2, the medium term) when present and desired future collide (Curry and Hodgson, 2008).

Trend Analysis/Drivers Analysis – looks at how a potential driver of change has developed over time, and how it is likely to develop in the future.

Trend Impact Analysis – a simple forecasting approach, combining qualitative and quantitative aspects, that extrapolates historical data into the future, while taking into account unprecedented future events. Starting from a 'surprise-free' projection based on historical data, future events are identified that might cause deviations from the surprise-free projection (i.e., interruptions to a trend), and their likelihood and potential strength are calibrated (Gordon, 2003).

STEEP – an analysis of the contextual environment for the issue/organisation considered in order to identify and characterise the drivers that are (or will be) at work and to consider what effect they might have on the issue/organisation's future development and operations (Waverley, 2012).

Drivers are typically categorised as Societal, Technological, Environmental, Economic and Political, although other categories can occasionally be added when particular focus is sought – e.g., Legal, Infrastructure etc.

7 Questions – an interview-based technique, generally carried out at the earlier stages of a foresight effort, it comprises a set of established questions which can be adapted and tailored depending on time, location, agency, issue, and individual being interviewed (van der Heijden, 2011, Ringland, 1998).

Scenarios – first used by Kahn at RAND and by the SEMA Metra Consulting Group in France (Godet and Roubelat, 1996), this methodology has over the years become one of the dominant tools in the foresight toolbox, and in both the private and public sector it is often "*seen as the only way of exploring the future*" (Sardar, 2010). Culminating in the description of some possible future states and/or stories about how such states might come about, it is considered by many an archetypical product of Futures Studies because it embodies their central principles who stress the need to think "*deeply and creatively*" and prepare for "*multiple plausible futures*" (Bishop et al., 2007). The predominant scenario technique in both corporate and government organisations is the Royal Dutch Shell/Global Business Network ("GBN") matrix approach, created by Pierre Wack in the 1970s and popularized by Schwartz (Schwartz, 1998) and Van der Heijden (van der Heijden, 2011), although it is only one of several techniques for developing scenarios (Bishop et al., 2007, Bradfield et al., 2005, van Notten et al., 2003). The process typically involves workshops, although some of the techniques may only require quantitative models or computer simulations as a means to systematically explore the future (van Notten et al., 2003), while a project team may produce the scenarios back-office (Börjeson et al., 2006).

Visioning – a participatory tool bringing together various departments/actors/stakeholders with the objective of developing a shared vision of the future by asking the group where they are now and where they can realistically expect and wish to be in the future. Participants use a number of questions to describe a desirable future, before identifying how the current reality needs to change to ensure success. Most practitioners agree on the importance of a shared vision for successful action (van der Helm, 2009).

Backcasting – can be considered a form of explicitly normative scenario analysis, involving working backwards from a particular desired future end-point to the present, in order to determine the feasibility of that future and its requirements (Robinson, 2003). This technique can be particularly relevant when the objective is not the identification of the most likely future but the contribution to the creation of a more desirable one, revealing its possibility and testing its feasibility and impact

(Robinson, 1988). Backcasting aims at encouraging searching for new paths for the development of a solution, when the conventional paths do not seem adequate, for example when considering highly complex long-term sustainability problems (Dreborg, 1996). As such, it has both a descriptive side – what does the desired future look like? – as well as a normative one – how can such desired state be attained? – (Höjer and Mattsson, 2000). The inclusion of values and preferences can either happen through the direct involvement and participation of stakeholders, or the source of the normative content may be external to the exercise itself.

5th Scenario – Starting from an existing set of scenarios, a 'customised' scenario is developed building on its opportunities and desirable outcomes and overcoming the threats and potential pitfalls identified. Once this new, 'willed' view of the future is developed, users are asked to describe the steps they will take to deliver it. While in some aspects it is similar to backcasting, this approach takes into consideration uncertainty by looking at scenarios which have explored said uncertainty (Waverley, 2012).

Reverse Engineering – Generally using a set of scenarios as a starting point, this tool begins with the identification of events that are certain to occur and likely to have a high impact on the issue or organisation, and aims the discussion at the identification and exploration of options as well as of possible risks and opportunities.

Narrative – Narrative foresight aims at developing 'stories' that facilitate desired (preferred/wished for) futures. It focuses on linking data, quantitative analysis and empirical findings with the socio-cultural context within which they are extracted and presented. It is thus acutely sensitive to the practice of framing: how reality is framed and reframed through power and language (Milojević and Inayatullah, 2015).

Roadmapping – Although "*all kinds of forward-looking documents are sometimes called roadmaps*" (Kappel, 2001), a 'roadmap' is a strategic planning tool which aims to offer a high level, synthesized and integrated representation of strategic plan(s) in a simple visual format, which can be graphical or tabular (Phaal et al., 2005)[9]. Essentially, a roadmap identifies and explores alternative paths, or 'roads', towards specified performance objectives within a determined time-frame, and is needs-rather than solution-driven (Garcia and Bray, 1997). Indeed, relevance to future actions is a characteristic and requirement of high-quality roadmaps (Kostoff and Schaller, 2001). The development of roadmapping has been largely driven by practice, with relatively little academic

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[9] Nevertheless there have been also roadmaps which lack any visual support, such as the roadmap to a permanent two-state solution to the Israeli- Palestinian conflict which is essentially a text-based roadmap (PHAAL, R. 2011. Public-domain roadmaps. Centre for Technology Management: University of Cambridge.)

research to support its theoretical foundations (Phaal and Muller, 2009). The term most widely used is 'technology roadmap', followed by 'product roadmap', reflecting the origins of this technique (Phaal et al., 2005). While there is no unique/standard method, typically all roadmapping exercises include an insight and knowledge gathering stage during which knowledge is captured, structured and shared between participants in order to identify issues, set objectives, and agree upon and plan actions (Phaal et al., 2003, Kostoff and Schaller, 2001).

Windtunnelling – starting from a set of scenarios, decision makers can test the robustness of a specific policy, initiative, or strategic plan by assessing how well it would stand up to the environmental conditions (outside of the control of the scenario user) of each scenario. The purpose of this exercise is to use the learning to (iteratively) refine the policy or plan in order to make it more robust (van der Heijden, 2011).

Stakeholder/Plausibility Matrix – Participants are asked to consider the scenarios and describe which one(s) they favour.

Causal Layered Analysis – Identifies, through discussion and deconstruction of conventional thinking, the driving forces and worldviews underpinning, at different levels of reality (Litany, Systemic Causes, Worldview and Metaphor), diverse possible perspectives about the problem and about the future, and the different meanings assigned by different groups. CLA seeks to integrate these four levels of understanding. Solutions need to be found at each level, requiring policy solutions to be deeper (Inayatullah, 2008).

Futures Wheel – This tool involves a graphical visualisation of direct and indirect future consequences of a change or development by looking further than just the first order impacts, to second order impacts and beyond. It intends to explore and deduce unintended consequences (Inayatullah, 2008). Futures Wheels can also be used in decision-making (to choose between options) and in change management (to identify the consequences of change).

Table 2.3.5 summarises the main Methodologies and tools on the basis of their participatory or desk-based character.

Method/Technique	Desk-based	Participatory	Note
Delphi	✔		Typically non participative, it aims at identifying convergences of opinions by eliminating any areas of discordance or conflict
Horizon Scanning	✔		It can include expert panels
Three Horizons		✔	
Trend Analysis	✔		
Trend/Impact Analysis	✔		Mostly desk-based, although expert opinions are sought
STEEP	✔		Mostly desk-based, although output can be discussed and integrated in a participative way
7 Questions	✔		
Scenarios		✔	
Visioning		✔	
Backcasting		✔	
5th Scenario		✔	
Reverse Engineering		✔	
Narrative		✔	
Roadmapping		✔	Process is normally expert-driven, involving social mechanisms
Windunnelling		✔	
Stakeholder Matrix		✔	
Causal Layered Analysis		✔	Particularly useful when different groups hold different perspectives on essence and future of policy topic
Futures Wheels		✔	Especially useful during the brainstorming stage of Impact Analysis

Table 2.3.5 - Summary Overview of Main Methodologies and Tools

2.4 Policymaking

In reviewing the existing literature on policymaking, the Researcher has focussed on materials that referred, either explicitly or implicitly, to modern day democratic[10] political systems such as those found in the UK and the rest of Western Europe, North America, and Australia.

After looking at key definitions, this section presents a summary review of different models of the policy process and looks at what is the ascribed focus of policymaking.

2.4.1 Definitions

Policymaking: the process through which a policy tends to emerge and accrete (Davies et al., 2004), increasingly seen as a complex process without a definite beginning or end (Nutley and Webb, 2004)[11].

Public policy: "*the sum total of government action, from signal of intent to final outcome*"(Cairney, 2011).

Policy Analysis: the way in which "*evidence*" (information) is generated and integrated into the policy making process, "*designed to be applied more readily to the real world*" (Cairney, 2015).

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[10] This includes constitutional monarchies such as Spain, Sweden, the United Kingdom, etc.

[11] Most are familiar with the quote about law and sausages, often mistakenly attributed to Bismarck.

Policymakers: Although this definition is normally used to indicate officials formally elected or nominated to develop policy, if it is to include *all* those who influence the form that a policy ultimately takes, then it should be widened to include also activists, pressure groups, journalists, etc. (Nutley and Webb, 2004).

Government: formal institutions of the state; formal and institutional processes that operate at the level of the national state to maintain public order and facilitate collective action (Stoker, 1998).

The definition of **governance** in the context of the public arena is more problematic (Rhodes, 1996, Kooiman, 1999). As theory has moved on from the idealistic/normative view of a supreme, central government with the power to make things happen, to a more descriptive and pragmatic view of complex interactions between actors and networks both within and outwith the central government, governance as "*the manner, method or system by which a particular society is governed*" has moved from being essentially identified with government to new processes and styles of governing where the boundaries and responsibilities between and within public and private sectors have become blurred (Rhodes, 1996, Stoker, 1998). The broader definition the Researcher considers most fitting in the context of this Research is: "*All those interactive arrangements in which public as well as private actors participate aimed at solving societal problems, or creating societal opportunities, and attending to the institutions within which these governing activities take place*" (Kooiman, 1999), and the resulting pattern or structure.

2.4.2 Models of Policymaking Process

2.4.2.1 *Comprehensive Rationality*

The traditional approach to policymaking followed two main paths: looking at the **policy process** as a cycle and breaking it down, while assuming an **ideal policymaker** blessed with comprehensive rationality and with perfect ability to produce, research, and introduce their policy preferences.

Lasswell, Lerner and others promoted the creation of policy sciences in the early 1950s with the purposes of studying the policy and decision-making processes themselves, and providing information to assist decision-makers in their tasks (Bell, 2002). The belief was that particular scientific methods could and should be applied to **policy analysis**, which could be used by policymakers to better understand and make decisions (Cairney, 2011). Central to policy sciences was the relationship between knowledge, policymaking, and power (Parsons, 2002). Lasswell (Lasswell, 1970) defined policy sciences as concerned with both knowledge *of* the policy process and knowledge *in* the process, and saw them as a problem-oriented endeavour, for which it is convenient to distinguish five components, or tasks: **goals** (requiring explicit consideration of values), **trends** (succession and distribution of past and future events), **conditioning** (scientific task

of theory formation and empirical confirmation), **projection** (of future possibilities and probabilities), and the invention, evaluation, and selection of **alternative** objectives and strategies.

This original approach led to focus on two types of analysis: the so called **comprehensive rationality** – in which policymakers have a clear, coherent, and ordered set of policy preferences which organisations carry out in a logical and reasoned way – and the **policy cycle** – clear cut and ordered stages in which aims are identified, the means to achieve them are produced and assessed, and one is selected, with the objective of optimising and maximising the benefits to society (Cairney, 2011).

Keynes stated the need for policy makers to make rational decisions based on knowledge and "*reasoned experiment*" (Keynes, 1971). The model of policymaking he envisaged fits with a rational decision-making model of the policy process, comprising five stages:
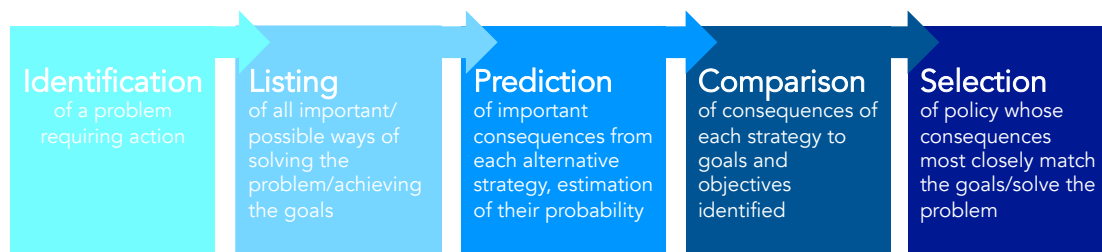
Figure 2.4.2.1.a - Keynes's policymaking process (Keynes, 1971)

The policy process building from the rational model is often described as a cycle of activities, with the ex-post evaluation providing evidence for subsequent rounds of policy analysis and policy making:
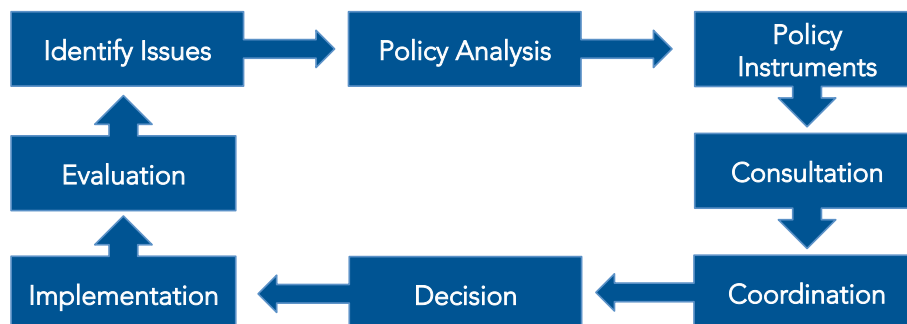
Figure 2.4.2.1.b - Policy Cycle (Nutley and Webb, 2004)

More recently, the validity of the policy cycle, and indeed its existence, has been questioned; in practice, it mostly remain as an organizing framework for the study and/or discussion of the policy process, and as a metaphor suggesting how the final stage of policy *n* – evaluation – provides the input for the initial stage of policy *n+1*, rather than as a prescriptive tool for activity organization (Cairney, 2011, Cairney, 2015).

2.4.2.2 *Incrementalism, Adaptive Planning, and Garbage Cans*

Many of the criticisms of the rational model focus on its inadequate representation of the policymaking process in practice (Nutley and Webb, 2004) and on the unattainability of comprehensive rationality (Cairney, 2011). Already in the late 1950s, Lindblom lamented that the literature of decision-making, policy formulation, planning, and public administration available at the time put forth a model of decision making characterised by a systematic, rational, logical approach that was unsuited to the actual reality of public administrators, who face complex problems where complete information is unattainable and only limited time and money are available.

In alternative to this rational-comprehensive analysis, Lindblom (Lindblom, 1959) proposed the **incrementalist approach** of "*successive limited comparisons*", where only a limited number of policies that differ marginally from current/status-quo policies are compared, and policymakers proceed through a succession of incremental changes to approximate desired objectives. Two decades later the prevalence of the incrementalist approach had indeed become one of the most common views in policy theory and practice, although for many policy theorists and makers the *aspiration* to move towards a model that was closer to the rational-comprehensive side was still strong, as that was perceived as a better model (Lindblom, 1979). In particular, many experts held the view that by taking bigger and more integrated steps while undertaking a more complete and comprehensive – scientific – analysis of policy alternatives it could be possible to improve policy making.

Lindblom and others however posed that the complexity of problems, coupled with the uncertainty of the future, made a complete, 'synoptic' analysis as a norm for policymaking an impossible endeavour (Lindblom, 1979); and Lindblom suggested that strategic analysis – described as a thoughtful and informed choice of methods of problems simplification – would be a more realistic and less dangerous aspiration. Schön (Schön, 1991) saw the policy process, where the problems of greatest concern are found, as *"a swampy lowland where situations are confusing 'messes' incapable of technical solution"*, in opposition to the high, hard ground where research-based techniques can be used effectively.

Lindblom also saw incremental politics as the most likely to succeed in introducing change – although by his own admission such views were shaped by his experience and observations of the American policymaking system of the time.

Others tried to find a middle/mixed approach – for example Etzioni (Etzioni, 1967, Etzioni, 1986) suggests a mixed scanning approach where routine, day-to-day decisions can be made using an incremental approach, while fundamental decisions should be made using a rational approach.

Adaptive planning recognises that policy decisions are made in a context of increasing complexity, interdependence and uncertainty, and therefore need broad and multidisciplinary exploration and participation. Its theoretical approach describes a planning process with different types of actions (e.g., 'mitigating actions' and 'hedging actions'), signposts, and so-called triggers to monitor to see if adaptation is needed. A key dichotomy in this approach is the one between one-stage vs. sequential decision-making (Eriksson and Weber, 2008).

Adaptive planning calls for policymakers ("planners") to create a strategic vision of the future, select and commit to short-term actions, and define a framework that can direct any future actions. Such vision and framework allow for the dynamic adaptation of any plan of action over time in order to meet any change in circumstances, where such adaptation *"is not only determined by what is known or anticipated at present, but also by what is experienced and learned as the future unfolds and by the policy responses to events"* (Haasnoot et al., 2013). The need and requirement for adaptation should be made explicit at the very beginning of policy formulation, so that it is clear and accepted that policies must and will be adjusted as changes happen and new information becomes available. Therefore the aim is to devise policies that are robust across a range of possible futures, rather than optimal for a best estimate future; and such policies should combine actions addressing urgent needs with those putting in place important investments and commitments to shape the future as well as those preserving the required flexibility for adjustment and adaptation (Walker et al., 2001).

Advocates of **politics as social learning** see the policymaking process as an effort to adjust the policy objectives or tools in response to past experience and new information. Policymaking is portrayed as a process usually involving three central variables: the overarching goals, the techniques or policy instruments used to attain those goals, and the precise settings of these instruments. Experience and new knowledge can lead to a change only in the setting of the instruments (first order change), on the policy instruments (second order change), or on the goals themselves (third order change) in what can be defined a shift of policy paradigm, that is of the interpretive framework within which policymakers operate (Hall, 1993).

The **Garbage can/Policy Streams** model of policy settings developed by Kingdon in the 1980s conceives of government as an *"organized anarchy"* manifesting aspects of both order and disorder, where policymaking results from three largely unrelated 'streams': a problem stream, a policy stream, and a political stream (Sabatier, 1991). At any given time, the particular items on the policymakers' agenda are a function of the mix of 'garbage' in the can. The items in the can get on the agenda when "*a problem is recognized, a solution is available, and the political climate makes the time right for change*" (Mucciaroni, 1992). Kingdon argues that the garbage can model is superior to its leading rival model – Incrementalism – precisely because it explains non-incremental

policy change, which he finds characterizes many of the cases he observes. Critics however found its depiction of the agenda setting process excessively undetermined.

2.4.2.3 *Focus on Governance*

Most implementation research has highlighted that the development and execution of domestic policy both in the US and Western Europe involves numerous agencies and interest groups at all levels of government, thus in order to understand the policy process requires to look at an intergovernmental subsystem composed of bureaucrats, legislative personnel, interest group leaders, researchers, and specialist reporters within a specialist area (Sabatier, 1991).

Many of these new descriptive models and approaches are produced in response to changes in the way their object – the government's way of operating – has evolved, as actions are influenced and carried out by many independent people and groups within a policy process that is complex and messy (Cairney, 2015), and further input has been offered by Organisational Studies (Rhodes, 2007). In the UK, there has been a shift from the hierarchic Westminster model, with its narrative of a unitary state and strong executive, to governance by and through networks (Rhodes, 2007) and with the involvement of private and voluntary sectors (Stoker, 1998).

The **New Public Governance** approach is rooted within organisational sociology and network theory, and takes into consideration the increasingly fragmented and uncertain nature of public management. The state is seen both as *plural*, where the delivery of public services is carried out by multiple inter-dependent actors, and *pluralist*, where the policy making system is informed by multiple processes, and the emphasis is on the design and evaluation of enduring inter-organizational relationships, where the core governance mechanisms are trust, relational capital, and relational contracts (Osborne, 2006). This perspective argues for a shift of focus away from formalities and a concern with 'what should be', to a focus on actual behaviour and 'what is', which also requires looking at government in the context of wider society rather than as a stand-alone institution (Stoker, 1998).

In the **Advocacy Coalition Framework** ("ACF"), actors who want to translate their beliefs into public policies drive the policy process. Common beliefs bring people together in an advocacy coalition. A coalition unable to explain what went wrong may find itself out of favour with government, causing a shift in power between subsystems (Cairney, 2011). Policy may change as a function of the interaction between competing advocacy coalitions, changes external to the political subsystem, and the effect of system parameters such as social structure, constitutional rules, etc. (Sabatier, 1991), but also due to changes in the leading coalition's belief system thanks to information and learning (Schlager and Blomquist, 1996). The advocacy coalitions' methods of operation include: the

production and use of information in an advocacy mode to persuade decision-makers to adopt policy alternatives preferred by the coalition; manipulation of the choice of decision-making forum; and support to public officials who share their views and/or are members of the coalition (Schlager and Blomquist, 1996).

In the Politics of **Structural Choice**, Moe (Moe, 1990) describes public policies as institutional arrangements. In the context of democratic politics, they arise from the interaction of politicians, interest groups, and bureaucrats who strive to gain control of government in order to achieve their preferred arrangements and policies (Schlager and Blomquist, 1996). Given the political environment in which structural choice occurs, however, the resulting policies are not necessarily designed to be efficient or even effective. Furthermore, issues may emerge as changes in the political landscapes may mean that the group currently in power loses power and thus may find it difficult to enforce designed policies.

Punctuated Equilibrium ("PE") explains why some policies may remain the same for long periods while others change quickly and dramatically through a mix of bounded rationality and agenda setting: as policymakers can not deal with all the issues for which they are responsible, they ignore most and only a few reach their to do list. For those issues that reach the top of the agenda there is a lot of attention, creating the most potential for significant policymaking instability and policy change (Cairney, 2015). For those issues that remain ignored, groups and officials can keep closed policy communities where little change occur, so there is relative stability and continuity. Change come when there is a successful challenge to the way an issue is framed, finding other influential audiences who demand information and new way to solve the issue (Cairney, 2011).

The Policy Networks and Multi-Level Governance approaches are influenced by interorganisational analysis (Rhodes, 2007). The **Policy Networks** approach stems from the observation that the size of governments necessitates breaking policy formation and implementation down into manageable units. The responsibilities of government are divided into sectors and subsectors, and civil servants establish formal and informal institutional linkages with other actors, interest groups, and other participants around shared interests in public policymaking and implementation. Governmental departments need cooperation as well as information and advice from the non-governmental participants, while these actors need financing and legislative authority; thus policies emerge from the bargaining between the networks' members (Rhodes, 2007). In today's world the number of groups, experts, and other policy participants has grown significantly, and the debates and dealings are much more in the public spotlight (Cairney, 2011), therefore requiring greater transparency. "*Shared values and norms are the glue which holds the complex set of relationships together; trust is essential for cooperative behaviour and, therefore, the existence of the network*", (Rhodes, 2007)

(see also 2.6.2 below about participation and trust), in contraposition to the market-competition/best-price axiom of the audit culture of the Evidence Based Policy Making (see 2.4.2.4 below).

While ACF and PE developed from studies in the US, **Multi-Level Governance** ("MLG") developed in the EU context (Cairney, 2011). **MLG** suggests that the policymaking process is messy, as many actors may be involved at various level of government and their relationships vary across time and policy issue, with no single, central decision-maker or decision-making organisation. There are multiple centres of authority and the central government is replaced by bargaining government and incrementalism (Cairney, 2015), making policy outcomes difficult to predict (Cairney, 2011).

New Institutionalism treats institutions as a set of rules, norms, established practices and relationships that produce regular patterns of policymaking behaviours.

The **Rational Choice theory** uses 'methodological individualism', that is explains socio-political outcomes as the aggregation of decisions of individuals. In the **Institutional Rational Choice**, individual actions are seen as a function of both the attributes (values and resources) of the individual and the attributes of the decision situation, which in turn depends on institutional rules, the nature of the relevant good, and the attributes of the community (Sabatier, 1991). The individuals' strategy choices are guided by their perceptions and analysis of expected costs and benefits, and are conditioned by the decision situation which includes the institutional arrangements and the characteristics of the physical world being acted upon and of the community within which the action is happening. Actors operate within rules, but may also be able to establish and modify rules through their activity (Schlager and Blomquist, 1996).

The **Reflexive governance** approach sees any societal change requiring a multiplicity of distributed efforts. The various governance models that fall in this category all see participation, experimentation, and collective learning as key elements of governance (Voß and Bornemann, 2011). Consequently, governing processes should be open to the contextual interactions – social, technical, and natural - in which they are embedded, meaning that problem-definition, goal setting, and strategy development need to be opened up for the interaction of diverse factors, values, and interests, as these may affect the results of strategies as they are implemented in real world settings (Voß and Kemp, 2006). Participation and interaction are therefore key elements.

2.4.2.4 *Policy Analysis: Linking Knowledge and Public Policy*

The Policy Analysis ("PA") process generally involves a set of logical steps, such as illustrated in Figure 2.4.2.4 , although they may not always be performed in the same order and there may be feedback between different steps, while most projects may involve only a subset (Walker, 2000).
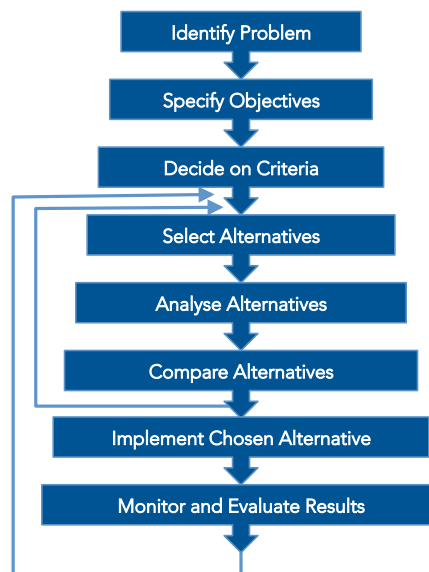
Figure 2.4.2.4 - Policy Analysis Process (Walker, 2000)

While normative PA saw comprehensive rationality as an ideal to aspire to, descriptive PA saw at best examples of bounded rationality where people use shortcuts (due to limits in the information, cognitive abilities, and time available, and to complexity of the issue considered) in order to seek satisfactory, rather than optimal, solutions (Cairney, 2011).

Radin (Radin, 2013) identifies three broad eras in PA: the 1960s, the 1990s, and the 2010s.

1960s: this period saw the emergence of analytic techniques including system analysis and operations research, as well as the increasing use of the economic approach to decision making, with the stated aspiration of 'taking politics out of policymaking'. There was a strong belief that an increased use of knowledge and information would produce better decisions, and that the economic approach would improve the efficiency in allocation and implementation of resources. PA was seen as integral to the formulation stage of the policy making process, when analysts would explore alternative approaches to solve the issue considered. Focus was on getting as much information and data as possible. A central figure for the development of PA was Dror, who envisaged a whole infrastructure of policy research – not just policy analysts but also think tanks, consultants, university institutes, etc. – although he believed their focus should remain on the formulation and not extend to implementation and other organisational matters.

1990s: The following years saw a proliferation of PA units both within and without governments. By the 1990s, focus had expanded to evaluation of previous initiatives, experiments, and policies, as well as moving progressively towards implementation, with greater interest in the relationship between program objectives and means – the *how* rather than the *what*.

2010s: The scope of PA has widened and now it – at least potentially – can span from proposing issues to address, to implementation and evaluation.

Bardach (Bardach, 2009) describes eight steps for the policy analyst:

- **Define the problem**: identify, describe, and, as much as possible, quantify of the problem
- **Assemble some evidence**: gather and evaluate data
- **Construct the alternatives**: develop alternative strategies of intervention to solve or mitigate the problem
- **Select the criteria**: introduce values and philosophy into the policy analysis in order to gauge desirability and preferability. These should also take into consideration political acceptability
- **Project the outcomes**
- **Confront the trade-offs**: clarify the trade-offs between outcomes associated with different policy options
- **Decide**
- **Tell your story**: communicate the outcomes of the analysis using the most appropriate format(s) depending on audience and purposes.

Dunn (Dunn, 2014) talks about prescription as the transformation of information about expected policy outcomes into information about preferred policies. This activity is inherently normative, and is closely related to moral and ethical considerations. Dunn also contrasts policy advocacy, in which the aim of analysis is to support a predetermined policy position, to multiple advocacy, which calls for the systematic comparison and critical assessment of multiple potential solutions.

While until most of the 1990s the majority of research and literature on PA had been produced in the US and reflected American governance context and structures while addressing American students, from the 2000s a global perspective on policy analysis has begun to emerge.

In this context, Radin (Radin, 2013) looks at how PA in parliamentary systems typically differs from PA in the US. In parliamentary systems, the advising is done by individuals rather than by separate organisational structures that offer advice. Staff members are experienced officials in the career public service, expected to be politically neutral, in most cases trained to be administrative generalists rather than programme or policy specialists.

Radin describes the steps through which a policy adviser in the parliamentary system is expected to move as:

- Taking a difficult and sometimes poorly understood problem or issue and **structuring** it so that it can be thought about in a systematic way
- **Gathering** the minimum necessary information and applying the appropriate **analytical methods**

- **Formulating** effective options addressing, where necessary, mechanisms for implementation, monitoring and evaluation; and

- **Communicating** the results of the work to the government in a timely and understandable way.

Radin also suggests that New Public Management approaches have led to a greater focus on performance and outcome assessment (see also 2.4.2.5 below), and even in parliamentary systems there has been a growth in the number and importance of PA groups that are outside of government.

2.4.2.5 *Policy Analysis: The recent UK Experience*

Nutley (Nutley and Webb, 2004) offers a history of the relationship between research and public policy in the UK and indicates how modern relationship between social research and social policy started in the 19th century. At the core of this framework is the belief that:

- Accurate facts about the social world should be at the basis of government policies formulation

- Quantification and accurate statistics are essential in order to define such facts

- There is a simple model linking social research and social reform.

The view that research could assume a leading role in social engineering peaked in the 1960s, and was followed by increasing disillusionment about such an approach, which manifested as a more general breakdown of the social democratic consensus in British politics emerged.

In contrast to the **Public Administration paradigm**, that saw a central role of the bureaucracy in policy making and implementation and a focus on the essentially political nature of public administration and on the complexity of the public policy making process, from the late 1970s onward gained popularity the view that the managerial techniques developed in the private sector could be applied in the public sector, leading to greater efficiency and effectiveness of the public services. This view resulted in **Managerialism** and **New Institutional Economics** ("NIE"). The first stressed hands-on professional management; explicit standards; inputs and output control and evaluation; performance management and audit; managing by results; value for money; and closeness to customers. NIE led to the introduction of incentive structures such as market competition in the provision of public services (Rhodes, 1996). This **New Public Management** ("NPM") approach was strongly influenced by rational/public choice theory, and assumed a state where policy making and implementation are at least partially articulated and separated (Osborne, 2006).

The NPM wave was adopted by many governments and led to significant privatisation of industries, while non-governmental organisations were contracted to deliver services. The resulting decision-making (and thus policymaking) is not centralised, but rather shared across many levels of governments as well as with NGOs and QUANGOs, with elected policymakers forced to negotiate and make shared decisions with actors *outside* of the government.

Evidence Based Policy Making

In an effort to move policymaking beyond a simple 'muddling through', **Evidence Based Policy Making** ("EBPM") emerged in the 90s and became prominent in the UK in 1999, during the first Blair government, promoted as a mean of ensuring that what is being done is worthwhile and that it is being done in the best possible way (Nutley et al., 2000). The main factors behind this phenomenon and parallel decline in popularity of judgment-based practices were the expansion and availability of relevant social science knowledge, the decline in deference to governments, and the demand for greater public accountability (Davies et al., 2004).

While the Economic and Social Research Council was working to establish a national Resource Centre for Evidence-Based Policy, the White Paper "*Modernising Government*" published in March 1999 indicated the Government's commitment towards an evidence based approach, as did the setting up of new units such as the Performance and Innovation Unit, Social Exclusion Unit and Centre for Management and Policy Studies (Parsons, 2002). In their "*What Works? Evidence-based policy and practice in public services*", first published in 2000, Davies and colleagues (Davies et al., 2004) define evidence as something that "*(however construed) can be independently observed and verified, and that there is broad consensus as to its contents (if not its interpretation)*".

The 1999 White Paper expressed the need for a more professional approach to policymaking, demanding that policymakers have available to them the widest and latest information on research and best practice, and that all decisions they make be demonstrably rooted in this knowledge. In the same year, a Cabinet Office report on the state of policymaking, "*Professional Policy Making for the Twenty-First Century*" described a policy process that had to be considered in context:

What evidence is needed/available to test the 'real world' problem?

How does the problem/policy fit with government manifesto/priorities?
What policy conflict/priorities need to be resolved?
Is a cross-cutting approach needed?

What are the desired policy outcomes?
Which are the most effective outputs for achieving these outcomes?
Who are the key stakeholders and how should they be involved?

How can evidence best be presented?

How and when should key political representatives be involved?

Who else within government needs to be involved and how?
What is the impact of devolution?
What is the role of the EU?
How should work be organised?
How should front-line staff be involved?

What are the needs and views of those the policy needs to influence/affect?

How/when should policy effectiveness and contribution to corporate objectives be reviewed?

What sort of cross-cutting intervention is required (if any)?
What is the impact of other existing and developing policies?
What are the costs/benefits of different options?

What evidence is available, relevant and useful?

Understanding the problem

POLICY

Testing success, making it stick

Developing solutions

Are Ministers signed up?

PROCESS

Putting solutions into effect

What evaluation systems and performance targets are needed?
What are the alternatives to legislation and regulation?

What have the experiences of other countries been?

What needs to happen to ensure policy become self-sustaining?

What is the strategy for presenting policy?

What training and support for front-line staff is needed?
What IS changes are needed?

What are the risks to the policy and how can they be managed?

Who needs to be told what, when and how?
How can stakeholders be kept committed and involved?
What are the quick wins?

What is the impact of possible solutions on equal opportunities, business, women, environment etc. ?

How can different solutions be tested?

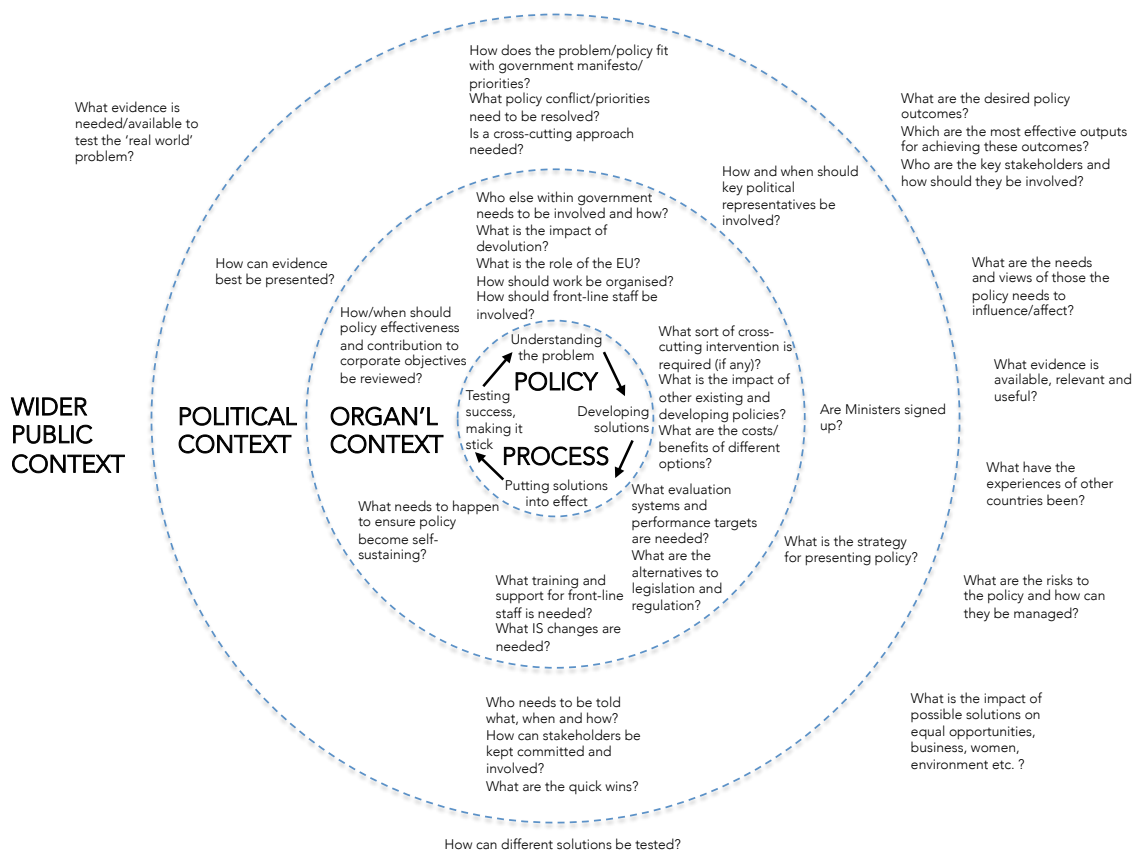WIDER PUBLIC CONTEXT

POLITICAL CONTEXT

ORGAN'L CONTEXT

Figure 2.4.2.5 - Policymaking in Context (Cabinet-Office, 1999)

In response to the White Paper, the Centre for Management and Policy Studies published in 2001 the report "*Better Policymaking*" (Bullock et al., 2001). Based on a survey of senior civil servants in all Ministerial Departments, the report identified what the perceived main issues in modernising the policymaking process were, and offered some example of "*interesting approaches being adopted by individual Departments to progress the modernisation agenda in policy-making*".

However critics saw the Professional Policy Making described in the above report as espousing and promoting ideas embedded in the strategic planning approaches of the 1960s and 1970s, which had already "*failed to deliver*", and focusing on a model better suited to project management, characterised by shorter terms and clear objectives, rather than policy making, which deals with wider, more complex and ongoing issues (Parsons, 2001).

Others stress how the emphasis and focus of EBPM is on quantitative intelligence, while the type of evidence needed by policy makers is of both qualitative and quantitative nature (Amann, 2004).

