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Transformational Scenario Planning: Learning from the Mont Fleur Case.

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Contents

Abstract

This thesis explores the practice of transformative scenario planning and its relevance in today's world. Anticipating the future and preparing for uncertainties have always been crucial concern for individuals and organisations. Foresight, as a methodological and systematic approach, helps in anticipating possible futures and increasing resilience to rapid changes. One of the practices within strategic foresight is scenario planning, which involves identifying different plausible realities and analysing the factors that influence them. However, transformative scenario planning goes beyond preparedness and aims to influence change by creating desired or avoiding unwanted futures.

This research aims to explain the differences between scenario planning and transformative scenario planning, highlighting their methodologies from foresight perspective, based on the review of literature by Adam Kahane, Shell scenarios and other relevant authors in the topic. The study focuses on showcasing the transformative scenario planning practice through the Mont Fleur exercise conducted in South Africa in 1991, led by Adam Kahane. His findings on the relevance of transformative scenario planning are examined in the context of the ongoing war between Ukraine and Russia.

The study utilizes qualitative research methods, including a literature review covering books, articles, journals, videos interviews, and organisational websites related to foresight studies, transformative scenario planning, and the Mont Fleur exercise. Key sources include Kahane's and Kees van der Heijden's work on transformative scenario planning, as well as Mats Lindgren and Hans Bandhold's guidebook on scenario planning. Insights from Nick Segal and additional academic articles contribute to gaining a comprehensive perspective on the subject.

The findings of this research aim to shed light on the significance of transformative scenario planning in the present-day context, offering insights into the potential challenges and difficulties associated with its implementation. By examining the Mont Fleur case and comparing it with the current situation in Ukraine, this study aims to demonstrate the relevance and effectiveness of transformative scenario planning in influencing thinking and behaviour towards desired outcomes.

1 Introduction

Anticipating the future has always been a concern for humanity since time immemorial. As individuals, we are constantly intending to make predictions about the future. It is here where foresight finds its foundations. Although it is impossible to predict what will happen for certain when unpredictable factors influence an outcome, foresight has become a methodological and systematic approach that enables to anticipate possible futures helping many organisations increase resilience and adaptability to rapid changes.

There are many practices inside strategic foresight work, one of them being scenario planning. By identifying different realities and analysing how diverse factors might influence those realities, it is possible to make assumptions about how an environment or the future might look like. In general, organisations use scenario planning in a strategic manner to prepare for the future. Shell, the international energy company, is one of the pioneers using scenario work as part of their decision-making process for over 50 years (Shell Global, n.d.). However, there is an aspect of this exercise where the intention goes beyond preparedness and aims to influence change by creating the desired future or avoiding the unwanted future. This practice is known as transformative scenario planning. The author finds it relevant to showcase this practice in the first known use of transformative scenario planning, Mont Fleur in South Africa in 1991.

This paper aims to explain the differences between scenario planning and transformative scenario planning and respective methodologies. After an introduction to scenario planning this thesis will focus on the practice of transformative scenario planning.

Transformative scenario planning is a process that requires teamwork and maximum coordination to be carried out productively. It is most efficient when information is gathered among cross-industries intelligence, including different experts and influencing people. To corroborate the relevance of this practice, the theories proposed by other authors such as Adam Kahane will serve as the fundamental base in this investigation.

Examples of scenario planning and transformative scenario planning will be presented, with a special focus on the transformative scenario planning practice. In particular, the

Mont Fleur exercise will serve as a reference point and case study for this approach. Adam Kahane conducted and documented this experience. His findings will be analysed in light of a present-day situation, namely the ongoing war between Ukraine and Russia. The aim of this work is to highlight the relevance of transformative scenario planning in today's world.

The study will be conducted by reviewing relevant literature, including books, articles, journals, organisations' websites and other papers related to foresight studies, transformative scenario planning and the Mont Fleur transformative scenario. The findings of Adam Kahane regarding the Mont Fleur case, such as when it is relevant to use transformative scenario planning and the conditions that are needed to exist to make this practice successful, will be applied to today's environment by using the war in Ukraine as an example. This research will be conducted with qualitative data. The Mont Fleur exercise will be used as an example of a successful practice of transformative scenarios in the past. This example, contrasted with the situation today, will examine how that transformative scenario planning is relevant today.

At this stage of the investigation, the key sources identified for conducting this research on the topics of foresight studies and transformative scenario planning are those of Kahane and Van der Heijden (2012) and Lindgren and Bandhold (2009). These authors are experienced in applying transformative scenario planning and adaptive scenario planning, respectively. They have overcome the limitations of this practice in real life and have created guidebooks on the subject. In all their experience with scenario planning, one observation is reflected: a key element of the method is influencing a change in thinking and, subsequently, behaviour. Lindgren & Bandhold's guidebook provides a particularly deep understanding of the subject. It will also serve as a source for grasping the key concepts. This thesis also will try to identify challenges and difficulties that might arise when applying the transformative scenario planning activity.

In order to make comparisons with the Mont Fleur case, the work of Nick Segal and Adam Kahane will be essential, as both experienced the process from the inside. In addition, other academic articles will serve to gain a perspective from outside the circle.

1.1 Introduction Background. Presentation of foresight, scenario planning and transformative scenario planning.

The Organisation for Economic Co-operation and Development (OECD) defines strategic foresight as follows: "*Strategic foresight is a structured and systematic way of using ideas about the future to anticipate and better prepare for change. It is about exploring different plausible futures that could arise, and the opportunities and challenges they could present. We then use those ideas to make better decisions and act now*" (OECD, n.d.). Strategic foresight is a continuous process of understanding an often unpredictable world, helping to picture plausible futures, enabling better-informed decisions, discovering opportunities and risks, and helping organisations, businesses, governments, to prepare and adapt for disruptive changes.

Foresight involves the use of different methods such as forecasts, roadmaps, horizon scanning, among others. Scenario planning is a method of foresight, where alternative futures are created based on different assumptions of how specific key drivers might influence a particular system or situation. This approach enables decision-makers to explore different possibilities and prepare for future uncertainties.

Transformative scenario planning also involves identifying and preparing for potential future challenges; however, it focuses on influencing the current situation into a more desirable future state. Collaboration among multiple stakeholders and the development of a shared vision and strategies for change are essential elements of this practice.

2 Literature review

Chermack & Van de Ven (2011), in their book *Scenario Planning in Organizations*, researched the evolution and theoretical foundations of scenario planning and created a structure for assessing their impacts on scenario projects. They discuss that scenario planning is a dynamic and evolving discipline, characterized by a diversity of methodologies and interpretations. This diversity reflects the ongoing development of scenario planning as strategic tool in today's world. They have collected a variety of definitions and intended outcomes of scenario planning activity.

They discuss that scenario planning was pioneered by Herman Kahn, who introduced the concept of "future-now thinking" from researching into new forms of weapons technology at the RAND Corporation replacing later the term screenplay for scenario. Concurrently, organisations like the Stanford Research Institute (SRI) began offering long-range planning services, considering political, economic and research forces as key drivers of business development. Corporate sponsorship of scenario planning began when the Hudson Institute sought support, exposing companies like Shell, Corning, IBM, and General Motors to this approach. Scenario planning extended its uses and applications for the Environmental Protection Agency; Jay Forrester of MIT explored scenario concepts for supply-and-demand chains, among other cases. The authors continue the discussion adding that despite the early success, scenario planning faced a decline in 1980s, attributed to corporate downsizing and oversimplification of its methods, often confusing storytelling with forecasting. However, scenario planning regained relevance, finding applications at national levels and as a tool for community building and dialogue, as seen in the transformation of South Africa at the end of apartheid. (Chermack & Van de Ven, 2011).

In the following subheading there will be explained more about scenario planning and transformative scenario planning respectively. But first, some key concepts are needed to be introduced to better understand what follows.

2.1 Key concepts

In transformative scenario planning, various key concepts are employed to focus practitioners' attention on specific conjunctural elements that are potentially most likely to influence future developments. In creating scenarios, plausible pathways from the present to the imagined future must be charted and explained. The following concepts feature strongly in the scenario planning process.

VUCA: volatile, uncertain, complex and ambiguous world. The world today can be described as VUCA. A world that is constantly changing, hence unstable and unpredictable. With the globalisation and accessibility to resources and information, climate change, fast developments of new technologies, and disruptions on one side of the world can affect the rest at unprecedented speed and greatest magnitude. Consequently, anticipating events or predicting the outcomes is very difficult for organisations that strive to adapt or get ahead of the situations that affect them. Warren Bennis and Burt Nanus invented this term to explain how external factors affect leadership decision processes. (Bennis & Nanus 1986). Later, it was employed by the American military as a response to the changing global landscape following the end of the Cold War, signifying the shift from a bipolar world order to a more unpredictable and multifaceted multilateral environment due to the collapse of the Soviet Union in 1991 (Sinha & Sinha 2020).

Drivers of change: In foresight, drivers are influential elements that affect or have the potential to shape the trajectory of various scenarios or future possibilities. They can be social, economic, political, technological, or other relevant factors. For instance, a governmental policy that provides support or imposes taxation on a specific economic activity, can shape an entire industry within a given country (Stucki 2021).

Trends: Trends in foresight refer to directional forces or patterns that indicate the general trajectory of future developments in various domains, such as social, economic, technological, environmental, political, and cultural aspects. They represent prevailing and observable changes that are expected to significantly impact the future landscape. Trends can grow, weaken, or fluctuate with the time (Kuosa 2020).

Uncertainties: ""is about not knowing for sure". To state this definition somewhat more scientifically: uncertainty is the absence of information and more specifically, the difference between the amount of information required to perform a task and the amount of information already possessed by the organization" (Galbraith 1973, cited in Grote 2009: 12).

Businesses today experience many challenges posed by a rapidly changing environment due to uncertain factors such as emerging competitors, new and digital technologies, market conditions, and deregulation, just to name a few. As one example of how uncertainty can affect any change process, here is some discussion of how such rapid change can influence the supply chain. Dynamic structural changes in the supply chain pose many interesting tasks for successful system organisation. Supply chain members cannot compete as separate units. The merchandise used by the end buyer passes through a number of entities that contributed to the value calculation of the product before its intake. Also, the practices associated with globalisation, such as outsourcing and reduction in supply base, have worsened the uncertainty and risk coverage as well as being more susceptible to supply chain disruption. Prior narrative considers risks in relation to delivery lead time reliability, price uncertainty, and demand volatility which lead to the demand for safety stock, stock pooling strategy, purchase split to suppliers, and several dealmaking and hedging tactics (Tang 2006). Overall, for management practices, it is challenging to adapt strategies and mitigate risks when addressing the complexities, disruptions and uncertainties in today's modern supply chain and business world.