The model also failed to address satisfactorily issues of complexity, uncertainty and emergence that are likely to occur in real life, despite acknowledging them at the very beginning. Geyer (Geyer, 2012) points out how the targeting/audit strategies of the audit culture promoted by the EBPM risk leading to maladaptive and dysfunctional outcomes for UK policy when applied to messy, uncertain,

and complex issues, while Sanderson decries the difficulties of evaluating policy interventions in increasingly complex social systems, as well as the need for better analysis and understanding of social problems (Sanderson, 2001) and improved social learning (Sanderson, 2009) to reconcile policy delivery efficacy with increasing social complexity.

Later variants, such as the Evidence-*Inspired* Policy Making (Duncan, 2005) or the Evidence-*Informed* Policy Making (Nutley et al., 2010), show attempts to move away from the linear model implied by the EBPM, towards more systemic approaches that consider the way research, policy and practice inform, influence and interact with each other (Best and Holmes, 2010).

2.4.3 *The Object of Public Policy*

The purpose of public policy is to use a public agency to identify, respond and – directly or indirectly – implement a political process. In essence, public policy is the means by which a government maintains order or addresses the needs of its citizens through its legal system.

Market failures – circumstances in which social surplus is larger under some alternative allocation to that resulting under the market equilibrium, as is the case with public goods, externalities, natural monopolies, and information asymmetries – provide the traditional economic rationales for public participation in private affairs, to which other limitations of the competitive framework can be added such as thin markets, preference problems, etc. (Weimer and Vining, 2014).

In addition, there can be other situations that can be defined as public problems, such as: breakdown of systems (such as family relationships) that occur largely outside of markets, low living standards that do not reward individuals lacking marketable talents or skills, existence of discrimination against racial and other minorities, failure of government to function well in areas where it is traditionally expected to act effectively (e.g., providing schools), and similar (Bardach, 2009).

There is an increasing acceptance that the majority of public problems and social issues fall, due to their very nature, into the category of so-called 'wicked problems'.

2.4.3.1 *Wicked Problems, Messes, and Grand Challenges*

Already in 1967 Churchman noted that "*Because of complexity, uncertainty and interdependencies, efforts to solve one or a collective of problems often creates a plethora of new problems*" (Churchman, 1967), and described such problems as 'wicked problems'.

In 1973 Rittel and Webber, both urban planners at the University of California, Berkeley, remarked upon the existence of a wide set of social planning problems that cannot be successfully solved using linear methods of problem solving (e.g., specify problem, gather and analyse data, formulate

solution, implement solution), again calling such issues 'wicked problems' and contrasting them with 'tame' problems which can be can be tightly defined and for which a solution can be fairly readily identified or worked through. Indeed, they posed, nearly all public policy issues are wicked problems (Rittel and Webber, 1973). Ackoff in 1974 called them 'social messes', complex systems of strongly interacting problems that affect society and where the attempts at solving individual problems independently typically exacerbate the 'mess' (Ackoff, 1997).

The 'grand challenges' that European governments should focus on, according to the LUND Declaration[12], have all the hallmarks of wicked problems. In order to tackle them, the Declaration advises, governments "*should involve stakeholders from both public and private sectors in transparent processes*".

Wicked problems are linked to social pluralism, institutional complexity, and scientific uncertainty (Head and Alford, 2008), and have the following characteristics (Rittel and Webber, 1973, Weber and Khademian, 2008, APSC, 2012):

- No definitive formulation – they are difficult to clearly define, and different stakeholders have different views and understanding of the problem
- No clear stopping rule – no definitive solution, while solutions are not true-or-false, but good-or-bad
- No immediate and no ultimate test of a solution
- Every solution is a one-shot operation – no opportunity to learn by trial-and-error; at the same time, no public tolerance of experiments that fail
- Not an enumerable (or an exhaustively describable) set of potential solutions
- Every problem is essentially unique
- Every problem can be considered the symptom of another problem – they have many interdependencies and are often multi-causal, this is also what makes them hard to define
- Attempts to address them often lead to unforeseen consequences because of all their interconnections
- They are socially complex
- They are often not stable, offering policymakers a moving target
- Responsibility for their resolution sits across boundaries within and without the public sector and across levels
- Most require a change in behaviours.

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[12] http://www.vliz.be/imisdocs/publications/258542.pdf. The grand challenges identified were: global warming; tightening supplies of water, and food; ageing societies; public health; pandemics; and security.

Furthermore, there is no once-and-for-all solution – social problems are never solved, at best they are re-solved, over and over again (Rittel and Webber, 1973, Roberts, 2000, Weber and Khademian, 2008).

Traditional, linear management approaches are not compatible with the need to work across organisational boundaries, encompassing interactions between different activities and objectives, requiring instead more horizontal and holistic ways of working (Clarke, 1997). Indeed, the application of rationalist problem-solving leads to unintended consequences – the 'messier' and interconnected the problem, the greater the amount of interdependencies and "*dimensions of embeddedness*" ignored in the development and implementation of rationalist solutions, the wider and stronger the impact of unintended consequences (Voß, 2006). Handling wicked issues too narrowly is an ever-present danger (Clarke, 1997), and the continued application of unsuitable processes and tools is bound to amplify and exacerbate problems (Geyer, 2012).

Clarke goes as far as suggesting the restructuring of the government organisation based on wicked issues rather than by functions or services (Clarke, 1997).

Dealing with messes/wicked problems highlights the inadequacy of traditional approaches to policymaking, as even the first step – '*define the issue*' – is problematic.

2.4.3.2 *Implementation*

Given that the Implementation phase is part of the policymaking cycle, and that public policy is *the sum total of government action* (see 2.4.1 above)*,* policy delivery should also be part of the concerns of policymakers. Since any package of measures identified as a possible solution usually requires the involvement, commitment, and coordination of multiple organisations and stakeholders to be delivered effectively, this 'involvement, commitment, and coordination' needs to be ensured. It also requires public servants to develop new skills such as working across organisational boundaries, engaging stakeholders and influencing citizens' behaviour (APSC, 2012).

2.5 Foresight in Policymaking

While sections 2.3.4.3, 2.3.4.4, and 2.3.4.5 above have looked at the literature on Foresight from an epistemological and process perspective, this section considers the literature from the point of view of its *use and application in policymaking*[13]. After a brief overview of the rationale for the use of foresight to support governments' policymaking (2.5.1) and the roles it does and could assume in the

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[13] I do realise this is in some way attempting a view from the other side of the looking glass; however I believe that such distinction allows the consideration of some of the aspects and dimensions of Foresight, such as participation, from both a process and a political perspective (and as Alice noticed, things seen from the other side do not appear exactly the same). I have tried to keep any unavoidable repetitions to a minimum.

policymaking process (2.5.2), 2.5.3 looks at how the type and objectives of foresight (as well as Foresight) activities have evolved over the years.

The section then looks at specific aspects of Foresight use in Policymaking, such as issues concerning a policy-free approach versus a normative/constructive approach (2.5.4), and the emergence of different forms of Foresight, such as Adaptive and Systemic Foresight (2.5.5); the section concludes examining the issues faced when undertaking Foresight exercises (2.5.6), and possible dimensions to consider for their evaluation (2.5.7).

2.5.1   Rationale

Already in 2.3.2 above it was mentioned how foresight was originally developed to support governments in their strategies and policy development, in the two main areas of planning and military/strategy.

Lasswell was amongst the first scholars to state that decision-making and policymaking rely on anticipation of the future and formulated the idea of the 'developmental construct', a concept similar to that of 'image of the future', calling his method "*developmental analysis*" (Bell, 2002). Several experts consider that the explicitly strategic purpose of modern policymaking bring to the fore the need for decision-makers to be able to forecast and model the future (Parsons, 2001).

Georghiou and Keenan (Georghiou and Keenan, 2006) highlight the following three rationales for the use of Foresight:

- **Providing policy advice**, highlighting the longer term and extending perspectives
- **Building advocacy coalitions**, highlighting challenges in an interaction space around which interest groups can coalesce
- **Providing social forums** for strategic reflection, debate and action.

Foresight can help promote a longer term view in contrast to the short-termism driven by the length of the election cycle, although some still see the institutional set-up of foresight exercises and initiatives as also too closely attached to the election cycle (Dreyer and Stang, 2013).

Several experts see Foresight as particularly appropriate in situations characterised by high uncertainty and complexity, as the intuitive logic method of foresight tools such as scenarios is particularly suited for handling situations with low predictability, while the participatory element can help reduce some of the motivational biases, inappropriate framing, and misattribution of causality that can be often found at the root of decision failures (Wright and Goodwin, 2009). Some consider the focused and intensive interactions between stakeholders during Foresight exercises as further contributing to manage uncertainty – more effectively than efforts at reducing said uncertainty

through planning (Van der Meulen et al., 2003)(see links with 2.3.4.5 and 2.4.2.5 above). Indeed Sardar (Sardar, 2010) in his 'First Law of Futures Studies' states that Futures Studies (should) deal almost exclusively with wicked problems.

Foresight can also help identify when fundamental re-assessment and re-alignment of existing policies are needed by allowing the identification and picking-up of 'weak signals' (Havas et al., 2010).

2.5.2 Role

According to the futurist Coates in 1985, talking about government policy activities in the US: "*Foresight in government cannot define policy, but it can help condition policies to be more appropriate, more flexible, and more robust in their implementation, as times and circumstances change. It is therefore closely tied to planning. It is not planning – merely a step in planning*" (Cuhls, 2003).

Martin (Martin, 1995) gave the definition of Technology Foresight as a process of "*systematically attempting to look into the longer-term future of science, technology, the economy and society with the aim of identifying the areas of strategic research and the emerging of generic technologies likely to yield the greatest economic and social benefits*" – so not only looking ahead, but also identifying strategic research and directing investments, to 'pick the winners' (Martin and Johnston, 1999), as well as in some way to 'pick the losers' (Cuhls, 2003).

Cuhls (Cuhls, 2003) listed the most important objectives of (Technology) Foresight [parenthesis added by author] in the context of policymaking as to:

- Enlarge the choice of opportunities, set priorities, and assess impact and chances
- Estimate and assess the impact of current research and technology policy
- Identify new needs, new demands and new possibilities, as well as new ideas
- Focus selectively on economic, technological, social and ecological areas
- Define desirable and undesirable futures
- Start and stimulate ongoing debate.

A few years later, and the embedding of Foresight into policymaking is seen to go far beyond merely informing policy, comprising at least the following six main functions (Da Costa et al., 2008):

- **Informing policy**: production and supply of anticipatory intelligence to policy-makers to support policy conceptualisation and design

- **Facilitating policy implementation**: enhancing the capacity for change within a given policy field by building a common awareness of the current situation and future challenges, as well as new networks and visions amongst stakeholders
- **Facilitating the participation of civil society** in the policymaking process, engaging stakeholders and the public as part of a broader democratic process
- **Supporting policy definition**: jointly translating outcomes from the collective process into specific options for policy definition and implementation
- **Reconfiguring the policy system:** increasing its ability to address long-term challenges
- **Symbolic function**: indicating to the public that policy is based on rational information.

By engaging stakeholders and civil society, and allowing their contribution in the policymaking process, Foresight can also improve the latter's transparency and legitimacy (Dreyer and Stang, 2013), while the greater transparency of the decision-making process can help ensure greater public support, ensuring smoother implementation (Havas et al., 2010).

Eriksson and Weber state that a key role for Foresight is to enable decision-makers to better understand and deal with uncertainty and complexity (Eriksson and Weber, 2008).

Harper distinguishes two roles for Foresight: an advisory and strategic function ("*Foresight for/in policy*"), where it is but a tool to inform policymaking in any area or to coordinate policy across sectors, and an instrumental role ("*Foresight as a policy instrument*"), used to support implementation of budgetary, structural or cultural changes in the domain of research and/or innovation policy (Harper, 2013).

There is however some scepticism concerning the ability of foresight to actually influence decision making, with critiques centring on the need for foresight to provide more support for action and decision-making, the appropriate managing of expectations of participants following the foresight exercise, and the risk of insufficient rooting in science (Eriksson and Weber, 2008).

2.5.3   Historical Evolution

The assessment of the future in a public policy context, particularly in the positivistic, policy analysis approach, came into vogue in the 1960s and 1970s and is by many referred to as policy-oriented foresight (van Asselt et al., 2010). Early examples include Khan's "The Year 2000" and the Club of Rome's "Limits to Growth", which aimed at raising awareness of long-term trends and developments among politicians and wider public.

The first incarnation of foresight in its support to public planning consisted essentially in extrapolations and projections, with emphasis placed on dataset-based forecasting; however, as

complexity and uncertainty increased globally, their failures made people disenchanted and sceptical of such activities. Following the end of the Cold War in the 1980s, interest in military foresight work decreased significantly, while governments started focusing on economic growth and competition (Dreyer and Stang, 2013).

The objective of government-led Foresight studies was to provide an occasion for wide-ranging government-industry discussions (such as the UK Foresight exercises), to gather expert opinion on technology futures (such as the Science and Technology Agency 30-year forecasts in Japan[14]), or to offer initial guidelines for government action (such as in the Netherlands and other Scandinavian countries). Wagner and Popper (Wagner and Popper, 2003) point out how the countries engaging in such exercises tend to have some sort of central agency that is responsible for directing science policy and setting research priorities and is thus able to "*push policy down*" to guide the allocation of R&D funding and efforts[15].

Technology Foresight became popular in the 1980s as it offered:

- An approach for **identifying priorities and making choices** in relation to science and technology R&D investments
- A mechanism for **integrating research opportunities** (the technology and science 'push') with **economic and social needs** (society's demand or 'pull') and thereby linking science and technology more closely with innovation, wealth creation, and enhanced quality of life
- Support in **stimulating communication and forging partnerships** between researchers, research users, and research funders (Martin and Johnston, 1999, Martin, 2010).

Despite the study and conclusions of Martin and Irvine on the importance of conducting Foresight activities, for a combination of political and fortuitous circumstances it was not until 1993 that the UK Technology Foresight Programme was launched (Martin, 2010).

There has been a progressive shift of focus from '*product*' (list of priorities) to '*process*' (creation of networks and greater public participation and debate) (Cariola and Rolfo, 2004). Indeed Irvine and Martin saw the primary benefits of technology foresight activities as lying not so much in the specific predictions but in the process itself, and referred to the key aspects as '*the five Cs*' (Martin, 1995):

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[14] Governments in Japan, during the 1970s, and South Korea, during the 1990s, made technological development a national priority. As part of their efforts, they imported the Delphi method from the US for their programming of publicly supported Research and Development (R&D) activities (DREYER, I. & STANG, G. 2013. Foresight in Governments - Practices and Trends around the World. *Yearbook of European Security YES*, ibid., ibid.)

[15] This would explain why in the US, characterised by a decentralised science policy system, the identification of 'critical technologies' in response to the increased competitiveness in key technology-based industries of countries such as Japan and Germany was done by expert panels and not through the use of forecasting methods or surveys (WAGNER, C. & POPPER, S. 2003. Identifying Critical Technologies in the United States: A Review of the Federal Effort. *Journal of Forecasting,* 22**,** 113-128.)

- **Concentration** (on the longer term/on the future)

- **Communication** (exchange, learning and engagement among stakeholders and the public)

- **Consensus** (and also Conflict – a shared understanding of future challenges and options)

- **Commitment** (through sense of co-ownership of the results of the forecasting exercise)

- **Coordination** (through shared perceptions of challenges, visions and priorities)

Over the past decades there has been an evolution of (mostly technology) Foresight that has seen a shift from extrapolation and forecasting to more open and adaptive Foresight. This can be interpreted as a reflection of the abandoning of linear models of technological change in favour of adopting a more systemic understanding of socio-technical change (see also 2.5.5 below) (Eriksson and Weber, 2008). Other government Foresight activities have seen a progressive integration of themes around development issues and social, political and environmental challenges (Dreyer and Stang, 2013).

Recent international surveys of Foresight exercises in several industrialized-, transition-, and developing countries worldwide since the 1990s show that countries have applied quite different conceptions of Foresight, particularly in terms of how broadly the policy areas to be covered are conceived. Most studies still follow a narrow focus on science and technology, but some have begun to integrate societal or economic issues focusing on other policy areas such as public health, national security, or the environment (Habegger, 2010). Descriptions, comparisons, and evaluation of different national Foresight programmes have been carried out by several authors (Dreyer and Stang, 2013, Georghiou and Keenan, 2006, Keenan and Popper, 2008, Jemala, 2010).

In parallel to the shift of attention towards social and systemic approaches, Foresight has become an increasingly participatory activity. In technology assessment, the increasing weight of social, economic, environmental, and ethical concerns related to scientific and technological developments has led to a development and strengthening of participatory and constructive approaches (Eriksson and Weber, 2008).

The result of this evolution is that current Foresight programmes rely on a range of theories and methods, often overlapping, which include (Havas, 2005):

- Evolutionary economics of innovation

- Sociology of science and technology

- Actor-network theories

- Political sciences and other analyses of policy processes

- Communication, co-operation, and participation theories

- Decision-preparatory and future-oriented methods and techniques.

Table 2.5.3 presents a summary of the different 'generations' of Foresight. Harper (Harper, 2013) suggests that, although they have emerged sequentially, each subsequent generation has not exactly ousted and superseded the precedent, as each generation represent an 'ideal type', seeking to address specific situations and concerns, and thus continue to co-exist alongside the others.

	Focus	Approach	Actors	Objectives	Evaluation Criteria
1st generation (1970s)	Technology identification and forecasting	(Technology) Delphi surveys	Experts	Picking up winners	Accuracy of prediction and diffusion of results
2nd generation (1980s)	Anticipation of new technology and markets	Technology and market Delphis, key technology studies, etc	Academics and Industry	(Picking up winners) Networking the economy	Take-up of priorities and development of networks amongst participants
3rd generation (1990s)	Technology, Markets and Social Dimension	'Real' Foresight combining outlooks on technologies, markets and societal developments; sociotechnical scenario thinking for devising collective strategies	Academics, Industry, Government and social stakeholders	Mobilisation of actors and stakeholders ('rewiring the innovation system')	Involvement of stakeholders in evaluation and embedding of a foresight culture
4th generation (2000s)	Developing adaptive planning and strategies to cope with different future scenarios	Combining collective processes with intra-organisational strategic foresight Adaptive Foresight	As for 3rd generation, but widening scope (e.g., to regional level)	Building advocacy coalitions	As for 3rd generation, but reflecting different expectations and need of stakeholders
5th generation (2010s)	How to deal with grand challenges as key demand-side drivers of change	Horizon scanning and identification of weak signals to anticipate the unexpected; Systemic Foresight	Holistic approach – engage the system	Providing social forums Address wicked problems/grand challenges	As for 4th generation, also considering networking and social capital creation
6th generation (currently emerging)	Dealing seriously with ontological expansion and the impossibility of anticipating the unexpected	Designing foresight aiming to simultaneously explore and experiment with emerging and future developments			

Table 2.5.3 - Generations of Foresight (Georghiou, 2008, Harper, 2013, Addarii et al., 2015, Amanatidou and Guy, 2008)

Several authors point out the influence of national culture and political traditions in the choice of different styles of Foresight, and of how such 'internal context' affects the objectives, scope, integration, and ultimately the results of national Foresight exercises (Keenan and Popper, 2008, Andersen and Rasmussen, 2014). This is further discussed in 2.5.6 below.

Literature concerning the actual carrying out of Foresight activities and their use is scarce, and it appears to offer only limited insight into the reality faced by those charged with carrying out the activities and then acting on the results. Indeed, even in a context such as the Netherlands where there is a long-standing tradition of production and use of Foresight activities, van Asselt and colleagues noted that "*We observed that methodological accounts are often lacking and, if available, are stylized […] methodological accounts are usually short descriptions of some main steps or are confined to a simple scheme. As a result, a linear and step-wise process is suggested: choices, considerations, discussions, struggles, compromises, unproductive steps, flaws, practical adjustments, experiments, difficulties, challenges and local solutions are concealed*" (van Asselt et al., 2010).

2.5.4   *Policy-free Approach in Foresight for Policymaking*

The idea underlying the development of 'policy-free scenarios', which is the approach often portrayed and recommended in scenario textbooks, is grounded in the practice within business contexts. According to this approach, future policy should not be included in the scenarios in order to allow policy-makers to properly 'wind-tunnel' (see 2.3.5 above) their future policies: by considering different policies vis-à-vis various possible futures, it is possible to identify which policy options are more 'robust', that is perform relatively well across a wider range of scenarios. While the scenarios differ on various (uncertain) variables, future policy is not – can not be – one of them (van Asselt et al., 2014).

Based on their analysis on national foresight practice, van Asselt and colleagues remark on the fact that the majority of futurists appear to feel that it is important for them to (be perceived to) be apolitical, as such stance is more often interpreted as being more 'academic'. As such, they tend to favour the production of policy-free, as opposed to policy-oriented, scenarios. However, the authors point out the conflict between the positivistic ideals at the basis of academic foresight and the constructive nature of policy-oriented Foresight, and suggest that the idea of policy-free scenarios should be cast aside when dealing with the latter (van Asselt et al., 2010).

In their study of foresight activities carried out in different countries, Dreyer et al. suggest that wealthy countries in North America, Europe and Asia "*are more likely to pursue Foresight with the aim of understanding the uncertain future, keeping the Foresight analysis initially disconnected from*

any potential policy implications", as one of the main goals is that of not presupposing or influencing the results of the Foresight exercise (Dreyer and Stang, 2013).

Maintaining a 'policy-free' stance would appear to become a mote point as Foresight moves towards more participatory approaches, geared at involving wider sections of society and potentially supporting participatory governance.

2.5.5   Adaptive Foresight and Systemic Foresight

Uncertainty and complexity underpin the development of two other models of Foresight, as seen in 2.5.3 above.

Adaptive Foresight has been developed at the crossroads of adaptive strategic planning (see 2.4.2.2 above) and Foresight, and proposed as more realistic and closer to actual processes. It favours a more modest interpretation of the collective ability to 'shape the future', suggesting that a significant amount of Technology Foresight theory and practice may overestimate the actual ability to mobilise innovation system stakeholders to act according to visions of sustainable development that have been generated in a participatory foresight process. This approach proposes that Foresight needs to go beyond the level of a collective process and get to the level of individual actors' strategies if it is to be effective, stressing the need to adapt to actions by others, and combines phases of open participation with closed processes of targeted strategy development carried out by the individual actors (Eriksson and Weber, 2008).

Eriksson and Weber (Eriksson and Weber, 2008) stress the importance of considering sequential decision-making, designed to exploit progressively improved understanding as time – and implementation – progresses, and of considering flexibility and adaptability as well as robustness when looking at different options vis-à-vis different possible futures, referring also to the Collingridge Dilemma[16] in the context of technology innovation.

Based on the ideas of systems thinking, Saritas's **Systemic Foresight Methodology** ("SFM") proposes a conceptual framework that attempts to cope with the complexities of the human and social systems, integrating both qualitative and quantitative tools (Saritas, 2013).   Saritas suggests that, given the complexities of the real world, conducting Foresight activities *systematically* – that is, using 'systematic' processes that assume linear or otherwise easily 'modellable' problems – is not appropriate for dealing with the 'systemic' situations found in human and social systems, which are 'open' in nature, and are more likely to generate unintended consequences if linear/managerial methods are used. Conducting Foresight activities *systemically*, on the other hand, means that the

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[16] By the time we know enough about emerging technological options to make informed choices, they have already become so entrenched that effective choices are not possible any more.

actual design of the system considered should only be partially specified in advance, and it will fully emerge through the creative process of Systemic Foresight, whose objective is the design of a future system that should fulfil the assigned goals and expectations.

Figure 2.5.5 below illustrates how Saritas describes (systemic) Foresight activity as embedded in both an **external context** – constituted by Social, Technological, Economic, Environmental, Political, and Value (STEEPV) systems - and an **internal context** – constituted by the Management, Processes, Routines, Motivation, Culture, Politics, Power and Skills of the system in which Foresight is carried out – and thus is influenced by the factors in both, while influencing them in turn as "*the two contexts […] produce and are produced by the [Foresight] activity*" (Saritas, 2013).
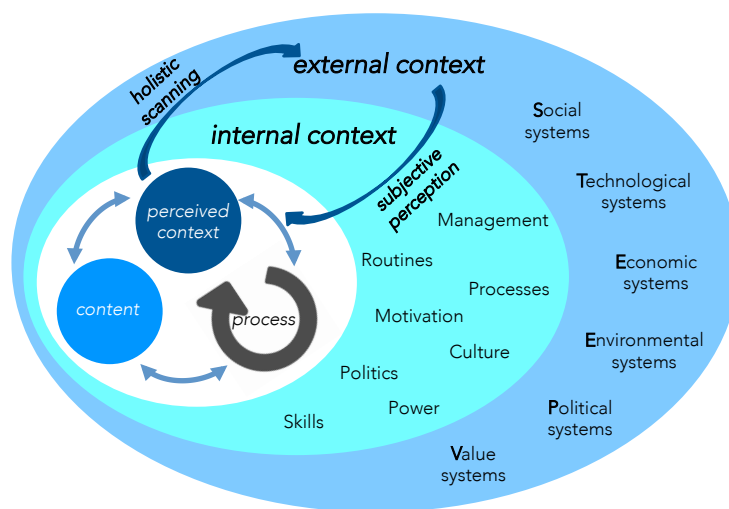

Figure 2.5.5 - Systemic Foresight (Saritas, 2013)

2.5.6   Issues and Problems of Foresight in Policymaking

The issues faced by Foresight programmes and exercises emerge both during their *execution* and during their *use* in support of policymaking. If we consider implementation as an integral part of the policymaking process, and the role of Foresight as extending to said implementation (FOREN, 2001, Hines and Bishop, 2006, Miles et al., 2008a, Saritas, 2013), the difficulties met by Foresight called to support such process can be grouped in two sub-categories: issues affecting the *inclusion* of insights generated by Foresight in the decision-making process, and issues affecting their ability to be translated into action – that is, their *implementation*.

In 2013 Dreyer and Stang (Dreyer and Stang, 2013) conducted a study on behalf of the European Union Institute for Security Studies (EUISS) on a selected number of countries[17] characterised by different geographical, economic, political and power status conditions, looking at how governments

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[17] Australia, Brazil, Canada, China, Finland, France, Germany, India, Indonesia, Italy, Japan, Mexico, the Netherlands, Norway, Russia, Singapore, South Africa, South Korea, Sweden, Switzerland, the United Kingdom (UK) and the United States (US).

approach foresight, what issues they try to grapple with, and what challenges are faced when attempting to connect Foresight and policy.

The internal context described by Saritas (Saritas, 2013) above includes all parties and institutions (e.g., administrative system and political system) that are involved in both the performance of a Foresight process and the implementation of the results. As it relates to the structures and behaviours of the system, it influences both acceptance and integration of the Foresight exercise's results (Andersen and Rasmussen, 2014).

2.5.6.1 *Execution*

Lack of senior support is seen by many Foresight analysts and experts as compromising the relationship between the decision- and policy-makers at the top, the established policy planners, and the Foresight experts, with the latter complaining about the "*lack of senior leadership in getting established policy planners to accept the foresight community*"(Dreyer and Stang, 2013).

Lack of integration between different sectors and areas of responsibility is another source of problems – the institutional and organisational structure reflects clearly delimited areas of political responsibility, however "*many of today's and tomorrow's challenges are cross-cutting in nature, and require impulses from different policy areas to be tackled successfully*" (Köhler, 2015). Dreyer and Stang (Dreyer and Stang, 2013) offer the example of military foresight programmes, which remain quite separate from work in other departments – and often limited even between different sections of the military. Even when Foresight expertise and information is shared between departments and sectors, diverse methods hinder an integrated view.

The focus of the Professional Policymaking model is essentially on technical, bureaucratic, scientific and expert knowledge, where the involvement described is **more consultation than actual participation** (Parsons, 2001). Also it is still unclear what is the best institutional model for bringing together policy and futures expertise, as some consider it important to maintain foresight experts separated from the policy community, while others see it as important for the two to be closely connected in order to ensure any insight developed is both of value and valued (Dreyer and Stang, 2013).

Although not mentioned by most of the academic literature, the issues of **(limited) resources** is mentioned in most of the practice-driven and user-oriented literature, such as manuals and handbooks (Miles et al., 2002, UNDP, 2014). It is strongly connected with, and mutually reinforced by, the issues of (poor) senior support mentioned at the beginning, and acceptability described below.

Emerging difficulties are linked to the trend towards wider inclusion and participation, but the literature on this point is very limited; Andersen and Rasmussen suggest that national culture exerts significant influence on a society's attitude towards subordinate consultation and thus on participatory elements of Foresight exercises (Andersen and Rasmussen, 2014), while Keenan and Popper indicate the relevance of (national) democratic culture in the choice and use of methods and techniques characterised by greater interaction (Keenan and Popper, 2008). Participation is further discussed in 2.6 below.

2.5.6.2 *Inclusion*

Jacobs (Jacobs, 2002) suggests that the main reasons why expert knowledge may not be used by decision-makers is connected with issues concerning:

- **Relevance** – are the scientists asking and answering the right questions?
- **Accessibility** of findings – are the data and the associated value-added analysis available to and understandable by the decision-makers?
- **Acceptability** – are the findings seen as accurate and trustworthy?
- **Context** – are the findings useful, given the constraints in the decision process?

Relevance and Context

The 'context' here refers to the internal context as described in Saritas's Systemic Foresight model (see 2.5.5 above). Andersen and Rasmussen (Andersen and Rasmussen, 2014) argue that the poor track-record of implementation of Foresight projects is linked to such projects being carried out as stand alone activities, often disconnected from those processes they are supposed to feed into. Such separation from the core policymaking process can lead to the experts not asking or answering the right questions, therefore producing insight that is not relevant.

Acceptability

This is quite a thorny issue – do users (decision- and policy-makers) actually consider Foresight 'accurate and trustworthy'? Foresight experts and practitioners see the predominant culture – and ensuing attitude – towards future studies and Foresight as a major obstacle.

Andersen and Rasmussen cite the critical impact of national political tradition and national governance culture on the development and use of Foresight in policymaking, in particular the dimensions of *power distance* (see the problems about participation in 2.5.6.1 above) and *uncertainty avoidance* (Andersen and Rasmussen, 2014).

Empirical evidence suggests that policy audiences tend to have intolerance for uncertainty and 'deviant ideas', and a preference for a positivistic approach towards Foresight. This attitude tend to provide incentives for Foresight experts to present policymakers with 'bad Foresight' – Foresight that will *not* actually help them anticipate the uncertain future (van Asselt et al., 2010) – in turn diminishing the credibility of Foresight. At the same time, Foresight experts argue that policy planners responsible for assisting decision-makers typically feel more comfortable providing said decision-makers with overly-simplistic 3-options models for policy decisions: a low, a high, and a middle (or moderate) option (such as the 'best case', 'worst case', and 'mid-way' scenarios), "*for which the middle option is always preferred and recommended.*"(Dreyer and Stang, 2013)

Despite warnings that policymakers need evidence of a qualitative as well as quantitative nature, and would benefit from a research community in which there are strong bridges between both approaches (Amann, 2004), the existing culture in current policymaking contexts demonstrates a clear preference for quantitative data and evidence. According to Geyer, despite the changes in government, the EBPM and audit culture are still very much alive in the UK public machine (Geyer, 2012), and Foresight fits uncomfortably in the definition of evidence offered by Davies and colleagues (Davies et al., 2004) as something that "*(however construed) can be independently observed and verified, and that there is broad consensus as to its contents (if not its interpretation)*". By their own admission, "*…most of our contributors say little about needs assessment, forecasting, scenario planning or a range of other analytic approaches that can inform the policy process. It is not that these approaches are not valuable, it is just that, in order to focus on issues of commonality across sectors, we have concentrated more on the debates surrounding **evidence of effectiveness**"* [emphasis added]. And in the Professional Policymaking document, the Cabinet Office indicates that, amongst the new and different skills that should be developed, is "*a **grounding in economics, statistics and relevant scientific disciplines** [emphasis in the original] in order to act as 'intelligent customers' for complex policy evidence*", omitting Foresight and other potentially relevant areas of social studies from the list.

Accessibility of findings

The Professional Policymaking report states that futures work "*has not, as yet, been joined up effectively nor does it feed systematically into mainstream policy-making in the way that it needs to if long-term thinking is to become ingrained in the policy process*", pointing the need for more effective co-ordination in futures work in order to ensure that "*assumptions about the future are shared and that those who need to use forward-looking information have it available in standard form*".

While Erkisson and Weber (Eriksson and Weber, 2008) stress how Foresight can be used to "*deliver insights on possible strategies and options for individual actors on how to 'change course' and direction*" and to "*contribute to the mobilisation and coordination of the decision-making by different actors*" at the moment of implementation (see also 2.5.6.3 below), there is very little theory on how this 'last mile' activity should be performed.

Dreyer and Stang (Dreyer and Stang, 2013) point to the challenge of decision makers having to "*translate complex and sometimes nebulous future issues into coherent documents that can usefully inform the policy process*", and denounce the paucity of literature available on this topic, asking for further work to be carried out in this area.

2.5.6.3 *Implementation*

Georghiou and Keenan (Georghiou and Keenan, 2006) stress the importance of understanding the link between joint Foresight activities and joint formulation and ownership of strategies, and of avoiding the trap of treating Foresight and its implementation as separate processes, without serious attempts to connect the two. Eriksson and Weber (Eriksson and Weber, 2008) suggest that the creation of an explicit link between Foresight and decision-making is crucial to enable Foresight to have an impact .

Implementation is strongly influenced by the specific context (Saritas, 2013, Calof and Smith, 2010, Miles, 2012), and the analysis of available individual cases shows it is likely to be affected by organisational issues such as the scope of the topic being covered and the time available for the processes to take place, as well as the provision of sufficient incentives to encourage the cooperation, and the appropriate engagement of those involved in actually carrying out the policy (Hanney et al., 2001).

Miles and colleagues (Miles et al., 2008b) highlight the need to engage and to secure in advance the commitment of those capable of acting upon the results of the Foresight exercise.

The enforcement of policy strategies developed is more difficult without the legitimacy and plausibility granted by the inclusion of those affected in the decision process (Andersen and Rasmussen, 2014) – see also 2.6.2 below.

2.5.7   Evaluation of Foresight Activities and Criteria for Success

As the aims and objectives of Foresight have evolved, so have the criteria used for their evaluation; however such evaluation becomes more difficult as one moves from first generation Foresight – where accuracy of predictions and diffusion of results are easier to identify and measure – to more recent generation of Foresight, characterised by more holistic approaches and goals.

Georghiou and Keenan (Georghiou and Keenan, 2006) consider the classic criteria of evaluation:

- **Efficiency of implementation** looks at the **process**, focusing on managerial and logistical issues: participants involved, methods used, type and quality of facilitation, etc.
- **Impact and Effectiveness** looks at the **results** produced, typically in terms of outputs and outcomes.
- **Appropriateness** looks at the **situation and objectives**, considering also alternatives.

They however stress the difficulties of evaluating impact, since outputs – such as number of participants, reports disseminated etc. – would not be a meaningful measure of impact, while the problem of attribution of impacts renders outcome evaluation difficult to carry out. Harper (Harper, 2013) points out that the impact of Foresight is usually indirect, and its effects generally manifest on other policy instruments; furthermore, the long-term nature of Foresight (typically 15-25 years) means that evaluations aiming at assessing the accuracy of predictive elements are seldom carried out.

Miles (Miles, 2012), too, contests the use of impact as it strongly affected by the internal context: "*The consequences of Foresight activities will very much depend on the orientations of the 'users' of the activity –their existing appraisal of the topic, the effort they are prepared to put into understanding alternative perspectives, the extent to which they can think beyond existing policy perspectives.*"

Georghiou and Keenan (Georghiou and Keenan, 2008) suggest that the focus of the Foresight evaluation – whether policy, overall programme, or practice – requires different evaluation criteria. Considerations concerning the rationale for public action and how the outcomes of Foresight may interact with other (past or existing) policies are central in *policy evaluation*; the programme objectives – both in terms of their achievements, but also in terms of their appropriateness – are the focus in *programme evaluation*; while the *evaluation of Foresight as practice* centres on methods and structures used.

Amanatidou and Guy (Amanatidou and Guy, 2008) find that no common evaluation and assessment approach for foresight exercises seems to have been developed to date to measure the unanticipated impacts falling outside the scope of a programme's goals and objectives, such as knowledge creation, networking and social capital, shifts in culture, etc., which "*should be interpreted through the lenses of epistemology, sociology, political science, management science and organisational theory*", and propose a framework for the evaluation of Foresight exercises which focuses on their promotion of 'participatory knowledge societies'.

Literature on success factors and criteria offers another perspective for the assessment of Foresight.

The EUROPTA research project was a study carried out over the period 1998-2000 concerning the conceptualisation and evaluation of Participatory Technology Assessments (PTAs) based on the experience of selected European countries. While the future dimension is not explicitly considered or explored, it looks at aspects of social participation in the assessment of scientific-technological innovation and the influence of PTA in policymaking. Bütschi and Nentwich (Bütschi and Nentwich, 2002) identify three categories of success factors, depending on the social or institutional context and on the role of the PTA within the policymaking process:

Social Context	• Timing – needs to align with public controversy, to ensure relevance for both public and politicians • Structural properties of political system – needs to be consistent
Institutional Context	• Link to political sphere • Credibility and reputation for both institution and process
Properties of the Exercise	• Precise goal definition – both for design purposes and for external communications • Quality of process – unless considered fair and competent, will not be legitimate enough to play role in political arena • Quality of product – must aim at practical implementation, if too vague and visionary it will be difficult to translate in action • Involvement of political actors – 'isolated' processes where interaction with political sphere is limited to delivery of final findings typically have smaller impact

Table 2.5.7.a - Success Factors Influencing the Political Role of PTA (Bütschi and Nentwich, 2002)

The quality of the process is also considered by Miles and colleagues, who see the credibility of the results as strongly dependent on the robustness of the evidence and the reputation of those presenting and validating it (Miles et al., 2008b).

Calof and Smith (Calof and Smith, 2010) reiterate that Foresight is an overtly socio-political activity, therefore the evaluation of its results should not be carried out independently of its contexts. In their study of what factors lead to successful Foresight programmes, they identify:

- Focus on a clearly identified client

- Clear link with todays' political agenda

- Direct link to senior policy managers

- Public-private partnerships (meaningful connection to private sector actors)

- Provision of methodologies and skills that are not always used in other departments

- Clear communication strategy

- Integration of Stakeholders in programme

- Existence of national-local academic receptor and capacity for Foresight training and skills

In their 2013 study, Dreyer and Stang (Dreyer and Stang, 2013) highlight a number of criteria for success, mostly revolving about the interaction, communication, and engagement with the main audience and senior decision makers, links with the policy agenda, cooperation with other national and international agencies, etc.

Table 2.5.7.b below summarises the key criteria for success suggested by the existing literature, which are mutually influencing and reinforcing:

Feasibility	Including resource availability and appropriate timing
Leadership Support	From senior policy makers
Involvement and Links with Political Sphere	Engagement, clear commissioning and commitment of institutional Client
Integration and Buy-in	Buy-in and structural support from relevant and involved parties, enforcement
Usefulness and Usability	Relevance, acceptability, accessibility (learning & understanding, contribution to process)
Resilience	Resilience to the difficulties of going through the policy process. Good timing, good links to the political sphere, consistent with context
Quality and Credibility of Process	Fairness, transparency, sufficient and appropriate participation, choice of methodology, management/facilitation, robustness of evidence
Quality and Credibility of product	Range and depth, robustness of outcomes, legitimacy
Reputation of Institution/Professionals	Competence and credibility of those involved in validating and presenting evidence and leading the process

Table 2.5.7.b - Success Criteria for Foresight Projects

2.6 Participatory Process

It is not easy to carry out a review on the literature concerning participatory processes in the abstract, since 'participation' is virtually always considered together with its object/context/purpose – that is, 'what' one takes part in, as well as 'what for'. Nevertheless there are some aspects of participation that, despite being considered for a specific context, it may be useful to consider for their applications in different settings.

In particular, the Researcher has focused on three bodies of knowledge that appear to offer some useful additional insight when looking at the practice of participatory foresight processes in the public sector: information sharing and engagement amongst stakeholders (from stakeholder theory), procedural fairness (from judicial studies and negotiation theory), and participatory processes involving large groups of people.

2.6.1   Stakeholder Engagement and Information

The stakeholder concept started emerging properly in the 80s, thanks to the work of Freeman who explicitly linked stakeholder theory to (corporate) strategic planning (Andriof and Waddock, 2002). The realisation of the damaging consequences of ignoring or misperceiving stakeholders' interests led to the development of considerable research and literature on the topic (de Gooyert et al., 2017). Stakeholder theory consists of a large body of knowledge that focuses on simultaneously taking the interests of multiple stakeholders into account. While the centre of analysis is generally the business corporation, its applications and conclusions can be generally extended to other types of organisations. Over the years, it has moved from a corporate-centric focus that sees stakeholders as subjects to be **managed**, towards a network-based view of company-stakeholder **engagement**, taking into consideration mutuality, interdependence and power (Andriof and Waddock, 2002).

Another important element in stakeholder theory is legitimacy, defined as "*a generalised perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions*", and its dependence on stakeholders' perception since "*it is conferred upon or attributed to the organisation by its constituents*" (Beaulieu and Pasquero, 2002).

Benefits arise from both the information gained by participation and also through the process of participation. Central to the stakeholder theory is the concept of social capital, defined as "*the glue of connectivity that holds relationships together*" but also "*the sum of the actual and potential resources embedded within, available through and derived from the network of relationships possessed by an individual or social unit*", and the importance of trust in developing and maintaining such social capital (Andriof and Waddock, 2002).

The network perspective on stakeholders highlights the need to consider not only the way they are related to the main organisation, but also how they relate to each other (Crane and Sharon, 2003). Calton and Payne (Calton and Payne, 2003) define a stakeholder network as "*an interactive field of discourse occupied by those who share messy (complex, interdependent, emergent) problems and who want/need to talk about them*", where the shared interest can lead to mutual engagement in a cooperative learning-based response, and advocate the use of multi-stakeholder learning dialogue to make sense of the messy problem, explore and learn, and build relationships necessary to support the cooperative actions required.

Beaulieu and Pasquero (Beaulieu and Pasquero, 2002) suggest that the fluid nature of organisations and contexts and the resulting dynamic nature of the relationships and configurations of interactions

benefit from the application of negotiated-order theory, requiring a constant effort at negotiating consensual agreements between stakeholders.

The **Multi-stakeholder Dialogue** ("MSD") process has emerged in recent years and has been used in several contexts, from corporate to NGOs to government and supra-governmental organisations as a way to gather and engage large numbers of diverse stakeholders. Most of the critiques described relate to the actual management and implementation of these processes, particularly failures in effective facilitation, issues of distributive as well as procedural justice (see paragraph below), and choice of unsuitable techniques and tools (Payne and Calton, 2002), although there is a risk that possible contradiction in interests and requests of different stakeholders may lead to inaction and fragmentation.

In his analysis of 400 strategic decisions, Nutt (Nutt, 2004) finds that half of the decisions 'failed' – i.e., they were not implemented, only partially implemented or otherwise produced poor results – in large part because decision makers failed to attend to interests and information held by key stakeholders. Other quantitative and qualitative studies report broadly similar findings with respect to the importance of paying attention to stakeholders, suggesting that failing to take into consideration the information and concerns of stakeholders is linked to "*poor performance, outright failure or even disaster*" (Bryson, 2004). Insight into peoples' concerns and considerations broadens one's views of what needs fixing and suggests an arena of action stakeholders can support, and ultimately determining whether or not the implementation will be successful (Nutt, 2004).

Crosby and Bryson (Crosby and Bryson, 2005) stress the importance of carrying out stakeholder analysis, exploring what the stakeholders' view/opinion would be with regards to a specific policy/decision, as attention to stakeholders helps assess and enhance political feasibility, as well as reassuring those involved or affected that requirements for procedural justice, procedural rationality, and legitimacy have been met, and offer several techniques to support such analysis. However, people are more likely to disclose their interests in situations where they feel they have a say (Nutt, 2004). For the ability, as well as the willingness, of participants to communicate information, see 2.6.2 below.

It is also important *when* exactly information is solicited and *at what stage* of the decision-making process. For example, Jungk complained that the type of ex-post information that is implied in the publishing of a plan and seeking of feedback from the public is too late and devoid of meaning, as by that point citizens can only react while decisions have already been made by an influential elite. As a result, both the level of information coming from the public and their engagement are negatively affected (Jungk and Müllert, 1987). Green and Hunton-Clarke (Green and Hunton-Clarke, 2003)

compare a number of models of the different levels of public/stakeholder participation in businesses' environmental decision making, based on the type of information shared, its modalities, and objectives (see 2.7.5 below), and distinguish three different types of stakeholder engagement – informative, consultative, and decisional. Similarly, Perret (Perret, 2003) describes five different levels of stakeholder dialogue, ranging from simple information-giving to full-on open dialogue.

There is however a difference between 'genuine' dialogue – geared towards mutual education, joint problem-solving, and relationship building – and a two-way communication designed for asymmetrical persuasive and instrumental purposes, essentially a 'monologic' dialogue. Crane and Sharon (Crane and Sharon, 2003) look at the risks inherent in stakeholder dialogue, and point out that, in the event it is employed instrumentally and superficially, it can produce cynicism and distrust, with resulting negative effects on current problems and future collaborations as it affects the image and reputation of the organisation.

Nutt underlines the importance of using participation to increase the likelihood of a successful implementation (Nutt, 2004).

2.6.2   Participation, Procedural Fairness and Trust

Negotiation literature suggests that disclosure of information and preferences facilitates integrative bargaining and value creation through the creation of joint solutions, however parties may fail to disclose important information if they fear it may disadvantage them (Hollander-Blumoff and Tyler, 2008).

Another part of negotiation research sees individuals motivated not just by rational (even bounded) considerations, but also by social concerns. In particular, research has shown that people care about fairness – not just outcome fairness, concerned with distributive justice, but also with fairness in the process, i.e., procedural justice (Welsh, 2003). Studies, which have been performed largely in the context of judicial decision making, show that people who believe they have been treated in a procedurally fair manner (Lind et al., 1993, Welsh, 2003):

- Are more likely to conclude that the outcome is substantially **fair**
- Are more likely to **comply** with the outcome of the procedure, even if the outcomes are not favourable
- See a positive impact on the **respect and loyalty** accorded to the individual or institution that sponsored the decision making process.

Lind and colleagues (Lind et al., 1993) introduce the concept of fairness heuristic, suggesting that perceptions of fairness will be used as a shortcut to deciding whether to accept the authority's

decision or reject it, and thus see fairness as a crucial consideration across a wide variety of social situations.

Procedural justice literature identifies four factors that typically play an important role in assessment of procedural justice (Molm et al., 2003, Welsh, 2003, Hollander-Blumoff and Tyler, 2008):

- **Input**, or 'voice' – opportunities for parties to state their arguments and confidence that those arguments are being listened to
- **Neutrality** – degree to which procedures are applied consistently across actors
- **Respect**/politeness – which convey information about the actor's status or standing
- **Trust** in the decision's maker motives and behaviour

The above requisites concern negotiations; in the case of stakeholder participation, a further requirement is (Maguire and Lind, 2003):

- **Representation** of relevant parties, offering participation to those with an interest in the outcome and those who would be affected by any decisions taken

In their case study of stakeholder involvement in environmental rule-making, Maguire and Lind point out some of the obstacles and risks that can be found in practice and highlight the key importance of *genuinely* fair procedures in order to enhance policy acceptance.

Referring to the process of stakeholder dialogue, Perret (Perret, 2003) stresses the importance of confidence in the impartial role of the 'convenor' – organisation or individual responsible for designing and running the process. It must be noted that perception of fairness is influenced by expectations, so it is important that expectations are explicitly clarified and managed.

Without being included in the thinking and decision making process, members of the social network may seek to undermine or even sabotage the project if their needs are not considered (Conklin, 2005).

2.6.3   Large Group Methods: Search Conference and Future Search

While the traditional approach of organisational change was very much a top-down approach, which involved working in small groups since groups larger than 30-35 were not seen as manageable for planning and action-taking work, from the late 1980s some organisational development work has been taking place involving larger participant groups (Bunker and Alban, 1992). **Large Group Methods** ("LGM") are methods used to gather a whole system together – often referred to as 'getting the whole system in the room' - to discuss and take action on a target agenda. They emerged from the confluence of three disciplines: social psychology, psychoanalytic theory, and systems theory applied to organisations (Bunker and Alban, 2006, Weisbord and Janoff, 1996), and

have been influenced by S. Asch's studies on the conditions for good communication: openness, the presence of a shared field, psychological similarity amongst participants, and mutual trust (Oels, 2002).

Their origins can be traced back to the collaboration of Emery and Trist at the Tavistock Institute of Human Relations, London, in the 1950s, which focused on group processes. Emery and Trist together developed the first Search Conference in 1960 to help the newly merged Bristol/Siddeley create unified strategy, mission, leadership, and values. In the 1970s and 1980s, Schindler-Rainman and Lippitt worked in a number of large-scale community building interventions, conferences which included "*the whole system*" and where the main focus was on the future rather than on problems and conflicts (Weisbord and Janoff, 1996). Most LGM were developed by practitioners more concerned with addressing the problems at hand than articulating or clarifying the theory supporting their methods. Their particular advantage is the ability to support the generation of broader participation by key stakeholders when facing important issues (Payne and Calton, 2002).

Weisbord was inspired by both the Search Conference methodology and Schindler-Rainman and Lippit's work in the development of his Future Search approach, "*a large group planning meeting for people seeking common ground for action in organizations and communities*" (Weisbord and Janoff, 1996). Future Search brings together a broad spectrum of local stakeholders in a collaborative process over the course of three days, and it aims to create a common vision not by negotiating or resolving conflicts but rather by discovering the common ground. The process follows a standard sequence and uses trained facilitators to lead the discussions. Critiques to the Future Search approach have questioned some aspects of the process as well as its ability to trigger tangible change (Oels, 2002).

The main elements shared by LGM are (Payne and Calton, 2002):

- A 'whole system' orientation
- Creation of dialogue among all organisational stakeholders
- Focus on the processes/procedures of organising rather than on the reified organisation
- Perception of a collective organisational reality as the organisation that *becomes* created
- Capacity of individuals within organisations to self-organise and redefine their reality
- A set of universal values that are inherently 'good', shared by humanity, and ultimately influence voluntary collective action.

2.7 Participatory Policymaking/Governance

A significant part of the modern literature on participatory governance, particularly with regards to actual examples and case studies, appears to make reference to public participation in the context of

environmental matters such as ecological risk assessment, water and waste management, and generally other contentious situations where the involvement of local communities is crucial for success in both acceptance and implementation of any proposed policy (Eden, 1996). The Rio Declaration of key principles emanating from the United Nations Conference on Environment and Development in 1992 stated: "*environmental issues are best handled with the participation of all concerned citizens, at the relevant level*". Largely thanks to NGOs, a new language of empowerment, citizen participation and multi-stakeholder partnership was integrated into Agenda 21 – the action plan for sustainable development adopted by world governments during that conference (Macnaghten et al., 1995).

In the US, 'popular' democratic theory sees public participation as crucial, both for influencing decisions and for strengthening civic capacity and social capital, and considers interaction amongst often adversarial and conflicting interest as a way to identify common good and act on shared communal goals. Over the past few decades, the purpose of participation in the US has evolved from ensuring accountability to developing substance and content of policy (Beierle and Cayford, 2002).

In the UK, the 1990s saw significant emphasis on public participation in areas such as environmental policy and health, however the public involvement has been limited to participation in the implementation[18] rather than in the debate and policymaking, maintaining a top-down character (Eden, 1996). Thus the 'participation' encouraged and promoted by Agenda 21 has mostly translated in an involvement of the public that is instrumental rather than interactive. Indeed, "*while there has been considerable talk of the need for community participation and involvement in wider processes of public decision making as an integral part of sustainability, to date there has been little evidence of such participation outside the impressive but still limited arena of academics, NGOs, government and business*" (Macnaghten et al., 1995).

2.7.1 The Rationale for Participatory Governance

The first half of the 20th century saw the emergence of two opposed positions within the study of democracy theory: on one hand were citizenship theorists, which argued for greater and more active participation of citizens in decision-making, and on the other were the elitist democratic theorists, which saw the involvement of citizens limited to the choice of representatives/leaders through democratic elections (Thompson, 1970).

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[18] For example the UK government is beginning to be aware of the importance of changing public behaviour, and established the Behaviour Insight Team in 2010, but again this appears to be a more subtle way to ensure compliance rather than increasing public engagement and participation – people are 'nudged' in the right direction that has been identified by experts within the government.

The debate about greater citizen participation gained further impetus in the early 1970s. Participation theorists argue that, as people progressively lose control over social decisions affecting them due to problems of scale, technology changes, and the concentration of power in national institutions, new forms of participation become necessary (Fiorino, 1990).

Participation can help engender civic competence by building democratic skills, overcoming feelings of powerlessness and alienation, and contributing to the legitimacy of the political system (Pateman, 1973). Thompson points to the promotion of self-realisation, particularly the sense of "*political efficacy*" – the sense of one's ability to influence the government's operations and decisions – and the mutual reinforcement between the two: a citizen with a high sense of efficacy is more likely to participate, while greater participation is likely to promote the sense of efficacy as the citizens becomes more knowledgeable about the system and develop connections, thus feeling that their efficacy has improved (Thompson, 1970).

According to Laird (Laird, 1993), public participation in policy making "*makes people more aware of the linkages between public and private interests, helps them develop a sense of justice, and is a critical part of developing a sense of community*".

Fiorino (Fiorino, 1990) argues against the technocratic orientation that sees predominantly technocratic – rather than democratic – approaches to defining and solving risks, and information as a unidirectional flow from administrative authorities and experts to the general public. His arguments are:

- **Substantive**: ordinary citizens often see problems, issues, and solutions that experts miss.
- **Normative**: a technocratic orientation goes against democratic ideals, ignores the importance of social values, and disenfranchises the public.
- **Instrumental**: public participation in risk decisions makes them more legitimate and leads to better results (see also 2.6.2 above).

Beierle and Cayford (Beierle and Cayford, 2002) see five social goals (value added for society) achievable through public participation:

- Incorporating public values into decisions (affecting the output of the process)
- Improving the substantive quality of decisions (affecting the output of the process)
- Resolving conflict among competing interests (affecting the relationship among participants)
- Building Trust in institutions (affecting the relationship among participants)
- Educating and informing the public (building capacity).

In their analysis of 239 cases, Beierle and Cayford consider that public participation did perform quite successfully across the five main goals above. They attribute the lack of a particularly strong

link between participation and implementation to the fact the latter is influenced by many additional political, social, and legal factors.

There are increasing calls for more citizen-centric and participative forms of public policy making characterized by a stronger interaction between government agencies and citizens, in order to enable the former to access the knowledge and the creative ideas of the latter about pressing 'wicked' problems (see 2.7.3 below), as well as to increase transparency and trust (Ferro et al., 2013). Many are starting to see the engagement of citizens and stakeholders in policy making as well as in implementation a key condition to address such issues (APSC, 2012).

More recently, Amanatidou and Guy (Amanatidou and Guy, 2008) suggest the existence of a strong link and reciprocal influence between the development of knowledge societies and the development of participatory governance systems[19] .

2.7.2 *"No Taxation without ~~Representation~~ Public Participation"*

The futurist Jungk worked in the 1970s and 1980s to increase participation by ordinary people in decisions that affect their lives (Bell, 2002), decrying that such decisions were taken "*over their heads*" and that existing democratic systems failed to involve adequately those people affected by political decisions (Jungk and Müllert, 1987). Many other authors have since called citizens to be brave, claim their power, and demand decision-making authority over policies and programmes that affect them (Crosby and Bryson, 2005).

Several authors contend that there is a normative requirement for public participation in decisions concerning issues of great social and economic impact, and that ordinary citizens not only have a stake in the outcomes of such decisions, but also important views and insights that they can – and should be able to – contribute to the decision process (Laird, 1993).

At the same time, greater participation is also seen as a possible remedy for NIMBY (Not In My Back-Yard) conflicts; so participation is being used not only to keep government accountable but also to hep agencies make good decisions, help resolve long-standing problems of conflict and mistrust, and build capacity for solving the wicked problems of the future (see 2.7.3 below) (Beierle and Cayford, 2002).

2.7.3 *Wicked Problems – Here We Go Again*

In today's networked and shared-power world, dealing with wicked problems, no one organization is, nor should be, fully and solely in charge. Instead a plurality of individuals, groups and

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[19] Becoming "the most competitive and dynamic knowledge-based economy in the world" was one of the Strategic goals for 2010, set for Europe at the Lisbon European Council – March 2000 (http://www.europarl.europa.eu/summits/lis1_en.htm)

organizations are involved or affected or have some partial responsibility to act to find a solution (Bryson, 2004, Crosby and Bryson, 2005).

In addition to their complexity, wicked problems are characterised by a high level of 'politics', which can be more effectively addressed through participation rather than a managerial, linear approach (Beierle and Cayford, 2002).

Rittel and Webber (Rittel and Webber, 1973) suggested that the model for approaching wicked problems should be an argumentative process, during which an image and understanding of the problem and of possible solutions emerge gradually among participants "*as a product of incessant judgment, subject to critical argument*", rather than through expert-driven, rational-comprehensive planning.

As wicked problems are tightly enmeshed in entrenched ways of life and thought patterns, they can only be resolved through changes in said ways of life and of thinking. Such changes cannot be imposed through legislation or regulation alone, but need to be 'owned' by people, requiring a more participatory style of governing. Ordinary citizens should be involved in the exploration of issues (Clarke, 1997, APSC, 2012).

According to Ackoff (Ackoff, 1997), 'messes' such as wicked problems can not be *solved* but *managed* through a planning approach that he calls 'interactive' and that should involve all the stakeholders of the system. Such complex and uncertain environments call for the creation of "*webs of interdependencies*", requiring bridging techniques and collaborative strategies (Andriof and Waddock, 2002)

Roberts (Roberts, 2000) sees three possible strategies depending on power distribution amongst shareholders – authoritative, competitive, and collaborative – and suggests collaborative strategies are the most effective for wicked problems characterised by many stakeholders and high power dispersion, especially when part of the solution requires sustained behavioural change by many stakeholders and/or citizens. The benefits from engagement need to be compared and balanced against the costs/constraints associated such as time, criticality, security, and funding availability (APSC, 2012). Head and Alford (Head and Alford, 2008) suggest that the dimensions of 'diversity' and 'complexity' can be combined to form a typology of problems – some more 'wicked' than others – and suggest a more contingent approach, in which the type of response is tailored to the type of wickedness exhibited by the problem.

From a practitioner's perspective, Conklin (Conklin, 2005) suggests that problem understanding and solution formulation should be seen as different kinds of conversation to be carried out at the same time on an ongoing basis, rather than two distinct and successive stages. Through 'dialogue

mapping' participants can develop the larger picture, the broader context in which all stakeholders are on the same team and want the same or similar outcome, orienting the group to a same-side spirit of learning together and mapping the complexity of a project.

Also Rittel and Webber (Rittel and Webber, 1973) suggest that wicked problems are a one-shot operation, as the consequences of any implemented solution can not be (easily) erased or undone. Clarke (Clarke, 1997) stresses the crucial importance of continuing exploration and review, as additional learning concerning the issue emerges following initial actions.

2.7.4 Objections and Obstacles to Participation

Elitist democratic theorists had originally pointed to four arguments against greater political participation: instability of the political system, incompetence (and the presence of undesirable traits in the non-participants), risks of regimented democracy, and the view that low participation reflects high satisfaction (Thompson, 1970).

Schumpeter's critique of what he called the "classical doctrine" of democracy was that the central participatory role of citizens in decision-making was empirically unrealistic, and such levels and depth of participation did not actually exist. In his proposed model, citizens' participation is limited to a purely electoral activity, with no further influence or control on the selected leaders except by their replacement through successive elections (Pateman, 1973).

More recently, the principal objections to efforts for greater public participation in policy- and decision-making appear to be mostly descriptive/empirical, following two main streams: Apathy/lack of interest ("ordinary citizens can't be bothered"), and Ignorance/lack of expertise ("ordinary citizens don't have the competence required").

Stoker highlights the lack of a legitimation framework in which the emerging system of governance can be placed as one of the obstacles that need to be overcome for greater acceptance and actual involvement of the public. He points out the possible risks of scapegoating and blame avoidance, as well as the greater difficulty with accountability and checks, that would have to be addressed by such new frameworks (Stoker, 1998).

2.7.4.1 Lack of Interest

Both Schumpeter and Lippmann paint a very pessimistic tableau of (ordinary) citizens' failure to actively and responsibly engage in politics (Thompson, 1970).

Jungk and Müllert (Jungk and Müllert, 1987) blame a widespread culture of "*mass suppression of the imagination*" which hinders creativity, as well as "*layers of suspicions and thwarted self-confidence built up through years of deference to others*" which get in the way of engagement and involvement,

and refer to Jung's experience in organising and running futures workshop claiming that apathy and indifference disappear once people feel they can be active participant in planning and decision making concerning issues that affect them. Similarly, Pateman (Pateman, 1973) suggests that, rather than limitations inherent in individuals, low political awareness and lack of interest in issues should be seen as signs of deficiencies in public institutions.

In their study investigating factors likely to influence the way the public responds to proposed sustainability indicators in Lancashire, Macnaghten and colleagues (Macnaghten et al., 1995) highlight how people's inclination and receptivity with regards to information and knowledge offered by scientific and public bodies such as local or central government is strongly affected by both their sense of agency - that is their sense of their power or freedom to act upon or use that knowledge - and by their trust in the purveyors of such information. In their report, they state that the public's perceived inability or unwillingness to take in information can be often due to established political or cultural structure of empowerment, so that apparent ignorance about certain issues can not be simply attributable to a lack of information or intelligence; however "*a sense of individual and social agency appears to require unambiguous central government initiatives to underpin it*". The authors suggest the need for the Lancashire County Council to develop mechanisms for listening to the public and mediating between public and official institutions allowing the rebuilding of trust with local government.

2.7.4.2 *Lack of Technical Knowledge and Expertise*

Beierle and Cayford (Beierle and Cayford, 2002) talk about policy-makers having a "*grudging view*" of public participation, which they see as a marginal addition, an afterthought if not merely a formality, to what should be a fundamentally technical decision process; so that the most that can be hoped from such participation is that it doesn't do any damage, in terms of not being opponents or impediments to 'sound decisions' that have been made on the basis of technical criteria such as risk minimization, economic efficiency, cost benefit analysis, or similar. "*This unenthusiastic tolerance of a public role easily degenerates into mere public relations whereby decision-makers attempt to sell their favoured outcome to an uninformed public.*" (Beierle and Cayford, 2002)

Eden (Eden, 1996) claims that the fact that, particularly in the UK and in Europe, debates are developed by experts for experts in scientific disciplines results in the public remaining excluded and the process of policy implementation remaining strictly 'top-down', and suggests greater public participation could be achieved through a "*politicization and democratization of science*", which would allows people – often activists and NGOs representatives - to become "*counter-experts*", scientifically competent through self-education, while at the same time using traditionally 'non-scientific' metrics and tools, such as morals, values, and emotions.

Bäckstrand (Bäckstrand, 2003) suggests the need to reframe the science-politics interface in order to include the triangular interaction between scientific experts, policy-makers, and citizens, where the latter are not just the recipients of policy but fully-fledged actors in the science-policy node, and advocates 'civic science' in antithesis to the "*scientization of politics*", which poses that political and social issues are better resolved through technical expertise than democratic deliberation.

Beierle and Cayford (Beierle and Cayford, 2002) argue that public participation processes should be modified through the incorporation of technical information, education, and analysis, in order to enable the public to take on more influential roles in decision-making. *"Good technical analysis is clearly part of the solution, but only as one component of processes that truly integrate public interaction, public analysis, and public judgment into policy decisions."* In this way, technical analysis and public involvement can mutually reinforce each other's integrity and effectiveness.

2.7.5 Levels of Participation

The most common forms of participation in modern democracies are those connected with the electoral process, such as voting and discussions, while forms permitting a more direct role in decision- and policymaking are less common, and most of the time they are thought as beyond the will (or interest) and abilities for most of the citizens. The ideal in participation theory is to achieve a level of participation that is more than symbolic, oppositional, or pleading, but in which "*citizens share in governing*" (Thompson, 1970). This occurs when citizens exercise decision authority or codetermine policies in collaboration with government officials (Fiorino, 1990).

In their study of 239 cases of public participation, Beierle and Cayford considered four broad categories of public participation processes, going from less intensive (aimed at information gathering) to more intensive (aimed at forging agreements) (Beierle and Cayford, 2002):

- Public meetings and hearings
- Advisory committees not seeking consensus
- Advisory committees seeking consensus
- Negotiations and mediations.

While participants in more intensive processes appeared to have greater capacity – they had more experience with the issue discussed, more experience influencing public decision makers, more experience with participatory processes and efforts – enabling them to be more effective in participating, solving problems, and getting decisions implemented[20], these participants were at the same time less likely to reflect the socioeconomic characteristics of the wider public. Furthermore, more intensive processes were also less likely to get input from wider public. As a result, while

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[20] Indeed, across cases, success was highly correlated with intensity of the mechanism/process

consensus was more easily reached in the more intensive processes, it was reached by a smaller set of interests/groups and it may not have been representative of the views and preference of the wider population, ultimately affecting the uptake/implementation (see also 2.7.7 below).

The International Association of Public Participation has developed a public participation spectrum defining the public's role in any public participation process, ranging from merely 'inform' to 'empower', and the corresponding promise to the public:

INCREASING IMPACT ON THE DECISION

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding the problems, alternatives, opportunities and/or solutions	To obtain public feedback on analysis, alternatives and/or decisions	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution	To place final decision making in the hands of the public
PROMISES TO THE PUBLIC	"We will keep you informed"	"We will keep you informed, listen to and acknowledge concerns and aspirations and provide feedback on how public input influenced the decision"	"We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision"	"We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible"	"We will implement what you decide"

Table 2.7.5 - Levels of Involvement (IAP2[21])

Beierle and Cayford (Beierle and Cayford, 2002) also identify a number of variable process features that may affect the quality of the actual participation and involvement, thus impacting on the success of the case:

- Responsiveness of lead agency (commitment to the exercise, communication with participants). Low levels linked to perceptions of process illegitimacy and lower trust

- Motivation of participants (confidence and dedication to the process, perceived ability to influence)

- Quality of deliberation (quality of communication and dialogue, ability to question claims and assumptions, participant sincerity and honesty, quality of arguments over power)

- Degree of public control (extent to which participants rather than government agency control initiation, design, and execution of public participation process).

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[21] https://cdn.ymaws.com/www.iap2.org/resource/resmgr/pillars/Spectrum_8.5x11_Print.pdf

2.7.6 Use of ICT and Social Media

There are increasing attempts of government agencies to establish a two-way dialogue with a wide range of heterogeneous citizens' groups, in order to both communicate information related to public policies and to receive feedback from them, through the use of tools such as social media (Ferro et al., 2013). O'Reilly (O'Reilly, 2011) describes the emergence of a Government 2.0 as "*the use of technology—especially the collaborative technologies at the heart of Web 2.0—to better solve collective problems at a city, state, national, and international level. The hope is that Internet technologies will allow us to rebuild the kind of participatory government envisioned by our nation's founders*". In this vision, the government becomes essentially an open platform allowing people both inside and outside government to contribute to the political process and "*innovate*". In addition to the use of the internet in the public arena to enhance communal spirit and values (supporting a 'communitarian' model of democracy) and to assist the expression of individual interests (a 'liberal individualist' model), online deliberative forums are seen as opportunities to expand the public sphere of rational-critical citizen discourse, fostering a more deliberative model of democracy (Dahlberg, 2001).

In the US, the Open Government initiative launched by Obama had the explicit objective to increase transparency, participation and collaboration. In the UK, despite examples such as the Downing Street E-petitions launched during the Blair administration with the aims to make citizens feel more empowered as well as to gather information about public sentiment, recent surveys suggest that local authorities have yet failed to engage with social media in any substantive manner (Ellison and Hardey, 2013). The UK Parliament's Digital Engagement Programme enables citizens to post comments ahead of (selected) debates that are then fed into a briefing shared with the MP leading the debate; however, a real dialogue is absent[22].

Bertot and colleagues (Bertot et al., 2010) see four main dimensions for the use of social media in the context of government's operations:

- Democratic participation and engagement, to foster participatory dialogue and policy development and implementation
- Co-production for the development, design and delivery of government services
- Crowdsourcing solutions and innovations
- Transparency and accountability.

At the same time, they stress the need to develop new policy structures, processes, frameworks, and structures to support the use of this tool.

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[22] https://www.parliament.uk/get-involved/have-your-say-on-laws/digital-debates/

Dahlberg (Dahlberg, 2001) argues that a process of rational-critical discourse is needed if privately-oriented individuals with different views and interests are to become publicly-oriented citizens, capable of developing a public opinion that can rationally guide democratic decision-making, however the majority of the existing online efforts by governments seems to focus on (mostly one-way) communication of information to the public ('broadcasting'). While other online non-governmental initiatives exist that promote dialogue and debate, many are hosted, owned, or otherwise sponsored by corporates as cyberspace is rapidly colonised by commercial interests, so that they are not exactly influence-free arena. On a similar note, Ellison and Hardey (Ellison and Hardey, 2013) suggest that the Internet lacks the capacity for discipline and self-regulation required by a widespread deliberative democratic engagement with the public, although more informal and local modes of participation could be more realistic.

Other critics observe that this model of communication also fails to attract the attention of under-represented groups and may in fact result in the exclusion of citizens, where gaps in access and ability to connect tend to correlate with levels of education, income, race, geographical location, and age (Pajnik, 2005).

2.7.7   The Search for Consensus

Consensus Building ("CB") has emerged in the public domain as "*an array of practices in which stakeholders, selected to represent different interests, come together for face-to-face, long-term dialogue to address a policy issue of common concern*" that can help to break up stalemates situations, to incorporate many - often diverging - interests, and to find solutions offering mutual gain (Innes and Booher, 1999). It should involve a good-faith effort to meet the interests of all stakeholders. Consensus is deemed to have been reached "*when everyone agrees they can live with whatever is proposed after every effort has been made to meet the interests of all stake-holder parties*" (Susskind and Thomas-Larmer, 1999)

The outcomes of CB processes are not limited to agreements, but also include intangibles, which can be even more important than the agreement itself. These can be thought of as "*social, intellectual, and political capital*" which forms the basis for long-term coordination required to ensure successful implementation (Innes et al., 1994). "*In every process we observed, participants contended that they established new or stronger personal and professional relationships and built up trust, which allowed genuine communication and joint problem solving*". This happened even in the absence of a formal agreement (Innes and Booher, 1999).

Well-managed CB processes can result in high quality agreements which (Innes and Booher, 1999):

- Can be more durable and implementable because, having taken more interests into account, they are less likely to produce unhappy stakeholders who might sabotage implementation

- Are more likely not only to be fair, but also to be regarded as fair

- Take into account the unique knowledge offered by each stakeholder, not only about their interests, but also about aspects of the problem they understand better than anyone else

- Are more likely to produce innovative ideas because they involve dynamic group discussion.

Cautionary views on problems of engagement of stakeholders that sees consensus as the ultimate objective encourage involving members of the public in a dialogue about policy while avoiding creating the expectation for any consensus, as it can yield the same kinds of benefits attributed to consensus procedures without creating complications. The perceived risk is that "*consensus-building shifts the ultimate goal away from reaching a quality decision and moves it toward reaching an agreeable one*" (Coglianese, 1999)

Before initiating any CB process, Susskind (Susskind and Thomas-Larmer, 1999) advocates carrying out a conflict assessment: an information gathering exercise aimed at identifying who has a stake, what issues are important to them, whether or not it makes sense to proceed given the existing constraints, and if so, under what circumstances the key parties will agree to participate.

The legitimacy of CB processes and the support for their implementation depends on whether or not they are perceived by stakeholders and the public as representative of all interests and perspectives. Ensuring that everyone with a stake in the decision is represented at the table is "*a bedrock principle*", but it is often not an easy task and needs to be managed carefully; government agencies can face particular challenges due to issues of mistrust or fear (Carlson, 1999).

Van den Hove (Van den Hove, 2006) suggests that participatory processes should be thought of on a continuum between consensus-oriented processes in the pursuit of a common interest on one end, and compromise-oriented negotiation processes aiming at the adjustment of particular interests on the other.

2.7.8   Implications

Social and political changes over the past decades have disproved the 'classical' separation of roles and responsibilities between government as the problem solver on one side, and the private sector and markets as opportunity creators on the other. So both government and market and civil society should be concerned with and engaged in societal problem-solving, as well as in the creation of opportunities (Kooiman, 1999). Indeed, participation is increasingly considered "*a democratic right, not just a normative goal*", requiring therefore that it becomes institutionalised (Richards et al.,

2007). A new role emerges then for the government as an enabler, catalyst, and commissioner (Stoker, 1998).

Reed (Reed, 2008) identifies eight key features of best practice public participation:

- It needs to be underpinned by a philosophy that emphasises empowerment, equity, trust, and learning
- When relevant, it should be considered as early as possible and throughout the process
- Relevant stakeholders need to be analysed and represented systematically
- Clear objectives for the participatory process need to be agreed among stakeholders at the outset
- Methods and tools should be selected and tailored to the decision-making context, taking into consideration goals, type of participants, and appropriate level of engagement
- Highly skilled facilitation is essential
- Local as well as and scientific knowledge should be integrated
- Participation needs to be institutionalised.

Despite the increasing acceptance and effort to integrate participation in policy, Reeds stresses the inconsistencies – if not incompatibilities – between the requirements of participatory processes and many of the institutional structures of the organisations responsible for implementing these policies, and suggests that many of the obstacles and difficulties experienced in participatory processes depend on the organisational cultures of either sponsors or participants themselves (Reed, 2008).

Clarke (Clarke, 1997) points to the need to establish norms governing the interrelationships between interested/affected organisations and stakeholders, and to reflect the complexity and interconnectedness in institutional structures. He suggests the creation of task forces, drawing members from all relevant government department and other agencies and organisations with an interest, as well as representatives of local government and agencies with a part to play.

In addition to institutional changes, the social complexity surrounding the management of wicked problems – a function of the number and diversity of the players involved in a project – requires also a shift of perspective in the approach to meetings involving different stakeholders. This ensures they are focused on collaboration rather than confrontation, and can develop a shared understanding – not necessarily agreement, but an understanding of each others' position – about the problem, as well as a shared commitment about the possible solutions (Conklin, 2005).

Although most of the literature on participatory approaches to policymaking focuses on citizen participation, complex issues such as wicked problems require that *all* relevant and affected

stakeholders are involved; such broader engagement may also be used for establishing and fostering networks and cooperations to ensure successful implementation.

Lack of inclusion can affect policy delivery itself, as policymakers often find out afterwards – behold this gem: "*The policy process is often blown off course by pressures or events outside the control of policy makers – for example, the policy of dumping low level nuclear waste at sea was made inoperable overnight by the decision of the seamen's union to advise their members not to work on ships carrying such waste.*"(Cabinet-Office, 1999)

Despite the increasing amount of literature on social media and ICT to engage society, there is not much yet on how this engagement would feed into the policymaking/governance process. Many authors point out the need to develop new/better ways to integrate these new tools and forms of participation (online, citizens forums, etc.) in governance structures and models. It is worth repeating that the mere transmission of information, particularly when mostly one-way, does not participation make – see Table 2.7.5.

A significant part of the literature on stakeholder and public participation suggests that any philosophy of participation should emphasise a flow of knowledge – learning – between participants that is iterative and reciprocal (Chase et al., 2004). This includes learning between participants who may have very different insights, information, and perspectives, as well as between 'insiders' (stakeholders and local actors) and outsiders (field practitioners, researchers, etc.), and involves a shift of the way knowledge is – or *should* be – captured and used in decision-making, from purely 'diagnostic and informing' to 'co-learning' up to 'co-managing' (Lynam et al., 2007). This recognition of the need for clear participation models to support policymaking informs the present research.

2.8 Participatory Foresight 2.0

Broad(er) participation aimed at promoting innovation is widely accepted in the literature concerning Technology Foresight as important for fostering and promoting coordination and mobilisation. Involving those actors that have an important role to play in shaping the future is expected to generate a shared understanding of current problems, goals, and development. This should in turn contribute to improving *implicitly* the coherence of the distributed decisions of said actors (Eriksson and Weber, 2008). Such wider participation seems, however, limited to the engagement of those actors in the networks required to actively support technology innovation.