Each crisis causes a sense of grave threat, originating from the potential misfortunes caused by an evolving adverse event or occurrence. Disaster experiences, narratives heard from others, or threats described by scientists may all impact this sense of threat (Rosenthal et al. 1989)

An absence of knowledge about potential outcomes and feasible consequences of an intervention also challenges crisis managers in their attempts to establish a response strategy (Dutton 1986; Quarantelli 1988). Uncertainty constitutes a prominent characteristic in various realms of social and economic domains, particularly in the context of prospective considerations. The level of uncertainty is linked both to the

inherent stochastic nature of phenomena and the subjective standpoint of individuals. The anticipation of future-oriented human endeavours is laden with the incompleteness and volatility of analysed phenomena, accompanied by a lack of continuity. Individuals are incapable of ascertaining the future trajectory of these phenomena with absolute certainty (Magruk 2017).

Courtney, Kirkland and Viguerie (1997) created a framework that links strategic decisions with different levels of uncertainty. They stated that even the most uncertain business environments contain a lot of strategically relevant information. The uncertainty that remains after we have performed the best possible analysis is what they call residual uncertainty. In fact, residual uncertainty faced by most strategic decision-makers falls on one of four general levels:

- Level 1: A clear enough future: Managers can develop a unique prediction of the future that is sufficiently accurate for the growth of the strategy. In other words, residual uncertainty is irrelevant to strategic decision making. At the second level, the future can be defined as one of a few discrete scenarios, or alternate possibilities. Although analysis cannot predict which event will occur, it can assist in establishing probabilities.

- In a common level 2 situation, the value of a strategy is largely determined by the plans of competitors, which cannot yet be observed or predicted. At the third level, a variety of possible futures can be identified. There are only a few crucial variables that define that range. There are no natural discrete situations; if the outcome were predictable, some, if not all, components of the strategy would alter.

- Companies entering new geographic areas or nascent industries frequently experience level 3 uncertainty.

- Finally, at level 4, numerous aspects of uncertainty interact to create an environment that is nearly impossible to anticipate, with a wide range of probable outcomes. Situations at Level 4 are uncommon, yet they do happen. In 1992,

firms considering large-scale investments in post-communist Russia faced level 4 uncertainty (Courtney, Kirklandand, Viguerie 1997).

2.2 Scenario planning

Scenario planning is most effective when it is the result of a team effort, rather than a one-person investigation. Most of the experts that this research has encountered encourage different stakeholders' participation. The use and objective of scenarios, in general, are not limited to helping organisations to enrich or develop a better-informed and uncertainty-proofed strategy. The benefit of this practice also extends on a practical level to policy and decision-makers.

Veteran Shell scenario planner Napier Collyns said in an interview in the Oxford Futures Forum that "*there is no point in doing scenarios unless they make a change in your thinking and a change in your doing. So the key is to get decision makers to expand their point of view and mental maps*" (Sharpe & Heijden 2007). Scenario planning in general does not consist of choosing one of the scenarios and mastering the next steps in the business strategy as a prescription. A strategy should not have a constrained structure, and the same goes for scenarios. They should be nimble and change as the world does.

In an interview for the Mack Institute for Innovation Management, the former Mack research director Paul Schoemaker explained that scenario planning is characterized by its unique approach to problem solving relying on human imagination rather than solely relying on data and logical reasoning. The methodology itself aligns with humans' natural inclination for storytelling and narrative comprehension, as evidenced by the way children are educated by using narratives to convey key lessons (Mack Institute for Innovation Management 2022).

"*Scenario planning is part of a toolbox to help organisations to examine their business, as well as their expectations and beliefs, in order to adapt to emerging conditions. Scenarios are typically defined as stories describing different but equally plausible futures that are developed using methods that systematically gather perceptions about certainties and uncertainties*" (Sharpe & Heijden 2007: 27). Scenario planning, although

linked to the idea, is not forecasting, nor predicting, or envisioning a future. It is an effective tool that helps improve decision-making, mitigates risks, capitalizes on new opportunities and enhances organisational resilience.

The table below shows the difference between scenarios, forecasts and visions.

Table 1. Differences between scenarios, forecasts and visions

Scenarios	*Forecasts*	*Visions*
Possible, plausible futures	Probable futures	Desired future
Uncertainty based	Based on certain relations	Value based
Illustrate risks	Hide risk	Hide risk
Qualitative or quantitative	Quantitative	Usually qualitative
Needed to know what we decide	Needed to dare to decide	Energizing
Rarely used	Daily used	Relatively often used
Strong in medium to long-term perspective and medium to high uncertainties	Strong in short-term perspective and low degree of uncertainty	Functions as triggers for voluntary change

Source: Lindgren & Bandhold (2009: 25-27)

The table highlights the reliance on quantitative data and its associated level of probability on the role of forecasting. If the forecast of the weather is used as an example, it is possible to appreciate that this is a prediction that includes quantitative data. When forecasting and envisioning, the tendency is to hide risks while scenarios illustrate them.

Forecasts are used to make informed decision based on data analysis and statistical modelling on a daily basis.