Miles and colleagues see actors in Foresight as belonging essentially in one of three groups: experts in foresight methods and organisation; experts in the domain(s) addressed by a particular exercise; and the eventual users of the outcome of the exercise – that is, policymakers. Even in the Third Generation of Foresight (see section 2.5.3 above) the social perspective is provided by social

research domain experts, or by representatives of social stakeholders who are normally already members of the decision-making circle through other activities. Public is mostly seen as "*a passive audience to be addressed by communication strategies and through the media*", while the low numbers likely to be engaged would lead one to dismiss their participation as a way to build commitment. As a result, a double loop mode of engagement is suggested – with society providing input on selected issues where public attitudes are considered relevant, and engaging with the output (i.e., being informed) at the end (Miles et al., 2008b). Similarly, the greater interaction advocated by Dreyer and Stang (Dreyer and Stang, 2013) is with senior users, Foresight experts, or public service/government rather than with other stakeholders, general public, or even those tasked with implementation.

'Properly' Participatory Foresight should go beyond the inclusion of 'usual suspects' and should be aiming at a wider inclusion of experts, citizens, stakeholders or nongovernmental activists, that should all be involved in the process of anticipating and planning the future (Nikolova, 2014), thus ensuring their greater engagement and commitment. According to Dator (Dator, 2002), it is "*absolutely essential that all people who have a stake in a future be involved in determining it.*"

Barré (Barré, 2001) distinguishes a *societal model* of Foresight, focussed on participation, and whose outcome is expressed in terms of networks creation and information sharing/leaning, from the *analytic model* of Foresight, which involves few people (experts) directly, aimed at knowledge production and leading to data, modelling and formalisation challenges. He also suggests the possibility of using Foresight as "*an instrument of democracy in a knowledge society*", cautioning however its feasibility is likely to be limited to countries with a tradition of public participation and citizen involvement.

Further rationale for more comprehensive participation is provided when looking at applying Foresight to wicked problems. Quist and Vergragt (Quist and Vergragt, 2006) state that involving a broad range of stakeholders and actors from different societal groups and interests is necessary to achieve system innovations to cope with complex issues, not just for problem definition, but also when searching for solutions and conditions, and developing shared visions.

Given the complexity and multi-dimensionality of the challenges, expert and stakeholder participation and public engagement are seen as crucial, using a whole-system approach in order to draw on a broader pool of knowledge, to mobilise action, and to enhance the legitimacy of foresight results (Köhler, 2015). A wide and inclusive participation would ensure the "*incessant judgment and critical argument*" necessary to tackle wicked problems (Rittel and Webber, 1973), while countering the risk of approaching such problems too narrowly (Clarke, 1997, Ackoff, 1997). Given the

characteristics of wicked problems described in 2.4.3.1, inclusive participation in Foresight would allow the ongoing learning in the dialogue and discussion around the problems required by adaptive foresight (Eriksson and Weber, 2008) as well by a sequential investments and decision making approach such as the one described by Gupta with regards to irreversible investments (Gupta and Rosenhead, 1968) that would reduce the 'one-shot only' risk[23].

The shared vision and coordinated approach developed through a truly participatory process would support implementation by decreasing the need for constant testing from central government to assess success/failure and consequent corrective measures (Geyer, 2012), as well as enabling those tasked with the delivery to act and adapt to specific/local circumstances without requiring constant input and supervision (Eisenhardt, 1989, Eriksson and Weber, 2008)

Nevertheless, the Concurrent Design Foresight Report to the European Commission states that "*Currently, external participants [in qualitative Foresight activities conducted by EU institutions] include mostly academic experts, although other actors may be represented in formal Foresight processes, for example consumer organisations*" (Köhler, 2015). Similar limited inclusion is reported in Dreyer and Stang's study.

The problems with involving populace at large appear both practical – the difficulties of working with large numbers – and philosophical – the need to simplify/dumbing down information for participants' use, compromising its scientific value and rigour. Looking at participatory Foresight experiences in France, Barré (Barré, 2008) sees participation of a broader public in the production of Foresight as difficult, while it is easier to ask people simply to react to its outputs. Many of the problems and difficulties cited echo those described in 2.7.4 about public participation in policymaking.

Past attempts, although limited, exist: Jungk and Müllert describe what they called 'future workshops', the first of which was run in 1962, as a way to fill a gap in existing democratic systems, which not only failed to involve adequately into the policymaking process those directly affected such policies, but also to consider their future implications at all (Jungk and Müllert, 1987).

In the 1970s Toffler introduced the concept of "*Anticipatory Democracy*" as "*a process for combining citizen participation with future consciousness*", consisting in a set of tools and practices aimed at allowing the public greater influence on policymaking, while the Institute for Alternative Futures he

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[23] It would also suggest that Foresight projects dealing with wicked problems should not be approached as a one-off thing, but as something that should be carried out along the life of the management of the wicked problem to allow for the ongoing and iterative learning/emerging knowledge to be included, coordination to be maintained, sequential decisions made, and actions taken.

co-founded with Bezold and Dator developed "aspirational futures" approaches with similar ambitions (Bezold, 2010).

Another example was the Electronic Town Meeting organised in 1982 in Honolulu by Dator and Becker with the objective of both advocating an image of a specific future as well as increasing the participation of ordinary citizens in shaping it. It involved large scale telephone interviews, coordinated efforts for dissemination through several public channels, and discussions, culminating in a vote and follow-up televised presentation where viewers could call to ask questions or make comments (Dator, 1983).

Van Dijk (van Dijk, 1991) also points to the advantages that wider stakeholder inclusion has on implementation, as the possible pictures of the future produced during the Foresight process can become self-fulfilling prophecies when participants act according to the knowledge generated through the combination of all different knowledge and visions.

If we consider the policy cycle described in Figure 2.4.2.1.b, more traditional Foresight would probably fit at the 'prediction'/information gathering stage; more inclusive participatory foresight however would become involved in the evaluation and selection, and, with wicked problems, in the definition as well – indeed the integration of Foresight within policy processes is seen by Havas (Havas et al., 2010) as one of the possible future directions for the development of Foresight. The implication is that change is required both in culture and in the structure and processes of current institutions (Andersen and Rasmussen, 2014).

2.9 Gap in Literature

An analysis of existing literature has revealed a sizeable amount of information on the use of Foresight in Policymaking concerning its rationale and benefits, the possible contexts of use, and different models. However, the researcher has also identified a lack of precision in several of those constructs, such as in the meaning attributed to concepts like *participation* or *engagement*.

Furthermore, much of the literature appears to be prescriptive rather than descriptive, while the majority of the detailed manuals and step-by-step instructions aimed at, and available to, civil servants wishing to run their own FA are clearly derived from, and informed by, foresight practice developed in and for the private sector.

As other authors have commented (van Asselt et al., 2010), there is a shortage of descriptive literature concerning cases of Foresight carried out in and for the public sector that proffer accurate and unvarnished descriptions of the actual process, 'warts and all', and thus limited knowledge on what actually goes on there, and how it may affect the outputs.

Additionally, although the importance of the 'Action' phase in Foresight is stressed by the majority of recent literature and experts (FOREN, 2001, Barré, 2008, Brummer et al., 2008, Miles et al., 2008a) and many more), there is very little material – either anecdotal or prescriptive – concerning what happens to the insight produced – and why.

Therefore the existing literature appears unable to provide a satisfactory answer to the Research problem. Nevertheless, the Researcher has identified a number of concepts (and authors) that will inform this inquiry, particularly with respect to participatory processes and participatory governance.

3. Methodology

3.1 Introduction

Chapter 2 above identifies a gap in the academic literature produced on Foresight with regards to its actual application in the field, particularly with respect to the obstacles and difficulties faced in the generation of high quality insight, as well as in the ability of such insight to integrate into and contribute to the policymaking process.

After restating the Research Objectives in section 3.2, section 3.3 clarifies the theoretical and methodological approach underpinning the Research Design and the rationale for such choice, and summarises the research process carried out. Sections 3.4 and 3.5 provide further details on the methods chosen to gather, analyse, and process data, as well as further details on how these activities were carried out and the context and rationale for such choices. Section 3.6 addresses the potential issues faced, and the steps taken to counteract them.

Section 3.7 reflects on possible alternative methodological choices and concludes this Chapter.

3.2 Research Objectives

The objectives of this research are to ascertain the existence of and to identify areas for improvement in the context of preparing, executing, and managing Foresight exercises and activities within the public sector in order to improve the quality and performance of their outputs – where 'Quality' encompasses the characteristics of internal consistency, robustness, breadth of exploration, and similar dimensions defining the content of such outputs, while 'Performance' refers to the ability of said outputs to *actually* have an impact and contribute to the political debate that they have been produced to inform.

Or, in layman's terms: how can one not only produce good Foresight, but also ensure that it is used?

3.3 Research Design

The objective of the Researcher was not validation or verification of pre-existing theories and hypotheses, but rather exploration and discovery of key concepts that could potentially lead to (Swamidass and Newell) theories and hypotheses. Furthermore, since Foresight is a social construct, generated through social interactions and mechanisms, it is key that the approach used is suitable for observing, assessing, and analysing social processes and dynamics.

3.3.1 Theoretical Approach

This exploratory character is consistent with the inductive/abductive approach (Reichertz, 2007) of Grounded Theory ("GT"), in which theory is developed from social research through a methodical

gathering and analysis of data, and the generation of theory "*goes hand in hand with verifying it*" (Glaser and Strauss, 1967). Over the past few decades the use of GT has extended from the original field of sociology across a number of other disciplines such as social work, health studies, psychology and more recently management, and is considered especially useful for the generation of new theory in social contexts. GT's ability to support the development of theory "*suited to its supposed uses*" (Glaser and Strauss, 1967) appears also particularly relevant for a Research whose ultimate ambition is to affect practice.

The Constructivist approach to GT suggests there is no objective external reality, but rather a social reality that is "*multiple, processual, and constructed*", therefore such research efforts are characterised by relativism (Charmaz, 2014). Given the phenomenon being researched here, the Researcher argues that the 'subjective' aspect is doubly relevant: what is being observed is individuals' perceptions, opinions, interactions, and reactions to something (vision(s) of the future) that is itself an intangible social construction. Therefore this research follows the guidance offered by Grounded Theory within a Constructivist approach.

3.3.2   Choice of Data Collection Methods

The Researcher wished to identify first what could negatively affect the production of 'good'[24] Foresight, and then what could prevent the target recipients from using it. To this end, the Researcher examined and considered the methodologies and approaches used in the existing literature to analyse and evaluate Foresight practice. The principal ones include:

- Expert views, gathered during ad hoc workshops (as in (Da Costa et al., 2008)) or interviews
- Comparative, ex-post analysis and evaluation of impact of recent national and international foresight exercises, such as those carried out by Könnölä and colleagues (Könnölä et al., 2011) and by Havas and colleagues (Havas et al., 2010)
- Ethnographic research, such as that performed by van Asselt and colleagues on Dutch policy-oriented Foresight practice (van Asselt et al., 2010)

The Researcher discarded the option of using exclusively expert interviews as this would have not allowed sufficient depth, and would not have been suitable given the lack of pre-existing theoretical frameworks to test or confirm.

With regards to the analysis and evaluation of existing case studies, Havas and colleagues (Havas et al., 2010) lament that "the empirical basis on which to draw is … rather scarce", and that "little is known so far in terms of [Foresight exercises'] impact assessment", while van Asselt and colleagues

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[24] Please refer to section 2.5.7

(van Asselt et al., 2010) point out the lack of details concerning the struggles, problems, and choices faced by "*futurists*" in their activities – and their consequences – in the existing literature.

The Researcher opted for ethnographic research, recommended by van Asselt (van Asselt et al., 2010, van Asselt et al., 2014) in order to truly understand how Foresight practice is carried out.

While the Researcher had originally considered collecting in-depth data across multiple cases, so as to gather a larger amount of data and be able to compare them across potentially different situations and contexts, the practical difficulties of gaining access to relevant cases led the Researcher to revise the research design and to seek to achieve even greater depth and richness in a single case by extending the timeframe and aiming for thicker descriptions.

The methodology chosen for the gathering of data was Participant Observation. This required the Researcher to observe the 'phenomenon' – the preparation, execution and management of Foresight activities and exercises, and the use of their output to inform policymaking – as it took place, in order to understand *de visu* what actually did (or did not) happen, why, and with what consequences and implications.

After all "*GT is not logical, it is empirical, that is it seeks to find out what is going on*" (Glaser, 1998). Rather than hypothesising *a priori* what the problem may be, and then going about to prove it, the Researcher's goal was to find out what issues would emerge during the course of the observation.

The Researcher was able to secure direct access to the first part of the phenomenon, that is the one concerning the generation of Foresight, by obtaining an 18 month studentship agreement with a non-departmental public body, whereby the Researcher was essentially hired on a part-time basis by the NDPB as part of their Strategy and Futures team, and thus actively involved in the day-to-day activities, decisions, and communications related to the preparation, organization, facilitation, and output generation of a specific Foresight exercise, as well as to the activities propaedeutic to the intended application of its outputs.

For obvious reasons of restricted clearance and security it was not possible for the Researcher to witness first-hand some of the situations in which the output of the above Foresight effort was, or could have been, used; for those it has been thus necessary to rely on third parties' testimonies and interpretations.

The overall data gathering was articulated over two phases, carried out at a distance of six years between the two, during which the information obtained during the first phase was processed and analysed, and used to inform and structure the second. The first phase consisted in an 18 month period of field participatory observation, while the second phase consisted in focused interviews

with relevant individuals. Data have thus been collected through means that were both observational (direct- and participant-observation) and communicative (interviews).

3.3.3 Phase 1 – Participant Observation / Ethnographic Approach

The first phase was exploratory in nature, and its objective was to identify – through a direct observation of *how* Foresight activities are actually managed and carried out in the public sector, and what appeared to be the consequences and implications of such choices – specific aspects and elements in the preparation, management, and execution of Foresight exercises and activities, that appear to have an impact on the efficiency and efficacy of such exercises, as well as on how well their eventual outcome is likely to achieve its objectives.

Tope and colleague define Participant Observation as "*field observation involving a researcher's active participation in the research setting*", stressing its potential to help generate rich description by giving the researcher better opportunities to understand subtle nuances through firsthand experience. Participation is also seen as crucial in order to achieve "*insider status*" as someone who is trustworthy (Tope et al., 2005). Non-participant Observation (Tope et al., 2005), or Embedded Observation (Ngoepe, 2015), is instead defined as "*field observation that does not involve active participation by the researcher. Rather, the researcher is present in the setting while the activity takes place, observing what transpires and potentially talking to* [*the subjects observed*]" (Tope et al., 2005).

The Researcher decided to set up the data gathering following the approach and guidelines of Participant Observation, based on the following two considerations. Firstly, conditional for the Researcher to have access to, and thus to observe, the 'phenomenon' was the Researcher's actual and active involvement in key aspects of the activities she observed. The 'insider status' (see above) that would be achieved through this would allow a higher/deeper level of access than a simple (non-participant) observer would have had. Simultaneously, as a Participant Observer, the Researcher must recognize that they have to hold themselves and their research to higher standards and use greater care and awareness concerning their own ability to influence events and decisions, which could affect the data observed, as well as using care to avoid any possible bias towards ideas or concepts proposed.

The Researcher had the opportunity to spend a total of over 18 months working with the Scenario team at Natural England ("NE") on the design, facilitation, and output production of one of their Foresight projects as described in Chapter 4. During that period, working closely with and alongside the Scenario Team, the Researcher collected ethnographic data in the form of personal notes and comments written during or immediately following key events such as team meetings, workshops,

and other meetings – both internal to NE and involving external parties and organisations – related to the Foresight project, as well as extensive email exchanges. The adoption of an ethnographic approach for detailed, sustained observation was "*to gain an insider's understanding of the studied reality*" (Charmaz, 2014) by observing and experiencing the phenomenon the way those typically involved would, and had the advantage of direct access to events, scenes and people, participation over time, and observation of actions, reactions, and events in real time. Central to ethnographic research is the analysis and evaluation of the relationship between "*what people say about what they do and what they actually do*" (Mitchell, 2007), which in the present study involved going beyond either the 'how to' and step-by-step manuals, and the more or less heavily redacted and 'airbrushed' reports occasionally published about similar processes (see 2.5.3)[25].

By showing respect and acting with honesty towards those observed with regards to the purpose of her participation and observations, the Researcher was able to establish a good rapport with them, which allowed the Researcher both to gain solid data and to maintain access for the collection of further data and therefore opportunities to follow up on emergent patterns and problems during Phase 2 (theoretical sampling, see 3.5 below).

Other data collected include the outputs produced from the workshops (from the 'raw material' generated to the final reports circulated), notes from individual conversations, as well as documents received from NE during the observation period.

The decision concerning when to end this data collection stage was driven by both practical and theoretical considerations, as it is quite normal in case study research (Gall et al., 1996) (Yin, 2009): while the period of collaboration (and thus the access) had come to an end, and the Researcher was about to go on parental leave, the (direct) observation of the phenomenon at the centre of the study had at the same time reached the furthest point in the process that it could have realistically reached, and extending the observation at this stage would have not resulted in additional or significantly different data.

3.3.4   Preliminary Data Analysis

As Glaser and Strauss suggest (Glaser and Strauss, 1967, Strauss and Corbin, 1998), analysis begins after the first piece of data is collected. The Researcher started from the notes taken during Phase 1, and began by extracting 'data' – essentially those specific observations and event descriptions that, in her judgement (see also 3.6.1 on Theoretical Sensitivity), appeared to be relevant and promising in reference to the research question.

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[25] Besides, "*everybody lies*" (Dr G. House , in 'Dr House MD', FOX Broadcasting).

Data were then subject to an initial round of coding, which in GT involves the breaking down, comparison, and allocation of data in categories, or concepts, an iterative process that allows to organise and reduce the data by grouping similar data under the same heading (Strauss and Corbin, 1998). The subsequent analysis led to the search and identification of common threads and themes, as suggested by Morse and Field (Morse and Field, 1995).

During analysis (and, to some extent, even during collection) data were initially organised along the typical stages of a Foresight process – from commission and preliminary work, to output circulation, up to (eventual) use – allowing a first round of qualitative labelling and coding. Such organisation, although influenced by the Researcher's past professional and academic experience (see also 2.2 above), was about the 'situation', that is the logical and practical structure of the phenomenon, rather than about any pre-identified problems, so that it did not interfere with the analysis and emergence of constructs and hypotheses and allowed the Researcher to maintain an open mind.

The initial concepts (what Glaser (Glaser, 1978) and Charmaz (Charmaz, 2014) call "*sensitizing concepts*") that the Researcher identified as emerging from this first round of data and themes analysis were then organised in preliminary analytic diagrams, which for each concept offered a short description, the perceived relationships with other concepts and ideas, and tentative interpretations and explanations. This was an iterative process, as the preliminary analysis and interpretations around one concept would continue to change and evolve as data were being analysed – or re-analysed based on the perspective of each subsequent round of coding and interpretations –, gaps emerged requiring further data analysis, and some of the codes were merged while others were further deconstructed into different elements.

Such process is consistent with Charmaz's suggested method for GT of engaging in different levels of analysis (Charmaz, 2014) and with Glaser and Strauss's suggestion (Glaser and Strauss, 1967) that collection, coding and analysis of data should be done together as much as possible, and see them intertwining continually from beginning to end of an investigation.

This preliminary analysis generated a set of fifteen analytic diagrams, each considering a specific element of the practice concerning the preparation and management of Foresight Activities and Exercises (henceforth, "FA") and its impact on various aspects of both the quality and the uptake and use of the FAs' outcomes, as well as a summarising table; these were then used to direct and support Phase 2 of data gathering.

3.3.5 Phase 2 – Focused Interviews

The aim of the Researcher during the second phase of data gathering was to access information that could provide further insight on specific areas and aspects of the emerging concepts and analysis,

having allowed an appropriate time interval (see 3.3.5.1), in order both to have a preliminary validation/confirmation and to expand and refine the preliminary findings emerging from the data analysis described in 3.3.4 – particularly since, as mentioned above, it would have not been possible for the Researcher to have direct experience of how the output from the Foresight project in which she had been involved had, or had not, been used, and why. Such objectives determined both the timing of this subsequent data gathering, as well as its sources.

3.3.5.1 *Timing*

In order to properly assess the fate of the output from the Foresight exercise the Researcher had observed during Phase 1, considering how it had been received, if and how it had been used, and – to some extent – with what factual results[26], it was necessary that a suitable interval of time occurred before the relevant information could be gathered. Given the length of the policymaking cycle (see 2.4.2), the wickedness of the topic (see 2.4.3.1), and the complexity of the system of public and non-public bodies that would be involved in the implementation of any ensuing policies, the Researcher considered that a six years interval was appropriate.

This time lag also ensured that those respondents who had been involved in Phase 1 activities had had time to reflect, put things in perspective, and be more dispassionate about the exercise and its outcomes.

3.3.5.2 *Sources*

Theoretical sampling was carried out (see 3.5 below), aimed at individuals who had first-hand experience in the production as well as use of Foresight within the public sector. Four of these individuals were from the NE Scenario team, of which two had been directly involved in the NE Foresight exercise, while one had joined more recently from another NDPB; one person had a similar role in another NDPB; another had been in a senior management position in one of the civil sector departments responsible for the coordination and production of foresight and Foresight for the government.

3.3.5.3 *Format*

Interviews were all carried out face-to-face, and lasted around 1.5-2hr each. Three of the interviews took place in meeting rooms within NE offices, while the remaining three were carried out in (quiet) public venues. A voice recorder was used in all interviews, with the knowledge and permission of the interviewees. This enabled the Researcher to focus all of her attention on the interviewee, and

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[26] Results, in this case, mean mostly the ability of the output to inform and contribute to the policymaking process and its own outputs as well as to their implementation, rather than their ultimate impact on the topic.

to capture facial expressions and body language, allowing both richer data collection and greater flexibility in the conversation.

When necessary, the Researcher introduced herself from an academic perspective, although mentioning her professional background in foresight and Foresight as well – this had been suggested by one of the first interviewees from NE as a way to reassure the other person about the Researcher's ability to "*understand what they're saying and where they're coming from*". And indeed, "*how your research participants identify you influences what they will tell you*" (Charmaz, 2014). The objective of the interview was presented as being to gather the interviewee's views, opinions, and any personal experiences related to certain aspects of Foresight practice (i.e., the fifteen elements of practice).

In order to avoid either triggering any defensive attitudes, or simply hearing back what is written in any official manual, and to prevent 'forcing' the data (see 3.6.2), each element, or set of elements, was initially introduced simply and with just a few words, or a small sentence, keeping it as 'neutral' and as linked to practice and direct experience as possible. For example, the part of the interview covering points 5.2, 5.3 and 5.4 expounded in Chapter 5[27] was initiated by asking: "What is, or has been, your experience with facilitation? How does it normally work? Who is involved?" Opportunistic follow-up questions allowed the Researcher to deepen the inquiry, focusing on more specific elements and on any difficulties encountered.

At the end of the discussion on each 'point', interviewees were asked to react to a statement summarising the element and suggesting its importance for the generation and use of Foresight. This was on a 5 point scale, going from 'Strongly Agree' ('✓✓') to 'Strongly Disagree' ('✗✗') and including an 'Unsure' ('?') – although some of the interviewees spontaneously added an extra '✓' for some of the concepts they found particularly compelling, or a '!' where they deemed extra caution was necessary. Depending on time and expression of interest, interviewees were shown the diagrams produced during the Preliminary Data Analysis and asked to react to them. This was done towards the end of the interview to minimise any influence.

The transcripts of the interviews offered a second set of data to code using the elements developed, while at the same time contributing to refining the elements themselves. The interviewees' rating provided an initial validation as well as indicating where further data were required.

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[27] Adoption of Chatham House rule; number, quality and preparation of facilitators; and neutrality of facilitators

3.3.6   Subsequent Data Analyses

Glaser (Glaser, 1978) points to the importance of undertaking various iterations of data analysis because theoretical sensitivity grows during the research project, allowing the researcher to pick up things that had previously been overlooked.

As described also in 3.3.4 above, the analysis of data in GT is not carried out solely in a distinct and discrete phase of the research process, but is an ongoing effort that proceeds *pari passu* with data collection as well as comparison with extant knowledge. The Researcher continued to revise, re-work and refine the concepts and preliminary conclusions throughout the research process, through the inclusion of the additional data from the interviews and comparative analysis of existing literature and theories as described in 2.2 above.

3.4 Case Study (Phase 1)

The key, defining factor that makes a study a case study is "*the choice of the individual unit of study and the setting of its boundaries*" (Flyvbjerg, 2011). A case is both a process of inquiry about the research topic and the product of such inquiry (Stake, 2005). This unit is then studied in depth, looking at its development, and considering its context (Flyvbjerg, 2011). The main strength of the case study is depth – detail, richness, and completeness. In order to understand a phenomenon with thoroughness – what are the possible causes, what may cause and/or affect certain behaviours, how it may be possible to encourage, or prevent, certain results etc. – it becomes necessary to study instances of the phenomenon, understanding (specific) context and process, linking causes and outcomes (Rowley, 2002).

As case studies allow for in-depth understanding of context and process, they are particularly suited to investigate the production and use of Foresight, which – as a social phenomenon – is inextricably linked to its context.

At the same time, in addition to risks and limitations due to poor design or execution, and apart from the unsurprisingly poor performance of case studies (a qualitative methodology) when assessed on the basis of criteria developed for quantitative methodologies[28], case studies are weaker at assessing (and essentially quantifying) the *degree* of influence a specific variable may have on a certain outcome, they are dependent on the researcher's ability and subjective judgment in selecting and analysing data, and they are subject to risks of indeterminacy and/or incorrect inferences (Hodkinson and Hodkinson, 2001, George and Bennett, 2004). Generalizability is also an issue often raised, particularly concerning studies involving a low number of cases.

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[28] Such as objectivity, replicability, sample size, etc.

Although some critics fear that case studies may be biased towards verification of researcher's preconceived notions experience indicates that case studies have a greater bias towards falsification of preconceived notions than toward verification (Flyvbjerg, 2011).

When deciding whether to conduct a single case enquiry or a comparison of multiple cases, the Researcher considered the advantages and negatives of each option both from a theoretical strength and a practical feasibility point of view.   While gathering and comparing data across multiple cases would have produced evidence that would have been considered more robust and reliable (Baxter and Jack, 2008, Yin, 2009), it would have requested a much higher commitment of time, resources and funds than were available to the Researcher – not to mention the difficulty in securing the required access to suitable cases.   Section 3.4.1 below argues that both the characteristics and the way the specific Case Study was carried out enable it to support theory generation.

3.4.1   Generating Theory with Single Case Study

According to several academics in GT, (Flyvbjerg, 2011, Glaser and Strauss, 1967), generation of theory is possible even with a single case, provided it is deep and rich enough.   In this instance, the data have been sourced from participant observation over a significant amount of time and during a material number of activities and events, and have been integrated with the data gathered during the interviews.

Furthermore, even for those for whom the use of a plurality of cases is preferable, such as Yin, there are circumstances where the adoption of a single case design can be acceptable (Yin, 2009). Such circumstances include situations where:

- the case may be considered as representative of many other similar phenomena displaying the same characteristics. Similarly Stake (Stake, 2005) talks of 'instrumental case study' that is seen as typical of other cases, and is considered to provide insight in an issue or to redraw a generalisation;

- the phenomenon considered is not easily accessible and observable (revelatory case); and

- there is a longitudinal element that requires studying the same single case at two or more different points in time.

On the first point, the Researcher argues that the particular aspects and dynamics considered in the case conducted on NE are indeed representative of those characterising comparable phenomena, that is participatory Foresight activities and exercises carried out within the public sector with the objective to support policymaking. This view is supported by the findings that have emerged during the interview stage.

On the second point, given the relatively limited access to the context itself and to the type of phenomenon studies, with few instances occurring and access being politically and organisationally sensitive, the Researcher suggests that the case can be defined as revelatory.

Finally, data have been collected longitudinally during two different periods across a 6 year gap, giving the Researcher the opportunity to see how the case had developed over time, allowing consideration of the impact that some of the elements have had over such evolution, as well as enabling access to information that would have been otherwise difficult to obtain (such as being able to speak to two of the individuals after they had retired or changed job and therefore were not worried about expressing their views).

On the subject of time, the Researcher is aware of the potential risks linked to the length of the period occurring between the participant observation of Phase 1 described in the case and the interviews in Phase 2, mostly linked to the deterioration of individuals' memories and ability to recall; however in this case the interviews were used not solely to discuss things that happened during the case, but also to gather data about aspects that people have continued to see in their work over this period of time, particularly with regards to the implications and consequences, and to the actual use of the outputs and insights generated (see 3.3.5.1 above).

3.5 Interviews (Phase 2)

During Phase 1 and the ensuing preliminary analysis, the Researcher had begun to observe what would go on during the process of Foresight production, and had started the construct identification and development, including the generation of hypotheses as relations between the concepts that was then expanded during the preliminary data analysis phase. At this stage the Researcher started identifying any insufficient or missing data, and deducing where they could be found. As these 'focused' additional data were obtained, previous data, constructs, and conceptualisations were corrected (verified). As Glaser suggests, the focus of Phase 1 was on the induction from the observations and data obtained during the phenomenon, therefore excluding deductions or inferences of *what* should or might have been taking place, while it included deductions about *where* to further collect data on "*what is going on*" (Glaser, 1998) during Phase 2.

Qualitative methods, such as interviews, are believed to provide a 'deeper' understanding of social phenomena than would be obtained from purely quantitative methods, such as questionnaires. Interviews are, therefore, most appropriate where little is already known about the study phenomenon or where detailed insights are required from individual participants (Silverman, 2009). The flexibility of unstructured interviews, particularly compared to structured interviews, also allows

for the discovery or elaboration of information that is important to participants but may not have previously been thought of as material by researchers.

At the same time, it is important to be aware that the data obtained through interviews have inevitably gone through the filter of the respondents, is shaped by their perspectives, and affected by their memory (Lune and Berg, 2017). While this is consistent with the constructionist approach (Charmaz, 2014), it is unavoidable that some information is lost, as respondents will notice and perceive only a portion of 'reality', then give their own interpretation and rationale, and finally recount their experience, possibly omitting or forgetting pieces of information. The data collected are then filtered again through the ability/sensitivity of the researcher (see also 3.6.1 below).

3.5.1   Selection of the Interviewees: Theoretical Sampling

From the beginning of the research process, as the raw data are gathered and codes and concepts start coalescing through continuous and iterative comparative analysis, such codes are used to guide and direct further data collection; from these new data, codes and concepts are further developed theoretically, creating connections and interrelations with other constructs until each concept and category is saturated, in a process known as Theoretical Sampling ("TS") (Coyne, 1997)(Glaser, 1992). With TS, data gathering is driven by concepts derived from the evolving theory and based on the concept of making comparisons; the sampling, that is the theoretically driven data collection, evolves during the process and is based on concepts that emerged from analysis and that appear to have relevance to the evolving theory (Strauss and Corbin, 1998). In GT, TS is aimed at theory construction rather than population representativeness (Charmaz, 2014, Glaser and Strauss, 1967). It is used as a way of checking on the emerging framework rather than being used for verification of preconceived hypotheses (Glaser, 1978), and it calls upon researchers to flexibly pursue data collection to support category development (Locke, 2001).

Accordingly, during the second phase of data gathering, the Researcher opted to focus the sampling for the interviews on sample accuracy, based on the needs emerged (and emerging) from the analysis of data from the first phase of the process, rather than on sample size. The Researcher decided to use criterion sampling, selecting interviewees who closely matched the criteria of the study, i.e., individuals who are or have been involved in the phenomenon considered, albeit not only in the specific phenomenon observed during the case study.

The Researcher first contacted those individuals with whom she had most closely interacted during the participant observation and who in her view could and would provide the most relevant insight. In addition to a request for an interview, the Researcher asked for suggestions on other individuals – both within and without NE – who could both have relevant information and be willing to share it,

representing thus what Morse defines as '*excellent participants*' (Morse, 2007): someone who has been through the experience under investigation, who is willing to participate and has time to share the necessary information, and who at the same time can be reflective, willing, and able to talk about the subject in an articulate and meaningful way. According to Morse, more targeted content can potentially generate better (that is, more relevant and insightful) data and thus may require fewer interviews – although this strongly relies on the ability of the researcher.

3.5.2 Interview Structure and Format

When deciding on how to structure the interviews and what format to use, the Researcher considered how best to address the trade-off between depth and breadth of data gathering determined by the choice of open versus more structured interviewing models, as well as the advantages and risks involved in the use of supporting materials, and the most appropriate ways to minimise such risks.

Since the interviews represented the TS that followed the (wider) initial data gathering of the first phase, they were actually supposed to dig deeper rather than provide another round of data at the same level. Therefore the Researcher decided to use a semi-structured mode of interviews, where the interview was articulated around the main concepts that had emerged during the preliminary analysis carried out after the first phase of data gathering. This approach is supported by Strauss and Corbin, who suggest that the "*initial interview questions or areas of observation might be based on concepts derived from literature or experience or, better still, from preliminary fieldwork*" (Strauss and Corbin, 1998). The order of the questions and concepts explored followed largely the 'life cycle' of a Foresight exercise, from commissioning to use in policymaking.

The Researcher was also aware of the importance of remaining open to disproving evidence and of avoiding the temptation to encourage participants' answers towards specific words or ideas. In order to reduce the risk of missing relevant data, the Researcher adopted the approach recommended by Strauss and Corbin to focus on the interviewees' own experience of situations and aspects linked to each concept explored. Starting questions for each element category (e.g., 'facilitation', 'Client communication', etc.) were carefully worded and open ended, allowing the respondents greater freedom to answer in terms of features and aspects that they considered important, as well as to offer data that could potentially undermine or contradict any preliminary concepts or emerging theoretical conclusions – as in the question about facilitation mentioned above. Furthermore, the Researcher asked each interviewee whether they could think of any other issue that they had experienced that had affected the performance of the phenomenon in cases they had been involved in.

The Researcher used a summary table at the end of each interview, inviting interviewees to express their agreement – or disagreement – on the relevance and impact of each one of the identified elements with regards to Foresight processes and their output. Although Glaser (Glaser, 1998) warns about the risks of using units, grids, diagrams and similar tools during interviews as they "*preconceive the data*" and thus may end up forcing, the Researcher considered that showing the table at the end of the interview, and thus after the interviewees' insight, opinions, and views had already been recorded, reduced significantly such risks. Secondly, the interview itself could help the interviewees to refresh their memories and become more aware of their own views, allowing for more considered answers. Finally, rather than being used as a simple survey, the preliminary table was mainly used as a prop for more focused probing around the elements.

As the Researcher was interested in the interviewees' perceptions, opinions, and impressions, language and meaning were important. The use of a voice recorder ensured tone, pauses, and emphasis were captured, as well as specific wording used, while enabling the Researcher to observe – and react to – facial expressions and body language, which provided further data as well as cues and opportunities for steering and focusing the conversation. It also allowed the Researcher to offer appropriate non-verbal responses and appear both interested and able to follow and understand what was being said, as recommended by Lune and Berg (Lune and Berg, 2017). Although Glaser recommends against taping interviews, seeing it as an excessively time consuming endeavour, the Researcher judged that the advantages outweighed the risks in the case of more structured and focused interviews at this theoretical sampling stage.

3.6 Potential Issues

In addition to the somewhat intrinsic limitations of the chosen methodologies discussed in 3.4 and 3.5 above, and which are often common across qualitative research methodologies, the Researcher was aware of the following issues that could potentially affect the quality of the Research Study. The first two can be traced back to the two conflicting positions concerning the relation between data and theory as described by Glaser (Glaser, 1992), which see in one corner the concept of 'emergence' and in the other that of 'theoretical sensitivity'[29], while the last one is linked to the specific aspects of the participant-observation activity.

3.6.1   *Theoretical Sensitivity and Awareness*

Glaser and Strauss (Glaser and Strauss, 1967) refer to "*theoretical sensitivity*" of researchers as their "*ability to conceptualise and formulate a theory as it emerges from the data*", comprising not only some level of pre-existing theoretical insight in their area of research, but also their personality and

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[29] Together with its evil twin, 'data forcing'.

character, combined with an "*ability to make something of their insights*". The grounding in extant knowledge is crucial in theory development, otherwise conclusions from data analysis would be limited to the obvious and the superficial (Glaser, 1978). Locke describes theoretical sensitivity as a perceptual apparatus that allows researcher to "*discern and pay attention*" to data (Locke, 2001), and for Glaser and Strauss it is the researcher' perspective that "*will help him see relevant data and abstract significant categories from his scrutiny of data*" (Glaser and Strauss, 1967)[30].

The constructivist approach encourages researchers not to attempt a neutral and value-free position by erasing their knowledge and views down to a *tabula rasa* state[31], but rather to examine how their privileges and preconceptions shape not only their analysis and interpretation, but also the facts they can identify, and thus the data they gather: "*We construct our grounded theories through our past and present involvements and interactions with people, perspectives, and research practices*" (Charmaz, 2014).

Indeed, the vantage point offered by researchers' academic and professional experience can help seeing certain aspects[32], leading at the same time to the ignoring of others. Therefore, while it is useful for researchers to start their studies from such vantage points, it is crucial for them to remain open to all they see and sense during the research. The self-awareness of their position and consequent sensitivity can help them consciously make that effort, minimising the risk of remaining blindsided.

The Researcher was aware that her previous experience and professional skills, together with the academic knowledge accumulated so far, while crucial in allowing access to the phenomenon, would also influence her ability to perceive things and her selection between what was data and what was 'noise', thus bearing on the data gathering. For example, notes taken during or after conversations and meetings would be influenced by what the Researcher was 'receptive' to hearing as well as by what she considered relevant. That said, Charmaz points out that although "*all is data*" according to Glaser, data vary in quality, relevance, and usefulness (Charmaz, 2014), and a level of selection is desirable and even necessary to ensure that analysis can actually be done.

During the participant-observation stage, adopting an exploring rather than verifying approach meant that the Researcher focused on what was going on, deliberately trying to maintain an open stance and capture as much data as possible; the fact that the observations were carried out over an extended period of time – with repeated and ongoing meetings and interactions rather a one-off observation – helped reduce the risk of missing relevant information.

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[30] At the same time, "to the man with a hammer…" – see Forcing, 3.6.2
[31] Even those favouring this stance offer scant details on how to achieve such state.
[32] As Pasteur said, "*Where observation is concerned chance favours only the prepared mind*".

The best way to proceed seems to be to "*constantly remind yourself that you are only human and that what you observe is a function of both who you are and what you hope to see*" (Suddaby, 2006), as well as to appreciate the confluence of conditions that inevitably frames the data eventually collected (Charmaz, 2014).