Visions are qualitative in nature and are used relatively often to trigger voluntary change. When individuals envision a concept or reality, the outcome is linked to the person's desires and requirements. For example, all companies naturally aim to make profit, achieve goals and make history in their field in the upcoming future. Visions serve as a guide to inspire and motivate people towards a specific goal or objective.

Scenarios refer to plausible, possible futures that are based either on qualitative or quantitative data. They are also based on uncertainties. Scenarios can be a strong strategic tool in a medium to long-term perspective and illustrate risks. Hence, the role of scenario planning is of extreme importance when explaining possible and plausible futures based on the uncertainties that are identified during the research phase. As an example, the Russia-Ukraine War and the global COVID-19 pandemic can be qualified as factors of uncertainty in recent times (Stucki, 2022; Brannen & Hicks 2020; Event 201 2019). As stated, the table suggests that scenarios, forecast and visions serve different purposes, and their use differs depending on the context. As visions motivate, inspire and guide action towards a desired future, scenarios and forecasts are often used in businesses and policy contexts to future proof strategies and help make more informed decisions.

2.3 General method

Scenario planning is a thinking process that can be used with foresight to help organisations and individuals anticipate and prepare for potential future changes and challenges. Some of the techniques used in scenario planning include:

1. Environmental scanning, also known as horizon scanning: This involves brainstorming. It is essential to identify and analyse trends, drivers, and signals of change in the external environment that could have an impact on the future. Typically, it is conducted using a variety of data sources, including industry reports, market research studies, academics publications, among others. The purpose of horizon scanning is to

find potential threats and opportunities and adjust the strategy accordingly (Grabtachk 2021). An example of trend would be the social trend in the western world: the ageing of the population. An example of a driver would be the public distrust in a political system (Kuosa 2014).

2. Identifying uncertainties: Uncertainty refers to a state where there is a lack of complete or accurate information about a present or future event. This involves identifying the key uncertainties or factors that could have a significant impact on the future but are currently uncertain or unknown. "*In management literature, uncertainty is understood as a state of imperfect or complete lack of information about a present or future event, and is often divided into three types: foreseen uncertainties, unforeseen uncertainties and chaos*" (Imperial TechForesight 2021)

3. Developing scenarios: This involves creating plausible and internally consistent narratives or stories about how the future might unfold, based on different combinations of uncertainties.

4.Testing scenarios: This involves exploring and testing the assumptions and logic of each scenario through a range of techniques, such as SWOT analysis, Delphi surveys, or stakeholder workshops.

5. Iterative scenario development: By refining the scenarios based on feedback and insights gained from testing and stakeholder input, to ensure that they are credible, relevant, and useful.

6. Developing action plan: This involves developing strategies and actions to build resilience and adaptability to future changes.

2.4 Practice example: Shell scenarios

Shell is a global group of energy and petrochemical companies. They have been using scenario practise as a tool to broaden their horizons, stretching minds, consider long-term changes, and exploring assumptions to aid senior management in decision making.

As part of the lens of scenario series they developed an Energy Security report with two possible scenarios: Archipelagos and Sky 2050. Both scenarios emerge from the tension of meeting immediate energy needs and the agreements signed at the COP26 (26th United Nations Conference on Climate Change from the 1st -12th of November, 2021) in Glasgow, where more than 100 countries voluntary agreed to helping fight global warming.

Sky 2050

Sky 2050 is a normative scenario that assumes society will meet the Paris Agreement on climate change. This legal international treaty aspires to limit the global warming to 1.5°C above pre- industrial levels with the compromise of all nations to make economic and social changes. With the scenario, they play around with assumptions of what they believe is technically possible to occur. This is done assuming that the world will reach net-zero greenhouse emissions by 2050, with a rise limit of average surface temperature of 1.5°C by the end of the century.

Some of the pathway they outline that would be necessary to achieve the goal of the agreement are the adoption of renewable energy sources such as solar and wind. The shift in the global energy system from fossil fuels towards cleaner energy sources requires significant investment in new technology and infrastructure from governments, companies, and international cooperation.

The scenario presents a vision of a more sustainable and equitable global energy system by acknowledging the biggest challenges that it presents such as a tremendous effort, investment and commitment from governments, businesses, and individuals around the world.

Archipelagos

This is an exploratory scenario where they do not assume a final outcome but intend to explore the different paths that determined data can take and its implications for the future.

This scenario presents the possibility of a future where a security mindset dominates and supersedes efforts to manage emissions in favour of energy security. However, this drive for energy security still includes a greater use of a low-carbon technologies. Militarism grows due to the accelerated energy transition resulting in a geopolitical order of power alliances resembling the 19th century world. Countries rush to ensure a stable energy supply and prioritize developing their energy resilience. This results in emissions falling. However, it is still not possible to achieve net zero by 2100 and the global average temperature remains rising. Nations compete for all technological advancements and trading positions with strategic geographies such as India and African and Latin American countries.

Takeaway

Shell values the production of scenarios as a medium to explore long-term challenges and expand the mental maps of management teams.

Scenario planning in foresight requires a rigorous and systematic approach that involves continuous scanning of the external environment, testing and refining scenarios, and developing flexible strategies that can adapt to different potential futures.

Not only Shell, but many other organisations benefit from the scenario planning practice. Developing effective strategies in uncertain environments requires a combination of analytical and intuitive thinking. The analytical thinking involves understanding the environment and analysing data to identify trends and patterns, while intuitive thinking involves envisioning possibilities, imagining scenarios, and creating a vision for the future. In order to be successful, it is paramount to be proactive, flexible, and adaptive in responding to changes in the environment. Furthermore, it is vital foster a culture of experimentation, effective communication, collaboration and risk-taking within organisational structures (Courtney, Kirkland and Viguerie 1997).

2.5 Transformative scenario planning

In a transformative scenario planning process, the front-runners of a specific organisation shape and use stories about what might happen in the world outside their organisation with the purpose of formulating strategies and plans that will allow them to play a part, endure, and prosper in a variety of possible futures. They employ this method to foresee and adjust to futures that they believe are unforeseeable. According to his experiences and recollections, Kahane lists these five steps to follow in transformative scenario planning (Kahane 2012):

1. Bringing together a team from across the entire system.

2. Observing what is currently happening.

3. Building stories about what might take place.

4. Identifying what can and requires to be done

5. Taking action to change the system.

These steps will be explained further in the next section.

Transformative scenario planning takes a step-by-step approach to solving problems from the inside out. The actors' understandings, relationships, and goals, as well as their actions, evolve during the five phases. The transformation spreads from individual leaders to the scenario team, to the companies and sectors they manage, and finally to the greater societal system resulting from this process. They should come from a diverse set of upbringings and standpoints (sectoral, ideological, professional, geographical, and so on, extending beyond the usual participants in such activities to include those with opposing or dissenting viewpoints) that will let them see the incipient system as a whole (Kahane & Heijden 2012).

Adam Kahane stated that transformative scenario planning enables change in complex situations through four key dimensions:

1. Attaining new understanding: The parties involved develop a collective synthesis of their system by crafting scenario stories that depict the current and potential future states. The process offers a fresh perspective, allowing them to perceive their situation and their own roles within it with renewed clarity.

2. Cultivating trusting relationships: Through collaboration within the scenario team, actors enhance their empathy and trust towards one another and across the broader system.

3. Shifting intentions: The transformed understanding and relationship guide the actors' approach to dealing with the evolving dynamics of their situation.

4. Planning alternative actions: The shared understanding of the need for strategize actions that have the potential to drive significant transformation and address challenges in the actor's system (Kahane 2012).

Transformative scenario planning differs from traditional scenario planning in a few ways, including the planning. While traditional scenario planning typically seeks to identify and analyse a range of plausible futures, a transformative scenario seeks to create narratives that are both desirable and feasible, and that can help to mobilize stakeholders around a shared vision for the future. In the case of Mont Fleur, it was mostly narratives with undesirable futures that seemed unstoppable, which has the same effect of mobilisation and creates the need of taking action to prevent it from happening. Transformative scenario planning is often used in complex, rapidly changing systems of contexts where the future is highly uncertain and traditional forecasting and planning methods may be insufficient.

2.6 General method

Based on the experience of Kahane, the process of transformative scenario planning typically involves the following steps:

1. Organize a team from across the whole system: By bringing together people from different backgrounds and that have some influence on the system, it is possible to analyse a situation from different perspectives and have an impact on the system. They should concord that transformational scenario planning is an emergent process that aims to form relationships, understandings, intentions, and actions to address a problematic situation. One of the biggest challenges, on which the success of the process relies, is to form this team of committed, insightful and influential people. It is very important to engage a diverse range of stakeholders, including those who are typically excluded or marginalized, in the scenario development process.

2. Observation of the present reality: It is paramount to create a safe and productive space and dynamic for the discussion to flow. The process of observing has three phases: diverging, emerging, and converging. The diverging phase involves examining what is happening in and around the system from as different perspectives as possible. The emerging phase focuses on separating the noise from what is really important, by taking the time to talk and think through all the information being discussed. The third phase involves drawing conclusions and setting steps of what to do next. It is crucial to develop a shared understanding by examining the situation from multiples perspectives and letting go own established views.

3. Co-creating scenarios: This involves collaboratively developing scenarios that are both desirable and feasible, and that challenge the status quo by exploring new and innovative approaches to addressing complex challenges. There are different methods to construct scenarios, mainly known as Deductive and Inductive methods. The Deductive Method creates a number of different scenarios, most commonly four, that are generated from 2 key uncertainties that are used in a two-by-two axes of two-by-two matrix. The Inductive Method involves brainstorming and creating many possible scenarios to finally select a few. This method helps to reach nonobvious conclusions.

4. Backcasting from the scenarios: This involves working backwards from the scenarios to identify the actions, strategies, and policies that are needed to achieve or avoid the “desired” or “inevitable” future.

5. Developing and implementing action plans: This involves developing and implementing action plans that are designed to bring about the future, and that are informed by the insights gained from the scenario planning process (Kahane & Heijden 2012).

Overall, transformative scenario planning is a powerful tool for exploring and shaping the future and can help to generate new and innovative approaches to addressing complex challenges. Transformative scenarios have as their goal not to predict the future, but to create it or influence it (Sharpe & Heijden 2007).

2.7 Practice example: Mont Fleur summary.

The first known transformative scenario planning example was the Mont Fleur case in South Africa in 1991. Different stakeholders from diverse background worked together to develop scenarios for the country's future. The scenarios were designed to challenge the current situation and to envisage a new future for the country. The four scenarios were "Ostrich", "Lame Duck", "Icarus", and "Flight of the Flamingos". Each scenario proposed different pathways describing distinct challenges and outcomes.