3.6.2   Forcing

As Glaser suggests, forcing – the imposition of preconceived ideas over the information, forcing conclusions beyond what the gathered data would *per se* suggest – is "*in the nature of man*", stemming from human discomfort when facing situations of uncertainty and from an imperative to make sense of situations that likely goes back to our ancestors' survival instinct. While the goal is to undertake research that allows the emergence of "*what is going on*", there is the temptation (and risk) to latch early on to a theory or explanation – whether coming from pre-existing knowledge, or generated from an initial round of analysis of the first data – and then forcing the rest of the data, as well as influencing the sampling and gathering of additional data, to adapt and conform (as well as confirm) to that theory. And the problem is that "*if you torture the data enough, it will give up*" (Glaser, 1998).

Nevertheless Glaser suggests that researchers can work at minimising their forcing, and get progressively skilled at it, by increasing their self-awareness of potentially forcing data and actively monitoring their own thought and research processes, by suspending their current knowledge (and beliefs), and by continuing to study and constantly conceptualise and compare data. Therefore the reflexivity and self-awareness discussed above in 3.6.1 must be extended to the analysis and interpretation of data, as well as to activities such as theoretical sampling which are indeed driven by (emerging) theories and constructs.

 In the Research Study, the Researcher was aware of the risks of forcing both during data analysis (in all its various iterations, but particularly during the preliminary data analysis described in 3.3.4 above) and during the Second Phase of data gathering. With regards to the preliminary data analysis, the Researcher made a conscious effort to suspend her own judgement and to concentrate on all data as 'neutrally' as possible, regardless of either previous professional experience or knowledge. In the interviews, as described in 3.3.5, the Researcher managed the risk of forcing by asking carefully worded open questions, avoiding forcing or directing answers, and giving respondents the opportunity to question and to contribute additional issues beyond those identified by the Researcher.

3.6.3 Interference

Another issue is linked to the fact that the Researcher, as an active participant in the phenomenon considered, was in a position to influence the phenomenon itself and its development.

However, where the Researcher's mandate required her to undertake a leading role in developing the content and format for the Foresight Activities themselves – the agenda for the workshops, the individual activities and exercises, the support material – this was done within the boundaries of the existing practice, procedures, and situational context.

As a result, despite being in a prime position for observing them, this Researcher had very limited influence on the particular issues considered in Chapter 5, e.g., facilitators' number and preparation, invitees, interaction and communications with Client and other organisations, etc. Therefore the Researcher believes that the phenomenon she had the opportunity to observe took place in what could be defined 'typical conditions'.

3.7 Reflections

Sections 3.4 and 3.5 above describe the rationale for the Researcher's choice of using a single case study and semi-structured interviews in her research. Other methodologies were also considered, balancing their strengths and advantages against their disadvantages, and assessing their suitability vis-à-vis both the research objectives and the specific situation; they were eventually discarded based on the considerations below.

A theory-based research would have the advantages of building and further developing existing and accepted theories and literature. It depends critically on the availability of relevant information – theories as well as data – concerning the phenomenon. A review of the existing literature on the subject pointed however to a lack of information concerning the reality of what truly goes on during particular cases; therefore existing theory would have offered very limited insight on the reality of problems encountered in generating and using Foresight.

Questionnaires would have been faster and easier to administer, while the results are generally considered more objective and would have been easier to compare and analyse. Nevertheless they presume a theoretical framework and stance, and are better suited for verification rather than exploration, with a high risk of failing to capture new or unexpected information. The inclusion of open questions, requiring respondents to provide ad hoc input and details, could have been used to obviate at least partly to this last point, however it would have likely impacted on the response rate. Finally, the lack of personal contact and trust-building would have made it more difficult for respondent to offer information that they fear may reflect negatively on them and/or on their organisation.

Fully structured interviews, also generally faster and easier to carry out, would have likely allowed the Researcher to obtain more as well as more easily comparable and 'objective' data given their lower dependence on interviewers' skills. As with questionnaires however their reliance on a predefined theoretical framework and inherent focus on breadth rather than depth makes them more appropriate for verification than theory building.

Finally, the rationale for not carrying out multiple case studies was discussed above in 3.4.

4. Case Study

4.1 Introduction

This chapter describes the data gathering carried out by the Researcher within a non-departmental public body ("NDPB"), in order to observe and identify elements affecting the organisation, management, and insight development of participatory FAs aimed at producing Foresight to support and inform policymaking.

After some background information about the context and circumstances of the Researcher's involvement and activities within the Strategic and Environmental Futures Team in Natural England (sections 4.2 and 4.3), sections 4.4 to 4.11 describe in greater detail the different stages and events of the project in which the Researcher was involved and the activities that were carried out.

Section 4.12 offers a concise description of the principal developments concerning the outcomes and products of the project, while section 4.13 summarises the subsequent interactions between the Researchers and members of the Futures Team after the conclusion of the observation period.

Section 4.14 touches briefly upon the potential concerns of interference already addressed in section 3.6.3 above, and concludes with a quantitative summary of the activities and involvement of the Researcher during this phase of data gathering.

4.2 Case Background

Natural England ("NE") is a NDPB in the United Kingdom sponsored by the Department for Environment, Food and Rural Affairs ("DEFRA"). NE was created in 2006 under the Natural Environment and Rural Communities Act 2006 by bringing together English Nature and parts of the Rural Development Service and the Countryside Agency; its statutory purpose is to ensure that the environment is conservatively managed for the benefit of present and future generations, and it is responsible for ensuring that England's natural environment, including its land, flora and fauna, freshwater and marine environments, geology and soils, are protected and improved. It currently employs over 2,200 people working from 24 offices across England.

At the insistent request of NE's stakeholders for a clarification and explicit presentation of its vision, during the first half of 2008 NE embarked on a project to develop such a vision. The original plan was to carry out this project in three phases:

1. Develop scenarios that would essentially map out the boundaries of plausibility for possible futures for the natural environment in England

2. Set out where, within that space of plausibility, NE's vision could sit

3. Focus on how such a vision could be implemented.

The project was driven by a small core team of five individuals (the "Futures team"), who were part of NE's Strategy and Environmental Futures team.

The FAs that were eventually chosen to be carried out for each phase, and their expected outcomes, are described in Table 4.2 below:

Phase	Activity	Output	Comments
Phase 1	Trends and Drivers analysis	**Global Drivers of Change to 2060**	These represented one of the main inputs used in the scenarios building exercise
	Scenario building exercise	**Scenarios for England's Natural Environment in 2060**	This work was carried out over a 20 months period, from April 2008 to December 2009. The Futures team appointed SAMI Consulting, a consultancy specialised in scenarios and other Futures and Foresight techniques, to help design and facilitate the scenario building exercises and draft the summary scenarios. Over a series of three workshops, which involved NE staff and key stakeholders, four scenario narratives were produced, which were subsequently further expanded and developed by the Futures team with input from other experts and specialists from within NE.
Phase 2	Development of Normative Scenario	**Pathways to 2060**	Starting from the four explorative scenarios produced, the Future team developed a more normative scenario which would embody NE's Vision for England's natural environment in 2060
Phase 3	Development of roadmap for Pathways to 2060		The team was involved in developing strategies and plans towards the achievement of NE's Vision, with the aim of inspiring and motivating NE as well as informing and shaping Government Policy

Table 4.2 - Phases and Outputs

Figure 4.2 illustrates the chronology of the different Phases vis-à-vis the presence – and participation – of the Researcher during their activities.
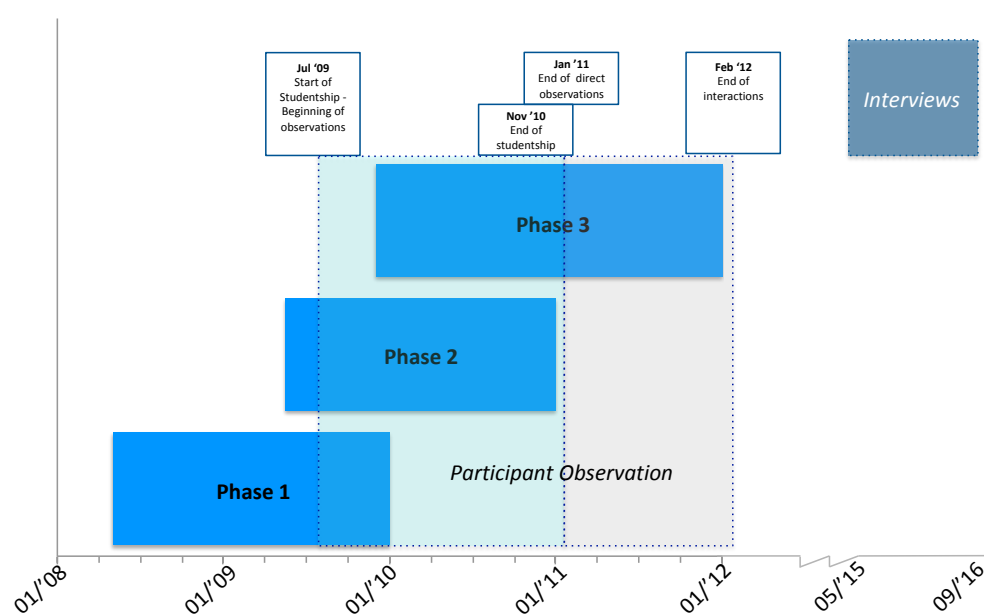

Figure 4.2 - Timeline

4.3 The Opportunity for the Case Study and the Role of the Researcher

The Researcher had originally met with the Specialist, who was later to lead the scenarios project team at NE, in the spring of 2008 during a workshop organised by the European Environmental Agency[33]. In April 2009 the Researcher contacted the Specialist in order to discuss his views and ask his opinion about combining consecutively the foresight methodologies of Scenarios and Roadmapping in the context of FAs in order to support both policymaking and policy delivery.

Following the meeting, and several emails and telephone conversations later, the Specialist invited the Researcher to assist NE's Futures team for the following three months, as the first stage of Phase 2 of NE's Foresight project was being completed.   In particular, the Specialist asked that the Researcher help them with developing practices and processes to support what NE called *embedding*, defined as "*facilitating the use of scenarios in a range of planning processes to enable more detailed analysis of issues and activities that influence change*"[34].

At the end of the three-month period, the team offered the Researcher a studentship to work as part of the Futures team, assisting them with the design and implementation of a Foresight process to support NE's planning and strategy activities in Phase 3 as well as with the ongoing development and refinement of the Vision for Phase 2. The studentship lasted 12 months and was formally concluded in November 2010, essentially due to the end of the team's available funding; nevertheless, the Researcher was asked – and agreed – to continue working on a voluntary basis, which she did until the end of February 2011.

4.4 Working with the NE Futures Team

The Researcher started working with the Futures team in July 2009. Due to the geographical dispersion of the members of the team, who were each based in different offices across England, interactions relied for the majority on email exchanges and conference calls, interspersed with focused face-to-face meetings (in group or in person as needed) every 1-3 weeks, mostly in NE's Cambridge or London offices. The core team consisted of five individuals plus the Researcher.

Table 4.4 illustrates the different stages of work and the Researcher's role.

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[33] 29-30 April workshop in Copenhagen "Bridging long-term scenario & strategy analysis in public policy - current practice and the way forward" - BLOSSOM project (**B**ridging **LO**ng-term **S**cenario and **S**trategy analysis – **O**rganisation and **M**ethods)

[34] NE document "*Embedding Scenarios Work within Natural England*", 2009

Stage	Period	Description
Embedding	Jul 09 – Oct 09 and further	Help team with writing a scenario report and presenting scenarios in more user-friendly ways. Introduce Foresight methodologies and techniques used to support planning, to the Futures team
Vision Development and Roadmap Process Design	Nov 09 – Jan 10	Work with the Futures team to develop the Vision, to identify appropriate Foresight methodologies and techniques and to design a Foresight process aimed at supporting Phase 3
1st workshop	Feb 10 – Mar 10	Organization and preparatory work ahead of first workshop on March 5, 2010; participation in workshop facilitation
2nd workshop	March 2010	Integration and processing of materials generated during first workshop, organization and preparatory work ahead of second workshop on March 31, 2010; participation in workshop facilitation
Analysis and Further Development	Apr 10 – Jul 10	Integration and processing of material generated so far, additional activities linked to process such as causal mapping and intermediate scenarios, beginning of report writing
3rd and 4th workshop	Jul 10 – Sep 10	Design, organization and preparatory work ahead of workshops in September 2010; participation in workshop facilitation
Follow-up, closing	Sep 10 – Nov 10	Integration and processing of material generated, followed by other meetings both internal to present and with DEFRA to discuss the process and some of its outcomes; finalisation of report

Table 4.4 - Stages of work

Changes in the political context had a significant impact, even several months before the actual change in government took place in 2010. This led to a shift in the government's view of the role and purpose of all NDPBs, such as NE; so that the expectation was now for such bodies to limit their activities to carry out objective, technical analysis and perform technical functions, rather than to develop or set visions, as the expression of a desired future was seen as the government's job and thus the prerogative and duty of ministers and other governmental bodies.

At the outset, the actual extent of the shift in role and mandate had not been immediately clear, as noted in an email received by the Researcher in November 2009 from the Specialist stating "*apparently […] we don't do 'policy' anymore, but we do develop our position on things – subtle change!*" By late Spring 2010, however, it had been made clear by DEFRA that the original visioning and goal-setting objectives of NE's Pathways to 2060 project were outside NE's scope of purpose and NE had, again in the words of the Specialist, to "*retreat from that space*".

As a result, the design for the remaining portion of the process had to be modified, and the subsequent work stages saw a change in overall objectives, approaches, attitudes (both internal and external to NE), and output formats.

The figure below illustrates the activities and objectives/outputs originally proposed and agreed, comparing them with those actually developed.
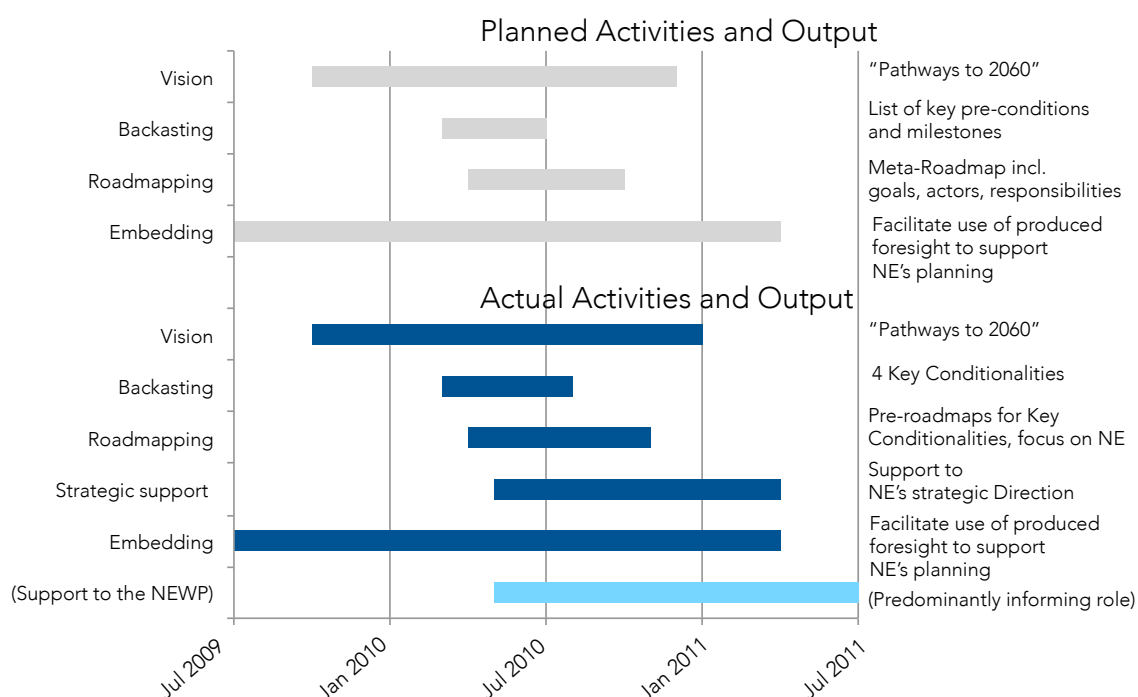
Figure 4.4 - Planned vs Actual Activities and Outputs

4.5 Embedding

During the first three months of her involvement and interactions with NE, the Researcher supported the Futures team in their effort to develop working practices (both formal and informal) aimed at enabling NE to embed strategic thinking into NE's business planning and performance management processes and into their corporate culture. In particular, the Researcher assisted the Futures team in:

- Developing NE's Vision from the four scenarios
- Using the four scenarios to test and support the strategy development for a specific geographic and environmental context (the Uplands Futures project)
- Incorporating the insight gained during Futures and Foresight activities into NE's corporate planning process.

The Researcher was very well accepted by the Futures team, who on several occasions expressed their appreciation for her contribution.

Part of the work was carried out on a voluntary basis and was framed as one or two days/week, either from NE's Cambridge office or remotely, and involved – in addition to numerous email exchanges – several meetings with the Futures team and other members of NE's Strategic and Environmental Futures team, as well as with other public sector organisation such as the National School of Government[35]. At the request of the Specialist, the Researcher was also asked to produce a short report on "*the practicalities of using scenarios in future-proofing policy and strategy*"[36], which included an overview of the various policymaking activities and Foresight activities and tools that can be used to support policy formulation and implementation, particularly in the embedding and implementing phases.

At the end of October 2009, as the date of the end of the volunteering period approached, the Specialist offered the Researcher a studentship that would allow the Futures team to "*benefit from access to expert advice and insight on its approach to building strategic capability, particularly in applying its scenarios. NE will also benefit from* **practical hands-on support in designing and delivering resources and activities** *in this area*" [stress added], while the Researcher would "*benefit from the opportunity to develop case study material for her PhD research by gaining close and sustained access to a public body that is developing its approach to building strategic capability through the application of scenarios*"[37].

From this point onwards, references to the Futures team include the Researcher.

4.6 Vision Development and Roadmap Process Design

The work during this period focused on drafting and testing the Vision, incorporating feedback from the Board and from the result of other activities, and on the design of a process that would help NE make use of the insights gained through the scenarios and the development of the Vision.

The Futures team identified Backcasting and Roadmapping as the most appropriate techniques, based both on the quality and nature of the input (i.e., the scenarios and the Vision) and on the objectives of the whole exercise. The team then went on to design a process that would integrate the two methodologies, clarifying the various steps, their input, output, and format, and the required activities.

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[35] The National School of Government (previously known as the Civil Service College and the Centre for Management and Policy Studies, or CMPS) was the part of the Cabinet Office that ran training, organisational development and consultancy courses for UK civil servants and private individual learners. It closed in 2012

[36] Email from the Specialist dated October 7, 2009

[37] From the Studentship Agreement received by the Researcher on October 20, 2009

4.7 The March 2010 Workshops

4.7.1 March 5th Workshop

The main objective of the workshop on March 5th at DEFRA's Innovation Centre in Reading was to identify the main steps and milestones necessary to move from the present situation towards the preferred future described in Pathways to 2060, as well as the main conditions and requirements. The exercise would also test whether such a future was indeed attainable – in case no feasible or realistic steps could be identified.

Ahead of the workshop, the team worked to regroup and distil the description of the preferred future, which had been originally structured on the basis of different Landscapes (i.e., Uplands, Wetlands etc.), into nine 'topics': Biodiversity, Access, Sustainability, Protection, Impact of climate change, Living, Landscape, Attitudes and Values, and Governance. The objective was to enable each topic to be considered and addressed as a whole rather than fragmented geographically, thus ensuring a more integrated and consistent approach. The result was a set of 'end statements', each describing the characteristics and conditions of a specific topic by the year 2060.

The team experienced difficulties in getting a sufficient number of attendees and in ensuring appropriate representation. Nine of the 11 participants in the workshop were members of NE's Communities of Practice, which contributed relevant information and expertise concerning the key aspects and components described in the preferred future. The other two participants were member of NE's Strategy and Environmental Futures Team. The Futures team had divided participants into three groups, aiming at ensuring as much variety and balance as possible.

Not all of the people involved in the facilitation of the workshop had had previous facilitation experience or specific training. The discussions ahead of the workshop focussed on content and on objectives; there was however no specific discussion or previous agreement on approaches and techniques.

Working in the three pre-assigned groups, participants were asked to consider the end statements of the various topics one by one, and for each topic they tried to answer the following questions:

Considering the end statement for [*topic*],
– Where are we today (and where do we seem to be going)?
– Starting from the situation described in the 2060 end statement and moving 'backwards', what needs to happen?
– By when?
– By what level/How much?

Groups were asked to write the results from their work on the whiteboards that constituted the walls in the room, proceeding 'backward from the future' and along a timeline divided by decade. Each group then presented back to the rest of participants, who asked for clarifications and provided comments.

In the following session, again working in groups, participants were asked to think about the conditions (defined 'dependencies') for each of the various elements that had been identified in the previous session.

The output from these two sessions consisted of a timeline for each topic, describing what would have been achieved by each decade and indicating what such achievements would be depending on.

In the last session, participants were asked to consider and discuss the possible implications of the results of the previous sessions for the current structure of NE's Communities of Practice ("CoP") and Communities of Delivery ("CoD").

The raw outcome from this workshop was processed by the Futures team during a day-long group work session on March 18, again at the Innovation Centre in Reading, and further revised by the team members through iterative comments, contributions, and circulation of electronic documents within the team. This work aimed at identifying the fundamental concepts and ideas behind some of the achievements and requirements identified, and at organising the requirements by category. The final outcomes of this workshop were refined, integrated, and validated in the following workshop on March 31, which involved experts external to NE.

The team was aware that, due to the absence of experts from some of the Communities, the output concerning some of the points had not been sufficiently developed. For practical and logistic reasons, it was decided that their contribution would be sought and integrated after the second workshop.

4.7.2   March 31st Workshop

The workshop on 31st March 2010, again at DEFRA's Innovation Centre, involved a broader range of participants to include representatives of partners as well as stakeholders and experts. The objectives of the workshop were to offer comments and further input regarding the future described in Pathways to 2060, to refine and validate the results from the previous workshop, and to advance further in the roadmapping process by identifying the key dependencies and some of the main initiatives and actions that could support them.

In order to identify invitees, the heads of NE's CoPs were asked to provide the names of "*experts that could contribute with relevant expertise and insight*"[38], while other members of the Strategic and Environmental Futures team forwarded the details of individuals from academia and from other organisations in the public sector who they thought could be interested as they had already been involved in similar or related projects, or who had already expressed the desire to be involved. The team saw it as an opportunity to start engagement with some of the stakeholders[39] and to build consensus to pave the way for the presentation of the Vision to the wider public. There was no mention of using the workshop to engage and win over potential opponents.

Members of the Futures team and of the larger Strategy and Futures team acted as facilitators; again, some of them had only limited previous experience or training in the facilitation of Futures activities.

Rather than asking participants to read a written summary, NE had produced a video to describe the current embodiment of the Vision, and opted to open the workshop with that. This was followed by a session designed to help participants familiarise themselves and become more 'immersed' in the preferred future described in the Pathways document. Participants were then assigned to work in groups on individual Topics, with two Topics assigned to each group. For each Topic, participants were asked to discuss and comment on its 2060 end statement, to ensure that its different aspects and dimensions were covered (even while avoiding going into excessive detail), and any possible tensions and issues were highlighted. This would have fed back into the next version of the Pathways document, scheduled for late summer 2010.

After looking at the intermediate steps and achievements and at the conditions and requirements previously identified for that topic, groups were asked to suggest any missing steps or conditions, as well as providing comments and pointing to potential obstacles and issues. Each group then presented their results to the rest of the participants for their questions and further comments.

The second part of the workshop focussed on the conditions (defined "Conditionalities") and requirements. A vote on which Conditionalities, or subset of Conditionalities, participants felt were the most crucial to enable the delivery and achievement of the preferred future identified the following:

- **Society**
- **Education**
- **Governance**
- **Land Management**

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[38] Email dated March 1, 2010

[39] Email from NM on February 23, 2010

It was stressed during the workshop discussions that these are connected and influence each other, highlighting the need for a consistent and integrated approach.

Again in groups, participants then explored each key Conditionality, and looked at which initiatives, partnerships and schemes could be developed in order to ensure that the conditions and requirement could be met and thus support the delivery of the preferred future.

4.8 Outcome Analysis, Further Activities and Developments

Elections in May 2010 saw a change in government. Until early May, the team was still considering options for a "*forum for the Vision to work across the DEFRA family - once position clearer after election*"[40].

Over the months of May and June 2010, the team had several meetings to review outputs from the March workshops, use them to move forward with the backcasting and roadmapping work, and discuss how such analysis could contribute to the Vision project. The refined outputs were then sent both internally, to CoP chairs to gather their comments and provide additional input, and externally to selected experts, to help fill any gaps that had emerged and to further enrich the analysis. The team had identified six 'Hot Topics' – major subject areas/themes critical to the success of the 2060 Vision that required analysis in greater depth and for which further input was sought:

- **Demographic changes**
- **Society's values, ethics and attitudes**
- **Governance: structures and devolution of power**
- **Resources: Food; Energy; Water; other resources/raw materials**
- **Technology**
- **International/Global issues**

'Webinars' were also organised for those employees of NE who had missed the workshops – although eventually the interest and the uptake was not as high as the Futures team had hoped.

Additionally, the Researcher took part in multiple meetings with the broader Strategy and Environmental Futures team and with NE's Environmental Advice and Analysis Team aimed at presenting the work completed up to that point and how it contributed to the identification and analysis of NE's Strategic Challenges, and discussing how future-proofing – *in nuce*, ensuring resilience and performance 'whatever the future' – could be incorporated into NE's strategy process.

At the end of June the team started planning and organising a new set of workshops for September. It was decided to invite DEFRA officials to the workshop.

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[40] Notes from meeting on May 4th

In addition to the work on roadmapping, the Futures team was involved in two other streams of work stemming from the original scenarios, aimed at improving understanding and supporting strategy: causal maps and intermediate scenarios.

For each of the four Scenarios to 2060 originally developed, the team produced a visual representation – a causal map – of the connections, mutual influences, interdependencies, and circular causality existing between the different variables involved, using a System Dynamics-inspired approach.   The team sought to make more explicit the progress and evolution that could lead from the present to each of the end states, highlighting the key 'systems' that were likely to have the greatest impact on the future development of the natural environment and of society, as well as identifying other variables that would be affected by them and their implications. The maps were then posted to the NE intranet.

Building on the understanding gained from the causal maps, the team also produced four intermediate scenarios – Scenarios to 2030 – that proposed, for each of the long term scenarios, a view of what the future could be midway along the path to that end state, as well as providing a storyline towards that end state over the next 20 years. The objective was to achieve a better alignment between the time horizon of strategic and planning activities and that of the insights obtained from foresight activities.

The Researcher's studentship was extended to November 2010.

4.9 The September Workshops

By September the roadmapping work was increasingly "*aimed at informing the decisions and programmes we need for the next decade as part of our Strategic Direction*"[41], therefore something targeting an internal audience and their needs rather than aimed at external users. The team's ultimate goal, however, was for their overall work, both completed and underway – including scenarios, Vision and roadmapping - to contribute substantially to the development of the Natural Environment White Paper ("NEWP")[42].

In principle, the aim of the workshops on September 13th and 15th in DEFRA's offices at Nobel House in London was to identify those initiatives, schemes and programmes that would be most effective to help realise the key dependencies, to recognize the partners and stakeholders that should be involved in such efforts, and to develop appropriate action plans to support their implementation.

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[41] Draft roadmapping report dated 16 August 2010

[42] Email from NM dated 19 Aug 2010

Outcomes from previous activities and workshops were to be used as input for the discussions. In particular, the work from Pathways to 2060 provided the general context and goal, while the March workshops had identified the crucial areas for change and had started setting the objectives.

The structure and objectives of the two workshops were the same, the two dates being simply an effort to accommodate people's schedules and commitments while ensuring sufficient participation. The objective of the first half of the workshops was to refine, integrate and validate the tables describing the intermediate achievements and the requirements for the delivery of the preferred future. The second half was expected to focus on further developing the list of initiatives, schemes, and programmes produced during the March 31st workshop, and on selecting those that would be considered most effective and achievable. Participants would then look at the selected interventions and concentrate on developing a 'straw-man' roadmap for each, which would include key players and partners, resources, and other needs and requirements, exploring their role as well as their mutual interactions.

The original intent, as discussed and preliminarily agreed in the Team's meetings at the beginning of June, had been to include stakeholder and partners in the list of 15-20 participants required to ensure robust process and outcomes of the workshops, in order to engage and involve them in the development of any proposals. In practice, due to the political change and the shift in priorities, invitees were essentially limited to NE; furthermore, there was limited uptake for both workshops, so that each had between four and six participants. As a result, the emphasis was placed on the first part of the work (refinement of previous outcomes) rather than on more detailed action planning.

The final outcome from both workshops were revised tables for achievements and requirements, and a small number (four) of what could be called pre-roadmaps, each identifying an objective in the context of the Key Conditionalities and the role/responsibilities for NE and for other stakeholders in its delivery.

Representatives from DEFRA attended the second of the September's workshops. The Specialist also brokered two additional meetings with them, facilitated by the fact that most team meetings to discuss the work on roadmapping and other foresight activities were being held at DEFRA's offices. The aim of these informal meetings was to present and discuss the principles and objectives of NE's roadmapping work and how it could support policy implementation, and they were connected to the work that the Specialist was doing with DEFRA on the NEWP (see 4.12 below).

4.10   Outcomes Review and Further Activities

Following the two September workshops, members of the Futures team had several email exchanges and met again in October and November 2010 in order to process the outcome and

integrate and build on the results from the previous workshops, so as to continue develop and refine the conclusions for the Roadmap towards the Pathways to 2060.

This effort was carried out in two stages. In the first stage, the team mapped out how each one of the Key Conditionalities identified could support the various intermediate achievements and, eventually, the preferred future described in the Vision. In the second, the team worked to clarify and define the goal for each one of the Key Conditionalities, which would allow it to contribute to and support the progress towards the preferred future. Such goals were then translated into more detailed and explicit objectives.

Finally, for each objective, a number of potential roles and directions for NE in the short and medium term were identified. The team also carried out an initial comparison with the objectives outlined in the draft 2011-15 Corporate Plan, highlighting any gaps, as well as identifying any additional high-influence variables that could affect the objectives defined in the Roadmap.

Over the months of August to January 2011 the Researcher spent time attempting to include the required input and feedback from NE Communities that had been notably absent from the workshops, and whose contribution was considered highly important, such as the Marine Community of Expertise. This effort included several calls and videoconferences, so that the Marine expert could "*download his thoughts*"[43], and a number of face-to-face meetings with the Marine team in order to present the outcome of the workshops and the outputs produced so far and to gather their feedback and contribution.

During the same period, the team continued to be engaged in the refining of the Pathways to 2060 document that outlined NE's Vision, as well as in the finalisation of documents and activities such as the Scenarios to 2030, windtunnelling, and the development of a framework to support NE's Strategic Direction. Such framework would look at the various challenges and issues emerging from the Scenarios (particularly the Scenarios to 2030) in terms of possible responses articulated along NE's Roles and links to the Outcomes pursued as listed in the Strategic Direction document.

4.11   End of Case Activities

While it can be relatively easy to identify the beginning of a case, defining its end is not immediate or univocal, and it may be up to the Researcher to arbitrarily assign a close to the proceedings, as often there is no clear cut-off point (Yin, 2009). Furthermore, not only theoretical but also practical considerations are involved in deciding when to end the data-collection stage of case study research – such as time, budgetary constraints, termination of access, and similar issues. (Gall et al., 1996).

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[43] Email from NM dated September 16, 2010

In this case's specific circumstances, the Researcher's collaboration with NE, first during the studentship and later on a volunteer basis, significantly wound down after the end of December 2010, due to increasingly limited access to politically sensitive and thus confidential documents and information, and essentially concluded as the Researcher's parental leave began. As a result both activities and direct access to data came to an end by February 2011.

4.12   What Happened Next (to NE)

Following the elections in May 2010 the visioning work had slowed down significantly, and by the first months of 2011 it essentially ground to a halt. NE therefore shifted its aims from expressing a vision towards helping and supporting the sector to achieve the goals expressed by the government. This was pursued along two separate routes: both continuing the roadmapping work, moving towards more technically and practically focussed aspects, as well as ensuring NE could "*be inside the tent*" where policy was being discussed and developed, in the shape of the NEWP.

Contributing to the NEWP was, in the words of the Specialist, "*a way of taking the insight that we had generated from our work into that policy process for minister to sign or not to sign up to, and then express their vision through the policy, but informed by what we had done.*" As a result of NE's efforts in this regard, the Specialist had succeeded in being included in the DEFRA team that had been tasked with the development of the NEWP, and that had begun discussions as early as July 2010. The NEWP was published in May 2011, and in addition to a longer-term vision to 2060, 92 shorter-term commitments were identified to support the goals and objectives stated in the NEWP itself. Eight implementation updates have been subsequently published, the latest in October 2014[44], reporting on the achievements in the shorter-term commitments.

By 2012 the Specialist had reached out to a group of NDPBs (such as the Environment Agency and the Forestry Commission) and started a discussion on the implication of the NEWP for their respective organizations, and came to the conclusion that their respective boards needed to understand the implications of the NEWP for their role and strategy.

Within NE, the Specialist and his team used the materials produced from foresight activities such as scanning of futures, roadmapping, analysis of the NEWP, etc. to produce a document called "NE's Strategic Context" which was given to the executive board. In the document, the outcome from the foresight activities was used to identify opportunities and threats stemming from the policy expressed in the NEWP, which were then compared to NE's strengths and weaknesses in a two-by-two matrix. The feedback received by the Specialist was that the work done had been "*an invaluable catalyst*".

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[44] https://www.gov.uk/government/publications/natural-environment-white-paper-implementation-updates

The Strategic Context document contributed to NE's Delivery Framework and to the current Strategic Direction, in which NE signalled the intent for a new Conservation Model. The work for the development of the Conservation Model began in 2014, aiming for completion by 2016.

4.13 Other Researcher Interactions

After the conclusion of the case, the Researcher kept in touch with the Specialist and other members of the Futures team.

In February 2012, the Specialist asked the Researcher to provide some thoughts and comments on a memo that outlined a proposal for a project that was aimed at linking shorter-term commitments to the longer-term vision – "*i.e., your roadmap*" – as he felt that the development of the NEWP had focused on the policies but still had to provide guidance with regards to their implementation.

In 2015, the Researcher approached the Specialist and other team members from the Strategic and Futures team in order to ascertain their availability for being interviewed by the Researcher in the context of the case. While some of the people in the Futures team had since changed job or retired, and thus were not accessible, the Researcher was able to secure interviews with four team members from NE as well as being given extra contact details for other potential interviewees who could provide relevant views and information.

4.14 Audit

4.14.1 Researcher's Role

As is typical in Participatory Observation cases, during the Case the Researcher had to cover two roles at the same time. On one hand, the Researcher's objectives meant that the Researcher was an observer of the activities, individuals' interactions, and events that took place in the context of the case. On the other hand, the conditions and rationale that allowed the Researcher to undertake such observation was that the Researcher herself would take part and be directly involved in such activities, interactions, and events.

It is important, however, to clarify that the support and input that the Researcher was called to provide was from an academic perspective, centred around the content, structure, and design of the Foresight activities and processes, as well as on the conceptual elaboration of their output, while the Researcher had no decision power and provided no contribution on other aspects of the activities and operations, such as the choice of invitees, the relationship with teams and organisations both internal and external, the assignation of roles, any follow-up activities, and so on.

The above set-up ensured that the Researcher carefully minimised any influence or interference on the way activities, interactions and events were carried out and took place, and the Researcher

believes it enabled the observation of situations and behaviours without leading others or in any way affecting their developments and choices. This supports the assumption that such observations can be considered representative of participatory foresight activities in the public sector, and that the analysis and conclusions can be extended beyond the single Case considered.

4.14.2 The Case in Numbers

Below is a summary quantifying the Researcher's data collection activities during the participant-observation stage of data gathering:

- Volunteer work: 24 weeks, from July to September 2009 and from November 2010 to February 2011
- Studentship: 60 weeks, from September 2009 to November 2010
- Workshop design, facilitation/participation, and output generation: four workshops
- Project-related emails: 917
- Futures Team meetings: 34
- Meetings with other NE departments/Communities: 6
- Meetings with other organisations/individuals: 5

Data were also gathered when the Researcher participated in a number of individual and conference telephone calls, and through the perusal of internal documents that the Researcher had access to during the period as accessory to her role, such as memos, comments and notes on drafts for reports and other output activities, strategy documents etc.

During Phase 2 of data collection, the Researcher carried out six interviews for a total of nine hours of recorded time.

5. Analysis Results

5.1 Introduction

This chapter presents the results from the analysis of the data collected in Phase 1 and Phase 2 as described in 3.3. Findings have been organised in fifteen elements of practice (see 3.3.4), each beginning with a brief description of the aspect considered, followed by the associated data observed during each Phase, and by some preliminary considerations.

5.2 Adoption of Chatham House Rule

The Chatham House Rule reads: "*When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed*".

The underlying assumption is that, by removing the risk of their opinions being shared publicly and thus potentially endangering their reputation or career, individuals are more likely to express views and share opinions and information that do not necessarily align with those of the organisation they belong to, therefore encouraging free expression and discussion[45].

Such considerations are particularly relevant in participatory activities involving individuals from the civil service, NGOs, and other organisations which represent various interest groups, where the risks associated with a public inconsistency with the views and position of one's own organisation could quickly lead to political and professional death, while it is crucial that participants are "*as frank and candid as possible, while maintaining a respectful interest in the views of others.*" (Hemmati, 2012)

As described in 2.3.5 above, key to participatory Foresight methodologies is the sharing of information and ideas by participants during collective sessions. In the absence of clear and credible reassurance that what they say can not and will not be traced back to them, it is argued that participants are more likely to self-censor what they say and what information they share with others; based on the same considerations, in those activities aimed at generating and discussing alternative options and strategies, participants are more likely to only consider and accept those in line with their organisation's (or constituency's) publicly stated position, values, and objectives.

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[45] www.chathamhouse.org.uk . Unfortunately there doesn't seem to be any study explicitly testing this, and Chatham House themselves are not aware of any. This seems to be something that appears to people as obvious and relatively self-evident.

5.2.1   Direct Observations from Case

- During the second workshop, during an exercise looking at possible strategies and policies which required some level of compromises and trade-offs in the positions and stated objectives of different parties and stakeholders, the Researcher overheard one of the participants saying: *"Well, I am from [name of the organisation], I can't really say that, can I?"*

- While reviewing the results of the first workshop with the team, someone commented how the resistance of one of the participants to a certain idea was to be expected, as he was clearly concerned by his boss' potential reactions to his positions and statements.

5.2.2   Feedback and Quotes from Interviewees

All interviewees agree or strongly agree on the importance of CHR; several specifically recalled related situations and incidents, and referred to CHR.

"CHR is clearly important, though I also think it needs positively shaping as to what it means. In the absence of pre-investment in building up a relationship with the associates we really want to come to these events, then it is absolutely top-notch important [three ticks]. If you have done the investment, then two ticks."

"Whether it is CHR or something else, it just gives people permission to talk more freely, especially in a political environment."

"I agree with that, I completely agree with that."

"Yes I think if they don't think you have CHR people will be too timid and just toe the party line."

"Yeah absolutely, it should do, it should [allow people to be more open to go beyond the official position of their organisation]. And I think you should explain what you mean by it as well, you know, because people just say CHR, that's absolutely fine, but you need to explain. […] I think in the case of futures, it is a very good thing to use."

"So when you say Chatham House Rule, that's fine, but I think you always need to understand that some people have a different version of what they mean with it; there is always some filtration, there is always censorship of what they might say […] But in the case of Futures, it's useful, because I think people feel more relaxed in doing that, in terms of discussing a scenario some years ahead compared to a current policy situation."

Two of the interviewees pointed out the importance of ensuring that participants understand correctly what the adoption of CHR imply, as they were concerned that it is often misinterpreted to mean "*what is said in this room stays in this room*".

> *"Yes, yes, … I think people misinterpret CHR though. I think that lots of people say 'anything that I say here will not come out at all'. I have been in meetings where you say 'Chatham House Rule', and people say 'then nothing comes out', and that is not what you mean of course"*
>
> *"CHR, in terms of policy development, for example, yeah, is useful, but sometime it is not used as it should be – in other words, [people think] you can say whatever you like and it stays within these four walls."*

One of the interviewees also noted that, while comments should remain unattributed, it can be "*valuable to know 'who said what' from a sector/interest group point of view*":

> *"I think if you are looking at outputs, even if you don't want to attribute comments it is always useful to know 'well, it is particularly … everyone from the business sector is thinking this, everyone from the NGOs is thinking that, everybody from the delivering bodies is thinking that', so you are not attributing things to people but, if you have got different views from different sectors, I think that kind of thing is interesting to capture."*

5.2.3   Preliminary Observations and Conclusions

The evidence collected during phase one and two appears to confirm that, in the absence of a clear and credible reassurance that the information and opinions shared in the context of public sector participatory FA will remain anonymous, and thus that source(s) will not and can not be identified, participants are less likely to offer information and views that are unfiltered and that have not been self-censored. This reduces the quality of the information exchange and of the discussions, and consequently of the outputs of the FA.

5.3 Number, Quality and Preparation of Facilitators

5.3.1   Description

The participatory nature of most FA relies on skilled facilitators to encourage and support participants' involvement and contribution. Facilitators are also normally responsible for recording the information and gathering the output produced during a FA workshop by various groups and in different activities. Effective facilitators should be familiar with useful group work techniques and tools.

The number of facilitators and the category of skills required customarily depend on the type of activity carried out at each step of the FA's process.

At the same time, the majority of organisations leading/sponsoring any FAs must operate within the constraints of their budget and of their resources. The daily rate of an external, professional

facilitator can range from a few hundred up to several thousands pounds, depending on the experience, expertise and reputation; and even the cost of internal resources and their availability – not just for the actual FA, but also for any training and briefing – can be considerable.

While other costs (e.g., the hiring of suitable venues) can be rather rigid, this may appear a 'softer' and more flexible cost. Furthermore, in particular for organisations without a strong foresight culture or previous experience in FA, this cost can be more difficult to justify. This may result in running the FA with fewer facilitators, and/or facilitators that have received limited training and briefing.

5.3.2   Direct Observations from Case

- The March workshops had only a limited number of people involved in the facilitation and a large physical space in which the FA took place.

- Three times during the first workshop and twice during the second workshop the Researcher overheard participants who appeared unable to move forward in their activity, and with questions/comments that needed addressing; however all the available facilitators were engaged in other activities or with other participants, and those participants eventually moved on abandoning the point/issue without completing the tasks.

- Twice during the second workshop the Researcher could see comments being made at one table that were not being picked up or recorded.

- At last once in each workshop the researcher noted a table discussion being limited to only a few of the participants sitting at that table, while the others were not involved.

- In two separate occasions in the first workshop the discussions at two different tables were 'hijacked' by very vocal participants, and the facilitators appeared unable to bring the discussion on more even terms and participation.

5.3.3   Feedback and Quotes from Interviewees

Interviewees agreed on the importance of having a sufficient number of facilitators. Some of them mentioned specifically the need to limit the number of participants in each group to enable effective dynamics and conversations.

"I think this is really important. Otherwise you lose all the benefits of CHR. […] "If you don't have enough [facilitators], if you don't do this properly it's not just that you are missing information, you are running the risk of the whole thing just not be worth doing, a bit like a science experiment without having good measurements."

> *"You need a good sized table… Because for example, 20 [participants per table] is ridiculous. […] With eight or nine max you can have a proper conversation around the table; three would be too small, you just have a chat and it is not to have it as a challenging and/or learning situation."*
>
> *"You also need the right amount of people [facilitators]. If you get one facilitator with 30 people, it is an impossible job; so it's probably one-to-five, this kind of ratio."*
>
> *"Yes, absolutely. I think this is really important, as is [the fact] that then it is easier to ensure the rules are followed, like this CHR thing."*

Interviewees also stressed the importance of facilitators in enabling all participants to contribute to the discussion – both for the quality of the output and for the reputation of the project, and potentially for relationships with various parties.

> *"I think you can actually create enemies if you don't get it right, as in people can walk away thoroughly pissed off because they have never really been given a chance…"*
>
> *"You need to make sure that you bring everyone in, in terms of the group you are working with. […] I have been in meetings where people have stormed out because they feel that their point of view isn't heard. We actually run a workshop back in October, where someone just got the wrong end of the stick to be honest with you, and said, "This is not for me, I am not staying after lunch!""*
>
> *"The other key thing is this thing of ensuring all voices are heard, and that again is in some of the work that Angela Wilkinson has done about the epistemological value of future thinking, and if you don't have a sufficient range of epistemologies in the room then you end up with a very dominant framework; so you ensure all voices are heard and you have a broad enough range of output that relate to a range of different perspectives and you avoid that group thinking."*

There was also general consensus on the importance for facilitators to be suitably skilled and appropriately trained and briefed.

> *"So I have done tons of workshops with facilitators, and the first point is, lots of people think they can be facilitators, but it actually is quite a skilful job to do.[…] So yes, they can be really helpful, because they pull the salient points out, they can draw out the conclusions, they can draw out the key points in the discussion, that can be very difficult as an individual, and they allow the other people to take part, rather than to worry about scribing, or channelling discussion."*
>
> *"Yes, and with…I mean, having sufficient knowledge of what it is you are doing, to know what is significant and what isn't, but without having too much knowledge, so they are not leading the*

conversation, but able to have a sensible conversation using appropriate terminology with whomever you are working with."

"Yes skilled facilitators yes, but you also need to have well briefed facilitators. And I think that's often rather forced down, because they are not, they don't know what they are trying to achieve and what the objectives are for the end of the meeting"

"At the end you've got to have people who are confident enough to be flexible and adaptable enough and go where the participants want to go, while still providing guidance, you need to know when to do it and when to rein in."

One of the interviewees indicated that a relatively common practice, particularly when – often due to budget constraints – few trained/professional facilitators are available, is to appoint some of the participants themselves on the day of the FA as table facilitators and rapporteurs. The interviewee also mentioned that, although such practice helped in some way with engagement, it also often led to suboptimal facilitation in terms of ensuring proper participation, impartiality (see 5.4), and recording.

5.3.4   Preliminary Observations and Conclusions

The evidence collected during the case and interviews appears to confirm that the availability of a sufficient number – based on the number of participants – of skilled facilitators, and their adequate preparation concerning the objectives, the topics, and the methodologies used, is crucial to ensure broad engagement from participants and productive discussion dynamics, as well as proper record and note keeping, and thus the successful running of participatory FA.

In this context, 'skilled' refers to the facilitators' proficiency and expertise in the facilitation of this type of activities rather than expertise in the issue and/or topics being addressed – although some basic understanding and knowledge can be occasionally required to ensure effective and productive facilitation.

5.4 Neutrality of Facilitators

5.4.1   Description

Facilitators, as described in the previous point, are in a position to influence the discussion, the conclusions, and often what information is actually recorded and how. FA, particularly those involving different stakeholders with conflicting interests, should be led and facilitated ideally by non-stakeholders, with no direct interest in the outcome of the FA and accepted by everybody as impartial.

Given the complexity and wide scope of the majority of the issues addressed by the civil sector and policymakers, this is not always possible.

5.4.2   Direct Observations from Case

- During lunch in the 2nd workshop, the Researcher overheard one participant saying to another "*Well, of course we ended up discussing that idea, it is one of his [the facilitator at the table] main projects and he's keen on it*".

- Two participants at the table facilitated by the Researcher asked the Researcher outright who she 'was with', and whether she was working 'for' NE. At the reply that the Researcher was working 'with' NE but only in the context of academic research, and thus had no special, vested interest in any specific outcomes but just in the process, they relaxed visibly and indicated they felt reassured.

5.4.3   Feedback and Quotes from Interviewees

"Yes obviously important. […] Yes, you definitely end up filtering, even unconsciously, if you are not impartial."

"They should be super partes! But there is no such thing. Even the professionals, I mean you always are going to have some partiality, it's inevitable; and I think in this context, yes, facilitators are really really useful, and you do need them, because otherwise are you going to get a free flow discussion that doesn't get channelled and it doesn't pull out points and the outcomes that you want from that discussion, but there are risks in using them. But on the whole I am very supportive."

"And the worse type of facilitators I have seen are people who just dominate the discussion, you know, stay in front of a flipchart – I have been guilty of that as well! – and lead so much they just take it down the path they want it to go. And that's the dangerous facilitation, that actually gets dominated by the facilitator and you don't get an open discussion around it, just get dragged towards one path of discussion."[46]

"I have seen examples in the past of a facilitator ignoring certain comments, from a more vociferous person, and then that just comes out later. In this case it came out in terms of reports back on press and blogs. So you've <u>got</u> to be inclusive. You have got to be very careful that you are seen as being impartial"

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[46] This also has links to the previous point, about skilled facilitators

> *"[…] because in a well-run process with good facilitation, people will submit to the authority of the facilitator, but they won't do that if they think you are there with your own agenda. So I think that's absolutely critical."*
>
> *"The [issue of] breach of trust is absolutely key… […] and the fact that the process may fall apart because people then don't buy into the rules. I think there would be also issues inside the process/activity itself and not just in the validity of the output, as if a participant feels the facilitation is not neutral, he may be disruptive, or he may just sit back and not participate because he thinks it is a stitch-up, and the event then falls apart."*

There was a general agreement on the usefulness of facilitators having some level of knowledge on the subject, despite its potential for hindering impartiality even in well-meaning individuals, thus reiterating the importance for the use of professionals who may be aware of the risk and can self-regulate:

> *"[You could ask] people who know nothing of the issue/topic, to come and facilitate for us, because they will not have an agenda. But also they have no way of understanding and helping evaluate what's being said. […] You have to find a way of saying look I am not making a judgment, I don't have a position, but I can say that what you are saying here fits in this context and can be connected with these other points that have been said there. So you are not behaving like a total moron; which also would not help, as people then aren't going to say things to you because you can not understand them, or would dismiss you or be upset as they have been put at the dumb table or in any case not somewhere where they and their contribution can be appreciated."*
>
> *"Sometimes you may want a completely neutral facilitator, who doesn't come to it with any, any… in other cases you want someone who has knowledge of the area, so he can just steer the discussion in certain areas, so you actually get something out of that, 'cause sometimes you only get something very broad, which can be useful, but… you know, not really."*
>
> *"Yeah, that's very important I think. Ultimately you can be impartial, meaning behave impartial[ly], and still know the subject area, I think."*
>
> *"Yes, and with…I mean, having sufficient knowledge of what it is you are doing, to know what is significant and what isn't, but without having too much knowledge, so they are not leading the conversation, but able to have a sensible conversation using appropriate terminology with whomever you are working with."*

5.4.4 Preliminary Observations and Conclusions

The researcher's observations and the interviews both suggest that the facilitators' impartiality – perceived as well as actual – strongly affect the quality of the discussions and of the outputs generated by the FA, as well as its likelihood to be accepted and backed.

The *perception* of a facilitator's impartiality appears to significantly influence participants' willingness to open up and both share and accept information, and their attitude towards the outcome. It also seems to affects the participants' impression of the fairness and trustworthiness of the proceedings and thus their attitude towards the outcomes.

The data also support the view that the *actual* neutrality and impartiality of facilitators – which would appear to be also related to their skills and self-awareness in their role – is important to avoid influencing activities and filtering outputs, as to ensure high quality and credibility of the output as well as eventual buy-in.

5.5 Consistency of Techniques and Approach

5.5.1 Description

As described in 5.3 above, in order to achieve the desired quality of discussion and information flow during participatory FA it is useful to separate participants into smaller groups. Each group then is involved in various exercises and activities led by a facilitator, in relative independence from other groups for the duration of the individual exercise. For each exercise, the outputs from each group are then combined and integrated.

In other circumstances it may be necessary to carry out a number of similar exercises and activities across different organisations and/or locations, where again the outcomes and results need to be compared and aggregated.

Each facilitator may have different a style, approach, and preferred techniques and/or tools.

5.5.2 Direct Observations from Case

- During the first workshop in particular, the Researcher noted how the different style and approach of different facilitators resulted in very different levels of engagement and discussion at each table.

- The inconsistent format, style and focus of the outcomes from the various tables meant that it took a substantial amount of time and resources to combine them afterwards.

- One table had only focused on the points where there was no disagreement, with no records on what the other points were or what objections had been raised; while for one of the activities

there was limited record of objections/concerns. As a result, when reviewing and combining the outcomes from the workshop, the project team had to rely on the facilitator's recall, which, by his own admission, was not complete.

5.5.3   Feedback and Quotes from Interviewees

The great majority of interviewees agreed on the advantages of consistency, although some indicated a possible trade-off between efficiency and depth of analysis.

"I would put it as important - 'though maybe less important than the others."

"And if you don't have outputs that have a consistent format and dimensions, you may be tempted to bend them to make them fit."

"So for example recently DEFRA – I was involved – DEFRA did a range of workshops in terms of what may be the 25 year plan. And they did that in a consistent way, facilitated – I was one of the facilitators – in the same way. So when they wanted to bring the key points back in, and crunch them – you know, we are talking 14 workshops – it was easy to do. So it does have its advantages. The disadvantages of doing it are that sometimes it does not allow you to burrow down into the details of it more, in those workshops, and get a little more out of them. You are bound by the constraints of how you are doing it."

"I think certainly when you are doing something of many…. you want to get a view back from a wide range of audiences, of people, of organisations, it is better to use a consistent approach there. Because it makes combining outputs so much more easy."

Some of the interviewees also indicated the need for some level of flexibility in the choice of facilitation tools to better suit specific circumstances, while maintaining consistency in the format of outputs.

"Within the same workshop, yes, although also if you are doing some kind of foresight activity, and for whatever reason it is not gelling, it is not working, and it happens sometimes, then it is good actually to have another technique up your sleeve and you can say, 'OK well let's look at it like this, let's do this other activity'.

"So I would say more having a suite of appropriate methods and then the suite is consistent but you can pick and choose from that suite of methods according to who you are working with and what subject it is that you are covering and what you are trying to achieve. […] But then if you say well the outputs as in the 'so what' later on should be similar or have the same format, so they have a format

5.5.4 Preliminary Observations and Conclusions

Data from both Phases suggest that consistency in the approach and formats adopted for the various activities and exercises carried out during the FA, as well as for reporting the outcome of said activities and exercises, can lead to greater efficiency in the collation, comparison, and further elaboration of their outcomes, thus reducing both cost and time requirements for generating the FA outputs, and potentially increasing quality.

At the same time, concerns were raised on the fact that it may be appropriate, and even necessary, at times, to be able to adapt approach and techniques used to the circumstances and to participants – particularly if the approach originally planned and agreed is not working – thus affecting the efficacy of the session, that is its ability to carry out the appropriate type and level of analysis and discussion.

5.6 Attendance from Organisation Leading the FA

5.6.1 Description

Silos mentality appears still prevalent, not only between organisations, but also between departments within the same organisation, limiting the amount of information shared in the course of day-to-day interactions.

Furthermore, for outsiders an organisation's full attendance inevitably reflects the importance and commitment that the organisation itself assigns to the FA, and thus its willingness to support it.

Nonetheless, the overall majority of the interviewees report securing internal attendance to participatory FA as challenging. One of the main problems appear to be that, even in those organisations within the public sector that may have a "*mindset for future thinking*", as defined by one of the interviewees, such participation is not mandatory, nor is it included in the individuals' appraisal and evaluation. In situations where human resources are stretched, this can significantly affect individuals' willingness to engage.

5.6.2   Direct Observations from Case

- Particularly during the first workshop, the project leading team struggled to secure participants from all relevant/potentially affected divisions.

- Since the view of some of the missing divisions was crucial to the development of the outcome, several points had a "subject to" related to the agreement/feasibility assessment/implication analysis from those divisions, partially undermining the solidity of the outcome.

- The team managed to get some engagement and input from a key department only several months after the workshops, and only a few weeks before the final roadmap had to be signed off.

5.6.3   Feedback and Quotes from Interviewees

Interviewees all agreed on the importance of this point.

"I think that's really important."

"I think you would have to work quite hard at getting people to get engaged, when actually they are focused on what are actually quite relentless day to day pressures.

[…] I would put it top, and what's more I would say that if you haven't pre-invested in that there is no point in pre-investing in outsiders- you've GOT to get the organisation arriving at these things as one, if possible."

"I think it is quite important, as long as you have the right people in the room. If you know, the people who are coming to that meeting, or workshop, or whatever you want to say, are actively contributing, and the range of people you've got from NE or DEFRA or whoever, provide a good range of backgrounds on whatever you want to talk about to come into this."

"And the disadvantage of that [missing key departments] is that they are not part of the conversation, so you'll just maybe get feedback from their perspective, rather than actually being part of the conversation, seeing it is a more integrated conversation."

"The other side - this is a government head on this – is that sometimes you may be seen as 'flooding' it, so you could bring too many NE people in and be viewed as "yeah, well, are you trying to dominate the conversation here?" and "boy, you must have a LOT of money and staff here to come along..." so there is a risk of that."

"You do, you do, you also need to have the presence of the most senior person you can manage to say to everybody, it is OK to do this, it is OK to make these comments that we as civil servants would not make back in our day job."

> *"You need to make it possible for people to be involved into this sort of foresight activities, at the moment the majority of people who do this, they get no recognition from their bosses, actually need to justify doing that."*

5.6.4   Preliminary Observations and Conclusions

The data collected appear to support the view that ensuring cross-cutting participation in the FA from the leading/sponsoring organisation is very important in order to ensure access and sharing of necessary insight, and its effective inclusion in the process, thus contributing to the quality of the FA discussion and ultimately output.

The data also highlight the difficulties in securing sufficient internal participation, particularly in the absence of suitable incentive mechanisms, and the relatively high cost in resources required to ensure that all relevant input and views are gathered and included (see also 5.7).

Full attendance[47] can also, according to the data from interviews, be used to reinforce in other participants and – later – in potential users of the foresight developed the view of the sponsor's commitment and belief in the FA, thus increasing its credibility and ability to influence.

5.7 Ex-Ante Activities with Key Absentees

5.7.1   Description

Despite the best efforts, it may be difficult to ensure that all those who should participate and be engaged in a FA, can actually attend.

When the contribution of certain departments or individuals is critical, it may be necessary to solicit their input outside of the FA. Such solicitations, when they do take place, are mostly carried out *after* the FA, generally through meetings or e-mails where the outcomes from the FA are presented and comments are solicited.

The contributions that can be thusly obtained are essentially reactive: the individuals are asked to *react* to the outcome - either agreeing with it and possibly providing further details, or disagreeing. The inclusion of such contributions often absorbs a significant amount of time and resources and can be problematic, particularly in the case of disagreements.

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[47] From relevant departments and teams of course – "*I mean, you don't need to invite also Accounts and IT*"

5.7.2   Direct Observations from Case

- There were some groups whose input was quite important, but who had not been able to make it to the FA workshops.

- Getting the views and inputs from those departments who had not participated in the workshop afterwards was extremely time consuming.

- Furthermore, those departments could then only react to the output and could not really contribute or influence it.

5.7.3   Feedback and Quotes from Interviewees

There is a general agreement from interviewees on the benefits and desirability of ex-ante engagement and input gathering from key invitees who are unable to attend the main FA, although they also point out the potential difficulties:

"Absolutely - a pre-workshop, a mini workshop, even if it is one hour during one of their team meetings would be better than nothing!"

"Well you can do that, but it is quite resource intensive to do that. But there is nothing stopping you from having a telephone conversation beforehand. The main caution there is that it is a lot of work. But how do you know who's coming and who isn't, because many people just don't turn up on the day, or they call you the day before and say they are not coming. So it's really hard to do that. So I kind of semi-agree on that."

"Yes, ok, that [having some form of workshops or similar interactions ahead of the FA] makes a lot of sense. It does presuppose though that you CAN actually have those… 'pre-medial' discussions, doesn't it."

"Agree, 'though it does not have to be a workshop, right? It could be a meeting, or something like that. I would agree, with the caveat that it should be clear we are not going to do this every time for you, it is not an excuse to get out of coming to stuff, stop bringing the culture where you are a special case. Because then people will start saying, we don't need to go to that meeting, she's coming to see us. And obviously then you don't get the interaction and discussion with the wider group, with all the different viewpoints and cross-cutting themes. So short term fix, I agree, but ensuring that it does not worsen the culture longer term."

"Yes, that's a good idea, or even a second session - where you had a big meeting and you have got some provisional output and then you involve people who could not come the first time, you say "part of the work has been done, you are come part way through, can we move forward", yeah.'

5.7.4 Preliminary Observations and Conclusions

Phase 1 highlighted the consequences of having to gather and include *ex post*, in the output, input obtained from key invitees who did not attend the FA, in terms of both having to invest significant resources in order to do so, and affecting negatively the quality of the discussions during the FA and of the work eventually produced.

The data from the interviews also suggest that finding ways to engage with such invitees ahead of the main event, in order for their insight and views to be included in the input for the FA, or even at an intermediate stage while input is still being gathered and included in discussions, would significantly improve the information exchange and thus strengthen the quality of the FA and its outputs.

Carrying this activity ex-ante appears to generate better pay-offs compared to ex-post, as in the latter case absent invitees can only be asked to agree or disagree with the outcome presented, and grafting their comments or further input on the outputs can be challenging – whilst remaining unchallenged.

5.8 Attendance of All Relevant and Affected Parties

5.8.1 Description

Amongst the preliminary activities ahead of a participatory FA workshop is the drafting of invitee lists and the subsequent issuing – and follow-up – of invites. Several texts and manuals mention the importance of ensuring an appropriate range of backgrounds, areas of expertise and views to ensure a rich enough discussion. The credibility of the outcomes from such activities depends also on whether a sufficient number of participants was involved.

In addition to the quality of the discussion, in a highly-politicised context the provenance and affiliation of participants can have a profound impact on relationship and trust building amongst parties, as well as on the ability of the outcome of the FA to be embraced by those affected, and to contribute to the political debate.

5.8.2 Direct Observations from Case

- When deciding whom to invite to the second March workshop, the main focus and emphasis was expertise. Having asked NE's heads of Communities to suggest experts and practitioners to invite, the resulting invitee list was mostly populated by 'friendly' academics and experts that effectively had concerns and objectives very similar to those of NE.

- When the team experienced some difficulties in securing sufficient numbers of participants, and was experiencing time pressure, efforts were focused on inviting individuals that had already

expressed an interest in NE's foresight activities and/or that the team thought could be interested, thus again targeting organisations and individuals that were already positively disposed towards NE and their activities.

- During the discussions at both the March 31 and September workshops, on several occasions participants noted/commented that it would have been difficult to pursue certain options because of the opposition of certain parties who were not there, while other options could not be fully explored as it was unclear how some other organisations would have behaved/reacted and whether or not they would have complied.

- During discussions in the context of the roadmapping stage, the Futures team agreed that it would have been good to have representatives of those organisations who would be asked to contribute/participate/align, although this was not pursued.

- In a statement in April 2012, upon scrapping the 50-year vision for England's Uplands contained in the Vital Uplands document, NE said: *"Our [Uplands] vision has never been accepted by everyone that we need to work with to make it happen. We have decided we should signal a clear move away from a document which has been interpreted by some as a Natural England policy statement."* [48] Many of these parties had not been involved in the Vision and Roadmapping discussions and workshops.

5.8.3   Feedback and Quotes from Interviewees

All interviews agreed on the relevance of this point, with the majority ranking its importance as 'very high'. Several pointed to the need for diversity in views and input in order to ensure the quality and credibility of the outputs.

"Very important, otherwise the output becomes biased towards those that have turned up."

"My sense of this is, we ought to be able to say that our strategy has fully taken into account our understanding of other interests that will be affected by, and those interests do feel that we understand their perspectives on this."

"You really need a cross section, and this [only inviting friends/allies/people aligned, avoiding the troublemakers] is done so often isn't it, so you may suggest to invite all the environmental NGOs and not have the CLAs and the NFU in the room, because you know there may be some interesting (!) conversations."

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[48] http://www.shootinguk.co.uk/news/natural-england-scraps-50-year-vision-for-englands-uplands-24402

"Yes, outside of the usual suspects… Well it is all part of the same thing that you can't solve a problem in the framework it was created. So yeah, it is how you break out of it isn't it."

"Yes, yes, absolutely. And that would include people outside of government as well. Because otherwise you get a very closed view, you may have people from different departments and different roles within departments but unless you have an external perspective it get very incestuous."

"And managing who comes to the FA, is really important, although you [as the organizer] often don't get much saying over that as you say, somebody else decides who's coming along, and there isn't much that you can say about that, you can maybe suggest people, suggest that you want some external people and that you will find them and bring them along. […] Otherwise you get group thinking, and you can use different methods and techniques, you can expand the thinking a bit but if you have effectively a closed shop, it is difficult to do."

"See, it is the issue of representativeness, which starts to become really, really important in that process design, because you can't represent them all, particularly as actually the way the policy is going is empowering local communities, and small groups within these communities to do things, you can't have them all in the room can you? […] So you will always have that representation issue, so the issue then is what is sufficient, how do you identify and agree."

"So in theory yes, that would be ideal, that would be nirvana, all relevant parties, but in practice, thinking a little more pragmatically, maximizing the representation more than participation."

Several of the interviewees also stressed the strategic importance of extending participation to and engaging potential opponents as a way to build relationships and trust and to ensure support and buy-in.

"And to be honest the Upland Futures report showed all of that in spades […] it got shot down in flames by the NFU, partly strategically and politically in my view, but partly because actually they weren't nailed into what was the output of each of the workshops as they went along, because actually far too junior people were involved. And they weren't engaged early enough in the, you know, "you've got a clear interest in this, you are a clear party, and therefore we'd like you to help us design it so that the right things come out". I mean, co-opting people, so that they are inside the tent, rather than outside."

"I mean, it is obviously right, and again for me it feeds into a long leading time, where you build the alliances and the understanding so that people feel happy to come along, that they are not just going to be sniped at because of the great crested newt or something like that."

"Because the worse thing you can do is miss them out of that workshop, because they'll get to know about it, they'll just feel it's not for them. And there are really good examples of that. So the NEWP that DEFRA produced back in 2011, you know, they didn't have enough conversations with the farming lobby. The farming lobby basically didn't input into it, and then basically put out the scathing PR that it had nothing to do with farming and they were not going to try and deliver it. So just from this early conversations and workshops you can just derail the thing down the line."

5.8.4   Preliminary Observations and Conclusions

Based on the evidence from the case and the interviews, limiting participation in policy-oriented and policy-supporting participatory FA – even unwittingly – only to neutral and sympathetic/aligned individuals and organisations appears to reduce significantly the scope and depth of the discussions, and can lead to group-thinking. As a result, it can critically affect the quality and credibility of the outcomes and recommendations generated, and the likelihood they would be embraced by those organisations that were not 'around the table' – as well as further straining relationships with them.

5.9 Engagement of Senior Management – Internal

5.9.1   Description

Engagement and participation in a FA involves costs – financial as well as in man-hours – that departments and organisations must typically justify to senior management; invitees may be concerned that their participation will be perceived in a negative way by their direct managers as a waste of time, and that they would receive no credit for their effort.

In addition, the organisational culture in the civil service is relatively risk adverse; participants from this sector may be hesitant to fully engage and be willing to play along and contribute to the different activities and tasks in a FA, unless there is a clear expression from top management that it is permissible and actually encouraged.

Given that organisations tend to take their cue from senior management, it becomes important for the success of a FA that they are perceived as on board, actively engaged in the FA, and willing to stand behind its outcomes.

The attitude of the leading organisation's senior management is also likely to be picked up by, and influence, other organisations and parties in terms of their own view of, and behaviour towards, the FA and its outcomes.

5.9.2   Direct Observations from Case

- On several occasions the conversations and comments made by members of the NE team led the Researcher to the impression that senior management at NE was not completely on board, to the point that one of the team member described dealing with them as "*a bit like swimming upstream – every time!*" This impression was later confirmed during interviews.

- Team members often complained of the limited engagement and interest from heads of Communities of Practice, and of the lukewarm backing of the project from leadership[49].

- On several occasions, members of the team expressed their feeling that top management was not willing to stand up to critics and support the team and their results in the event of difficulties, and expressed their frustration. A few months later, the difficulties and opposition encountered by one of their published proposals led the board to have it, in the words of one of the interviewees, "*rejected, removed, and publicly denied*." "*It was deeply offensive to quite a lot of the staff who'd been asked to [work on] it. I mean, I am actually surprised we did not lose more staff because of that*", he added.

5.9.3   Feedback and Quotes from Interviewees

All interviewees agreed on the importance of commitment, engagement and involvement of senior management, and saw it as a condition for ensuring that individuals from the leading organisation would actually attend and contribute to the FA.

They also indicated that the their attendance to all or at least key parts of the FA would both reassure internal participants of their approval and improve their understanding of the issue and buy-in in outcomes that they would have contributed to.

Most agreed on the positive impact that such involvement can have on the image and credibility of the FA in the eyes of other organisations.

> "*I don't think that half of the people in the organisation understood what we were doing! […] There were not enough 'believers' at the board level and they were not confident enough, I don't think…*"
>
> "*Yes, in fact I think that the whole thing needs to be framed and seem to be supported by whoever your ultimate client is.*"

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[49] In a document detailing the SEF team Delivery Agreement for 2009/10, amongst risks were listed "*Senior Leadership do not understand purpose and added value that CST [Chief Scientist Team]+SEF bring to NE leading to lack of support for team*" and "*Failure in securing engagement and understanding of our work from colleagues across NE*"

"I think it is vital. And I think also if you can get them in the room it's even better, because so many times I have seen things bought and run with, by, you know, a chief exec or a director in an organisation, because they are actually there in the discussion. […] And yes, having their support beforehand, their endorsement, their support through it, yeah absolutely. "

"I have seen examples of chief exec being in discussions, where … so, green infrastructure work, in NE, struggling really hard to get the buy-in on that, you know the chief exec was there, presentation, little workshop around it, and suddenly it kicked on. So it is really important, it is really important. Because then they are part of it."

"So you normally work within the policy and all the rest of it but this is thinking differently and as you well know thinking differently isn't generally encouraged in the civil service so it is a bit more than that. So you need that, you actually need them [the top management] to say, no not to say but to demonstrate *by being part of at least one session, that it is perfectly acceptable to make these inputs in these sessions, in other words it is a safe environment and it does not mean to say that you can not go back to your day job and do normal stuff. But if you don't have that, most people won't say anything."*

"Yes, yes, definitely. And as I said before, having these people turn up, preferably not just to show up and say 'this is a good thing to do' but also participate in some of the activities, this is the most powerful thing you can have because it shows that it is OK to do these slightly off the wall things, this silly discussions and activities, because if you say 'yes it is fine' and then you walk away and I'll see you at lunchtime, it is not quite the same!"

"Absolutely, exactly… A mandate, as a mandate - I think beyond the idea of leadership, the 'we are all in this together', but actually there is a mandate, you HAVE to do it, it actually matters in hierarchies, and a strong mandate says, 'directors are expected to be involved in this, and then their performances and appraisals on the basis of whether they have met these expectations'."

"Also as a message for outside, absolutely, because of the kudos, the kudos you get by their buying-in."

"Yeah, there are a number of things under this one. I think, you know, all boils down to how strategic and forward thinking you want to be as an organisation."

5.9.4   Preliminary Observations and Conclusions

Senior management and board participation of the organisation leading or sponsoring the Foresight project to the FA itself, the data suggest, can significantly improve their understanding of the issues and subsequent ownership, and likelihood of use, of the output and outcomes of the FA.

The data support the view that their presence and engagement in the FA is also effective at sending important messages both internally to their own organisation, in terms of their 'approval' of, and interest in, the FA, and externally to other organisations, in terms of their belief in its activities and willingness to stand behind it.   The evidence from the case appears to confirm the view that the 'internal' message helps ensure that internal participants (and those being asked to contribute) see such activities as allowed and encouraged as well as actually valued, while the 'external' message reinforces the credibility and weight of the FA's outcomes amongst external organisations - as one of the interviewees put it, *"why would they [external organisations] believe in something our own board doesn't*?"

5.10   Engagement of Senior Management – External Organisations

5.10.1 Description

The availability and contribution of invitees and participants from external organisations is likely to be influenced by the position and attitude that their superiors have with regards to both the leading organisation and the FA itself, particularly so in conditions of limited resources –financial as well as human – and in the case of divisive and contentious topics at the centre of the FA.

5.10.2 Direct Observations from Case

-    Invites to workshops and other attempts at information and engagement were limited to 'same level' experts and representatives.

-    Several of the invitees who declined mentioned lack of travel budget and conflicting priorities from their jobs. Overall, the impression – based on both written and oral responses – was that their superiors were not necessarily aware of the FA and/or of its purposes, and saw it purely in terms of its demands on their resources' time.

-    When asked for further contributions or feedback, several participants declined by citing their difficulties in persuading their superiors to allow them to spend extra time on such 'external' activities.

5.10.3 Feedback and Quotes from Interviewees

Interviewees generally agreed on the usefulness of engaging other organisations – both partners and more easily aligned organisations, as well as less friendly and potentially obstreperous ones – at the senior management/board level.

"If engagement is limited to junior/same level individuals and representatives, then you get a lot of "can't spend a lot of time on this as my boss would be upset", while if the boss has been involved and

has given his blessing, then you don't have that issue. In order to get that engagement, clarify what is in it for them, what to expect: saying to them, 'if you or one of your people come to this thing, you have a better understanding of what everyone else is saying, and you have the opportunity to have your voice heard and to contribute to what we are doing. And you have a better understanding of how other people react to your idea, without it actually being public, it just gets captured as themes and issues and responses'."

"Absolutely, but you also have to be a little bit careful that you don't stray into the territory of lobbying [...] It is just something to be aware of and if you are in the private sector, it is not a question at all, but when you are in the civil service, yeah…"

"No I think that's absolutely right, information and involvement of leaders in other departments and agencies… I completely agree and what is really important in terms of making that happen is that you can talk about what it is you are talking about, the process, in terms of what is relevant to this people."

"And actually understanding your stakeholders… It goes beyond expectations, you need to speak in relevant terms, make it relevant to them. I think that becomes absolutely critical"

"Yes, but harder to manage of course. [...] I guess it depends on the situation, to be honest with you. And some people may find it odd that you are asking them, and at the same time asking their director or boss at the same time… I don't know. I think it [its usefulness] depends on the situation, completely."

5.10.4 Preliminary Observations and Conclusions

An early investment aimed at informing and engaging senior management in external organisations helps to ensure that a sufficient number of external invitees are allowed to participate and provide follow-up contribution, thus leading to more successful running of the FA and better quality output. It also appears to lead to greater ability of the output to inform and shape the political debate, as it helps in securing understanding and support from the top levels of such organisations.

To this end, data suggest highlighting and explaining the advantages in participation, such as the opportunity to be involved and shape – or at least inform – the development of proposed solutions that can influence policymaking, learning, exposure and publicity, and networking, are more likely to succeed in such endeavour.

5.11 Involvement of Participants from the Legislative/Executive

5.11.1 Description

Politicians generally have in-depth knowledge of the intricacies of the policymaking process, which is far from being completely transparent, and are aware of sensitive issues and potential difficulties that may not be common knowledge.

At the same time, they may only have limited or partial information concerning complex subjects on which they nevertheless are called to develop policies.

In addition, government changes – particularly when they see a change in the ruling party and/or majority - are often followed by changes in policy directions, especially concerning highly sensitive issues and topics where the different parties' positions are strongly polarised.

Finally, organisations and parties involved in the implementation of any proposed action are more likely to feel committed to solutions they have been consulted about and involved in developing.

5.11.2 Direct Observations from Case

- The Researcher observed at several points that the discussions and ideas put forth were becoming quite idealistic and utopian and were not fully considering the opposition and resistance that certain options/proposals were likely to encounter from some parties and/or constituencies].

- During the second workshop, one of the participants said "*I really wish [an MP he had been discussing with] was here, he should really listen to this, it would make it so much easier!*"

- Several times, particularly during the activities surrounding the third set of workshops which increasingly focused on implementation and planning, it was mentioned and agreed by members of the Scenario team that "*we really need to get these people [DEFRA and others involved in policymaking and implementation] around the [workshop] table if we want it to really happen*", although only at a very late stage in the project a small number of participants from DEFRA attended some parts of the last workshop, and at no stage were any MPs/ politicians involved.

5.11.3 Feedback and Quotes from Interviewees

This point was relatively contentious, and opinions were divided. Some of the interviewees saw advantages, although they were quick to point out the practical difficulties.

"Yes, yes; but not really easy in our political culture, is it? I mean, I am not sure how allowed we would be to do that."

> *"We are not very good at cross-party approaches, are we. But I can see the point."*
>
> *"It potentially can hinder… But also they can reality check, don't they? I mean I think … and also the other thing about departmental representation is, they are not the Ministers, so they are civil servants who will be there even if the government changes its colour. So no, I would definitely have them in."*
>
> *"The whole process would need to be carefully managed and there are pros and cons which need to be taken into account. So again, potentially ideal state, but how you make it work, pragmatically, is the question."*

For those who were favourable, a key issue was whom it was appropriate to invite; and they felt it was a choice that should be driven both by position and role, and by mental attitude.