3 Case study: The Mont Fleur

In a historical moment of the South African crisis where violence seemed to be the most likely path to economic, political, and social change, the scenario planning workshop served as a process that helped direct the national transformation on a more peaceful path. About 22 leaders from different political parties, influential businesspeople, academics, etc., came together to discuss alternative models for transformation, putting aside ideological differences and interests. Kahane expressed that they were guided and encouraged to discuss openly "*not about what they predict will happen or what they believe should happen but only about what they think could happen*" (Kahane & Heijden 2012). This workshop series aimed to explore possible political, economic, and social futures for the country as it transitioned from apartheid to a more democratic society. The exercise was held at Mont Fleur, a retreat centre outside Cape Town in South Africa. After considering all the narratives created, four scenarios were chosen for all the participants and were shown and shared publicly in different media around the country. This action created dialogue and reflections among the citizens and the upper echelons of the government. Furthermore, it influenced directly or indirectly the national transformation. One example of this is "*South African economy jumped from 1 percent over 1984-1994 to 3 percent over 1994-2004*" (Kahane & Heijden 2012). To a certain extent, Kahane attributed the economic growth in South Africa from 1994 to 2004 to the Mont Fleur scenarios exercise for various reasons. The exercise brought together a diverse group of stakeholders including government officials, business leaders, and representatives of civil society organizations, to engage in a collaborative process of scenario planning. Through this process, participants were able to develop a shared understanding of the challenges facing South Africa and explore potential solutions. One of the key outcomes was the creation of a shared vision of a more prosperous and equitable South Africa. This vision provided a guiding framework for policy and decision-making in the years that followed. As a result, policymakers were able to implement reforms and initiatives that helped to attract investment and spur economic growth. In addition, the collaborative and inclusive nature of the Mont Fleur scenarios helped to build trust and social capital among the participants. This increased social capita enabled greater collaboration and cooperation among stakeholders in pursuing economic and social development goals, which further contributed to the country's economic growth. While it is difficult to attribute South Africa's economic growth solely to the Mont Fleur

scenario exercise, Kahane argued that it played an important role in setting the stage for the country's success in the following decade.

3.1 Summary of the Mont Fleur scenarios

Ostrich

This scenario pictures a South Africa where the government refuses to confront the reality and hardens its negotiation position. Constitutional negotiations are broken with the liberation movement that loses international support for being perceived as too radical. The perpetuation of the cycle of inequality continues which leads to mass resistance and insurrection from the oppressed side. Furthermore, it also is leading to a fragmentation of the country where different groups control different regions and engage in violent conflict with each other.

Lame Duck

In this narrative a prolonged transition path is paced by indecisive policies that fail to address the economic and social crisis. As consequence there will be insufficient growth and development, uncertainties will increase, investors will hold back and the social crisis will keep aggravating.

Icarus

This scenario is based on some catastrophic consequences from populist macro-economic policies in some Latin American countries. It pictures the possible transition after a populist elected democratic government attempts to address social and economic needs with quick-fix and unsustainable policies. Subsequently, the government will make a colossal expenditure that will point to initial results of economic growth. Finally, it will lead to an economic collapse, social chaos and political instability. The likely outcome is to return to authoritarianism or a more conservative government.

Flight of the Flamingos

In this case, there is a political settlement where the government introduces significant improvements that create confidence in the economy with slow but sustainable policies, well-targeted social investments and the decrease of violence improve the social and business confidence in the new government. Consequently, investment will grow together with employment.

Results of the scenarios

The Mont Fleur project served as a medium for networking, creating dialogue and a common language among opposed parties and delivering a message to all South Africans. It was a moment of realization of the danger of populist economic policies, the need of a strong coalition government and importance of looking for negotiated solutions for the political crisis (Kahane n.d.).

4 Kahane's findings on the Mont Fleur exercise applied today. Example of the war between Ukraine and Russia

The Mont Fleur scenario exercise yielded important insights into the relevance of scenario work in shaping the reality. There are two relevant findings that were identified as to enable scenario work to be effective. According to Adam Kahane & Kees van der Heijden the two components that are essential for scenario work to be relevant and contribute to changing the reality are: "(1) *the big issues of our days need to become a more central part of people's personal identity and value systems*" (Kahane & Heijden 2012). This means that the most significant issues of our day—climate change, racism, income inequality, among others—are the issues that will shape the future of humans as individuals and societies. They are also the issues that impact people's lives most, but rarely as matters that should become a more central part of people's identity and value systems. Yet, these issues have been largely absent from national discourse for too long. Today, instead of talking about climate change or how to reduce income inequality, politicians give speeches about the economy or national security. Our personal and societal narratives about the future are often disconnected and incoherent, offering a sense of direction without a sense of purpose. In an era of unprecedented complexity and uncertainty, scenario work should consider all these issues in order to be relevant, real and valuable.

For significant global events such as the war between Ukraine and Russia and the disruption of oil and gas in Europe, the individuals would need to be invested and engaged in finding solutions and taking actions, rather than treating the situation as distant problems that do not affect them. A revision of individuals' perceptions and roles in the society shall take an integration into personal beliefs and values.