> *"Well that's the question isn't it! Yeah I mean it is sometimes if you know how to have someone who is a little bit more … well I should not use this word, but a little more forward-thinking, a bit more strategic in the way they think… but then again you may be accused of cherry-picking… but I think you have to have departments around, because what is the point in doing futures if you are not going to try to influence the government at the time of the importance of them? Surely climate change would have never have [been considered] if they didn't have some departmental people in those early conversations way back? I don't know, it would seem to be very important to me. The trouble is getting, you know, which departments, which parts of government do you want in a room, because you can't cover it all. And sometimes those you think aren't important, are [instead] extremely important."*
>
> *"Rather than politicians, those who are actually developing the policy."*
>
> *"I think they may be good for raising the profile of things, but for me it would be those people who are the senior people in policy [senior civil servants], who've got to implement it and see it through delivery, who are the key people you'd want or something, rather than your minister there for 10 minutes saying 'oh this is a wonderful thing!'."*
>
> *"Well then if you can have one MP, then yes, I think you'd be fine, but if you start to have more then it switches to be a party political discussion and not a civil service impartial discussion. So yes, if you have one MP who is particularly interested then you'd be probably fine…"*

A key worry for those who raised concerns about potential risks was how such participation would affect the nature of the discussion and interaction amongst attendees.

> *"I don't think it would help, because … I mean you could say it would help because you would have someone with a different perspective, but actually the whole approach to any issue to anyone who is an MP is completely different from that of a civil servant, and I have never had, other than the head of the department or someone like that, and then …"*
>
> *"I don't think it would work because civil servants learn to be apolitical, and if you then bring political perspectives in, even opposing political perspectives, which discussion are you going to have? Are you going to have the political one or the apolitical one? And if it get to the political one, it is very uncomfortable and difficult for civil servants to participate, so I would probably do them separately"*
>
> *"I have seen events where that happens, and it completely changes the dynamics, so you'd have to be really clear why you'd want to do that, and what value it would bring; so I am not saying you should or you shouldn't, but the question is why and in what circumstances would you do that, and I can see why you would and why you wouldn't, so…"*

Interviewees also mentioned the need for managing expectations in order to avoid backlash, as well as for using judgment when deciding whether and when, that is at what point of the process and of the project, it may be useful to involve politicians and policymakers.

> *"So you should ask, why should we bother to have a politician there, because they are not going to listen to this and go "right, so this is what the policy should look like", because this is not the way it is going to work. But at the same time you may want to politically have them there, because you want to show them [the participants] that someone is listening and someone is waiting for their answer, but you have to be clear that it is not going to be <u>there and then</u> that policy is going to be made. So it is about managing expectations on both sides."*
>
> *"Understanding the context and how the issue is evolving and when the right time to involve the politicians is and in what way to involve them is probably a more sensible and pragmatic way of dealing with this, than saying simply 'we should have politicians involved in these things'. It again is a matter of where/when it is relevant and timely to do so."*

5.11.4 Preliminary Observations and Conclusions

The evidence from the case suggests that the lack of participation from the executive and the legislative arms of the public sector affects the quality of the FA outputs, as they may fail to take into consideration certain difficulties or obstacles, as well as their potential translation into policies and their implementation, as those responsible for developing and/or carrying out policies or directives may not necessarily be willing to 'buy into' solutions they have not contributed to.

Phase 2 data support the view that FA which include participants from key departments and executive bodies are more effective in informing and influencing the policymaking discussion, as said participants are likely to be involved in such discussions and can bring the information they have gained.

Data also suggest involving representatives of the executive bodies and departments ultimately called to deliver any proposed outcome can ensure greater stability and resilience of the policy despite changes in governments.

Nevertheless, data also show how such an involvement can be fraught with difficulties and potential pitfalls, as it may alter the dynamics of the discussions – thus the quality of the outcomes – as well as the expectation of participants – thus their attitude towards the outcomes and their reaction to such outcomes' impact (or lack of) on any subsequent policymaking – and, finally, implementation.

5.12 Use of Preliminary Communication

5.12.1 Description

As individuals' participation in foresight activities is typically in addition to their everyday job and responsibilities, the time they have available for the actual exercise as well as for any connected activities is generally very limited. Consequently, organisers of participatory FAs find themselves under significant pressure to keep the length of such events as short as possible, and must use the available time as efficiently as feasible.

In order for the FA to be executed properly, a number of preliminary activities must be completed, including ensuring that all participants are familiar or at least have some understanding of the methodologies and approaches used, are aware of the objectives of the exercise, and have accessed the relevant information required to carry out the various exercises. Some of these activities can be carried out through the use of preliminary communications with participants ahead of the FA.

In addition to providing information, it is also possible to use preliminary communications in order to solicit information *from* participants, which can then be used as input for some of the activities in the FA itself.

5.12.2 Direct Observations from Case

- Participants received copies of the scenarios that had been developed, but were not solicited for information ahead of the workshop.

- It took quite some time to explain the FA, more than the anticipated 15 minutes that had been allocated to this in the day's agenda, and it slowed things down at the beginning.

- One of the facilitators later said that "*a couple of people who were at Reading on the 5th commented that they found it hard to come up to speed with what we were presenting and what we wanted from them*" and that maybe we were "*pushing them too hard or too quickly.*"[50]

- Some participants tried to 'force' some specific view/point during the activities; the Researcher's impression was that they were doing so as they were concerned that such info/input would not be considered otherwise.

5.12.3 Feedback and Quotes from Interviewees

All interviewees agreed on the usefulness and importance of preliminary communication and engagement with participants.

"Top importance."

"It can help, certainly to explain what the event is going to be and what's behind it, to reassure people, and yes if you have got some supporting information that would help get them ready and prepared to have a conversation, absolutely, as far as it is not too leading! And get them thinking. People turn up at the event having been on the train, they'll be reading papers beforehand, so yeah, very wise."

"And also to make sure that people know before they come what this activity is about, that it is not a civil service standard review-type discussion, meeting, is something different, so that they are not made uncomfortable once they arrive."

"Yeah, yeah, I would also say, give them some assurance that it is a useful thing for them to get involved with, so again if you just say, we are going to suck your brain dry and leave you as a dried husk, or even worse we are not really interested in what you have to say we are just doing it for show, so having something there that actually is about how they would be expected to play into and what they should expect afterwards." [GK]

"I certainly would never start with a blank slate!"

On allowing people to express their concerns ahead:

"But that is also just part of the 'give yourself time to do that' investment, isn't it, and give them time to do their investment."

"Yes that's right, absolutely, and there are various techniques for enabling people to get their issue out on the table, so you do it and then you can move on. You do need quite a strong facilitator to

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[50] Email JC dated March 24th

manage to do that, but yes you do need to do that otherwise they'll see everything through the glasses of that issue, so you need to give them the chance to put that issue on the table, state it and all the rest of it, and then go on; and asking for their input ahead and presenting it can be a good, you know, a good way for that."

"Sometimes they won't be comfortable in stating straight away what their concern is, you may have asked what their main concern is but they may not have stated it, and they still got this thing around their neck and not bring it forward, but yes, and you can be quite explicit and say, if you have knowledge, concerns about this subject but you want to bring to this session, then to do so this is a template for how to do it."

"Yes exactly, absolutely; and again, hugely valuable ambition, hugely variable in its execution. Some people will throw themselves at it, and you will get back essays, and some people will do nothing at all, they will read the papers en route to the meeting if you are lucky."

"And that gives you quite a lot of valuable stuff to start with, then you can bring it to a meeting and say look, we've had an initial look, you'd want to ask people 'do you want to add, to change' when you get to the meeting but it gives you a starting point, these are the issues we think we need to discuss this is how they interact – I think this is really important because it gives you the whole side of it, otherwise 'our issue today is local fisheries, well we are going to look at planting trees'!"

5.12.4 Preliminary Observations and Conclusions

Evidence from both Phases supports the proposition that judicious use of preliminary communications with participants can improve the efficiency of the FA and the quality of the discussions, and thus of the output.

To the extent it is feasible and reasonable, completing some of the information sharing/gathering activities ahead of the FA itself through such communications appears to help making the time spent in plenary activities as productive as possible. Conversely, the absence or low level of such preliminary information exchanges has appeared to affect negatively the efficiency of the FA and the quality of its discussions, as well as the experience of participants.

The use of preliminary communications to solicit information from invitees appears effective in ensuring that the content of the FA is relevant for those attending as well as appropriate for the issue considered, and as a result participants are more likely to engage, positively affecting the quality of the output.

5.13 Use of Engaging Media for Communication

5.13.1 Description

Solicitation and circulation of information plays a key role in Participatory foresight activities (see also other points in this chapter and especially 5.2, 5.3, 5.12 and 5.14).

The majority of these communications, particularly in the public sector, are done using the written word as a medium – even when in electronic format, via emails or web pages. This type of communication is typically cheap and relatively fast to produce. The time required for its absorption and, when requested, response, however, can be quite significant for the recipient, and therefore can act as a deterrent – in other words, put people off.

On the other hand, other media – such as video, art, interactive software and computer applications, etc. – can make communication easier, more efficient and effective, and thus more likely to actually happen, although they do require a higher upfront investment in time and resources.

5.13.2 Direct Observations from Case

- During the first two workshops the team used videos to present key aspects of the Scenarios and the Visions, and participants remarked how useful/effective they found it.

- Few participants admitted to actually having read the written material that had been circulated (summary of scenarios, etc.).

- The team gave up on gathering feedback and comments on preliminary outcome of workshop by email as it would have taken too long both to solicit the feedback and then to integrate it.

5.13.3 Feedback and Quotes from Interviewees

Interviewees were all in agreement on the importance of avoiding circulation of large information amounts presented exclusively in "*memo-style*"[51] written form, and on the efficacy[52] of alternative media.

"You can also get people in the right mind-set much more quickly. I remember one where as part of the invitation you got a short novel, and you read a story, which had a sort of personal interest – if it was well written, that you wanted to read, and subliminally you were collecting all the stuff that were around that issue… and if it is well written you end up inferring also a lot of things that are not necessarily written down but are hinted at, implied, you can get a feeling of the context, of the atmosphere, because you got in there somehow, so I would agree that those films were very effective

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[51] *"I mean, you see the attachment to the invitation, and your eyes glaze over."*

[52] Expressed also as the likelihood of the information being accessed/responded to

and people responded very well to them and they were quite impressed by the production quality – it HAS to be good quality though or people are not sucked in, no point in doing a home video!"

"I think so. You know, I think it's how you want to play it, really. I mean yes, video are good, anything that avoids long powerpoints [presentations], with lots of words, is also a good idea."

"And also everything that, you know, workshops can be quite dull, so anything that lights up a bit, is a good idea."

"Oh God yes, absolutely, and it is a very dense transmission of information that you are transmitting, there is the direct information and then there is all the substrate things that you are reading in that video without even realizing… […] yeah, and cartoons, cartoon drawings are always a good way because you can do things in cartoons that you can't do in ordinary ways and you can say things explicitly because of the nature of cartoons, so I found them quite helpful."

"Goodness gracious, absolutely, yeah yeah yeah, been there…"

"Yeah, anything that is not death by paper, or hundreds of words, …"

"You know, with clever use of that kind of tool I think is better than just sending an email 'these are the key trends', whatever they are, or 'go off and do your own bit of research' and hope someone does."

There were also several positive reactions to the idea of soliciting, and giving participants the opportunity to offer, feedback using online formats.

"Oh email, paper, is hopeless, isn't it. Whereas if you had it as a blog with comments, or as a video, that would have been quite good, because it's so much easier, no?, and you can look at all the comments at one time"

"Yes I mean there must be so much you could do, in terms of, well you know I am not tech savvy, but you know, use the web and stuff to get post-workshop feedback and further input. I mean, how many review sheets have you put out there, that don't get filled in? Or you have asked people to individually contribute, and you don't get it. But if you can provide something that can be quickly done on a hand held [device] on the train, as you are travelling home, then… And with online blog-type things, you can respond quickly, and it does not take too much time, yes I think you are going to get it back [the required feedback]. But if you ask for a lot back, I think you [your request] are just getting buried, and people won't feel like…"

"Sure sure, no I think that's right, you know we were doing this stuff seven years ago, and the social media stuff was not really kicking off then, and so doing it now for the new ages if you like, in a much more engaged way using a whole range of different tools, of techniques, would <u>really</u> help …"

5.13.4 Preliminary Observations and Conclusions

Evidence from both Phases supports the view that the exclusive use of standard written communication as the means and format when providing and requesting information leads to a less efficient use of the time during the actual event, as participants are less likely to read information circulated ahead in that format, and thus longer needs to be spent to inform them, and to a potentially lower quality of final output, as participants are less inclined to provide feedback if the format and media involved appear time consuming and cumbersome.

Evidence also points to the fact that more interactive, engaging, and easily accessible means of conveying information are likely to be more successful (in terms of information actually being accessed) and time efficient.

5.14   Circulation of Intermediate Output

5.14.1 Description

Following a FA workshop, the raw output from the activities is then typically further elaborated by facilitators and other people involved in the FA process to allow the resulting information, views, ideas, risks, concerns etc., to be combined into an aggregated format, suitable for the desired use. The raw output is thus analysed, digested, and elaborated to produce the final outcome and possible recommendations. During all such activities further insight into any problems, difficulties, missing elements, internal inconsistencies and contradictions that may exist will emerge, that were not noticed and addressed during the FA. This is not an uncommon situation, due to the fact that often activities are carried out in small groups and it is not always possible, given the time constraints, to go in detail over the output generated by each group as it is discussed during plenary sessions.

It is also possible that errors may be present, either because the wrong information was provided by mistake or because they were wrongly recorded.

The raw and/or intermediate output can be circulated to participants post-workshop for their review and, if necessary, to solicit their help in resolving inconsistencies or filling any gaps that may have emerged.

5.14.2 Direct Observations from Case

Due to the situation with DEFRA, NE was very concerned and somewhat nervous about upsetting DEFRA by appearing to overstep their mandate and to assume a role that had not been sanctioned. The Team decided not to circulate the preliminary output of either of the workshops to the participants afterwards.

Two incidents were noted:

- During the work following the second workshop, the team reached an impasse when trying to combine the results of one of the activities from different groups. In particular, one specific aspect concerning potential public investment policy in one area had been developed by three tables in directions that were different – and relatively incompatible. Since it had been decided not to engage participants with follow-up contacts, the team chose one of the groups' output over the others. As someone in the team noted, "*OK but this is what we [NE's Futures team] would do, not sure how the others [the other participants, both NE and external] would feel about that.*"

- The output became very much a NE product, using their taxonomy and vocabulary, articulated around their organisation and structure, and tailored to NE's purposes of support to internal strategy and planning. So, when it was eventually circulated, it was very much "*NE's baby*". This, combined to the lack of ongoing engagement and communication with external participants, contributed to a less-than-friendly reception by some of the parties affected by some of the output from the FA, which was perceived as Natural England imposing their views and telling people what to do.

5.14.3 Feedback and Quotes from Interviewees

Interviewees agreed on the importance of follow-up communication with participants aimed at requesting feedback on and reviews of preliminary output to ensure quality in the outcome as well as a way to maintain their attention and involvement, and see it as an "ideal" practice. They stressed however the importance of confidentiality and considerate timing when dealing with potentially sensitive issues and topics.

 "*I put this as co-creating the final output, means you continue the dialogue through the intermediate output, so I would again give it a very high importance, otherwise people just come to the workshop and then forget it.*"

> *"Oh yes, I think so, I think that then in that case, because you keep them involved, you know, they'll feel they are involved in the project. Because they can comment at that kind of draft stage before it moves on. So I can see worth in that. They may not respond though!"*
>
> *"Yes absolutely, of course you have to do it, it's just how you do it, and again that's what I learned, you can do it formally, sending copies out with 'draft' all over it, but very often the better way to do it, to actually get feedback, is to have a conversation with somebody, and you take along a copy and you talk about it […] But yes, [that would be] very time and resource intensive."*
>
> *"You have to be careful about the timing of what you say and when you say it, but again ideally you would circulate and seek input from people around the intermediate output, yeah, very much."*

About circulating it and getting comments online:

> *"So that's another use for blog-type media, where you can say – and limited to the people who were there – you have to work out the right way and tools to do that, password, capped length, but I can see that's a useful thing to do, because it's a step towards saying, we've got CHR on one hand, but on the other we want to get the key messages out"*
>
> *"That's very good for the fact checking side of things, but it isn't very good in understanding whether what you have started to produce, how that will be received by people outside of the group of people who participated. And that's one of the difficulties."*

One interviewee underlined the importance to extend the circulation to outsiders:

> *"You have a group there who have been doing this for three months or something like that, you feel quite comfortable with [what has been produced] than when they started to work, and then when it goes out to someone who has not been involved, they pick at something that is potentially controversial, potentially difficult, and is really valuable to be able to get some kind of early feedback from people outside even if you have to do it informally, and then a) you can identify things that are controversial that are not expected, and b) you can also get a feedback from people that are going to make use of it, that this is not really useful for them, that there is something missing, that it duplicates whatever happens to be – you have to do that"*

5.14.4 Preliminary Observations and Conclusions

The data suggest that soliciting feedback on the intermediate output of the FA from participants after the FA can improve the quality of the results, as it allows both to identify and correct any mistakes, and can reinforce buy-in, as it helps to maintain the interest and engagement of participants.

The data from interviews highlight also the difficulties in actually obtaining such feedback, and point to the need for appropriate formats for requesting and collecting feedback (see also 5.13).

Other data from interviews indicate that there could be advantages in soliciting feedback and comments from people who had not been involved/participated (although see 5.7 for invitees whose input would be required for the FA), as well as from potential users (also refer to 5.16 with regards to communications with Client).

5.15   Clear Client Mandate from the Outset

5.15.1 Description

In the public sector, FAs are generally commissioned by potential Clients to the team – whether internal or external to the Client itself – with the necessary expertise. It is not uncommon for the Client, particularly when there is no in-house foresight expertise, to have only a superficial familiarity and understanding of foresight methodologies, their characteristics, resources and time requirements, and types of outputs.

Furthermore, the issues and questions central to the FA, and the format – or formats – that can be most appropriately used to present the outputs of the FA, depends on the ultimate purpose and objectives of the FA itself, and on who the final audience would be.

5.15.2 Direct Observations from Case

- The original client for the Futures team's visioning work had been the Board of NE itself; however following changes in the political climate first and then the election, DEFRA and ultimately the government became the ultimate clients, although there had not been an actual mandate.

- The morale of the team was affected by the "*slap on the wrist*" (in the words of an interviewee) received, and there was a lot of uncertainty midway in the project on what exactly we were doing and for whom, or whether it would actually be used – in an internal document, a member identified "*rapidly changing expectations from the business*"[53] as one of the challenged faced.

- Significant efforts had then to be made to retroactively 'fit' the work that had been done by the Futures team with the activities and works that were being carried out by DEFRA in the context of the NEWP.

- According to the Specialist, it was only once the outcomes and results from the roadmapping and windtunnelling work had been further elaborated and re-framed in terms of a SWOT

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[53] Document "Refreshed Delivery Agreement Priorities" August 2010

analysis that they had become relevant for NE's Board and thus able to inform and influence their strategic thinking.

5.15.3 Feedback and Quotes from Interviewees

"Yes, that is really, really important.

I have been in situations where it has been pretty general, you know, and there have not been a lot of details on what's happened, but I think it is just courteous to do that, actually. If you expect someone to turn up and do work, they'll want to know what it's for, how it is going to be used, where it is going to be shared, is it going to get public. It is really important, especially in government circles."

"Well depending on the length of the project, one of the things that happen is that things change, so whoever is running the department, maybe you get a reshuffle and then he's gone, so you have to have a clear mandate, you have to be able to fit back if necessary and, so yes, yes but with a 'but'."

"You have to give them both, so you have to make sure that they have got what they said they wanted, but if as you develop it, it becomes clear that it is not the most useful thing for them to have in order to make use of it, then you need to provide that [the alternative] as well."

"I mean, this is absolutely critical."

"I mean we have it all the time, with commissioning stuff from our specialists; we start off with something, every [Client] says 'can you do XYZ', we all go 'right OK', then people start thinking 'well so what is it that they actually wanted?'. So it has to be a two-way, you know, we have learned the hard way on that, and it is really critical for us now, you know, futures work and everything else, yes you want a clear mandate but you've got to do it through a two way discussion."

"There is this whole thing about being an informed client, isn't it, and how many times we have started stuff to be told 'we are not really an informed client, we don't actually know what we are asking for' and then you don't get the right output. So spending time doing that, the clear mandate, and I think for me it's almost like, you would want to write a business case of why you would want to do it, because that really makes you think about what you want to do, how much it's going to cost, your options. And I think we must be a lot more savvy about that. And I think we've got to be, because the cash isn't there."

5.15.4 Preliminary Observations and Conclusions

Data from both Phase 1 and 2 point to the fact that a clear understanding of the Client's needs and a clear mandate from the client from the very beginning of a foresight exercise can ensures that the

final product fits the Client's actual needs and uses, and that the necessary resources, participation, etc. are easier to obtain.

Interviews highlight how ongoing dialogue with the Client with regards to their needs and objectives – given that these may evolve during the life of the foresight project – helps ensure that outputs and conclusions from the exercise will actually be used, by identifying any necessary changes and adjustments in the FA process and/or product (see also 5.16 below).

5.16   Ongoing Updates and Communications with Client

5.16.1 Description

Following the initial discussions and mandate with the Client, a Foresight project typically lasts several months before the final outcomes and conclusions can be presented to the Client and final users. During the various phases of preliminary data gathering and event organisation, and even more after the FA as outputs are combined and further elaborated, feedback is sought from participants and occasionally outsiders, and drafts of the outcome are produced, it is possible that interesting and occasionally unexpected information emerges that it could be appropriate to bring to the attention of the Client.

Furthermore, given the length of the process and the many demands on the time and attention of organisations in the public sector and civil service, it may easily happen that the Client's interest in the FA wanes or is anyway affected.

In addition, as mentioned in 5.15 above, changes in the political context and in circumstances may alter the Client needs and requirements, as well as their attitudes towards the topics and issues considered.

Finally, the outcome emerging from the FA may touch upon sensitive subjects, or otherwise appear to be heading in directions that the Client may have difficulties accepting.

Once the final outcome is out, it is mostly up to the Client to use it and 'sell' it to other potential users, ensuring it is included in the political debate.

5.16.2 Direct Observations from Case

- There were no regular updates, linked to the fact that there was not significant support or interest from the original Client (NE's board of directors) beyond the internal strategy planning/budget requirement; this did not change once DEFRA became somehow the final Client, not least since there had not been an actual mandate from them originally.

- The Futures team benefited from the Specialist's eventual inclusion in the DEFRA group working on the NEWP, so that from that moment it was possible for the team to have a better understanding of what needs, in the context of the NEWP, their work – current and to be planned – could support; however the absence of a mandate and a clear and direct dialogue meant that the team spent significant time and efforts attempting to second-guess what format and content exactly would be most useful and effective to inform the NEWP discussions.

- One of the main reasons for inviting DEFRA to the workshop in September was the desire to use their participation and engagement as a way to help "*get them to buy into the Vision*."[54]

- The Specialist mentioned that some of the suggestions that had emerged from the team's roadmapping work had been "*just ignored and brushed aside*" as inconsistent with some of the emerging policy directions, and that "*there just wasn't the time at that point*"[55] to explain and ask to reconsider.

5.16.3 Feedback and Quotes from Interviewees

Interviewees broadly agreed with the importance of implementing ongoing updates and communications with the Client, and saw the Client involvement in the final product as having several potential benefits, including ensuring that the client is "*on board*" and that the final product continues to be relevant and is able to fulfil the Client's needs.

A few however also pointed at possible practical difficulties, mostly related to limited available time – or interest – on the Client's side.

"This is the issue about co-creation – if the ultimate client is genuinely interested in this, they are going to have to be part of the process in saying what this is at the end, they haven't made a commissioned process saying 'show me the fairy when it comes out'!"

"I would add, 'and constantly renewed and review' – I mean not every week, but if it is important enough over the project's life there ought to be points when this is reflected upon – reminding them what they have agreed to, basically!"

"I think, absolutely, yes, but it depends on what level of involvement the client wants. You can't bombard them with stuff, but there may be times when you want to share something and check it back with them, but I think you need to manage how you are doing that. Don't get them every single draft report, but at a certain point as you said you may want to check back and especially if they are coming from one specific area of expertise."

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[54] Notes from meeting on June 24th, 2010

[55] Researcher's notes from meeting

> *"Yes, that proportion [of clients only wanting the final product] is quite high, to be honest with you; but you've got to ask that person, or that organisation, what involvement they want to have. But you can make that offer at the end, can't you? You can say, 'OK, so, we've got to this point, we are thinking of putting together a subgroup to develop this further, are you interested in joining us?'. That's a possibility. Or 'If you are really involved in helping us develop this, give us your details, and we'll bring you in more, otherwise we'll show you the draft report for your comments.'"*

> *"Yes, it would [help], but again what I found was that people who commission work didn't necessarily have the time to look at everything on an intermediate basis, and even if they did they'd just look at it and say 'carry on', you wouldn't get any useful feedback so it depends on who's commissioned it really and what surprise we are talking about."*

> *"I think, I mean often I think we don't think far enough ahead about we need to do some handholding, to help people use this stuff, you know you produce it and 'here you go' and 'oh that's nice' but then they may say 'I want to use it for X', but you know that could kick up all another load of work, about how they take that output and then link it to the business practice, or corporate plan or whatever it is that they need to do."*

5.16.4 Preliminary Observations and Conclusions

Data support the view that involving the Client at key points of the Foresight process, and particularly ahead of the delivery of the final version of the outcomes, can help promoting acceptance and buy-in from the Client as well as actual use of the outcome by the Client and/or other final users.

Data from the interviews suggest however that there is variance in the actual ability and willingness of Clients of FA to be thusly involved, and points to the need for careful evaluation by the organisers about the opportunity, modalities, and timing of requests for involvement.

6. Conclusions

6.1 Introduction

Section 6.2 further considers the fifteen elements of practice identified in the previous Chapter, and examines whether, and how, they have been addressed by existing literature.

Section 6.3 introduces the contributions that this study offers to existing knowledge concerning current practice of policy-supporting[56] Foresight.

Section 6.4 offers fifteen recommendations for practice, one for each of the points identified in the previous chapter, clarifying both the consequences of their absence and the potential advantages of their implementation, as well as – where appropriate – areas where particular caution should be exercised and assessments should be carried out on a case-by-case basis.

6.2 Elements of Practice

The analysis of the data gathered during Phase 1 and Phase 2, compared and integrated with relevant extant literature, leads the Researcher to the identification of fifteen elements of practice that appear to have a crucial impact on the quality and performance of the outcomes of Foresight activities and exercises, as per the Research Objectives described in section 3.2 above.

Table 6.2.a summarises these fifteen elements, together with an indication for each of the perceived average importance expressed by the interviewees during Phase 2.

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[56] Both informing the debate as well as contributing to its delivery and potentially providing a governance tool.

Item	Importance*	Summary of Preliminary Conclusions
1. Adoption of Chatham House Rule	Very High	Without a clear reassurance that information and opinions shared in the context of public sector participatory FAs will remain anonymous, participants are more likely to self-censure, resulting in a reduced quality of the information circulated, and thus of the outputs of the FA.
2. Facilitators - Number, Skills and Preparation	High	The availability of a sufficient number of skilled and adequately prepared facilitators is crucial to ensure participants' engagement, productive discussion dynamics, and proper note keeping.
3. Facilitators - Neutrality	Very High	Facilitators' impartiality – perceived as well as actual – strongly affect both the quality of the discussions and of the outputs generated by the FA, and its likelihood of being bought into.
4. Consistency of Techniques and Approach	Medium/ Depends	Consistency in approach and formats in the exercises carried out in the FA, as well as for reporting their outcomes, can lead to greater efficiency in such outcomes' collation, comparison and further elaboration. However excessive rigidity in this regard can, in certain occasions, negatively impact the quality of outcomes.
5. Attendance from Leading/Sponsoring Organisation	High	Participation in the FA from all relevant departments and teams of the organisation leading and/or sponsoring the FA is key to the quality of FA discussions and output by ensuring access of necessary insight. It can also reinforce the perception of the sponsor's commitment and belief in the FA, thus increasing the final output's credibility and ability to influence.
6. Ex-Ante Activities with (known) Key Absentees	Medium / High	The engagement of key invitees who are unable to attend the FA but whose contribution is very important can be more efficiently and effectively carried out ahead of the main event, or even at an intermediate stage while input is still being gathered and included in discussions, rather than as an ex-post activity.
7. Attendance of All relevant and Affected Parties	Very High/ Difficult?	Limiting participation to the FA – even unwittingly - only to neutral and sympathetic/aligned parties reduces significantly the scope and depth of the discussions, and can lead to group-thinking, thus critically affecting the quality and credibility of the outcomes and recommendations generated and the likelihood they would be embraced by excluded parties.
8. Engagement of Senior Management – Internal	Very High	Support and participation of the top management from the leading/sponsoring organisation can improve their understanding of the issues and thus ownership, and likelihood of use, of the output and outcomes of the FA. It also encourages internal participation and contribution, as well as increasing the credibility of the generated output vis-à-vis external parties
9. Engagement of Senior Management – External	Medium / High	Early engagement of top management in external organisations can help ensuring external invitees' participation and subsequent contribution, leading to more successful running of the FA and development of better quality output. By securing understanding and support from the top levels of such organisations it can also lead to greater ability of the output to inform and shape the political debate.
10. Involvement of Participants from the Legislative/Executive	Mixed / Caution	Participation from the executive and the legislative arms of the public sector can affect the quality and political acceptability of any outcomes or proposals from the FA as well as the buy-in of those responsible for delivering policies or directives, influencing implementation. Such participants can bring the information and understanding they have gained during the FA to policymaking discussion, thus being more effective in informing and influencing. However any benefits must be evaluated against the risks and difficulties involved.
11. Use of Preliminary Communication	High	Information exchange with participants ahead of the FA can improve its efficiency and the quality of discussions and output.
12. Use of Engaging Media for Communication	Medium / High	Participants are less likely to access information circulated ahead If the format and media used appear time consuming and cumbersome, leading to a less efficient use of the time during the actual event, and are less inclined to provide feedback, lowering quality in final output. Conveying/collecting information using more engaging, faster and easily accessible means can be more successful and resource effective.
13. Circulation of Intermediate Output	Very High / Caution	Soliciting feedback from participants on the intermediate output of the FA after the FA's conclusion can improve the quality of the results and can reinforce buy-in.
14. Clear Client Mandate from the Outset	Very High	A clear mandate from the Client and understanding of their requirements from the very beginning of a foresight exercise can ensure that the final product fits the Client's actual needs and uses, and facilitates access to the resources required.
15. Ongoing Client Updates and Communications	Medium	Client involvement at key points of the Foresight process, particularly ahead of delivering the final version of the outcomes, can help ensure acceptance and buy-in from the Client, as well as actual use of the outcome by the Client and/or other final users.

* From the Interviews

Table 6.2.a - Summary of Elements of Practice

Most elements (, #2, #4, #8, #9, #12, #13) are not explicitly addressed in academic literature concerning Foresight, although they are present in some how-to and best-practice manuals. Although on element #1 Durand (Durand, 2003) does mention the importance of warning participants explicitly that they participate 'as themselves' and not as representatives of the organisation they normally work for/are affiliated with, this is said in the context of Technology Foresight exercises aimed at identifying key technologies, and thus his recommendation is mostly aimed at avoiding biases and 'lobbying' behaviours rather than encouraging openness and candour, while the specific use of the Chatham House Rule is not mentioned.

Some elements may be present in the literature but are not referring to the specific context considered here; for example, on elements #2 and #3, authors such as Georghiou and Keenan (Georghiou and Keenan, 2006) mention that part of the process evaluation should consider whether workshops were "*properly facilitated*", however this consideration only happens in the context of an ex-post evaluation of the process. In the normative literature this component is generally given for granted, while in the limited descriptive literature it is hardly mentioned, as the main focus is on the output.

On the same elements, in the beta version of the Futures Toolkit produced by the Horizon Scanning Programme Team for the UK Government (HSPT, 2017), the recommendation was to "*Use a confident facilitator – This could be you, a colleague or one of the many excellent government and private sector facilitators that work in futures*" – however the first two options do not take into consideration whether those individuals actually do have any facilitation skills, while the issue of neutrality is not addressed. There are suggestions on numbers, for both workshops ("*between 15 and 40*") and participants per table ("*4 to 8*"), although no further indication is given on what should influence the final choice apart from opportunity. The current Futures Toolkit (GOS, 2017) produced for the UK Government Office for Science by Waverley Consultants suggests that an external facilitator should be brought in if there is no internal facilitator or if the latter feels they don't have the skills required, they are not going to be impartial, or if they are perceived to have an interest in a specific outcome. Other manuals for futures-oriented work aimed at civil servants (such as the toolkit for the Department for Transport, developed again by Waverley Consultants) consists mostly in step-by-step descriptions of activities and exercises, with very limited mention of facilitation skills and capabilities requirements. The general underlying message appears to be, "anyone can do it".

Elements #3, #5, and #11 are explicitly discussed in other contexts, such as multiple-stakeholder and consensus building processes and participatory governance models, particularly from the perspective of ensuring that the process is perceived as fair and of building trust (Welsh, 2003, Susskind and Thomas-Larmer, 1999, Hemmati, 2012); this Research highlights the importance of extending them to Foresight processes.

Despite some experts mentioning the importance of engaging "*relevant (and seemingly less relevant) stakeholders … wherever possible, either in the exercise itself or in pre-and post-foresight activities*" (Miles et al., 2008b) , there is no explicit indication of what type of engagement this could/would be, whether/how any resulting input should be integrated, and how their actual participation could be effectively warranted. The data collected during this Research show that any engagement with non-participants, when carried out, tends to happen ex-post and predominantly in communication/information form, while the analysis highlights some of the consequences.

Element #7 is widely mentioned in literature on stakeholder management and wicked problems, but only recently is beginning to appear in Participatory Foresight, and particularly in literature on Regional Foresight (FOREN, Miles, 2002). Miles and colleagues recommend wider inclusion in their Fully Fledged Foresight, although it appears still mostly focused on ensuring access to better/key information (one-way learning) and on networking of key actors, such as in Innovation Technology Foresight (Miles et al., 2002, Miles et al., 2008a); others, such as Havas (Havas et al., 2010), suggest a wider inclusion mostly focused on ensuring access to better information and networking, or on supporting implementation, rather than on the "*social friction*" (Chermack, 2004) important to avoid decision failures. In the wider foresight literature, the inclusion of 'external' participants is seen as a way to avoid/reduce groupthink (van der Heijden, 2011), although the context considered is generally the corporate/private sector.

The involvements of participants from the executive/legislative powers is considered in the report on the insights from the FORLEARN project[57] (Da Costa et al., 2008), and this Research largely supports its findings in terms of both the advantages and the risks and potential pitfalls of involving representatives from the political sphere. It is also seen as a key success factor in the context of PTAs (Bütschi and Nentwich, 2002).

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[57] A project launched and financed by the European Commission's Directorate General with the objective to improve foresight knowledge and practice by fostering the sharing of knowledge and know-how between practitioners, managers, users and other stakeholders of foresight in Europe. It ran from January 2005 to May 2008.

It is worth noting that, looking at the way Foresight is currently carried out in support of policymaking, the roles of Sponsor/Leading organisation and Client/Final user often do not coincide. For example, in the case study, while NE was the Leading organisation for the FA, the Client eventually was (or was hoped to be) DEFRA and ultimately the policymakers. Another frequent occurrence, given the fact that not all public organisations and departments have in-house Futures expertise and capabilities, is that such expertise and capabilities are 'borrowed' from another organisation (as often is the case for the NE Futures team). These considerations have led the Researcher to distinguish between the two roles in #5 and #8, and in #14 and #15.

With regards to a clear mandate and ongoing updates and communications with the Client , Calof and colleagues (Calof and Smith, 2010) do include a "*direct link to senior policy managers*" amongst the key success factors for Foresight programmes, although their narrower context is Technology and Innovation Foresight. Bütschi and Nentwich (Bütschi and Nentwich, 2002) talk generally of "links to the political sphere" as key success factors for PTAs.

In the HSPT Futures Toolkit, communication with the ultimate Client is recommended where possible for the co-design of the workshop in order to "*ensure that their views are built in to ensure the product is wanted*", although it does not extend to ongoing communication and updates concerning the final output. The GOS Futures toolkit recommends that "*anyone who is likely to use the project outputs should be involved in their development if possible*", although it is unclear how this involvement should be achieved.

Table 6.2.b summarises the presence of extant literature for each one of the fifteen elements identified, together with an indication of the type of contribution that the Research proposes to provide.