The second essential component of this practice identified by the mentioned authors is: "(2) *counteracting the increasing turbulence requires more focus on mobilising autonomous system forces*" (Kahane & Heijden 2012). In a context of instability or change, it is important to identify and mobilize the internal inherent capacities, capabilities, or resources to help to respond or adapt to external disruption. This part is more related to how we could react to the changes in the world, whether we accept and adapt or we intent to influence the change to happen.

Kahane found these two factors to be indispensable to be able to influence the reality and for the transformative scenario work to be meaningful and effective. Additionally, there are certain conditions that need to exist in order to be able to succeed in transformative scenario planning.

One of these conditions is the importance of recognizing when a situation is unbearable: "*First, these people see the situation they are in as unacceptable, unstable, or unsustainable. (...) They may feel frightened or excited or confused. In any event, these people cannot or are not willing to carry on as before, or to adapt to or flee from what is happening. They think that they have no choice but to try to transform their situation"* (Kahane & Heijden 2012). South Africa was immersed in a system of racial segregation where laws (designed originally by the white minority to protect their privilege) discriminated against the non-white population for nearly 50 years with the purpose of ensuring the power position of white people. This discriminatory system awakened a revolutionary spirit and a profound desire for change in the population of the country. Apartheid, as it was known during this period of segregation, was condemned by the international community, and generated an immeasurable amount of suffering and atrocities among the non-white people over the years. Consequently, it awakened the discontent of the discriminated population and a profound desire for change in the country's governance.

In the case of the war between Ukraine and Russia and the disruption of oil and gas in Europe, it can be argued that the situation is perceived by some as unacceptable, unstable, or unsustainable. The conflict has led to significant human suffering, displacement, deceased and geopolitical tensions (International Rescue Committee 2023). The disruption of oil and gas has had a major impact on energy security and food markets in the region, with many countries heavily reliant on Russian gas (European Council 2023). However, it is important to note that all individuals and governments involved may not perceived and respond the situation in the same way based on their interest, possibilities, values and priorities. Some may be more willing to carry on as before, adapt, or pursue alternative solutions, while others may feel compelled to transform the situation (Aljazeera 2023).

The second finding stated: *"these people cannot transform their situation on their own (...). Even if they want to, they are unable to impose or force through a transformation. The larger social-political-economic system (the sector or community or country) within which they and their situation are embedded is too complex—it has too many actors, too many interdependencies, too much unpredictability—to be grasped or shifted by any one person or organisation or sector, even one with lots of ideas and resources and authority"* (Kahane & Heijden 2012). In the numerous years of oppression, racism and social inequality, countless protests, and acts of rebellion against the system at many levels occurred without any substantial change. Over time the government crushed the opposition, and the situation became more and more unstable with the rise of violent acts. Prominent leaders such as Nelson Mandela, at that moment, one of the political leaders of the African National Congress (ANC), were incarcerated for organizing a non-violent campaign. Rising tensions were highly likely to end in a civil war on all fronts.

With today's situation of ongoing conflict, while individuals and organisations can take actions to influence it, the larger social-economical-political system is too complex. The involvement of multiple countries, each one of them with their own interests and perspectives makes it difficult to bring about a significant transformation. As mentioned before, there have been sanctions applied to Russia for violating the sovereignty of Ukraine, but no resolution to the conflict has been achieved as of today.

The third finding of Adam Kahane for a transformative scenario to be useful is: *"The actors who need to work together to make the transformation are too polarized to be able to approach this work head-on. (...) Any attempt to implement a solution directly would therefore only increase resistance and rigidity. So the transformation must be approached indirectly, through first building shared understandings, relationships, and intentions"* (Kahane & Heijden 2012). Exercising how to draw possible and plausible futures from an analytical perspective served as an indirect approach to solving complex problems. In the case of Mont Fleur, during the period that it lasted, the scenario makers were exchanging agreements and disagreements while expanding their horizons on interpreting their world. The scenarios chosen to be shared with the rest of the country served as a reflection and helped to visualize the more resonant possible futures of the nation.

In the case of the war in Ukraine, the actors involved, including the European countries, as discussed, have shown a degree of polarization in their positions and actions towards Russia's invasion. Some countries have chosen to impose sanctions, other have voted at the United Nations, others such as United States and European Union have aided Ukraine with military assistance, and others have been impartial to the conflict or defended Russia (Aljazeera 2023). So far, attempts for negotiations and diplomatic efforts have failed, showing the resistance and rigidity of direct attempts to solve the conflict (Npr.org 2023). Therefore, it is important to not exhaust efforts on continuously building intentions, relationships and shared understandings. The transformative scenario method could be a promising initiative to seek common ground and address the interests and concerns of all involved actors.

The above-mentioned aspects have served to draw a comparison with the current circumstances of war in Europe affecting all the world, with a range of economic, political, and social consequences. As stated, one of the most pressing issues related to the conflict is the crisis of oil and gas, which is being driven by the tensions between Ukraine and Russia.

Russia is one of the world's largest oil and gas producers, and much of its production is exported to Europe (Statista 2022). The conflict in Ukraine has led to disruptions in the flow of oil and gas, as the country has become a key transit point for Russia energy exports. This has had significant ripple effects throughout the region and beyond, as some of the countries that rely on Russia oil and gas have been forced to look for alternative sources of energy.

The crisis of oil and gas is having a major impact on the global economy, with rising prices and supply shortages affecting industries and consumers alike. It is also exacerbating political tensions between Russia and other countries, as Russia seeks to use its control of energy resources as a tool of political influence. For example, as a sanction, United States banned imports of fossil fuels coming from Russia (Statista 2022). Other countries might find an opportunity on the situation to replace the supply of oil and gas such as Nigeria, Egypt and Ghana with the discovery of natural gas resources (Ayaburi, Sharma, Gosnell & Bazilian 2021). The crisis is also highlighting the need for greater investment in alternative energy sources, as countries seek to reduce their

reliance on oil and gas and move towards more sustainable energy systems. This shift is likely to be a major challenge, however, as it requires significant changes to the infrastructure and economic systems that underpin the current energy landscape.

The findings of Kahane and Heijden on the Mont Fleur exercise and the current situation can be contrasted to better understand the relevance of transformative scenario planning in today's world. Especially, this would apply to the oil and gas crisis resulting from the war in Ukraine. Kahane and Heijden emphasized the need for transformative scenario planning to address important factors and the urgency of mobilizing autonomous system forces to counteract the increasing turbulence. Furthermore, they affirm that transformative scenario planning is especially valuable in situations where the current state is deemed unacceptable, unstable, or unsustainable. Additionally, it is particularly relevant within the larger social, political, and economic system in which the embedded situation is too complex and interdependent to be fully grasped or changed by a single person, organisation, or sector, despite possessing considerable resources, ideas and authority. Such complexity can arise from numerous actors, unpredictable dynamics, and intricate relationships. In addition, transformative scenario planning can be particularly effective when the actors needed to make the transformation are too polarized to approach the work directly. In such cases, implementing a solution directly could increase resistance and rigidity. Therefore, a more indirect approach that involves building shared understanding, relationships, and intentions may be necessary to facilitate the desired transformation.

These factors have been observed in the ongoing Ukraine-Russia conflict and the resulting crisis in oil and gas in Europe. It is admissible to perceive the situation as unsustainable, unacceptable, and unstable, and it has left individuals feeling frightened, excited, or confused. Ukrainians, Russians, and the rest of the world, are left with divided opinions and perceptions of the unfortunate situation. It is possible to use the justification of the invasion of Ukraine by Russia as a feasible example. As some of the main reasons for the invasion, Russian president Vladimir Putin stated the protection of Russian-speaking population in Ukraine from persecution and discrimination by the Ukrainian authorities; preventing Ukraine from joining NATO, considering this union as a threat to Russia's security; and asserting Russia's historical and cultural ties to Ukraine and protecting its interests in the region. He presents Russia as a victim of NATO's expansion

and a growing wing of radical Nazis killing Russian-speaking citizens inside Ukraine (Kremlin 2022). Counteracting these allegations, one of the main public discussions for Russia's invasion of Ukraine is that Russia is attempting to take over the country by force. It is commonly believed that there is a historical resentment against independent Ukraine since its separation from the former Soviet Union. The United States and much of Europe supports Ukraine in its attempt to defend their country's independence (David 2022).

Following the description of Kahane, transformative scenario planning is a powerful methodology to use when the individuals involved may desire to transform their situation, but the social-political-economic system is too complex for any single entity to influence meaningful change. Furthermore, the actors involved are polarized, thereby necessitating an indirect approach towards transformation by establishing shared understandings, relationships, and intentions.

4.1 Limitations of transformative scenario planning

As it is primarily an intellectual work, one of the main factors that can boost the success or failure of transformative scenario planning is the human factor. The people involved in the process, the knowledge that they already have and the capabilities of interpreting and gathering information that they encounter during the exercise, will have the greatest influence on the results. Kahane stressed that the members of the team need to be from different backgrounds, committed, insightful, curious, open to dialogue, influential and action oriented. Finding the right people for the exercise might not be an easy task. Engaging leaders across the system can lead to skepticism, suspicion, fragmentation, polarization, power dynamics among other obstacles. Furthermore, these people are not always interested in participating in or believing in the process at first. The coordination of the project can also be challenging as it requires a significant amount of coordination, effort, and resources. The mediator will need to be skilled in managing complex dynamics between individuals, building trust, and creating a constructive and safe space for collaboration. Additionally, allocating budgeting and resources can also be challenging due to the uncertainty of outcomes, the need for flexibility, cross functional coordination, prioritization, collaboration, and economic reasons. Finally, it is also

challenging translating scenario planning into actionable strategies and decisions since it requires aligning diverse perspectives and mobilizing the resources to obtain the desired changes.

5 Conclusion

As stated in this thesis, transformative scenario planning remains relevant in today's complex and rapidly changing world. As the adaptive methodology of scenario planning is a forward-looking approach that can anticipate and navigate potential future challenges, the transformative method aims to develop proactive strategies to address them. By involving diverse stakeholders, including individuals, communities, and decision-makers, in the scenario development process, a broader range of perspectives and expertise can be considered. This participatory approach fosters shared understanding, builds relationships, and generates collective ownership of the envisioned future.

Although there is no guarantee that the exercise will bring a desired future, in the words of Adam Kahane: *"In this kind of work sometimes you make a difference, sometimes you don't. And there is no sure bet in trying to address wicked problems and great opportunities…"* (Kahane 2012). Transformative scenario planning remains relevant today as a valuable approach to navigating complexity, fostering innovation, and building resilience in the face of uncertainty. Its emphasis on forward-thinking, collaboration, and adaptability makes it a powerful tool for individuals, organisations, and societies to shape their desired futures proactively.

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