Element of Practice	Presence in Existing Literature	Type of Contribution
1. Adoption of Chatham House Rule	Not explicitly discussed in academic literature.	Novel
2. Facilitators - Number, Skills and Preparation	Not explicitly discussed in academic literature on Foresight, although there are reference to quality of facilitation as a criteria for evaluation	Add detail
3. Facilitators - Neutrality	Literature on participatory governance and stakeholder management stresses the importance of unbiased and professional facilitators to ensure participants' judgment of a process as fair and their acceptance of its outcomes (Welsh, 2003, Hemmati, 2012). In foresight occasional mentions of independent facilitators is generally aimed at avoiding motivational biases and 'group think'	Application/Context Novel
4. Consistency of Techniques and Approach	Not explicitly discussed in academic literature on Foresight	Novel
5. Attendance from Leading/Sponsoring Organisation	Mentioned in literature on consensus/stakeholder management theories, not explicitly in literature on Foresight	Application/Context Novel
6. Ex-Ante Activities with (known) Key Absentees	Miles and colleagues (Miles et al., 2008b) recommend all relevant stakeholders should be 'engaged whenever possible', although with no explicit mention on what sort of engagement, whether/how to integrate any output, and how their participation could effectively be warranted	Add detail
7. Attendance of All relevant and Affected Parties	Extensively discussed in literature concerning stakeholder management and wicked problems, only recently starting to appear in participatory Foresight. Most 'wider inclusion' mentioned in Foresight appears focused on ensuring access to key information and on supporting implementation through networking and development of a shared vision	Add detail
8. Engagement of Senior Management – Internal	Not explicitly discussed in academic literature on Foresight, generic recommendation in manuals/best practice	Novel
9. Engagement of Senior Management – External	Not explicitly discussed in academic literature on Foresight	Novel
10. Involvement of Participants from the Legislative/Executive	Examined and discussed by Da Costa and colleagues (Da Costa et al., 2008) in their report on the FORLEARN project; indicated as a success factor in PTAs (Bütschi and Nentwich, 2002).	Confirm
11. Use of Preliminary Communication	Discussed in the context of consensus-building as a relationship- and trust-building activity (Susskind and Thomas-Larmer, 1999). Included as generic recommendation/possible step in Foresight manuals/best practice	Add detail
12. Use of Engaging Media for Communication	Not explicitly discussed in academic literature on Foresight	Novel
13. Circulation of Intermediate Output	Not explicitly discussed in academic literature on Foresight, generic recommendation/optional step in manuals/best practice	Novel
14. Clear Client Mandate from the Outset	Not explicitly discussed in academic literature on Foresight, although indicated as success factor in PTAs (Bütschi and Nentwich, 2002); focus on a clearly identified client seen a success factor in Technology and Innovation Foresight (Calof et al., 2010); generic recommendation in manuals/best practice	Add detail/ Application/Context Novel
15. Ongoing Client Updates and Communications	Mostly mentioned in the context of Technology Assessments and Technology Foresight (Calof et al., 2010) and PTAs (Bütschi and Nentwich, 2002)	Add detail/ Application/Context Novel
Legend:		
Confirm	Data matches the literature exactly or very closely	
Reject	Data opposes the current literature	
Add detail	Data brings extra understanding to a construct already in the literature	
Novel	Data brings something new to the topic that is not in any literature	
Application/ Context Novel	Data brings something that is new to the literature on FA but can be observed in wider literature on other topics	

Table 6.2.b - Extant Literature on Identified Elements of Practice

During the data analysis, as described in 3.3.4, the Researcher had explored how each one of the fifteen elements of practice identified could affect the quality and/or the use and performance of FA outcomes. This analysis, building on and integrating the literature on the issues and obstacles encountered by Foresight in policymaking (section 2.5.6) and on the

criteria for the evaluation of Foresight (section 2.5.7), led to the identification of ten areas of impact directly affecting the quality and performance of FA outcomes, as well as three areas that mostly affect the practical feasibility and management of the FA and as such are necessary, although clearly not sufficient, and should not be overlooked.

For example, there is a general agreement in the existing literature on Foresight that the overall quality of the final outcome is affected by the quality of the process (FA Quality) (Miles et al., 2008b), that the uptake will depend on the relevance, acceptability, and accessibility (Outcome Usefulness and Use) (Andersen and Rasmussen, 2014, Jacobs et al., 2005), and that the actual impact of the FA outcomes are dependent on Buy-in (Hanney et al., 2001, Miles et al., 2008b).

Other areas of impact, such as Trust/Relationship Building, or the ability of the FA outcome to weather the political environment (Resilience of Outcome), are not explicitly mentioned in the literature on Foresight reviewed, although their relevance and significance emerge both from analysis of the data and from a review of other relevant literature.

These thirteen areas are summarised in Table 6.2.c. Like the criteria described in Table , these areas too, although distinct, are mutually influencing and reinforcing – particularly when considering that Foresight exercises, like policymaking, can and should be regarded as an ongoing cycle rather than a one-off activity, so that earlier 'rounds' will affect future ones.

Availability of Resources	In terms of time, human and financial resources made available; a sort of pre-condition, not sufficient but necessary
Efficient use of Resources	Crucial, particularly when availability is limited to start with
FA Appeal for Participants	Very important as external participation is typically voluntary
FA Quality	In terms of quality of the process and of its management
FA Credibility/ Reputation	External perception of quality of process and management
Outcome Quality	E.g., internal consistency, depth of analysis, understanding of consequences
Outcome Robustness	E.g., breadth of alternatives considered, resilience to possible futures
Outcome Credibility	External perception of validity and 'authority' of results
Buy-in	Ensuring support and commitment
Outcome Usefulness and Use	Encompassing relevance, acceptability, and accessibility
Trust/Relationship Building	Key in new/emerging governance models
Resilience of Outcome	Ability to survive objections and oppositions in political debate
Policy Delivery	As communication, coordination, and management tool

Table 6.2.c - Areas affecting Foresight Quality and Uptake

Each of these areas of impact can also be interpreted as an area of *concern*, i.e*.*, a specific aspect or dimension in the quality or performance of Foresight that practitioners, sponsors, and/or users may wish to improve/strengthen.

Table 6.2.d presents a mapping of each of the fifteen elements of practice (from Table 6.2.b) against the areas of impact/concern (from Table 6.2.c), indicating for each element the areas that it is likely to affect (shown by a coloured cell).

The level of influence that each element of practice can have on specific areas/concerns has been indicated as 'High', 'Light', 'Indirect', or 'Mixed/Depends' based on analysis of the data gathered both during the participant observation and individual interviews.

A 'High' level of influence was recognised in circumstances where links between elements are areas of impact were explicitly and emphatically made during interviews by several respondents, often recalling specific examples and direct experiences (e.g., with reference to the influence of element #7 on Buy-in and on Policy Delivery, one interviewee mentioned "*the debacle of [stakeholder]*" and their "*shooting down*" of the FA outcomes because of the "*failure to [...] properly engage them through participation*"); these comments indicate a

strong relationship between those specific element of practice and area of impact. Therefore any practitioners, sponsors, or users wishing to address a specific concern in quality and/or performance should ensure sufficient attention and resources are directed towards those elements of practice where the relationship with that concern is mapped as 'High', as they are the one that are likely to offer the most 'bang for the buck'.

An influence was categorised as 'Light' when the interviewees indicated an impact as 'potential', 'occasional', generally not as strong as another/the main one. For example, using consistent techniques was indicated by a respondent as something that "*can also help potentially with credibility, you know, easier to present and explain the data, particularly to non initiated!*"

When there is a general consensus from the data that there is an influence, albeit not immediately linked to that specific point – for example by affecting other areas that in turn are connected to that one, or by affecting it in subsequent rounds of foresight – it has been indicated as an 'Indirect' relationship. For example, facilitators' neutrality was pointed as being directly and strongly linked ('High') to trust and relationship building, as it would support the perception of process fairness by participants; it was also suggested it could "*eventually*" (indirectly) help ensuring the resilience of the resulting outcomes as no party would have "*an axe to grind*".

'Mixed/Depends' influences were those where interviewees expressed ambivalence about the final impact and results of the practice, and either saw it as dependent on circumstances and situations, or expressed doubts about practical applications. For example, discussing the involvement of politicians and its impact on trust and relationship building, an interviewee remarked that in a specific situation it can "*show [participants] that someone is interested and listening*" and encourage their engagement, although "*if you give people the wrong impression, […] it can backfire*" in terms of their trust, concluding "*potentially ideal state, but how you make it work, pragmatically, is the question.*"

Impact / Practice

Practice	Availability of Resources	Efficient use of Resources	FA Appeal for Participants	FA Quality	FA Credibility /Reputation	Outcome Quality	Outcome Robustness	Outcome Credibility	Buy-in	Outcome Usefulness and Use	Trust/ Relationship building	Resilience of Outcome	Policy Delivery
1. Adoption of Chatham House Rule			Light	High	Indirect	High	High	Light			Indirect		
2. Number, Quality and Preparation of Facilitators				High	High	High	High	High	Light		Indirect		
3. Neutrality of Facilitators			Light	High	High	High	High	High			High	Indirect	
4. Consistency of Techniques and Approach		High		Mixed	Indirect	Mixed		Light	Indirect	Light	Indirect		
5. Attendance from Leading/ Sponsor Organisation			High	High	High	High	High	High	High	High	Indirect	Light	High
6. Ex-Ante Activities with (known) Key Absentees		High	Light	High	Light	High	Light	Light	High		Indirect	Indirect	Light
7. Attendance of All relevant and Affected Parties			Light	High	High	High	High	High	High	Light	High	High	High
8. Engagement of Senior Management – Internal	High		High	Indirect	High	Light	Light	High	High	High	Indirect	High	High
9. Engagement of Senior Management – External			High	Indirect	Indirect	Indirect	High	High	High	Indirect	High	Indirect	Indirect
10. Participants from the Legislative/ Executive			High	Mixed	High	Mixed			Mixed	High	Mixed	High	Mixed
11. Use of preliminary communication		High	Light	High		High					Indirect		
12. Use of engaging media for Communication		Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect				Indirect
13. Circulation of intermediate output			Indirect	High	High	High	High	High	High		High	Light	Indirect
14. Clear Client mandate from the outset	High	High	Indirect	Indirect	Indirect				High	High		Light	Light
15. Ongoing Client updates and communications									High	High	Light	High	Light

LEGEND: ■ High impact ■ Light impact ■ Indirect impact ■ Mixed/depends

Table 6.2.d - Overview of Key Concepts and Their Impact

6.3 Contribution to Knowledge

The Researcher's contribution consists of three elements:

- The identification of thirteen areas of impact/concern that appear to be currently affecting the ability of Foresight to undertake a more active and effective role in policymaking. These areas relate not only to the quality of the outcome generated by the FA but also to its ability to reach and inform policymaking and to support policy delivery. If an area is negatively affected, it causes a decrease in the quality of the outcome and/or in its effectiveness

- The proposal of fifteen elements of practice concerning the organisation and management of FAs. Each practice, if followed appropriately and taking into consideration the specific circumstances and context of the FA they are applied to as recommended, can positively affect one or more of the identified areas of impact thus improving the quality and effectiveness of the FA's outcome

- A mapping of elements and areas of impact (Table 6.2.d) showing the connection between each element of practice and the various aspects determining quality and effectiveness of the FA's outcome. This map supports practitioners' understanding and evaluation of how any specific element and characteristic of the overall process may affect the overall quality of the outcome and/or its ability to inform and shape the policy debate, as well as the delivery of any resulting policy.

Table 6.2.d can be used to further research, please see 6.6 below on future research concerning how the above findings could be used to further develop theory. The table itself can be used to support the design and management of FA processes, and can be used during discussions with potential Clients to help identify potential pitfalls and their consequences, as well as specific areas of concerns and possible ways to address them.

6.4 Contribution to Practice

6.4.1 Adoption of Chatham House-type Protocols

> **Workshops and other participatory activities during Foresight projects should be carried out under practices and protocols that guarantee the anonymity of participants and/or of their statements, such as the Chatham House Rule.**
>
> **This should be explicitly and unambiguously conveyed to invitees ahead of the FA, and again reiterated at the start of proceedings. It appears useful to clarify at that point the exact and correct meaning of the Rule and its implications on external communications of the outcome of the FA.**

The above recommendation can be expected to have an impact on the quality of both the discussion and the outcome generated, since the concerns of participants would otherwise lead to:

- Less information being shared
- Narrower range of options being considered and discussed
- Lower quality and robustness of outcomes (as not all relevant information is shared)
- Difficulty in attracting participants (as invitees may be concerned about the risks of their views being made public)
- Fewer opportunities for participants to learn from one another, therefore attendance is perceived as less useful; this will likely make attracting participants harder in the longer term.

Conversely, when it is credibly and unambiguously guaranteed to participants that the FA and its proceedings are carried out in a way that can ensure confidentiality and anonymity[58], such participants may be more inclined to say and listen to things that may be in contrast to the official position of their organisation, and may be more open and willing to consider and explore a wider range of options, proposals, and outcomes.

The consequences are symmetrical to those mentioned above: greater sharing of information, improved learning and overall experience, and higher quality of output with a wider range of options explored and more robust proposals generated.

Adopting CHR may also allow FAs to become an opportunity for the different stakeholders to test ideas and views without the risks involved in going public.

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[58] Chatham House describes how the Rule is enforced: "*Chatham House will take disciplinary action against a member or guest who breaks the Rule; this is likely to mean future exclusion from all institute activities including events and conferences. Although such action is rare, the rigorous implementation of the Rule is central to its effectiveness and for Chatham House's reputation as a trusted venue for open and free dialogue*".

6.4.2 Quantity, Quality and Preparation of Facilitators

> **FA should be facilitated by an adequate number of individuals, who should have the necessary skills and who should have been adequately trained and briefed.**
>
> **Such '*adequate number*' and '*necessary skills*' should be agreed, for each FA/project, with someone with experience in facilitating, and it is likely to vary depending on the type of activity, its objectives and desired outputs, and the type of participants.**

The above recommendation can be expected to have an impact on the quality of both the discussion and of the outcome generated, as well as on the overall experience of participants and therefore on their attitude towards the FA and its outcomes afterwards, as it is easier to ensure that:

- All voices are heard, allowing for greater information flow and learning, richer discussions, more robust outcomes with a potentially wider range of options explored, and increased buy-in and ownership by participants. Conversely, not having enough facilitators may lead to not capturing certain views or input, and this may lead to reduced buy-in from participants who are less likely to recognise the output as something they have co-produced if they feel their contribution is missing.

- (All of) the information generated during activities is captured, again contributing to quality and robustness of outcomes.

- Any disruptive behaviours can be avoided/reduced, benefitting the quality of discussions and the flow of information as well as the experience of participants and the resulting reputation of FA organisers.

- Rules are followed, and process mistakes are prevented, again contributing to the quality of outcomes and to the experience of participants as well as increasing the credibility of the final product.

6.4.3 Neutrality of Facilitators

> **Regardless of the organisation leading the FA, Facilitators should be, and should be presented, perceived, and act as impartial and without personal views or agendas that they wish to promote.**

The impact of the above observation is very similar to that of the previous point concerning the number and skills of facilitators, as the perception – or even just the concern – that facilitators may influence the debate and the recording first, and then the elaboration of the views and information produced, can itself be expected to affect the quality of both the discussion and of the outcome generated. It also can have a significant effect on the experience and attitude of participants both during and after the FA:

- As participants are confident that all views and opinions will be heard and included in the discussion, they are more likely to agree to get involved; this encourages a greater flow of information and learning with more ideas being put forth, allowing for better quality of output and a wider range of options being considered.

- The perception that the discussion and process is 'fair' can subsequently lead to greater buy-in and commitment from participants, and to greater trust.

- It becomes easier to involve participants (or their organisation) in follow-up activities (feedback, comments, etc.) and/or in supporting the final outcomes during the political debate.

In certain situations or topics, it may of course be useful to have someone with a level of knowledge about the issue/subject considered, as it may be necessary in order to better manage the discussion and the various activities; however, it is important that such facilitators know how to facilitate without leading and without letting their personal opinions and positions shape the debate and the outcome. Because of that, regardless of how appealing it may seem, asking well-known experts to facilitate and moderate a table on the topic of their expertise may actually end up being counterproductive.

6.4.4   Consistent Techniques and Approach

The preparatory work ahead of a FA should include an agreement on the approach, methodologies and techniques to be adopted by facilitators for managing participants and their contributions, and for recording activities and outputs.

While it may be acceptable, and occasionally opportune, for some of the facilitators to use alternative techniques and facilitation tools to better support participants' engagement and interaction, these should be chosen from a previously agreed upon set, and the format of the output generated should be consistent – to the extent possible – with that of other outputs produced within the same exercise/activity.

Adopting consistent approach, techniques and formats offers several advantages, as well as some potential disadvantages. The decision on the level of consistency and on the stage in the process where it should be enforced needs to take into consideration the particular circumstances of each FA, such as level and provenance of participants, main objectives of the FA, topics considered, resources available, and so on.

- The use of consistent style and techniques by different facilitators to involve and engage participants during the same exercise makes it easier to ensure that all participants and their

views are treated in the same way; this can reinforce the perception of 'fairness' and neutrality of facilitators, as participants are given the same opportunities to contribute and object, and they feel that their views are treated in the same way regardless of who they are – or where they sit. At the same time, inflexibility in adapting to a particular difficulty or obstacle may affect and compromise the actual ability of the set of participants to effectively engage and complete the task at hand.

- Using a consistent approach by facilitators in each group of participants for recording the content of the group's discussion during the activity and its output can help ensure that the information shared is considered and treated in a similar way, facilitating the buy-in of participants, who may otherwise question the fairness of the process.

- The use by different facilitators of a consistent format for the output of their respective group makes combining such results easier and more efficient, reducing the time and resources needed. This is particularly true in cases when results from different/repeated FAs need to be combined.

6.4.5 Attendance from the Organisation Leading the FA

Organisers should ensure that all departments from the organisation leading the FA, which have relevant expertise, knowledge and information, may be affected and/or involved in implementation, attend the FA.

The implications from the inclusion and adequate participation of all departments from the leading organisation are:

- More complete information and insight can be accessed, thus contributing to greater learning and a better experience for participants, and better quality of the output generated.

- Greater opportunity for objections or critiques to options and proposals to come from the inside and be addressed before moving the output to the next step or making it public, ensuring greater robustness and less risk of losing face or credibility.

- Greater buy-in from all relevant departments, particularly those who may be involved in the implementation of any policies and/or directives which may be informed and inspired by the results of the FA, as such departments may otherwise not be supportive of the output if they feel their contribution is missing and less likely to be committed to solutions they have not been involved in developing.

- Greater credibility vis-à-vis other organisations that have been invited to engage and collaborate, as they can be reassured that the leading organisation is fully behind it.

Based on the comments offered by the majority of interviewees, a corollary of the above recommendation is:

> **The achievement of greater participation seems likely to require an explicit and credibly communicated change in the way participation and contribution to FAs is evaluated and rewarded during individuals' appraisals.**

6.4.6 Ex-Ante Activities with Key Absentees

> **Key invitees, who would otherwise be absent, should be involved in activities such as smaller-scale workshops, preferably ahead of the main FA; this would ensure their input is captured and included in the main workshop and in its discussions.**

The potential benefits of a preliminary engagement of those key invitees – both internal and external – who have indicated their inability to attend the main FA are likely to impact the quality of both the discussion and of the output, and are similar to those indicated in points 6.4.5 and 6.4.7, concerning quality and robustness of output, better learning for participants, relationship and trust building, greater credibility, and improved buy-in.

While a preliminary engagement would undeniably require additional costs in time and resources, these are likely to be significantly less than those that would be required for the ex-post gathering and integration of input and comments from invitees who were unable to attend.

Again, a change in the way participation and contribution to FA is evaluated and rewarded during individuals' appraisals would significantly facilitate this.

6.4.7 Engagement of All Relevant and Affected Parties

> **Organisers should ensure participation and engagement at the appropriate level of all relevant parties and actors, defined as those who will be involved in, and affected by – particularly in terms of costs, efforts, and/or sacrifices – any potential outcomes and proposed solutions.**

Suitable time should be invested in the identification and engagement of the organisations, representatives, and individuals that should be sitting around the FA table.

As emerged from data analysis, the involvement of all relevant and affected parties considerably affects both the quality of the output and its robustness, as well as its resilience in the political conversation and its likelihood of use and implementation:

- The diversity of views and positions helps to avoid any group thinking, ensuring that not only there is greater information shared, but also that any difficulties are considered and

objections are addressed; this has an impact on the learning experience, on the quality of the output, and on its robustness.

- The involvement of potential opponents in the FA gives them the opportunity to put forth their issues and concerns so they can be addressed as they emerge, ensuring they feel more engaged in the process. This is likely to affect their attitude towards the final output.

- Objections can be raised and alternatives can be sought and evaluated jointly, so that the resulting proposed outputs are more likely to be accepted by the various parties if they have been co-developed even when involving costs or losses.

There are also additional benefits, which although not immediately related to the FA and its outcome, are likely to benefit the overall political discussion and dynamics:

- The inclusion and participation into the FA can be used to foster greater trust and openness, while the improved understanding of other parties' positions, rationales, and concerns can facilitate communications and negotiations.

- Participants who have had a positive experience of inclusion, engagement and outcome co-development are more likely to accept outcomes and act as their champions in the context of their organisation.

6.4.8   Engagement of Senior Management – Internal

Senior management and key decision makers in the organisation leading the FA should be fully engaged and committed to support the FA and its outcomes. This should be made clear and explicit to the rest of the organisation. Their attendance and – when feasible – participation to the FA should be a priority.

If necessary, the leading team should invest sufficient time to ensure this ahead of the start of the FA process.

Ensuring that senior management is clearly committed and actively engaged in the FA can have the following benefits:

- It can be easier for the team leading the FA to obtain resources in the appropriate amount and quality, reducing the time that needs to be devoted to this and potentially contributing to the quality of output.

- The reassurance of the senior management's approval and support for the FA can encourage internal participation and contribution, again affecting the level of information sharing and learning, the overall experience of participants, and the quality of the produced output as a wider range of options are explored and tested.

- Senior management is also more likely to support and stand behind any proposed solutions/outcomes, as their presence would help strengthen their own understanding and commitment to the outcomes. This would increase the chances that such proposals could go through the whole policymaking debate and process.

- The morale amongst those involved in leading and managing the FA would be positively affected, likely to impact the quality of their work.

- The FA would benefit from a stronger reputation and external image, and would have greater credibility, facilitating the interest and engagement of other organisations.

The implications of the influence on attitude of other organizations are linked to those described in 6.4.7 and 6.4.9 below. Again, a change in the way participation and contribution to FA is evaluated and rewarded during individuals' appraisals would be a way to indicate the seriousness of senior management's commitment.

6.4.9   Engagement of Senior Management – External Organisations

Efforts should be made, ahead of the FA, aimed at informing and engaging senior management in organisations external to the one leading and/or sponsoring the FA.

The benefits and advantages of such engagement should be presented and clarified, ensuring at the same time that expectations are managed.

The potential advantages of an early engagement of senior management in external organisations, particularly those which may not be immediately close – in terms of positions and interests (see also 6.4.7) – to the leading organisation, are likely to contribute both to the quality of the FA process and outcome, and to its actual use:

- External invitees are more likely to accept and attend the FA, and participants are more likely to devote time both ahead of and subsequent to the FA, knowing that their involvement and contribution has been sanctioned and is considered positively by their own organisation; apart from reducing the time spent trying to convince invitees to attend, this can facilitate securing valuable input, ensuring a positive learning experience for all participants, supporting the production of better quality output, and helping ensure process legitimacy and results credibility.

- A potentially less defensive attitude of such external organisations towards the FA and its outcomes, together with greater buy-in and commitment to what are perceived to be jointly-reached conclusions, means that relevant parties are more likely to support and stand behind proposed solutions/output, giving them greater weight and credibility in the

political debate, as well as being more likely to agree and actively contribute to their implementation.

6.4.10 Involvement of Participants from the Legislative/Executive

> **The team managing the FA should evaluate the opportunity, the manner, and the extent to which participants from the interested legislative and/or executive branches could and should be involved and invited to the FA.**
>
> **This evaluation should take into consideration the specific circumstances of the FA, the objectives of such involvement, and the personality and characteristics of the individuals considered.**

Inviting participants from the legislative and/or executive areas of the public sector can have a number of advantages – in terms of quality of outcome, but also and especially in terms of their likelihood of contributing to the policy debate and being implemented.

- Improve confidence and motivation – Their presence can lend credibility to the seriousness of the policymakers' interest in the outcomes of the FA, and thus reassure participants of the relevance of what they are doing. This can in turn result in greater willingness of participants to engage, get involved and contribute, benefitting the quality of the outcomes and their credibility.

- Improve politicians/executives' understanding of issues and their appreciation of areas of possible resistance and opposition, and of dissenting views, especially if they are also involved in discussions about possible solutions; participating politicians/civil servants could also act as 'champions', 'selling' any proposed solutions back to their department/party/constituency/committee, which could engender greater buy-in and commitment, as well as support for eventual implementation.

- Include consideration of possible political and executive stumbling blocks in the conversation – this allows for objections to be raised, and for alternatives to be sought and evaluated together, potentially resulting in proposed solutions that are more robust, more likely to be considered by policymakers and to be successfully implemented.

- In the event of projects carried on under a bi-partisan banner, the presence of representatives from both government and opposition, and their participation in the FA discussion, could help to ensure that any resulting proposed solution is acceptable for both parties, and as such more likely to survive any changes in government that may occur during delivery.

Nevertheless, occasionally the presence of representatives can affect negatively the dynamics in the FA debates and conversations, and/or create expectations in terms of the ability of the FA results to influence the political debate that, if not met, may generate a fall-out or be perceived as a breach of trust.

As a result, it appears important and necessary to consider, case by case, the opportunity for such involvement, assessing and evaluating the potential risks and balancing against the potential advantages mentioned above, as well as the most appropriate timing and modalities, while participants' expectations should be carefully managed from the outset.

6.4.11 Use of Preliminary Communication

Information concerning the topics to be discussed, the approach and tools used in the FA, and the objectives and uses of its outcomes should be provided to participants ahead of the FA itself.

This preliminary engagement should also be used to solicit information from the participants themselves, concerning the topics and issues to be discussed, and any concerns they may have.

In addition to the advantages of early engagement mentioned in 6.4.8 and 6.4.9, particularly in the case of participants from external organisations that are non-aligned, preliminary communication with participants aimed at both providing and soliciting information can have the following advantages:

- More efficient use of the time available for the FA – by reducing the time required at the beginning of the activities in order to introduce the event and bring everyone up to speed ensuring they are on the same ground, more time is available for the proper exercises and discussions, which can typically be expected to translate into less rushed and better quality outcomes, as well as in a better experience for participants.

- More relevant input and content of the FA – receiving additional information from participants ahead of the FA event not only allows to further enrich the input and information to be provided during the event itself beyond what had already been gathered by the organisers, but also can ensure the relevance to participants of the issues and topics considered and addressed. This in turn can contribute to better quality discussions and thus outputs, a better experience with more engaged participants, and greater buy-in and commitment.

- Greater openness and engagement of participants – allowing participants the opportunity to express and see recognised their input, and to get specific views and/or concerns 'off their

chest', can help them feel less defensive and more open to other views. This benefits discussions and thus output quality as well as commitment.

Nevertheless, this tool should not be abused, and it is important not to drown invitees in information (especially if unedited), in order to avoid a backlash whereby the result is actually to deter access to said information. So sufficient time should go in the selection and editing of preliminary information sent to participants.

The information should also take the format and use the media that are – within the available budget – the most appropriate and both effective and efficient based on content, audience, and purpose – see below.

6.4.12 Use of Engaging Media for Communication

Preliminary activities ahead of the FA should include the investment in and development of suitable formats and media for the soliciting and communication of information to and from participants.

While using written standard communication – whether printed or, more often, electronic and/or online – has the advantage of being generally faster and relatively cheaper to produce than other methods, and can somehow give the perception of being more impartial and credible, it often requires a significant amount of time on the recipient's side for its ingestion and digestion.

Furthermore, the need to receive feedback from participants (see 6.4.13) may remain frustrated if they find this to be relatively onerous in terms of their time and effort for both producing and delivering it.

The choice for the appropriate format and media should aim at getting the 'most bang for your bucks' in terms of both efficiency and effectiveness with regards to its access and assimilation, where the efficiency relates to the time and effort required by the recipient to absorb – or communicate – the information, while the effectiveness refers to the amount of relevant information that the format and media are able to convey, and the ability to reach the desired effect.

This acts, in a sense, as an enabler of both 6.4.11 and 6.4.13, so the benefits are the same as those listed there.

6.4.13 Circulation of Intermediate Output

The combined output generated from the various activities of the FA should be circulated and/or made available to participants at various stages of its progress, in order to allow them to review,

comment on and refine their input, as well as to react to any corrections, comments and additional input offered by other participants.

The combination and elaboration of the output from the various groups and activities involved in a FA is typically an iterative process that would benefit from ongoing reviews and feedback from the participants.

In the event participants are not involved in the resolution of any issues, inconsistencies or gaps in the combined output post-FA, facilitators and/or FA experts have to take on themselves the responsibility of coming up with solutions and alternatives. Iterations and amends may eventually alter the output from how it appeared at the end of the FA. The ensuing risk is that participants do not recognise the final output as their own work; they may feel that their input and contribution has been ignored, and that their trust has been breached (see also 6.4.3 above).

The providing, gathering, and recording of said information, views and ideas can also be subject to mistakes and human error, both from the participants and from the facilitators' side. If such mistakes are not identified and removed or corrected before the final output reaches its final form, the quality and credibility – not just of the single FA and its output, but potentially of the organisation leading or sponsoring it and of future FA efforts – can be compromised.

Finally, the time occurring between the FA and the publication of its final output is generally quite lengthy, easily ranging from a few months to even years. Things may happen, and views may change. Without ongoing communications from FA team and opportunity for updates and amends, not only are participants likely to feel less engaged in and committed to the output and conclusions from the FA, but the output and conclusions themselves run the risk of being out of date.

In summary, the lack of circulation of intermediate output to participants has an impact on both the quality of the outcome generated and on the level of buy-in and commitment from participants:

- Mistakes and inconsistencies are not spotted, decreasing the quality of the output and making it less resilient.
- Participants have no opportunity to refine and/or update their input and to add further value, resulting in lower quality.
- Chances of participants 'disowning' the final output increase.
- Engagement of participants is reduced, together with commitment and buy-in from parties involved.
- Credibility is reduced.
- Trust may be compromised, with the risk of further alienation of some organisations, which would then make them more difficult to involve in further discussions.

- Attracting participants to subsequent FA may become more difficult.

The circulation and communication of output at its preliminary and intermediate stages to participants can help counteract and reverse the negative impacts listed above. There are some areas of risk and potential concern, such as a possible increase in costs and timing due to a greater use of resources for solicitation and integration of feedback and comments, and breaches of confidentiality. The use of suitable technology can help overcome some of these concerns, such as the use of password-protected access and disabled forwarding capabilities for electronic documents. Furthermore, experiences in other contexts[59] suggest that the use of online tools can promote greater engagement and sense of ownership of the outcome in participants, and actually reduce the use of resources required (see also 6.4.12 above).

6.4.14 Clear Client Mandate from the Outset

> **The team managing the FA should have a clear mandate from the final Client from the outset, clarifying how the output would be used – what context, by whom, at what levels, to what purpose – as well as agreeing on what format(s) it should take and how and to whom it would be communicated and distributed – or published.**

The team tasked with organising and leading a foresight project should engage with the Client in a proper dialogue to ensure that there is a full understanding from both sides about the objectives and purposes of the project itself and its uses, as well as an agreement on budget, scope, resources requirement, and format.

This is particularly important when the Client is not very familiar with Foresight methodologies and products, so that the conversation may clarify what the actual needs are beyond what the initial request may have indicated, and expectations are managed. The potential benefits include:

- More efficient use of resources and more effective outputs – a greater clarity on scope and objectives can help ensure that the (inevitably limited) resources are better deployed and that the output's content and format are appropriate for the Client's needs and purposes.
- Greater resilience and effectiveness of outputs – with a stronger commitment from the Client towards the FA and its outputs, the resulting outcomes and proposals are more likely to make their way to – if not through – the policy debate and inform it.
- Better relationship with the Client, so that it becomes easier to establish ongoing communications (see 6.4.15) and possibly further engage the Client in co-creating the final outcomes.

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[59] Such as the online forums used by the World Economic Forum to elicit feedback and comments from member organisations in some of its projects.

In addition, greater certainty and clarity concerning the project and its support by the Client can ensure improved morale and motivation in the team managing the FA, which in turn translates in better quality process and better experience for participants.

6.4.15 Ongoing Updates to Client

> **The team leading the FA should aim to provide the Client with ongoing updates and communicate any major and/or unexpected developments and meaningful intermediate outputs. This needs to be tempered by considerations about confidentiality, sensitivity, and risks of misinterpretations or misunderstanding, particularly in case of leaks, as well as by the availability and receptiveness of the Client.**

Carrying out ongoing updates to the Client and communicating major developments and unexpected – and possibly unwelcome – surprises can help deliver a final product that is more likely to be useful as well as actually used.

- Useful – given the length of time that typically occurs between the time a Foresight initiative is commissioned and the delivery of the results, it is normal for circumstances (both at the macro, STEEP level, and at more micro level) to change, and with them potentially also the needs, the scope, or the uses of the original Foresight. Ongoing communication can help ensure that the FA and its outcomes – both in topic of analysis and format - can continue to be fit for use.

- Actually used – The purpose and objective of Foresight is to deliver quality insight and to inform the policymaking debate, rather than to provide the Client with agreeable alternative (future) facts that may suit the Client's current agenda or manifesto. However, an unpleasant message is more likely to be listened to, rather than being brushed aside and ignored, if the Client has had the opportunity to be prepared, and possibly involved in its production. This last point can also contribute to greater support and commitment to any recommendations or proposals stemming from the final product of the FA.

Of course, this point presumes the existence of some level of access and the possibility of a dialogue with the Client. While not all Clients may be able or willing to offer a high degree of involvement during the life of the foresight exercise they commissioned, a serious attempt should be made at the beginning of the project (see 6.4.14) to negotiate and agree some form of interaction and communication at least at certain stages of the process.

6.5 Findings Evaluation and Limitations

The Research Objective, as stated in Chapter 1, was:

How can Foresight practice be improved, in order to better support Public Policymaking – where 'Foresight practice' encompasses the preparation, execution, and management of Foresight exercises and activities, while the 'support of Public Policymaking' extends from the stimulation and information of the political debate up to the delivery and implementation of the resulting policy directives.

The Researcher believes that the Objective has been met, within the caveats and possible limitations indicated in the Thesis, specifically in Chapter 3 with regards to the research methodology design, choices, and implementation.

In particular, the Research has been carried out and the conclusions have been reached within the very specific context of Foresight activities performed within and for the public sector. While it is the Researcher's view that most of the 15 elements of practice could be applied with positive results outside of the specific context of policymaking, and would be particularly appropriate for complex issues with multiple stakeholders, the Researcher makes no claim that the conclusions reached can be generalized and applied to any foresight[60] activities, while some of the elements (such as no.5 and no.10) are clearly specific to the context set by the Research Objective.

6.6 Further Research

Each of the 13 areas of impact/concern and of the 15 elements of practice is essentially a hypothesis, developed following a Grounded Theory approach, and should be further studied.

In addition, based on the analysis of the data gathered during this Research and of the study of the existing literature, the Researcher believes that further research in the following areas would provide crucial support to the generation of good quality Foresight products (and processes) and its use:

- Institutional and procedural changes to current policymaking structure and organisations to support inclusion of fully participative methodologies
- Ways to better involve politicians and representatives of legislative/executive powers in FAs
- Design and management of fully Participatory processes
- Design of processes for embedding Foresight and supporting policy delivery
- Inclusion of Foresight contribution/participation in performance evaluation.

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[60] Please note the small 'f'.

7. Final Words

As with 'Foresight', the words 'participation' and 'participatory' with regards to FAs have been used over time to indicate a progressively different concept: from simply the characteristics of a process requiring 'live' interaction of several individuals, to the need to include experts from different fields to ensure access to relevant information, to the involvement of main actors and key stakeholders, to an even wider societal engagement (see 2.5.3 and 2.8). This reflects different rationales and objectives for such widening inclusion, which have shifted from process dynamics, to ensuring that the right information is 'in the room', to guaranteeing commitment and coordination for innovation, to supporting successful implementation, widespread social acceptance, and – eventually – more distributed models of governance.

At the same time, the 'future imposed' of normative Foresight is increasingly at odds with the growing mistrust and lack of confidence experienced by the majority of the public/citizenship, while most of the most recent policy models centred on governance highlight the importance of trust, participation, and interaction. Policy networks approach highlights the need for cooperation from the network for implementation, and it requires trust rather than a contract (Rhodes, 2007) as well as greater transparency, as does Reflexive Governance. The core governance mechanisms of trust, relational capital, and relational contracts (Osborne, 2006) are the same that can be found in stakeholder engagement theory. Truly participatory Foresight can play a key role in establishing and reinforcing such mechanisms.

The application of Foresight to tackling wicked problems also would benefit from this more inclusive character, as it would allow the exploration of issues as much in advance as feasible, allowing better assessment of views, interests, and possible actions and reactions of those involved, thus limiting unintended consequences as much as possible.

Nevertheless, the current Research suggests that the potential advantages of using Foresight as a policy instrument, i.e., beyond informing (see 2.5.2), are not currently reaped, and most are 'left on the table'.

"Any engagement with the future is better than no engagement" – this may be valid in the private sector, with foresight exercises typically carried out within an individual organisation; in the political arena however, dealing with politics and wicked problems, it is necessary to tread more carefully. So while it is true that in FA "what matters is the journey, not the destination", the *way* one travels becomes crucial. If the journey is not pleasant – i.e., the process is not managed fairly and properly, engagement is perceived as purely cosmetic, etc. – it will actually backfire, and be not just useless, but counterproductive. This highlights the importance of including procedural justice elements

when designing processes requiring the engagement of diverse and different stakeholders with conflicting interests in complex and contentious issues, as well as the need to carefully manage expectations.

The Research has also highlighted a number of difficulties faced by those tasked with carrying out FAs, linked to the way Foresight is currently considered, understood, and embedded institutionally and procedurally (van Asselt et al., Dreyer and Stang, 2013, Andersen and Rasmussen, 2014, van Asselt et al., 2014), affecting both the quality of outcomes and their inclusion in policymaking. While the cultural and institutional changes required to overcome such obstacles fall outside of the scope of this Research, investments in communication with Clients, Users and participants/stakeholders – both preliminary and ongoing – appear a good place to start.

There is inevitably a higher cost, in terms of both time and resources. What matters is to compare it to the cost of NOT doing Foresight, or – as mentioned – of not doing it properly and actually compounding the issues.

7.1 Foresight ≠ Technology Foresight ≠ foresight

As mentioned above in 2.3.1, the word 'foresight' has been and continues to be used to mean slightly different things. This seems to give the impression that the theory and practice developed in one specific context can be easily transposed to another. However, as Saritas (Saritas, 2013) suggests, in foresight (and Foresight) context matters.

So on one side much of the recent practice – and literature – has been developed in response to demand from the corporate world for step-by-step instructions and handbooks to help private organisations carry out their own futures oriented activities (see 2.3.3). Their adoption in the public sector was encouraged as part of the push towards a 'professionalisation' of the public administration (see 2.4.2.5). Yet, futures activities carried out within a corporate organisation are unlikely to contain the exact same potential for conflicting interests and views as those carried out in the public policy arena, and implementation is likely to be less problematic (though never trivial), while the concepts of trust and social capital are of reduced relevance.

On the other side, Foresight actually started as Technology Foresight (see 2.3.2, 2.5.2 and 2.5.3) and the two are often used interchangeably. However, while both may seek to actively shape and influence the future, their focus is different; discussions about innovation and technological advancement generally are not as politically charged and rife with conflicts as those about wicked issues; and participation, while important in Technology Foresight to encourage networking and coordination, becomes critical in discussions where it can affect perceptions of fairness, legitimacy, and trust.

If Foresight is a socio-political activity (Calof and Smith, 2010) then it appears that the process of FA should also be approached in a politically mindful manner.

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